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Weed Science Research Summaries 2011

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Weed Science Research Summaries 2011

Southeast Research and Extension Center, Monticello



K.L. Smith • J.A. Bullington • R.C. Doherty • J.R. Meier

UofA

**DIVISION OF AGRICULTURE
RESEARCH & EXTENSION**

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**WEED SCIENCE
RESEARCH SUMMARIES 2011
Southeast Research and Extension
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Foreword

The data presented in this publication are intended to help growers, county agents, specialists and industry representatives make unbiased decisions concerning best management practices for effective weed control. It represents results from only one year and although it may serve as a guide, making decisions based on only one-year's data is always risky. Many of these same treatments will be included in subsequent year's research and as additional data are collected, the better treatments will be included in Extension recommendations. Some of the compounds included in this research are not labeled for use in the manner they were evaluated. Always check and read the label directions on all herbicides to insure proper use. Check Cooperate Extension Service publication MP-44 for recommendations.

Much of the rice, soybean, cotton, grain sorghum, and corn research were made possible with grower check-off dollars provided through the Rice Research and Promotion Board, the Soybean Research and Promotion Board, the Corn and Grain Sorghum Research and Promotion Board and the Cotton State Support Group. A special thanks goes to the growers and the board members for their confidence and support. This research would not be possible without their support.

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Herbicides & Adjuvants

<u>TRADE NAME</u>	<u>COMMON NAME</u>	<u>COMPANY NAME</u>
2,4-D Amine	2,4-D	Several
2,4-D LV Ester	2,4-D	Several
AAtrex	Atrazine	Syngenta
Atrazine	Atrazine	Several
Accent	Nicosulfuron	Dupont
Agridex	Crop Oil Concentrate	Helena
Alert	Clomazone	Chemnova
Ally	Metsulfuron	Dupont
Aim EC	Carfentrazone-Ethyl	FMC
AMS	Ammonium Sulfate	Several
Anthem	Pyroxasulfone + Fluthiacet-methyl	FMC
Assure II	Quizalofop P-Ethyl	Dupont
Authority Assist	Sulfentrazone + Imazethapyr	FMC
Authority Broadleaf	N/A	FMC
Authority First	Sulfentrazone + Cloransulam-methyl	FMC
Authority MTZ	Sulfentrazone + Metribuzin	FMC
Authority XL	Sulfentrazone + Chlorimuron Ethyl	FMC
Authority XL Lite	Sulfentrazone + Chlorimuron Ethyl	FMC
Autumn	Iodosulfuron-Methyl Sodium	Bayer
BAS 94461H	N/A	BASF
Balance Flexx	Isoxaflutole	Bayer
Banvel	Dicamba	Micro-Flo
Basagran	Bentazon	BASF
Beyond	Imazamox	BASF
Bicep II Magnum	Atrazine + S-Metolachlor	Syngenta
Bicep II Magnum Lite	Atrazine + S-Metolachlor	Syngenta
Bolero	Thiobencarb	Valent
Boundary	Metribuzin + Metolachlor	Syngenta
Broadhead	Quinclorac + Carfentrazone-Ethyl	FMC
Butyrac 200	Butyric Acid	Albaugh
Cadet	Fluthiacet-methyl	FMC
Callisto	Mesotrione	Syngenta
Canopy	Chlorimuron Ethyl	Dupont
Canopy EX	Chlorimuron Ethyl + Tribenuron Methyl	Dupont

<u>TRADE NAME</u>	<u>COMMON NAME</u>	<u>COMPANY NAME</u>
Caparol	Prometryn	Syngenta
Capreno	Thiencarbazone-methyl + Tembotrione	Bayer
CHA-044	N/A	Cheminova
Cinch	Metolachlor	Dupont
Cinch ATZ	Metolachlor + Atrazine	Dupont
Clarity	Dicamba	BASF
Classic	Chlorimuron-Ethyl	DuPont
Clearpath	Imazethapyr + Quinclorac	BASF
Clincher	Cyhalofop-butyl	Dow Agrosiences
Cobra	Lactofen	Valent
COC	Crop Oil Concentrate	Several
Command	Clomazone	FMC
Corvus	Thiencarbazone-methyl + Isoxaflutole	Bayer
Cotoran	Fluometuron	Syngenta
Cotoran 4L	Fluometuron	MANA
Cotton Pro	Prometryn	MANA
Dawn	Fomesafen	Cheminova
Degree Xtra	Acetochlor + Atrazine	Monsanto
Direx	Diuron	Griffin
Diuron 4L	Diuron	MANA
Distinct	Diflufenzopyr + Dicamba	BASF
Drive XLR8	Quinclorac	BASF
Dual II Magnum	Metolachlor	Syngenta
Dual Magnum	Metolachlor	Syngenta
Duet	Propanil + Bensulfuron	RiceCo
Dyne-A-Pak	Non-Ionic Surfactant	Helena
Envoke	Trifloxysulfuron-Sodium	Syngenta
Envive	Chlorimuron + Thifensulfuron + Flumioxazin	Dupont
ET	Pyraflufen Ethyl	Nichino America
Express	Tribenuron	Dupont
F 7436-13	N/A	FMC
F 9007-2	N/A	FMC
Facet	Quinclorac	BASF
Fierce	Pyroxasulphone + Flumioxazin	Valent
Firstrate	Cloransulam-Methyl	Dow Agrosiences
FirstShot	Thifensulfuron Methyl + Tribenuron Methyl	Dupont

<u>TRADE NAME</u>	<u>COMMON NAME</u>	<u>COMPANY NAME</u>
Flexstar	Fomesafen	Syngenta
Flexstar GT	Fomesafen + Glyphosate	Syngenta
Fusilade DX	Fluazifop	Syngenta
Galigan	Oxyfluorfen	MANA
Gangster	Flumioxazin + Cloransulam-methyl	Valent
Glyphogan Plus	Glyphosate	MANA
Goal 2 XL	Oxyfluorfen	Dow Agrosiences
Glyfos X-tra	Glyphosate	Cheminova
Gramoxone Inteon	Paraquat Dichloride	Syngenta
Grandstand	Triclopyr	Dow Agrosiences
Grasp	Penoxsulam	Dow Agrosiences
Grasp Xtra	Penoxsulam + Triclopyr	Dow Agrosiences
Guardsman Max	Dimethenamid + Atrazine	BASF
GWN 3404	N/A	Gowan
Halex GT	S-metolachlor + Mesotrione + Glyphosate	Syngenta
Harmony SG	Thifensulfuron	Dupont
Harness	Acetochlor	Monsanto
Harness Extra	Acetochlor + Atrazine	Monsanto
Huskie	Pyrasulfotole + Bromoxynil	Bayer
Ignite 280	Glufosinate	Bayer
Impact	Topramezone	AMVAC
IR5878	N/A	Isagro
IR 5880	N/A	Isagro
IR 5890	N/A	Isagro
Induce	NIS	Helena
Intrro	Alachlor	Monsanto
Laudis	Tembotrione	Bayer
Layby Pro	Linuron + Diuron	Dupont
Lexar	Atrazine + S-Metolachlor + Mesotrione	Syngenta
Linex	Linuron	Dupont
Lumax	Atrazine + S-Metolachlor + Mesotrione	Syngenta
Londax	Bensulfuron	UPI
Me-Too-Lachlor	Metolachlor	Drexel
Micro-Tech	Alachlor	Monsanto
Milo-Pro	Propazine	Albaugh
MSMA	Monosodium Acid Methanearsonate	UAP

<u>TRADE NAME</u>	<u>COMMON NAME</u>	<u>COMPANY NAME</u>
MON 11968	Dicamba	Monsanto
MSO	Methylated Seed Oil	Several
Newpath	Imazethapyr	BASF
NAI-1295	N/A	Nichino America
NAI-1300-2	N/A	Nichino America
NIS	Non-Ionic Surfactant	Several
Outlook	Dimethenamid-P	BASF
Option	Foramsulfuron	Bayer
Paramount	Quinclorac	BASF
Parrlay	Metolachlor	Monsanto
Parallel PCS	Metolachlor	MANA
Peak	Prosulfuron	Syngenta
Permit	Halosulfuron-Methyl	Gowan
Permit Plus	Halosulfuron-Methyl + Thifensulfuron Methyl	Gowan
Poast	Sethoxydim	BASF
Poast Plus	Sethoxydim	BASF
Prefix	S-metolachlor + Fomesafen	Syngenta
Propanil	Propanil	Several
Prowl	Pendimethalin	BASF
Prowl H20	Pendimethalin	BASF
Pursuit	Imazethapyr	BASF
PyriMax	Pyriithiobac Sodium	MANA
Python	Flumetsulam	
Quilt	Azoxystrobin + Propiconazole	Syngenta
Rage D-Tech	Carfentrazone + 2,4-D Ester	FMC
Rebel EX	Penoxsulam + Cyhalofop	Dow Agrosiences
Reflex	Fomesafen	Syngenta
Regiment	Bispyribac-Sodium	Valent
Resource	Flumiclorac Pentyl Ester	Valent
Resolve Q	Rimsulfuron + Thifensulfuron + Isoxadifen-ethyl	Dupont
RiceBeaux	Propanil + Thiobencarb	RiceCo
RicePro	Propanil + Quinclorac	RiceCo
RiceShot	Propanil	RiceCo
Ricestar HT	Fenoxaprop	Bayer
Roundup Original Max	Glyphosate	Monsanto

<u>TRADE NAME</u>	<u>COMMON NAME</u>	<u>COMPANY NAME</u>
Roundup WeatherMax	Glyphosate	Monsanto
Roundup PowerMax	Glyphosate	Monsanto
Rhythm	Fomesafen	Chemnova
Sencor	Metribuzin	Bayer
Select 2E	Clethodim	Valent
Select Max	Clethodim	Valent
Scepter	Imazaquin	BASF
Sequence	S-Metolachlor + Glyphosate	Syngenta
Sharpen	Saflufenacil	BASF
Spartan	Sulfentrazone	FMC
Stalwart	Metolachlor	Sipcam Agro
Stam M-4	Propanil	UPI
Staple LX	Pyriithiobac Sodium	Dupont
Storm	Bentazon + Acfluorfen	UPI
Strada	Orthosulfamuron	Isagro
Status	Diflufenzopyr + Dicamba	BASF
Superwham	Propanil	RiceCo
Suprend	Trifloxysulfuron-Sodium + Prometryn	Syngenta
Tomahawk	Glyphosate	
Touchdown Total	Glyphosate	Syngenta
Treflan	Trifluralin	Helena
Ultra Blazer	Acifluorfen	UPI
Valor SX	Flumioxazin	Valent
Valor XLT	Flumioxazin + Chlorimuron ethyl	Valent
Verdict	Saflufenacil + Dimethenamid	BASF
V-10142	N/A	Valent
Warrant	Acetochlor	Monsanto
WeedMaster	Dicamba + 2,4-D	Nufarm
Yukon	Halosulfuron + Dicamba	Gowan Co
Zidua	Pyroxasulfone	BASF
Zorial	Norflurazon	Sandoz

Evaluation List

<u>Common Name</u>	<u>Bayer Code</u>
Amazon Sprangletop	LEFPA
Barnyardgrass	ECHCG
Bluegrass, Annual	POAAN
Broadleaf Signalgrass	BRAPP
Chickweed	STEME
Goosegrass	ELEIN
Hemp Sesbania	SEBEX
Henbit	LAMAM
Horseweed	ERICA
Johnsongrass	SORHA
Morningglory, Species	IPOSS
Pale smartweed	POLLA
Palmer Amaranth	AMAPA
Prickly Sida	SIDSP
Red Rice	ORYRU
Woolly croton	CVNCP
Control / Efficacy	CONTRO
Converted Yield	YIELD
Dry Weight	WEIDRY
Percent Moisture	MOICON
Phytotoxicity - Chlorosis	PHYCHL
Phytotoxicity - General	PHYGEN
Phytotoxicity - Necrosis	PHYNEC
Phytotoxicity - Stunting	PHYSTU
Plant Counts (Parts)	COUPLA
Plant Height	HEIGHT

2011 Rohwer Weather Data (WatchDog 2900 ET - Weather Station)

Date	Low Temp.	High Temp.	Mean Temp.	RH	Wind Spd.	Wind Dir.	Baro	Soil Temp.	Soil Moist.	Rain	Solar Rad.
	°F	°F	°F	%	mph	Card.	in-Hg	°F	% VWC	in/day	wat/m2
1-Jan	34.5	53.5	45.3	62	4	SW	30.2	52.1	35.1	0.25	76.8
2-Jan	27.2	44	33.9	59	1	SW	30.6	44.7	33.4	0	169.5
3-Jan	23.1	51.1	36.3	63	1.6	NE	30.5	42.4	32.2	0	163.6
4-Jan	38.3	59.8	47.9	59	0.8	NE	30.2	45.4	31.9	0	105
5-Jan	35.7	50.6	45.2	87	2.2	S	30	47.7	34.2	0.34	57.1
6-Jan	33	55.5	42	74	2.7	S	30.1	45.4	34.8	0	165.6
7-Jan	37.3	62.9	47.9	57	7.4	SE	29.8	45.1	33.8	0	122.6
8-Jan	30.5	46.2	37.9	59	3.5	S	30.1	43.7	32.7	0	169.6
9-Jan	23.6	31.8	26.5	71	8.3	W	30.4	38.7	30	0	22.6
10-Jan	27.4	34.7	31.1	90	3.5	W	30.3	37	30.9	0.13	84.2
11-Jan	27.9	36.9	32.7	72	7.7	S	30.6	37.5	34.2	0.01	148.9
12-Jan	19.8	28.5	24.2	53	7.2	S	31	36.2	31.1	0	176
13-Jan	19.2	37.3	26.2	66	1	W	30.9	35.5	29.7	0	178.2
14-Jan	24.1	40.5	32.9	65	2.5	NE	30.6	35.4	31.3	0	87.6
15-Jan	32.8	51.1	42	71	2.1	E	30.4	37.7	33.5	0	66.4
16-Jan	39.9	45.6	42.6	96	2.4	W	30.2	42.1	34.1	0.05	28.7
17-Jan	41.3	51.4	46.8	96	2.2	N	30	44	35.8	0.3	36.9
18-Jan	44.2	53.4	50	90	3.5	SW	29.9	47.4	36.3	0.01	56.3
19-Jan	37.2	44	39.3	83	2.9	SW	30.2	45.5	36.5	0	46.7
20-Jan	29.2	42.9	37.6	90	5	SW	30.3	43.1	36.5	0.12	24.7
21-Jan	23.4	38.5	29.9	72	2.6	SW	30.4	40.1	36.4	0	164.2
22-Jan	27.8	50	36.5	69	1.6	E	30.2	40.5	36.5	0	184.2
23-Jan	35.9	52.1	42.9	58	2	N	30.2	41.7	36.2	0.01	91.1
24-Jan	41	48.4	44.2	86	1.8	SW	30.2	44.2	36.8	0.14	58
25-Jan	32.3	43.7	39.8	93	6.2	SW	30.2	44.3	37.2	0.77	36.6
26-Jan	29.2	52.1	39.6	76	1.5	NE	30.3	42.9	37.4	0.01	188
27-Jan	32.7	56.8	43.9	65	2.9	E	30.2	44.7	37.5	0	194.4
28-Jan	35.2	66.3	49	55	1.3	NE	30.1	45.8	36.9	0	195
29-Jan	41.1	73.2	55.9	61	4.2	NE	30	48.9	35.8	0	187.1
30-Jan	53.1	62.4	57.2	93	5.4	NE	30	52.2	35.3	0	39.3
31-Jan	53.7	60.6	56.4	95	1.9	N	30	53.6	35.2	0	44.9

2011 Rohwer Weather Data (WatchDog 2900 ET - Weather Station)

Date	Low Temp.	High Temp.	Mean Temp.	RH	Wind Spd.	Wind Dir.	Baro	Soil Temp.	Soil Moist.	Rain	Solar Rad.
	°F	°F	°F	%	mph	Card.	in-Hg	°F	% VWC	in/day	wat/m2
1-Feb	24.2	60.8	47.8	92	13.2	SE	29.9	53	36.3	1.05	24
2-Feb	22	30.7	25.9	65	9.5	S	30.7	42.8	35.9	0	158.7
3-Feb	23.9	28.1	26.3	68	6	W	30.8	38	33.7	0	50.6
4-Feb	27.3	32.3	30.3	89	2.3	W	30.4	36.6	33.6	0.14	38.4
5-Feb	26.9	41.8	32.9	84	2.7	NE	30.2	37.6	35.5	0	170.7
6-Feb	34.7	58.8	44.8	70	5	NE	30	41.2	35.8	0.02	194
7-Feb	32.8	47.9	39.2	88	7	S	30.2	43.3	36.2	0.15	32.1
8-Feb	26.5	43.5	34.9	73	2.7	W	30.5	41.3	36.3	0.01	216.2
9-Feb	22.3	32.2	28.1	87	6.4	SW	30.5	38.2	36	0	44
10-Feb	15.2	29.5	22	69	3.9	SW	30.6	36.7	36.1	0.06	229.9
11-Feb	12.5	43.1	27.2	72	1.7	NE	30.6	37.2	35.8	0	229.1
12-Feb	29.6	59.4	42.1	60	1.1	NE	30.5	40.8	36.5	0	227.4
13-Feb	35.3	63.6	48.3	56	5.7	NE	30.3	44	36.5	0	227.6
14-Feb	39.3	69.3	53.4	71	3.2	NE	30.3	47.8	35.9	0	219.2
15-Feb	43.7	68.6	56.4	63	3.9	NE	30.2	50.6	34.9	0	192.4
16-Feb	53.2	70.4	60.6	73	6	NE	30.1	54.1	34.1	0	216.6
17-Feb	55.2	65.8	61.1	79	10.4	NE	30	55.2	33	0	95.8
18-Feb	58.9	72.3	65	79	4.8	NE	30.1	58.2	32.6	0	110.4
19-Feb	56.2	76.4	66.1	76	3	NE	30.1	60.8	32.1	0	213
20-Feb	55	74.1	65.3	72	8.1	NE	29.9	60.4	30.9	0	228
21-Feb	57	70.1	64.1	77	8.7	NE	29.8	59.7	29.7	0	57.4
22-Feb	40.3	60.1	50.3	59	4.2	SW	30.2	56.7	28.3	0	243.1
23-Feb	41.5	64.1	52.5	67	2.1	NW	30.1	53.5	27.4	0.08	106.3
24-Feb	53.8	78.2	67.2	79	11.1	NE	29.7	58.8	29.2	0.51	134.6
25-Feb	38.3	59.6	48.6	77	6.1	SW	30.1	56.9	35.4	0	196.5
26-Feb	34.7	70.8	51	81	2.5	NE	30	53.1	33.7	0	248.5
27-Feb	58	78.8	70.1	75	11.1	NE	29.7	59.7	33.1	0	127.5
28-Feb	44.6	72.3	63.3	71	12	NE	29.9	62.7	34.5	0.23	173.1

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Date	Low Temp.	High Temp.	Mean Temp.	RH	Wind Spd.	Wind Dir.	Baro	Soil Temp.	Soil Moist.	Rain	Solar Rad.
	°F	°F	°F	%	mph	Card.	in-Hg	°F	% VWC	in/day	wat/m2
1-Mar	35.3	63.9	47.1	62	1.3	W	30.4	55.6	34	0	271.7
2-Mar	34.3	66.7	50.3	63	0.9	NW	30.3	53.8	32.5	0	195.7
3-Mar	41.7	72.5	58.4	61	2.8	N	30.1	55.2	31.3	0	248.3
4-Mar	60.5	66.3	62.9	84	6.6	N	30	58.3	31.2	0.08	53.1
5-Mar	44.2	63.6	53.3	90	8.7	SW	30.1	57.7	34.3	0.42	21.8
6-Mar	35.1	45.9	40.3	74	4.5	SW	30.4	50.6	35.8	0	116.6
7-Mar	41.7	47.7	44.3	83	0.4	NW	30.1	50.3	34.7	0	0.1
8-Mar	40.8	58.9	52.5	87	6.5	N	29.9	50.4	34.6	0.05	48.2
9-Mar	45.6	60.4	54.3	82	7.9	S	30	54.3	35.3	0.05	97.1
10-Mar	36.9	55.9	46.4	64	6.6	S	30.3	51.3	33.6	0	286.2
11-Mar	30.9	65.7	49.8	59	3.7	NE	30.3	51.3	32.2	0	274.2
12-Mar	47.4	72.1	59.8	61	7.7	NE	30.1	54.2	30.8	0	282.2
13-Mar	56.3	71	63	74	4.1	NE	30.1	57.9	29.8	0	171.8
14-Mar	46.4	63.4	55.6	88	7.1	S	30.1	57.7	32.9	0.35	49.3
15-Mar	39.7	47.9	44.3	81	4.4	S	30.3	52.3	34.3	0	78.1
16-Mar	33.9	66.3	50.8	72	1.8	NE	30.3	52.3	33.2	0	281.1
17-Mar	51.9	75.4	63.4	65	7.4	NE	30.1	56.9	32	0	264.5
18-Mar	57.1	80.7	67.8	70	4.3	NE	30.1	61.2	30.9	0	272.3
19-Mar	55.1	81.2	66.3	70	1.3	W	30.1	63.5	29.6	0	282.3
20-Mar	52.4	82.3	67.9	64	5.1	NE	30.1	63.9	28.1	0	301.8
21-Mar	56.5	81	69.1	64	6.5	NE	30.1	63.8	26.3	0	293.7
22-Mar	62.2	83	71.4	62	12	NE	29.8	65.2	24.7	0	248.9
23-Mar	56.3	82.7	70.2	60	9	E	29.7	66.3	23.1	0	188.7
24-Mar	45.5	65.1	56	43	4.1	SW	30	64.1	21.3	0	312.1
25-Mar	42.8	73.5	57.3	54	4.7	NW	29.9	61.9	19.8	0	239.4
26-Mar	48.1	77.4	56.3	78	5	SW	29.7	63.6	19	0.01	198.9
27-Mar	42.1	48.2	44.4	94	5.7	SW	30	58.3	17.7	0.08	58.7
28-Mar	42.8	57.3	48	88	3.8	W	30.1	55.2	17.4	0.02	152.7
29-Mar	46.7	60.9	53.9	88	3.4	NW	30	56	17.6	0.08	109.6
30-Mar	43.1	48.8	45.8	90	6.2	SW	30.1	54.6	17.5	0	66
31-Mar	38.9	60.5	48.6	77	1.8	N	29.9	54.7	17.6	0	218.5

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Date	Low Temp.	High Temp.	Mean Temp.	RH	Wind Spd.	Wind Dir.	Baro	Soil Temp.	Soil Moist.	Rain	Solar Rad.
	°F	°F	°F	%	mph	Card.	in-Hg	°F	% VWC	in/day	wat/m2
1-Apr	38.5	76.6	56.1	68	1.5	NE	29.8	57.3	18.1	0	258.4
2-Apr	42	81.7	63	48	1	E	30	62.2	18.8	0	339.8
3-Apr	51.9	85.2	71.3	58	14.3	S	29.8	65.1	19.2	0	301.9
4-Apr	45	76.4	63.8	80	13.2	S	29.7	66	25.9	0.66	35.3
5-Apr	38.1	66.4	52.4	60	2.3	SE	30.1	59.3	32	0	350.9
6-Apr	47.6	73.1	60.5	52	11.9	S	30	58.4	30.3	0	350.5
7-Apr	57	79.6	68	69	8.2	SE	29.8	61.7	29.1	0	290.3
8-Apr	68.8	88.8	77.4	69	9.6	S	29.8	67.5	28.6	0	265.8
9-Apr	69.3	89.6	78.6	62	10.2	S	29.8	71.3	28	0	325.2
10-Apr	70.3	89.9	79.6	61	12.4	S	29.8	73	27.3	0	297
11-Apr	59.1	80.6	71.9	67	12.5	W	29.7	71.8	29.8	0.48	185.8
12-Apr	49.4	74.4	62.2	58	2.7	NW	30	66.4	32.4	0	378.6
13-Apr	47	80.6	64.2	60	1.4	SE	30	65.4	30.8	0	360.5
14-Apr	54.5	82.5	69.9	56	5	SE	29.8	66.6	29.6	0	338.6
15-Apr	54.2	77	68.2	64	15.9	SW	29.6	68.1	34	1.18	362
16-Apr	48.4	68.7	56.9	54	9.3	W	29.9	61.5	33.2	0	370.5
17-Apr	43.8	74.6	61.2	57	5.3	SE	30	60.6	31.3	0	347.9
18-Apr	60.2	79.7	69.9	72	9	SE	29.8	62.7	30.1	0	152.2
19-Apr	71.3	89.5	79.3	67	14	S	29.6	68.7	29.9	0	298
20-Apr	58.1	77	65.8	91	6.1	NE	29.9	68.4	33.3	0.57	61.2
21-Apr	56.7	69.7	60.7	97	3.8	NE	30.1	64.1	36.9	0.98	94.1
22-Apr	63.4	82.3	73.6	81	8.9	S	29.8	67.6	37.5	0	306.4
23-Apr	68.7	82.4	75	73	8.4	S	29.8	70.1	35.8	0	329
24-Apr	70.8	84.6	76.5	70	7.8	S	29.8	71.1	33.3	0	325.9
25-Apr	61.1	84.2	76	69	9.7	S	29.7	70.8	31.6	0.87	223.7
26-Apr	61.7	80.8	71.7	82	7.5	S	29.5	70	36.5	0.71	223.4
27-Apr	55.8	81.7	67.8	80	13.7	W	29.5	69.6	37.2	0.97	246.2
28-Apr	49.6	73.3	61.5	68	3.8	W	30	66	37.7	0	388
29-Apr	52.5	77.9	66.4	58	3.3	SE	30	66.4	36.2	0	395.9
30-Apr	60	76.4	69.5	74	7	SE	29.8	65.7	33	0	167.1

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	°F	°F	°F	%	mph	Card.	in-Hg	°F	% VWC	in/day	wat/m2
1-May	74.3	76.7	75.5	73	5.8	SE	29.8	70.7	31.8	0	0
2-May	49	70.1	57.3	95	5.9	NW	30	65.8	32.2	0.66	67.1
3-May	48.8	65.4	55.5	79	5.4	NW	30.3	61.6	36.3	0.05	337
4-May	46.9	70.9	59.8	71	1.3	NE	30.3	64	36.3	0	400.2
5-May	48.8	72.5	61.4	61	1.8	SE	30.2	64.3	34.2	0	383.7
6-May	54.3	78.1	66.8	68	1.5	NW	30	66.3	32	0	403.9
7-May	60.8	82.6	71.4	58	5.9	SE	29.8	67.1	30.3	0	385.3
8-May	65.5	89.1	76.3	68	5	S	29.7	70.9	29.2	0	388
9-May	68.7	91.2	79.3	68	6.8	S	29.7	74.7	28.5	0	389.1
10-May	70.1	90.5	79.6	66	6.9	S	29.7	75.3	14.7	0.01	347.9
11-May	69.7	87.8	77.7	65	5.2	S	29.8	75.8	7.4	0	329.8
12-May	67.9	92.4	79.2	58	4.9	W	29.8	76.5	8	0	341.3
13-May	62.5	88.9	77	58	10.5	N	29.7	77.6	8.5	0.01	358.5
14-May	58.6	66.5	62	61	11.2	N	29.8	73.6	8.2	0	133.1
15-May	49.7	74	63.4	47	9	N	29.8	70.5	8.1	0	435.9
16-May	50.4	68.5	58.9	59	6.6	NE	29.9	69.5	8.2	0	208.1
17-May	45.2	75.3	61.4	59	2.6	NE	29.8	68.5	8.1	0	397.4
18-May	47.4	79.4	66.4	54	3.8	S	29.8	69.8	8.2	0	357.4
19-May	67.4	86.3	75.7	50	5.8	S	29.8	72.7	8.6	0	318.1
20-May	68.4	87.3	77.5	67	5.7	S	29.8	74.6	8.7	0	289.5
21-May	66.2	83.7	74.5	79	5.6	SW	29.8	74.8	10.7	0.63	328.3
22-May	70	87.5	78.8	75	7.9	SW	29.8	74.5	11.3	0	262.5
23-May	73.5	88.9	80	70	8.4	SW	29.7	75.8	11	0	277.1
24-May	67	92.7	80.7	64	8.2	SW	29.7	77.4	10.9	0	354.1
25-May	68	92	81	65	14.6	SW	29.6	78.9	10.8	0.71	279.2
26-May	63.1	73.6	69.6	74	7.1	N	29.8	74.8	10.6	0	275.5
27-May	57.3	79.7	69	75	2.1	S	29.8	72.5	10.5	0	378
28-May	69.4	89.9	80.1	65	8.6	SW	29.6	75.8	10.7	0	401.8
29-May	73	90.4	82.1	63	7.8	SW	29.8	78.9	10.9	0	411.6
30-May	72.6	92.2	83	61	6.4	S	29.9	81	10.9	0	404.2
31-May	73.6	94.5	83.7	59	3.6	W	30	82.4	10.9	0	389.6

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	°F	°F	°F	%	mph	Card.	in-Hg	°F	% VWC	in/day	wat/m2
1-Jun	70.3	99	85.5	57	0.9	SE	30	83.8	11	0	415.3
2-Jun	72	102.2	86.6	59	1.4	S	29.9	85.5	11.1	0	447.8
3-Jun	78.5	100.4	88.3	57	2.7	S	29.8	86.9	11.2	0	418.7
4-Jun	73	101.5	87.1	61	1.1	E	29.9	87.1	11.1	0	402.6
5-Jun	73.5	103.3	86.5	57	1.6	NE	29.9	87.1	11	0	369.6
6-Jun	71.6	101.5	86.8	56	1	S	29.8	87	10.9	0	403.8
7-Jun	72.5	101.2	87.1	53	2.5	SW	29.4	87.9	10.8	0	380.5
8-Jun	71.5	95.2	83.1	58	3.1	SW	29.8	87.2	10.6	0	352.3
9-Jun	73.1	93.8	83.8	57	3.7	SW	29.8	86.9	10.4	0	394.9
10-Jun	70.4	95.4	83.7	58	2.9	SW	29.8	86.8	10.3	0	382.7
11-Jun	71.6	99.2	85.4	56	2.7	E	29.7	87.2	10.2	0	398.2
12-Jun	70.7	97.7	83.5	66	1.2	S	29.8	87.5	10.1	0	373.6
13-Jun	73.8	102	83.2	66	3.1	NW	29.8	87.9	10	0.05	332.7
14-Jun	72	99.2	85.3	59	3.1	SW	29.7	86.9	9.8	0	391.9
15-Jun	78.8	97.6	87	57	4.7	NW	29.6	88.4	10.4	0	393.3
16-Jun	74	96.1	81	79	2.5	W	29.7	87.4	10.2	0.71	198.2
17-Jun	69.7	94.9	84.5	67	6.4	SW	29.7	83.4	10.9	0	377.3
18-Jun	77.9	98.2	87.5	63	7.1	W	29.7	85.7	10.9	0	378.1
19-Jun	78	97.4	87.8	60	7.6	W	29.6	87.5	11.3	0	410.1
20-Jun	76.4	96.1	86.3	61	8.6	W	29.6	88	11.5	0	392.3
21-Jun	72.1	83.1	77.3	80	7.3	W	29.7	84.8	11.1	0.35	87.2
22-Jun	72.4	85.5	78	84	3.8	W	29.8	80.3	11.1	0	230
23-Jun	70.4	92.1	81.4	77	3.9	W	29.7	81.5	11.7	0	408.9
24-Jun	74.3	96	82.2	77	2.5	W	29.7	84	12	0	300.7
25-Jun	74.9	94.4	84.3	71	3.1	SW	29.7	85.3	12.2	0	401.5
26-Jun	76.5	97	86.6	64	3.6	SW	29.7	87.3	12.4	0	402.8
27-Jun	77.7	95	86.1	66	4.8	W	29.7	88.2	12.5	0	389.9
28-Jun	70.1	85.2	76.3	83	3.6	W	29.9	85.1	12.2	0.5	68
29-Jun	68.2	92.4	80.2	78	0.4	E	29.9	81.5	13.6	0	405.4
30-Jun	72.6	95.2	83.2	74	0.8	S	29.8	83.9	13.8	0	418.9

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	°F	°F	°F	%	mph	Card.	in-Hg	°F	% VWC	in/day	wat/m2
1-Jul	71.5	96.2	83.6	66	0.6	E	29.8	85.9	13.8	0	443.3
2-Jul	69.3	98.6	84.6	68	0.4	E	29.8	86.9	13.8	0	412.8
3-Jul	73.6	101.3	87	66	0.5	SW	29.8	88.8	13.8	0	405.3
4-Jul	72.1	103.3	82.3	74	2	NE	29.8	88.7	17.1	1.62	318.5
5-Jul	71.3	90.7	80.8	81	0.7	SW	29.8	84.9	25.5	0.01	424.3
6-Jul	73.9	94.7	83.3	76	0.7	W	29.8	85.2	20.6	0	422.8
7-Jul	76.5	85.2	80.5	83	1.8	SW	29.8	84	18.6	0.04	153.5
8-Jul	78	100.1	85.7	72	3	W	29.6	84.1	17.7	0	383
9-Jul	75.9	101	87.1	75	0.9	NW	29.7	87.6	17.5	0	394.4
10-Jul	77.8	99.1	88.4	65	2.4	SW	29.7	89.8	17.1	0	428.9
11-Jul	75.8	105.3	89	63	1.1	N	29.8	90.8	16.7	0	421.7
12-Jul	78.4	104.5	89.7	63	1.5	W	29.8	92.1	16.4	0	403.3
13-Jul	75.2	102.4	85.5	73	2.9	NE	29.7	92.1	15.9	0.26	343.5
14-Jul	75.7	92.6	82.4	83	1.3	N	29.7	88.7	15.4	0.01	316.6
15-Jul	77	95.5	85.1	78	0.8	SE	29.7	88.5	15.6	0	352.1
16-Jul	76	92.3	84	79	1.4	SE	29.8	89.3	15.5	0	327.7
17-Jul	75.2	88.6	81.8	79	1.9	SE	29.9	88.8	15.1	0	328
18-Jul	74.6	91.2	82.4	77	1.6	S	29.9	88.7	14.8	0	391.8
19-Jul	73.5	96.7	84.9	71	0.6	SW	29.8	89.8	14.7	0	385.1
20-Jul	74.7	98.6	86.4	68	1.5	W	29.8	91	14.6	0	419.6
21-Jul	76.2	97.4	85.5	72	0.6	S	29.7	91.2	14.4	0	293.6
22-Jul	78.6	98.2	85.7	74	1.4	W	29.8	91.3	14.1	0	342.3
23-Jul	78.6	90.7	82	84	3.7	W	29.8	89.2	13.5	0.57	266.2
24-Jul	76	95.8	83.8	81	2.5	W	29.9	86.9	13.4	0.02	262.1
25-Jul	75.8	95.9	81.7	84	1.7	SW	29.8	87.7	13.6	0.18	281.5
26-Jul	74.2	94.9	83.2	81	0.4	S	29.7	87.1	13.5	0.01	329.1
27-Jul	74.8	97.4	85.9	74	0.5	S	29.7	88.8	13.8	0	382
28-Jul	75.2	94.3	83.1	77	1.8	SW	29.8	90.1	13.9	0	377.6
29-Jul	76	95	81.1	86	2.8	SW	29.9	88.8	14.1	0.69	238.9
30-Jul	75.3	94.2	83.6	80	1.5	W	29.9	86.7	19.3	0	344.4
31-Jul	76.6	101.4	88.2	73	0.1	N	29.8	88.2	17.9	0	350.8

2011 Rohwer Weather Data (WatchDog 2900 ET - Weather Station)

Date	Low Temp.	High Temp.	Mean Temp.	RH	Wind Spd.	Wind Dir.	Baro	Soil Temp.	Soil Moist.	Rain	Solar Rad.
	°F	°F	°F	%	mph	Card.	in-Hg	°F	% VWC	in/day	wat/m2
1-Aug	78.3	104.2	90	71	0.1		29.8	90.8	17.4	0	338.8
2-Aug	78.3	103.7	90	71	0.2	SW	29.7	92.4	16.9	0	349.8
3-Aug	80	109.4	92.1	64	1.5	SW	29.6	93.5	16.5	0	339.1
4-Aug	80	106.9	90.4	67	1.6	W	29.7	93.9	16	0	292.8
5-Aug	77.5	99.4	88.3	67	2.5	SW	29.7	93.4	15.5	0	331.1
6-Aug	78.8	101.7	89.6	65	2.4	SW	29.7	93.4	15.1	0	338.1
7-Aug	77.6	103.5	86.3	68	2.5	NW	29.7	93.2	14.7	0.04	282.4
8-Aug	77.6	101.6	87.6	67	1.9	W	29.6	91.9	14.1	0	302.7
9-Aug	72.5	96.4	82.2	70	1.6	NE	29.7	91.1	13.6	0	293.5
10-Aug	76.4	97.5	84.9	70	2	NE	29.7	90.8	13.2	0	375.2
11-Aug	69.6	86.3	76.6	86	2.5	N	29.8	87.4	14.3	1.05	232.1
12-Aug	71.4	95.4	83	77	0.3	SW	29.8	85.5	15.4	0	426.6
13-Aug	71.5	81.3	74.2	95	2.2	NE	29.9	83.6	25.9	3.12	94.4
14-Aug	69.7	91.2	79	80	2	NE	29.8	81.6	29.5	0.01	367.8
15-Aug	65.3	87.2	76.1	76	0.2	SE	29.8	81.3	24.8	0	358.4
16-Aug	67.1	91.6	78.7	73	0.3	SW	29.8	81.6	23.2	0	339
17-Aug	73.6	92.5	81	79	1	SW	29.9	82.7	22.5	0.19	302.6
18-Aug	73.8	108.9	78.7	88	1.2	SE	29.8	82.3	21.7	0.01	139.6
19-Aug	70.2	96.5	82.9	78	0.3	S	29.7	82.5	21.5	0	341.6
20-Aug	75.6	96.8	84.7	78	0.6	W	29.7	85.6	21.3	0	282.4
21-Aug	75	92.2	81.4	85	0.6	NE	29.8	84.7	21.8	0.68	193.3
22-Aug	74.1	97.3	85.4	79	0.1		29.8	84.9	21.9	0	320.9
23-Aug	79.9	101.3	87.7	78	0.1	SW	29.8	87.3	21.7	0	287.4
24-Aug	71.4	82.6	76.4	90	1.1	NE	29.8	84.5	20.7	0.05	73.3
25-Aug	68.1	98.3	82	76	0.4	NW	29.8	82.6	20.1	0	322.3
26-Aug	69.8	94.8	82.5	69	1.9	NE	29.8	85.8	20.3	0	346.9
27-Aug	66.3	95.2	79.9	71	1.3	NE	29.7	85.2	19.8	0	348.7
28-Aug	69.5	96.5	82.6	66	1.4	NE	29.7	86.1	19.6	0	343.6
29-Aug	66.7	93.7	77.1	72	0.6	NE	29.8	85	18.9	0	264.3
30-Aug	66.7	99.9	81.4	65	0.3	S	29.8	85.2	18.6	0	331.8
31-Aug	69.9	101.9	84.4	63	0.4	SW	29.8	86.8	18.5	0	346.1

2011 Rohwer Weather Data (WatchDog 2900 ET - Weather Station)

Date	Low Temp.	High Temp.	Mean Temp.	RH	Wind Spd.	Wind Dir.	Baro	Soil Temp.	Soil Moist.	Rain	Solar Rad.
	°F	°F	°F	%	mph	Card.	in-Hg	°F	% VWC	in/day	wat/m2
1-Sep	69.3	98.9	83.9	65	0.7	SW	29.8	87.5	18.2	0	339.6
2-Sep	72.6	96.8	82.4	71	0.6	E	29.8	87.9	17.9	0	293.3
3-Sep	69.3	85.2	77.9	74	0.5	E	29.7	85.2	17	0	127.9
4-Sep	69.7	78	72.5	90	5.5	E	29.7	80.7	20.4	1.08	54
5-Sep	61.2	77.9	70.3	61	10.4	NE	29.7	75.5	25.3	0	249.8
6-Sep	53.1	78.2	64.4	63	4.6	NE	29.9	72.1	22.1	0	322.6
7-Sep	48.8	80.7	64.2	69	2.5	NE	30	71.6	20.8	0	340.4
8-Sep	51	82.8	66.3	68	2.2	NE	30	72.8	20	0	336.2
9-Sep	49.8	88.1	67.9	66	1.1	NW	29.9	73.5	19.5	0	324.6
10-Sep	55.8	91.1	73.1	64	1.8	SW	29.9	75.1	19.2	0	323.8
11-Sep	65.8	92.5	76.5	63	0.4	SW	29.9	77.8	19.1	0	301.1
12-Sep	62.1	94.8	76.9	69	0.4	SE	29.9	79	18.8	0	349
13-Sep	69.3	95.2	81.4	64	0.6	SW	29.8	80.6	18.7	0	319
14-Sep	65.3	87.5	78.2	77	3.9	SW	29.8	80.4	18.2	0.07	157.9
15-Sep	58.6	74.6	65.6	66	5.9	NE	30.1	76.4	17.2	0	278.2
16-Sep	57.2	74.1	63.5	59	0.8	NE	30.1	73.7	16.5	0	167.2
17-Sep	57.1	83.8	68.4	73	0.2	S	30	73.2	16.1	0	220.1
18-Sep	68.6	82.3	75.2	80	1	S	29.9	74.6	16.1	0	111.6
19-Sep	66.4	86.2	74	81	2.8	N	29.9	75.4	16	0.16	238.8
20-Sep	63	85.4	71.5	85	0.8	NE	29.9	75	15.7	0	187.5
21-Sep	59.7	88.9	72.7	72	1.4	N	29.9	75.6	15.8	0	269.5
22-Sep	59.3	90.2	71.9	73	2.3	NE	30	76.2	15.8	0.71	239.3
23-Sep	56.6	77.9	65.8	74	3.3	NE	30	73.7	15.9	0	303.4
24-Sep	52.2	84.6	67.9	67	1.9	SW	29.9	71.6	16.2	0.01	275.6
25-Sep	65.2	88.7	75.6	67	7.4	SW	29.6	73.3	16.4	1.33	242.3
26-Sep	60.2	79.8	67.1	73	2.1	NE	29.8	73	16.6	0	261.1
27-Sep	61.3	87.2	70.6	74	0.3	NW	29.8	72.9	16.8	0.05	252.7
28-Sep	57	90.2	72.8	69	0.5	N	29.8	74.1	16.9	0.01	290.6
29-Sep	59.2	92.3	75	68	0.4	SW	29.8	75.5	16.9	0	292.8
30-Sep	52.5	79	68.4	43	5.6	NE	30	75.2	16.7	0	340.4

2011 Rohwer Weather Data (WatchDog 2900 ET - Weather Station)

Date	Low Temp.	High Temp.	Mean Temp.	RH	Wind Spd.	Wind Dir.	Baro	Soil Temp.	Soil Moist.	Rain	Solar Rad.
	°F	°F	°F	%	mph	Card.	in-Hg	°F	% VWC	in/day	wat/m2
1-Oct	46.9	76.2	61.1	58	2.7	NE	30.1	71.5	15.9	0	333.1
2-Oct	42.2	75.7	57.8	65	1.3	NE	30.2	69.4	15.4	0	302.8
3-Oct	41.9	81.3	59.9	63	0.1	SW	30.2	68.8	15.1	0	294.7
4-Oct	44.8	83.4	62.8	63	0.2	E	30.2	69.1	14.9	0	293.9
5-Oct	48	85.3	65.7	67	0.3	S	30.1	69.9	14.9	0	279.1
6-Oct	56.2	86.8	70.9	60	1.7	S	30	71.3	14.9	0	291.4
7-Oct	56.6	87	72	62	2.1	S	30.1	72.2	14.8	0	278
8-Oct	58.4	87.8	72.1	60	2.6	S	30.1	72.6	14.7	0	277.9
9-Oct	60.4	84.6	71.8	61	2.7	SE	30	72.9	14.5	0	277.4
10-Oct	58.4	83.1	70	72	0.8	E	29.9	72.6	14.2	0	189.4
11-Oct	58.2	83.6	69.8	74	1.5	SE	29.8	72.7	14	0	246.3
12-Oct	56.4	78.9	65.7	88	1.8	N	29.7	71.4	13.6	0.04	136.7
13-Oct	56.2	80.3	66.3	71	4.3	N	29.7	69.8	13.2	0.05	247.1
14-Oct	46.1	87	65.8	56	0.5	W	29.9	68.9	13	0	249.4
15-Oct	49.6	80.7	64.3	56	1.6	E	30	69.1	13	0	254.4
16-Oct	50.3	90.8	70.3	53	3.6	SW	29.9	69.2	12.9	0	259.1
17-Oct	55.1	87.8	73	57	3.2	SW	29.8	70.6	13.1	0	256
18-Oct	47.5	68.9	56.2	87	6	N	29.8	67.5	12.5	0.32	30
19-Oct	38.2	56	46.8	78	5.9	N	30	59.1	11.9	0.01	119.3
20-Oct	34.1	64.2	47.1	68	2.4	NW	30.1	56.4	12.1	0	239.1
21-Oct	33.4	72.3	51.1	69	0.4	N	30.2	57.5	12.4	0	236.5
22-Oct	41.3	75.7	58	66	1.3	S	30.1	59.5	12.8	0	199.3
23-Oct	53.5	62.4	57.8	88	2.2	N	30	60.3	13.3	0.54	48
24-Oct	52.1	75.3	59	85	0.2	N	30.2	60.9	15.1	0	180.5
25-Oct	44	81.8	63.3	66	2.7	SW	30.1	61.4	15.4	0.01	235.2
26-Oct	58.3	82.7	69	68	4.7	SW	29.9	63	15.5	0	195.9
27-Oct	50.6	66.7	57.6	87	5.4	NE	29.9	62.6	15.3	0.44	49.8
28-Oct	40.8	57.9	50.2	82	6.5	NE	30.2	57.8	25.2	0.67	114.2
29-Oct	35.2	65.9	48.7	75	2	N	30.3	54.9	26.1	0	216.3
30-Oct	34.6	64.1	49.1	74	1.6	SW	30.3	54.3	23	0	204.1
31-Oct	39.7	72.2	53.7	66	0.4	N	30.2	54.9	21.5	0	216.8

Rohwer 2011 - Irrigation Data

Corn

6/3/2011	0.25 in.	Sprinkler - Lateral
7/21/2011	0.5 in.	Sprinkler - Lateral
7/27/2011	0.5 in.	Sprinkler - Lateral
8/4/2011	0.5 in.	Sprinkler - Lateral

Roundup Ready Soybean

6/1/2011	0.5 in.	Sprinkler - Lateral
6/14/2011	0.5 in.	Sprinkler - Lateral
6/20/2011	0.5 in.	Sprinkler - Lateral
7/12/2011	0.5 in.	Sprinkler - Lateral
7/19/2011	0.5 in.	Sprinkler - Lateral
7/26/2011	0.5 in.	Sprinkler - Lateral
8/2/2011	0.5 in.	Sprinkler - Lateral
8/5/2011	0.5 in.	Sprinkler - Lateral

Cotton & Liberty Link Soybean

6/3/2011	0.5 in.	Sprinkler - Lateral
7/21/2011	0.5 in.	Sprinkler - Lateral
7/27/2011	0.5 in.	Sprinkler - Lateral
8/4/2011	0.5 in.	Sprinkler - Lateral

Rice

5/17/2011		Flush
5/25/2011		Flush
6/1/2011		Flush
6/7/2011		Flush
6/21/2011		Flood

Marianna 2011 - Irrigation Data

Liberty Link Soybean

7/26/2011	Furrow
8/7/2011	Furrow
8/25/2011	Furrow

Cotton & Roundup Ready Soybean

7/1/2011	Furrow
7/15/2011	Furrow
7/21/2011	Furrow
7/28/2011	Furrow
8/7/2011	Furrow
8/31/2011	Furrow

University of Arkansas-Division of Agriculture

Efficacy of Halex GT, Realm Q, & Resolve Q, Weed Control Programs

Trial ID: HCO-20111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: ZEAMX Zea mays Corn
Variety: REV 28HR20
BBCH Scale: BCOR
Planting Method: PLANTD planted
Depth, Unit: 1 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: GOOD good
Harvest Date: 9/9/11
Harvested Width, Unit: 6.33 FT
% Standard Moisture: 15.0
Weighing Equipment: Almaco
Description: RR 2 / LL / Herculex / Cruiser
Planting Date: 4/18/11
Rate, Unit: 33000 S/A
Spacing Within Row, Unit: 4 IN
Soil Temperature, Unit: 66.7 F
Emergence Date: 4/24/11
Harvest Equipment: Almaco
Harvested Length, Unit: 28 FT
Moisture Meter: Almaco

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass
Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth
Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	5/10/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	Y	yes
2.	5/10/11	In Season Fertilizer	Zinc	1	PT/A	Y	yes
3.	5/10/11	In Season Fertilizer	Sulphur	1	PT/A	Y	yes
4.	6/1/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	N	no

Soil Description

Description Name: 2011 Corn
% Sand: 16
% Silt: 67
% Clay: 17
% OM: 2.2
pH: 7.1
CEC: 14
Texture: SIL silt loam
Soil Name: Herbert Silt Loam
Fert. Level: G good
Soil Drainage: G good

Application Description

	A	B	C	D
Application Date:	4/19/11	5/5/11	5/31/11	6/6/11
Time of Day:	AM	AM	AM	PM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PREPRE	POSPOS	POSPOS	POSPOS
Application Placement:	BROSOI	BROFOL	BROFOL	BROFOL
Applied By:	RD	JM	RD	JM
Air Temperature, Unit:	39.5 F	58.9 F	80.9 F	84.4 F
% Relative Humidity:	76.6	64.2	69.2	66.3
Wind Velocity, Unit:	1.5 MPH	3.0 MPH	5.7 MPH	0.5 MPH
Wind Direction:	W	E	W	E
Dew Presence (Y/N):	Y yes	Y yes	N no	N no
Soil Temperature, Unit:	52.3 F	60.3 F	79.6 F	84.1 F
Soil Moisture:	GOOD	GOOD	GOOD	GOOD
% Cloud Cover:	40	10	20	10
Next Rain Occurred On:	4/19/11	6/16/11	6/1/11	6/7/11

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:	BBCH	BBCH	BBCH	BBCH
Stage Majority, Percent:	V0	V1	V5	V7
Height, Unit:	0 IN	3 IN	12 IN	18 IN

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W	ECHCG W
Height, Unit:	0 IN	1 IN	6 IN	10 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W	AMAPA W
Height, Unit:	0 IN	1 IN	8 IN	14 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W	IPOSS W
Height, Unit:	0 IN	1 IN	4 IN	8 IN

University of Arkansas-Division of Agriculture

Efficacy of Halex GT, Realm Q, & Resolve Q, Weed Control Programs

Trial ID: HCO-20111
 Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B	C	D
Appl. Equipment:	Multi Boom	Multi Boom	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix	Air-Mix
Nozzle Size:	110015	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN	19 IN
Nozzles/Row:	2	2	2	2
% Coverage:	100	100	100	100
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN	18 IN
Carrier:	WATER	WATER	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes	Y yes	Y yes

University of Arkansas-Division of Agriculture

Efficacy of Halex GT, Realm Q, & Resolve Q, Weed Control Programs

Trial ID: HCO-20111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed ECHCG Echinochloa cr> Common barnyar>		W Weed AMAPA Amaranthus pal> Palmer amaranth		W Weed IPOSS Ipomoea sp. Morning glory							
Pest Code	Pest Scientific Name	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn				
Part Assessed	Assessment Date	PLANT C 5/10/11 COUPLA	PLANT P 5/9/11 CONTRO	PLANT P 5/9/11 CONTRO	PLANT P 5/9/11 CONTRO	PLANT C 5/9/11 PHYNCH	PLANT C 5/9/11 PHYNEC	PLANT C 5/9/11 PHYNEC	PLANT C 5/9/11 PHYNEC				
Assessment Unit	Number of Subsamples	5 FT/Row	%	%	%	%	%	%	%				
Crop Stage Majority	Pest Stage Majority	2	1	1	1	1	1	1	1				
Assessed By	Days After First/Last Applic.	JB 21 5	JB 20 4	JB 20 4	JB 20 4	JB 20 4	JB 20 4	JB 20 4	JB 20 4				
Trt-Eval Interval	Plant-Eval Interval	5 DA-B 22 DP-1 16 DE-1	4 DA-B 21 DP-1 15 DE-1	4 DA-B 21 DP-1 15 DE-1	4 DA-B 21 DP-1 15 DE-1	4 DA-B 21 DP-1 15 DE-1	4 DA-B 21 DP-1 15 DE-1	4 DA-B 21 DP-1 15 DE-1	4 DA-B 21 DP-1 15 DE-1				
Days After Emergence	Days After Emergence	16 DE-1	15 DE-1	15 DE-1	15 DE-1	15 DE-1	15 DE-1	15 DE-1	15 DE-1				
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6
1	Untreated Check							8.00	0.0	0.0	0.0	0.0	0.0
2	Bicep II Magnum	1.79 lb ai/a	41.7 oz/a			A	Pre	8.13	100.0	100.0	100.0	2.5	1.3
	Halex GT	1.98 lb ai/a	58 oz/a			C	10 - 12" Corn						
	AAtrex	1.5 lb ai/a	48 oz/a			C	10 - 12" Corn						
	NIS	0.25 % v/v	3.84 oz/a			C	10 - 12" Corn						
3	Dual II Magnum	1.24 lb ai/a	20.8 oz/a			A	Pre	8.63	100.0	97.5	98.8	0.0	0.0
	Halex GT	1.98 lb ai/a	57.6 oz/a			C	10 - 12" Corn						
	AAtrex	2 lb ai/a	64 oz/a			C	10 - 12" Corn						
4	AAtrex	1 lb ai/a	32 oz/a			A	Pre	8.38	100.0	100.0	100.0	0.0	0.0
	Halex GT	1.98 lb ai/a	57.6 oz/a			C	10 - 12" Corn						
	AAtrex	1 lb ai/a	32 oz/a			C	10 - 12" Corn						
5	Lexar	1.39 lb ai/a	48 oz/a			A	Pre	8.13	100.0	100.0	100.0	1.3	0.0
	Halex GT	1.98 lb ai/a	58 oz/a			D	14 - 24 " Corn						
	NIS	0.25 % v/v	3.84 oz/a			D	14 - 24 " Corn						
6	Bicep II Magnum	1.79 lb ai/a	41.6 oz/a			A	Pre	7.88	100.0	100.0	100.0	1.3	0.0
	AAtrex	1 lb ai/a	32 oz/a			A	Pre						
	Halex GT	1.98 lb ai/a	57.6 oz/a			C	10 - 12" Corn						
7	Bicep II Magnum	1.79 lb ai/a	41.6 oz/a			A	Pre	7.75	100.0	100.0	100.0	2.5	0.0
	AAtrex	1 lb ai/a	32 oz/a			A	Pre						
	Halex GT	1.98 lb ai/a	57.6 oz/a			D	14 - 24 " Corn						
8	Halex GT	1.98 lb ai/a	58 oz/a			B	2 - 4" Corn	7.88	98.8	100.0	100.0	2.5	1.3
	AAtrex	1.5 lb ai/a	48 oz/a			B	2 - 4" Corn						
	NIS	0.25 % v/v	3.84 oz/a			B	2 - 4" Corn						
9	Lexar	2.78 lb ai/a	96 oz/a			B	2 - 4" Corn	8.13	98.8	100.0	100.0	6.3	0.0
	Touchdown Total	0.78 lb ae/a	24 oz/a			B	2 - 4" Corn						
	NIS	0.25 % v/v	3.84 oz/a			B	2 - 4" Corn						
10	Lexar	2.78 lb ai/a	96 oz/a			A	Pre	7.88	100.0	100.0	100.0	2.5	0.0
	Touchdown Total	0.78 lb ae/a	24 oz/a			D	14 - 24 " Corn						
11	Cinch ATZ	1.38 lb ai/a	32 oz/a			A	Pre	8.38	100.0	100.0	100.0	3.8	0.0
	Realm Q		4 oz/a			C	10 - 12" Corn						
	>Rimsulfuron (Resolve DF)	0.0188 lb ai/a	1.2 oz/a			C	10 - 12" Corn						
	>Mesotrione	0.078 lb ai/a	2.5 oz/a			C	10 - 12" Corn						
	>Isoxadifen-ethyl	0.0094 lb ai/a	0.3 oz/a			C	10 - 12" Corn						
	AAtrex	1.5 lb ai/a	48 oz/a			C	10 - 12" Corn						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			C	10 - 12" Corn						
12	Cinch ATZ	1.38 lb ai/a	32 oz/a			A	Pre	6.88	100.0	100.0	100.0	2.5	0.0
	Resolve Q		1.25 oz/a			C	10 - 12" Corn						
	>Rimsulfuron (Resolve DF)	0.0144 lb ai/a	0.92 oz/a			C	10 - 12" Corn						
	>Thifensulfuron (Harmony SG)	0.00313 lb ai/a	0.1 oz/a			C	10 - 12" Corn						
	>Isoxadifen-ethyl	0.0072 lb ai/a	0.23 oz/a			C	10 - 12" Corn						
	AAtrex	1.5 lb ai/a	48 oz/a			C	10 - 12" Corn						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			C	10 - 12" Corn						
13	Realm Q		4 oz/a			B	2 - 4" Corn	7.88	100.0	100.0	100.0	7.5	7.5
	>Rimsulfuron (Resolve DF)	0.0188 lb ai/a	1.2 oz/a			B	2 - 4" Corn						
	>Mesotrione	0.078 lb ai/a	2.5 oz/a			B	2 - 4" Corn						
	>Isoxadifen-ethyl	0.0094 lb ai/a	0.3 oz/a			B	2 - 4" Corn						
	AAtrex	1.5 lb ai/a	48 oz/a			B	2 - 4" Corn						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			B	2 - 4" Corn						
14	Resolve Q		1.25 oz/a			B	2 - 4" Corn	8.38	100.0	100.0	99.5	3.8	0.0
	>Rimsulfuron (Resolve DF)	0.0144 lb ai/a	0.92 oz/a			B	2 - 4" Corn						
	>Thifensulfuron (Harmony SG)	0.00313 lb ai/a	0.1 oz/a			B	2 - 4" Corn						
	>Isoxadifen-ethyl	0.0072 lb ai/a	0.23 oz/a			B	2 - 4" Corn						
	AAtrex	1.5 lb ai/a	48 oz/a			B	2 - 4" Corn						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			B	2 - 4" Corn						
15	Balance Flexx	0.047 lb ai/a	3 oz/a			A	Pre	8.25	100.0	100.0	100.0	1.3	0.0
	AAtrex	1 lb ai/a	32 oz/a			A	Pre						
	Laudis	0.082 lb ai/a	3 oz/a			C	10 - 12" Corn						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a			C	10 - 12" Corn						
	AMS	5 gal/100 gal	77 oz/a			C	10 - 12" Corn						
16	Balance Flexx	0.047 lb ai/a	3 oz/a			A	Pre	8.13	100.0	100.0	100.0	0.0	0.0
	Laudis	0.082 lb ai/a	3 oz/a			C	10 - 12" Corn						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a			C	10 - 12" Corn						
	AMS	5 gal/100 gal	77 oz/a			C	10 - 12" Corn						
17	Cinch ATZ	1.38 lb ai/a	32 oz/a			A	Pre	8.38	100.0	100.0	100.0	1.3	0.0
	AAtrex	1.5 lb ai/a	48 oz/a			C	10 - 12" Corn						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			C	10 - 12" Corn						

University of Arkansas-Division of Agriculture

Efficacy of Halex GT, Realm Q, & Resolve Q, Weed Control Programs

Trial ID: HCO-20111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed	W Weed	W Weed									
Pest Code		ECHCG	AMAPA	IPOSS									
Pest Scientific Name		Echinochloa cr>	Amaranthus pal>	Ipomoea sp.									
Pest Name		Common barnyar>	Palmer amaranth	Morning glory									
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX							
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays							
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn							
Part Assessed	PLANT C	PLANT P	PLANT P	PLANT P	PLANT C	PLANT C							
Assessment Date	5/10/11	5/9/11	5/9/11	5/9/11	5/9/11	5/9/11							
Assessment Type	COUPLA	CONTRO	CONTRO	CONTRO	PHYCHL	PHYNEC							
Assessment Unit	5 FT/Row	%	%	%	%	%							
Number of Subsamples	2	1	1	1	1	1							
Crop Stage Majority		V2 2-3"	V2 2-3"	V2 2-3"	V2 2-3"	V2 2-3"							
Pest Stage Majority		1"	0.5"	0.25"									
Assessed By	JB	JB	JB	JB	JB	JB							
Days After First/Last Applic.	21 5	20 4	20 4	20 4	20 4	20 4							
Trt-Eval Interval	5 DA-B	4 DA-B	4 DA-B	4 DA-B	4 DA-B	4 DA-B							
Plant-Eval Interval	22 DP-1	21 DP-1	21 DP-1	21 DP-1	21 DP-1	21 DP-1							
Days After Emergence	16 DE-1	15 DE-1	15 DE-1	15 DE-1	15 DE-1	15 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6
18	AAtrex	1	lb ai/a	32	oz/a	A	Pre	8.25	100.0	100.0	100.0	1.3	1.3
	Dual II Magnum	0.955	lb ai/a	16	oz/a	A	Pre						
	AAtrex	1	lb ai/a	32	oz/a	C	10 - 12" Corn						
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	10 - 12" Corn						
19	Lexar	2.78	lb ai/a	96	oz/a	A	Pre	7.63	100.0	100.0	100.0	2.5	0.0
	Touchdown Total	0.78	lb ae/a	24	oz/a	C	10 - 12" Corn						
LSD (P=.05)								0.758	1.11	1.62	0.88	4.82	3.46
Standard Deviation								0.536	0.79	1.15	0.62	3.41	2.44
CV								6.66	0.83	1.21	0.66	152.25	412.65
Grand Mean								8.05	94.61	94.61	94.64	2.24	0.59

University of Arkansas-Division of Agriculture

Efficacy of Halex GT, Realm Q, & Resolve Q, Weed Control Programs

Trial ID: HCO-20111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type						W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA		
Pest Code						Echinochloa c>	Amaranthus pal>	Ipomoea sp>	Echinochloa c>	Amaranthus pal>		
Pest Scientific Name						Common barnyar>	Palmer amaranth>	Morning glory	Common barnyar>	Palmer amaranth>		
Pest Name												
Crop Code						ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX		
Crop Scientific Name						Zea mays	Zea mays	Zea mays	Zea mays	Zea mays		
Crop Name						Corn	Corn	Corn	Corn	Corn		
Part Assessed						PLANT P	PLANT P	PLANT P	PLANT P	PLANT P		
Assessment Date						5/18/11	5/18/11	5/18/11	6/3/11	6/3/11		
Assessment Type						CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Assessment Unit						%	%	%	%	%		
Number of Subsamples						1	1	1	1	1		
Crop Stage Majority						V4*	V4*	V4*	V5 18"	V5 18"		
Pest Stage Majority						1-3"	2-4"	1-4"	2-6"	2-4"		
Assessed By						JM	JM	JM	JM	JM		
Days After First/Last Applic.						29 13	29 13	29 13	45 3	45 3		
Trt-Eval Interval						13 DA-B	16 DA-F	16 DA-F	3 DA-C	3 DA-C		
Plant-Eval Interval						30 DP-1	30 DP-1	30 DP-1	46 DP-1	46 DP-1		
Days After Emergence						24 DE-1	24 DE-1	24 DE-1	40 DE-1	40 DE-1		
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description					
								7	8	9		
								10		11		
1	Untreated Check							0.0	0.0	0.0	0.0	0.0
2	Bicep II Magnum	1.79 lb ai/a		41.7 oz/a		A	Pre	100.0	100.0	100.0	100.0	100.0
	Halex GT	1.98 lb ai/a		58 oz/a		C	10 - 12" Corn					
	AAtrex	1.5 lb ai/a		48 oz/a		C	10 - 12" Corn					
	NIS	0.25 % v/v		3.84 oz/a		C	10 - 12" Corn					
3	Dual II Magnum	1.24 lb ai/a		20.8 oz/a		A	Pre	95.0	95.0	100.0	100.0	100.0
	Halex GT	1.98 lb ai/a		57.6 oz/a		C	10 - 12" Corn					
	AAtrex	2 lb ai/a		64 oz/a		C	10 - 12" Corn					
4	AAtrex	1 lb ai/a		32 oz/a		A	Pre	100.0	100.0	97.5	98.8	98.8
	Halex GT	1.98 lb ai/a		57.6 oz/a		C	10 - 12" Corn					
	AAtrex	1 lb ai/a		32 oz/a		C	10 - 12" Corn					
5	Lexar	1.39 lb ai/a		48 oz/a		A	Pre	100.0	100.0	100.0	100.0	100.0
	Halex GT	1.98 lb ai/a		58 oz/a		D	14 - 24 " Corn					
	NIS	0.25 % v/v		3.84 oz/a		D	14 - 24 " Corn					
6	Bicep II Magnum	1.79 lb ai/a		41.6 oz/a		A	Pre	100.0	100.0	100.0	100.0	96.3
	AAtrex	1 lb ai/a		32 oz/a		A	Pre					
	Halex GT	1.98 lb ai/a		57.6 oz/a		C	10 - 12" Corn					
7	Bicep II Magnum	1.79 lb ai/a		41.6 oz/a		A	Pre	100.0	100.0	97.5	100.0	96.3
	AAtrex	1 lb ai/a		32 oz/a		A	Pre					
	Halex GT	1.98 lb ai/a		57.6 oz/a		D	14 - 24 " Corn					
8	Halex GT	1.98 lb ai/a		58 oz/a		B	2 - 4" Corn	100.0	100.0	100.0	100.0	100.0
	AAtrex	1.5 lb ai/a		48 oz/a		B	2 - 4" Corn					
	NIS	0.25 % v/v		3.84 oz/a		B	2 - 4" Corn					
9	Lexar	2.78 lb ai/a		96 oz/a		B	2 - 4" Corn	100.0	100.0	100.0	100.0	100.0
	Touchdown Total	0.78 lb ae/a		24 oz/a		B	2 - 4" Corn					
	NIS	0.25 % v/v		3.84 oz/a		B	2 - 4" Corn					
10	Lexar	2.78 lb ai/a		96 oz/a		A	Pre	100.0	100.0	100.0	100.0	100.0
	Touchdown Total	0.78 lb ae/a		24 oz/a		D	14 - 24 " Corn					
11	Cinch ATZ	1.38 lb ai/a		32 oz/a		A	Pre	100.0	100.0	100.0	100.0	100.0
	Realm Q			4 oz/a		C	10 - 12" Corn					
	>Rimsulfuron (Resolve DF)	0.0188 lb ai/a		1.2 oz/a		C	10 - 12" Corn					
	>Mesotrione	0.078 lb ai/a		2.5 oz/a		C	10 - 12" Corn					
	>Isoxadifen-ethyl	0.0094 lb ai/a		0.3 oz/a		C	10 - 12" Corn					
	AAtrex	1.5 lb ai/a		48 oz/a		C	10 - 12" Corn					
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		C	10 - 12" Corn					
12	Cinch ATZ	1.38 lb ai/a		32 oz/a		A	Pre	100.0	100.0	100.0	100.0	97.5
	Resolve Q			1.25 oz/a		C	10 - 12" Corn					
	>Rimsulfuron (Resolve DF)	0.0144 lb ai/a		0.92 oz/a		C	10 - 12" Corn					
	>Thifensulfuron (Harmony SG)	0.00313 lb ai/a		0.1 oz/a		C	10 - 12" Corn					
	>Isoxadifen-ethyl	0.0072 lb ai/a		0.23 oz/a		C	10 - 12" Corn					
	AAtrex	1.5 lb ai/a		48 oz/a		C	10 - 12" Corn					
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		C	10 - 12" Corn					
13	Realm Q			4 oz/a		B	2 - 4" Corn	100.0	100.0	100.0	100.0	100.0
	>Rimsulfuron (Resolve DF)	0.0188 lb ai/a		1.2 oz/a		B	2 - 4" Corn					
	>Mesotrione	0.078 lb ai/a		2.5 oz/a		B	2 - 4" Corn					
	>Isoxadifen-ethyl	0.0094 lb ai/a		0.3 oz/a		B	2 - 4" Corn					
	AAtrex	1.5 lb ai/a		48 oz/a		B	2 - 4" Corn					
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	2 - 4" Corn					
14	Resolve Q			1.25 oz/a		B	2 - 4" Corn	100.0	100.0	100.0	100.0	100.0
	>Rimsulfuron (Resolve DF)	0.0144 lb ai/a		0.92 oz/a		B	2 - 4" Corn					
	>Thifensulfuron (Harmony SG)	0.00313 lb ai/a		0.1 oz/a		B	2 - 4" Corn					
	>Isoxadifen-ethyl	0.0072 lb ai/a		0.23 oz/a		B	2 - 4" Corn					
	AAtrex	1.5 lb ai/a		48 oz/a		B	2 - 4" Corn					
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	2 - 4" Corn					
15	Balance Flexx	0.047 lb ai/a		3 oz/a		A	Pre	97.5	100.0	95.0	97.5	96.3
	AAtrex	1 lb ai/a		32 oz/a		A	Pre					
	Laudis	0.082 lb ai/a		3 oz/a		C	10 - 12" Corn					
	Roundup PowerMax	0.77 lb ae/a		22 oz/a		C	10 - 12" Corn					
	AMS	5 gal/100 gal		77 oz/a		C	10 - 12" Corn					
16	Balance Flexx	0.047 lb ai/a		3 oz/a		A	Pre	100.0	100.0	98.8	95.5	93.8
	Laudis	0.082 lb ai/a		3 oz/a		C	10 - 12" Corn					
	Roundup PowerMax	0.77 lb ae/a		22 oz/a		C	10 - 12" Corn					
	AMS	5 gal/100 gal		77 oz/a		C	10 - 12" Corn					
17	Cinch ATZ	1.38 lb ai/a		32 oz/a		A	Pre	100.0	100.0	100.0	100.0	100.0
	AAtrex	1.5 lb ai/a		48 oz/a		C	10 - 12" Corn					
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		C	10 - 12" Corn					

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of Halex GT, Realm Q, & Resolve Q, Weed Control Programs

Trial ID: HCO-20111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed							
Pest Code	ECHCG	AMAPA	IPOSS	ECHCG	AMAPA							
Pest Scientific Name	Echinochloa c>	Amaranthus pal>	Ipomoea sp.	Echinochloa c>	Amaranthus pal>							
Pest Name	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth							
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX							
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays							
Crop Name	Corn	Corn	Corn	Corn	Corn							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	5/18/11	5/18/11	5/18/11	6/3/11	6/3/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1							
Crop Stage Majority	V4"	V4"	V4"	V5 18"	V5 18"							
Pest Stage Majority	1-3"	2-4"	1-4"	2-6"	2-4"							
Assessed By	JM	JM	JM	JM	JM							
Days After First/Last Applic.	29 13	29 13	29 13	45 3	45 3							
Trt-Eval Interval	13 DA-B	16 DA-F	16 DA-F	3 DA-C	3 DA-C							
Plant-Eval Interval	30 DP-1	30 DP-1	30 DP-1	46 DP-1	46 DP-1							
Days After Emergence	24 DE-1	24 DE-1	24 DE-1	40 DE-1	40 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	7	8	9	10	11
18	AAtrex	1 lb ai/a		32 oz/a		A	Pre	100.0	100.0	100.0	100.0	100.0
	Dual II Magnum	0.955 lb ai/a		16 oz/a		A	Pre					
	AAtrex	1 lb ai/a		32 oz/a		C	10 - 12" Corn					
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		C	10 - 12" Corn					
19	Lexar	2.78 lb ai/a		96 oz/a		A	Pre	100.0	100.0	100.0	100.0	96.8
	Touchdown Total	0.78 lb ae/a		24 oz/a		C	10 - 12" Corn					
	LSD (P=.05)							3.55	1.87	3.05	2.66	5.27
	Standard Deviation							2.51	1.32	2.16	1.88	3.73
	CV							2.66	1.4	2.29	1.99	3.99
	Grand Mean							94.34	94.47	94.14	94.3	93.45

University of Arkansas-Division of Agriculture

Efficacy of Halex GT, Realm Q, & Resolve Q, Weed Control Programs

Trial ID: HCO-20111
Location: Rohwer, AR
Investigator: Kenneth Smith

Pest Type	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG								
Pest Code	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>								
Pest Scientific Name	Morning glory	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>								
Pest Name													
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX								
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays								
Crop Name	Corn	Corn	Corn	Corn	Corn								
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT C								
Assessment Date	6/3/11	6/10/11	6/10/11	6/10/11	6/10/11								
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYSTU								
Assessment Unit	%	%	%	%	%								
Number of Subsamples	1	1	1	1	1								
Crop Stage Majority	V5 18"	V8 30"	V8 30"	V8 30"	V8 30"								
Pest Stage Majority	1-3"	4-20"	4-24"	2-12"	6-18"								
Assessed By	JM	JB	JB	JB	JB								
Days After First/Last Applic.	45 3	52 4	52 4	52 4	52 4								
Trt-Eval Interval	3 DA-C	4 DA-D	4 DA-D	4 DA-D	4 DA-D								
Plant-Eval Interval	46 DP-1	53 DP-1	53 DP-1	53 DP-1	53 DP-1								
Days After Emergence	40 DE-1	47 DE-1	47 DE-1	47 DE-1	47 DE-1								
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	12	13	14	15	16	17
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	Bicep II Magnum	1.79 lb ai/a		41.7 oz/a		A	Pre	100.0	100.0	100.0	100.0	1.3	100.0
	Halex GT	1.98 lb ai/a		58 oz/a		C	10 - 12" Corn						
	AAtrex	1.5 lb ai/a		48 oz/a		C	10 - 12" Corn						
	NIS	0.25 % v/v		3.84 oz/a		C	10 - 12" Corn						
3	Dual II Magnum	1.24 lb ai/a		20.8 oz/a		A	Pre	100.0	100.0	100.0	100.0	0.0	99.8
	Halex GT	1.98 lb ai/a		57.6 oz/a		C	10 - 12" Corn						
	AAtrex	2 lb ai/a		64 oz/a		C	10 - 12" Corn						
4	AAtrex	1 lb ai/a		32 oz/a		A	Pre	98.8	100.0	100.0	100.0	0.0	100.0
	Halex GT	1.98 lb ai/a		57.6 oz/a		C	10 - 12" Corn						
	AAtrex	1 lb ai/a		32 oz/a		C	10 - 12" Corn						
5	Lexar	1.39 lb ai/a		48 oz/a		A	Pre	98.8	98.8	100.0	95.0	0.0	98.8
	Halex GT	1.98 lb ai/a		58 oz/a		D	14 - 24" Corn						
	NIS	0.25 % v/v		3.84 oz/a		D	14 - 24" Corn						
6	Bicep II Magnum	1.79 lb ai/a		41.6 oz/a		A	Pre	100.0	100.0	97.5	98.8	0.0	100.0
	AAtrex	1 lb ai/a		32 oz/a		A	Pre						
	Halex GT	1.98 lb ai/a		57.6 oz/a		C	10 - 12" Corn						
7	Bicep II Magnum	1.79 lb ai/a		41.6 oz/a		A	Pre	100.0	100.0	97.5	100.0	0.0	100.0
	AAtrex	1 lb ai/a		32 oz/a		A	Pre						
	Halex GT	1.98 lb ai/a		57.6 oz/a		D	14 - 24" Corn						
8	Halex GT	1.98 lb ai/a		58 oz/a		B	2 - 4" Corn	100.0	100.0	100.0	98.8	1.3	98.3
	AAtrex	1.5 lb ai/a		48 oz/a		B	2 - 4" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	2 - 4" Corn						
9	Lexar	2.78 lb ai/a		96 oz/a		B	2 - 4" Corn	100.0	100.0	100.0	100.0	0.0	98.5
	Touchdown Total	0.78 lb ae/a		24 oz/a		B	2 - 4" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	2 - 4" Corn						
10	Lexar	2.78 lb ai/a		96 oz/a		A	Pre	100.0	98.8	100.0	100.0	0.0	99.5
	Touchdown Total	0.78 lb ae/a		24 oz/a		D	14 - 24" Corn						
11	Cinch ATZ	1.38 lb ai/a		32 oz/a		A	Pre	100.0	100.0	100.0	100.0	0.0	93.0
	Realm Q			4 oz/a		C	10 - 12" Corn						
	>Rimsulfuron (Resolve DF)	0.0188 lb ai/a		1.2 oz/a		C	10 - 12" Corn						
	>Mesotrione	0.078 lb ai/a		2.5 oz/a		C	10 - 12" Corn						
	>Isoxadifen-ethyl	0.0094 lb ai/a		0.3 oz/a		C	10 - 12" Corn						
	AAtrex	1.5 lb ai/a		48 oz/a		C	10 - 12" Corn						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		C	10 - 12" Corn						
12	Cinch ATZ	1.38 lb ai/a		32 oz/a		A	Pre	100.0	100.0	100.0	100.0	1.3	91.3
	Resolve Q			1.25 oz/a		C	10 - 12" Corn						
	>Rimsulfuron (Resolve DF)	0.0144 lb ai/a		0.92 oz/a		C	10 - 12" Corn						
	>Thifensulfuron (Harmony SG)	0.00313 lb ai/a		0.1 oz/a		C	10 - 12" Corn						
	>Isoxadifen-ethyl	0.0072 lb ai/a		0.23 oz/a		C	10 - 12" Corn						
	AAtrex	1.5 lb ai/a		48 oz/a		C	10 - 12" Corn						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		C	10 - 12" Corn						
13	Realm Q			4 oz/a		B	2 - 4" Corn	100.0	100.0	100.0	97.5	0.0	95.3
	>Rimsulfuron (Resolve DF)	0.0188 lb ai/a		1.2 oz/a		B	2 - 4" Corn						
	>Mesotrione	0.078 lb ai/a		2.5 oz/a		B	2 - 4" Corn						
	>Isoxadifen-ethyl	0.0094 lb ai/a		0.3 oz/a		B	2 - 4" Corn						
	AAtrex	1.5 lb ai/a		48 oz/a		B	2 - 4" Corn						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	2 - 4" Corn						
14	Resolve Q			1.25 oz/a		B	2 - 4" Corn	100.0	96.3	97.5	97.5	0.0	95.0
	>Rimsulfuron (Resolve DF)	0.0144 lb ai/a		0.92 oz/a		B	2 - 4" Corn						
	>Thifensulfuron (Harmony SG)	0.00313 lb ai/a		0.1 oz/a		B	2 - 4" Corn						
	>Isoxadifen-ethyl	0.0072 lb ai/a		0.23 oz/a		B	2 - 4" Corn						
	AAtrex	1.5 lb ai/a		48 oz/a		B	2 - 4" Corn						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	2 - 4" Corn						
15	Balance Flexx	0.047 lb ai/a		3 oz/a		A	Pre	97.5	97.5	95.0	97.5	0.0	94.3
	AAtrex	1 lb ai/a		32 oz/a		A	Pre						
	Laudis	0.082 lb ai/a		3 oz/a		C	10 - 12" Corn						
	Roundup PowerMax	0.77 lb ae/a		22 oz/a		C	10 - 12" Corn						
	AMS	5 gal/100 gal		77 oz/a		C	10 - 12" Corn						
16	Balance Flexx	0.047 lb ai/a		3 oz/a		A	Pre	95.0	100.0	95.0	98.8	0.0	96.8
	Laudis	0.082 lb ai/a		3 oz/a		C	10 - 12" Corn						
	Roundup PowerMax	0.77 lb ae/a		22 oz/a		C	10 - 12" Corn						
	AMS	5 gal/100 gal		77 oz/a		C	10 - 12" Corn						
17	Cinch ATZ	1.38 lb ai/a		32 oz/a		A	Pre	100.0	98.0	100.0	100.0	0.0	93.8
	AAtrex	1.5 lb ai/a		48 oz/a		C	10 - 12" Corn						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		C	10 - 12" Corn						

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of Halex GT, Realm Q, & Resolve Q, Weed Control Programs

Trial ID: HCO-20111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed		W Weed						
Pest Code	IPOSS	ECHCG	AMAPA	IPOSS		ECHCG						
Pest Scientific Name	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.		Echinochloa cr>						
Pest Name	Morning glory	Common barnyar>	Palmer amaranth	Morning glory		Common barnyar>						
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX						
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays						
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn						
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT C	PLANT P						
Assessment Date	6/3/11	6/10/11	6/10/11	6/10/11	6/10/11	6/23/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYSTU	CONTRO						
Assessment Unit	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	V5 18"	V8 30"	V8 30"	V8 30"	V8 30"	VT 65"						
Pest Stage Majority	1-3"	4-20"	4-24"	2-12"		6-18"						
Assessed By	JM	JB	JB	JB	JB	JB						
Days After First/Last Applic.	45 3	52 4	52 4	52 4	52 4	65 17						
Trt-Eval Interval	3 DA-C	4 DA-D	4 DA-D	4 DA-D	4 DA-D	17 DA-D						
Plant-Eval Interval	46 DP-1	53 DP-1	53 DP-1	53 DP-1	53 DP-1	66 DP-1						
Days After Emergence	40 DE-1	47 DE-1	47 DE-1	47 DE-1	47 DE-1	60 DE-1						
Trt Treatment No. Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	12	13	14	15	16	17
18 AAtrex	1 lb ai/a		32 oz/a		A	Pre	100.0	100.0	100.0	98.8	0.0	98.8
Dual II Magnum	0.955 lb ai/a		16 oz/a		A	Pre						
AAtrex	1 lb ai/a		32 oz/a		C	10 - 12" Corn						
Roundup WeatherMax	0.77 lb ae/a		22 oz/a		C	10 - 12" Corn						
19 Lexar	2.78 lb ai/a		96 oz/a		A	Pre	100.0	98.8	97.5	100.0	0.0	97.3
Touchdown Total	0.78 lb ae/a		24 oz/a		C	10 - 12" Corn						
LSD (P=.05)							2.74	2.51	3.92	3.18	1.43	4.01
Standard Deviation							1.93	1.77	2.77	2.25	1.01	2.84
CV							2.05	1.88	2.96	2.39	512.56	3.08
Grand Mean							94.21	94.11	93.68	93.82	0.2	92.11

University of Arkansas-Division of Agriculture

Efficacy of Halex GT, Realm Q, & Resolve Q, Weed Control Programs

Trial ID: HCO-20111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type Pest Code Pest Scientific Name Pest Name	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory	W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory	Rate		Other		Appl		Appl Description
						Rate	Unit	Rate	Rate	Unit	Code	
Crop Code Crop Scientific Name Crop Name Part Assessed Assessment Date Assessment Type Assessment Unit Number of Subsamples Crop Stage Majority Pest Stage Majority Assessed By Days After First/Last Applic. Trt-Eval Interval Plant-Eval Interval Days After Emergence	ZEAMX Zea mays Corn PLANT P 6/23/11 CONTRO %	ZEAMX Zea mays Corn PLANT P 6/23/11 CONTRO %	ZEAMX Zea mays Corn PLANT P 9/7/11 CONTRO %	ZEAMX Zea mays Corn PLANT P 9/7/11 CONTRO %	ZEAMX Zea mays Corn PLANT P 9/7/11 CONTRO %	1 VT 65" 10-50" JB 65 17 17 DA-D 66 DP-1 60 DE-1	1 VT 65" 10-40" JB 65 17 17 DA-D 66 DP-1 60 DE-1	1 R6 75" 20-40" JB 141 93 17 DA-D 142 DP-1 136 DE-1	1 R6 75" 40-70" JB 141 93 17 DA-D 142 DP-1 136 DE-1	1 R6 75" 10-50" JB 141 93 17 DA-D 142 DP-1 136 DE-1	1 R6 75" 10-50" JB 141 93 17 DA-D 142 DP-1 136 DE-1	
Trt No. Name	Rate	Rate Unit	Other Rate	Other Rate	Unit	Appl Code	Appl Description	18	19	20	21	22
1 Untreated Check								0.0	0.0	0.0	0.0	0.0
2 Bicep II Magnum Halex GT AAtrex NIS	1.79 lb ai/a 1.98 lb ai/a 1.5 lb ai/a 0.25 % v/v	ai/a	41.7 oz/a 58 oz/a 48 oz/a 3.84 oz/a			A C C C	Pre 10 - 12" Corn 10 - 12" Corn 10 - 12" Corn	100.0	100.0	72.5	82.5	92.5
3 Dual II Magnum Halex GT AAtrex	1.24 lb ai/a 1.98 lb ai/a 2 lb ai/a	ai/a	20.8 oz/a 57.6 oz/a 64 oz/a			A C C	Pre 10 - 12" Corn 10 - 12" Corn	100.0	100.0	62.5	96.3	96.3
4 AAtrex Halex GT AAtrex	1 lb ai/a 1.98 lb ai/a 1 lb ai/a	ai/a	32 oz/a 57.6 oz/a 32 oz/a			A C C	Pre 10 - 12" Corn 10 - 12" Corn	100.0	100.0	55.0	91.3	95.0
5 Lexar Halex GT NIS	1.39 lb ai/a 1.98 lb ai/a 0.25 % v/v	ai/a	48 oz/a 58 oz/a 3.84 oz/a			A D D	Pre 14 - 24 " Corn 14 - 24 " Corn	100.0	98.8	68.8	92.5	98.8
6 Bicep II Magnum AAtrex Halex GT	1.79 lb ai/a 1 lb ai/a 1.98 lb ai/a	ai/a	41.6 oz/a 32 oz/a 57.6 oz/a			A A C	Pre Pre 10 - 12" Corn	97.5	100.0	62.5	85.0	87.5
7 Bicep II Magnum AAtrex Halex GT	1.79 lb ai/a 1 lb ai/a 1.98 lb ai/a	ai/a	41.6 oz/a 32 oz/a 57.6 oz/a			A A D	Pre Pre 14 - 24 " Corn	100.0	100.0	80.0	95.0	95.0
8 Halex GT AAtrex NIS	1.98 lb ai/a 1.5 lb ai/a 0.25 % v/v	ai/a	58 oz/a 48 oz/a 3.84 oz/a			B B B	2 - 4" Corn 2 - 4" Corn 2 - 4" Corn	98.8	97.5	42.5	87.5	90.0
9 Lexar Touchdown Total NIS	2.78 lb ai/a 0.78 lb ae/a 0.25 % v/v	ai/a ae/a v/v	96 oz/a 24 oz/a 3.84 oz/a			B B B	2 - 4" Corn 2 - 4" Corn 2 - 4" Corn	100.0	100.0	57.5	85.0	96.3
10 Lexar Touchdown Total	2.78 lb ai/a 0.78 lb ae/a	ai/a ae/a	96 oz/a 24 oz/a			A D	Pre 14 - 24 " Corn	100.0	100.0	42.5	80.0	88.8
11 Cinch ATZ Realm Q >Rimsulfuron (Resolve DF) >Mesotrione >Isoxadifen-ethyl AAtrex Roundup WeatherMax	1.38 lb ai/a 0.0188 lb ai/a 0.078 lb ai/a 0.0094 lb ai/a 1.5 lb ai/a 0.77 lb ae/a	ai/a	32 oz/a 4 oz/a 1.2 oz/a 2.5 oz/a 0.3 oz/a 48 oz/a 22 oz/a			A C C C C C C	Pre 10 - 12" Corn 10 - 12" Corn 10 - 12" Corn 10 - 12" Corn 10 - 12" Corn 10 - 12" Corn 10 - 12" Corn	100.0	100.0	40.0	72.5	90.0
12 Cinch ATZ Resolve Q >Rimsulfuron (Resolve DF) >Thifensulfuron (Harmony SG) >Isoxadifen-ethyl AAtrex Roundup WeatherMax	1.38 lb ai/a 0.0144 lb ai/a 0.00313 lb ai/a 0.0072 lb ai/a 1.5 lb ai/a 0.77 lb ae/a	ai/a	32 oz/a 1.25 oz/a 0.92 oz/a 0.1 oz/a 0.23 oz/a 48 oz/a 22 oz/a			A C C C C C C	Pre 10 - 12" Corn 10 - 12" Corn 10 - 12" Corn 10 - 12" Corn 10 - 12" Corn 10 - 12" Corn 10 - 12" Corn	100.0	100.0	45.0	76.3	82.5
13 Realm Q >Rimsulfuron (Resolve DF) >Mesotrione >Isoxadifen-ethyl AAtrex Roundup WeatherMax	0.0188 lb ai/a 0.078 lb ai/a 0.0094 lb ai/a 1.5 lb ai/a 0.77 lb ae/a	ai/a	1.2 oz/a 2.5 oz/a 0.3 oz/a 48 oz/a 22 oz/a			B B B B B	2 - 4" Corn 2 - 4" Corn 2 - 4" Corn 2 - 4" Corn 2 - 4" Corn	97.5	97.3	40.0	67.5	87.5
14 Resolve Q >Rimsulfuron (Resolve DF) >Thifensulfuron (Harmony SG) >Isoxadifen-ethyl AAtrex Roundup WeatherMax	0.0144 lb ai/a 0.00313 lb ai/a 0.0072 lb ai/a 1.5 lb ai/a 0.77 lb ae/a	ai/a	1.25 oz/a 0.92 oz/a 0.1 oz/a 0.23 oz/a 48 oz/a 22 oz/a			B B B B B B	2 - 4" Corn 2 - 4" Corn 2 - 4" Corn 2 - 4" Corn 2 - 4" Corn 2 - 4" Corn	100.0	100.0	40.0	57.5	65.0
15 Balance Flexx AAtrex Laudis Roundup PowerMax AMS	0.047 lb ai/a 1 lb ai/a 0.082 lb ai/a 0.77 lb ae/a 5 gal/100 gal	ai/a ai/a ai/a ae/a gal	3 oz/a 32 oz/a 3 oz/a 22 oz/a 77 oz/a			A A C C C	Pre Pre 10 - 12" Corn 10 - 12" Corn 10 - 12" Corn	98.8	98.8	47.5	75.0	77.5
16 Balance Flexx Laudis Roundup PowerMax AMS	0.047 lb ai/a 0.082 lb ai/a 0.77 lb ae/a 5 gal/100 gal	ai/a ai/a ae/a gal	3 oz/a 3 oz/a 22 oz/a 77 oz/a			A C C C	Pre 10 - 12" Corn 10 - 12" Corn 10 - 12" Corn	97.0	100.0	47.5	78.8	85.0
17 Cinch ATZ AAtrex Roundup WeatherMax	1.38 lb ai/a 1.5 lb ai/a 0.77 lb ae/a	ai/a	32 oz/a 48 oz/a 22 oz/a			A C C	Pre 10 - 12" Corn 10 - 12" Corn	98.8	100.0	40.0	91.3	95.0

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of Halex GT, Realm Q, & Resolve Q, Weed Control Programs

Trial ID: HCO-20111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed						
Pest Code	AMAPA	IPOSS	ECHCG	AMAPA	IPOSS						
Pest Scientific Name	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.						
Pest Name	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory						
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX						
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays						
Crop Name	Corn	Corn	Corn	Corn	Corn						
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P						
Assessment Date	6/23/11	6/23/11	9/7/11	9/7/11	9/7/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1						
Crop Stage Majority	VT 65"	VT 65"	R6 75"	R6 75"	R6 75"						
Pest Stage Majority	10-50"	10-40"	20-40"	40-70"	10-50"						
Assessed By	JB	JB	JB	JB	JB						
Days After First/Last Applic.	65 17	65 17	141 93	141 93	141 93						
Trt-Eval Interval	17 DA-D	17 DA-D	17 DA-D	17 DA-D	17 DA-D						
Plant-Eval Interval	66 DP-1	66 DP-1	142 DP-1	142 DP-1	142 DP-1						
Days After Emergence	60 DE-1	60 DE-1	136 DE-1	136 DE-1	136 DE-1						
Trt Treatment No. Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	18	19	20	21	22
18 AAtrex	1 lb ai/a		32 oz/a		A	Pre	97.5	100.0	50.0	70.0	85.0
Dual II Magnum	0.955 lb ai/a		16 oz/a		A	Pre					
AAtrex	1 lb ai/a		32 oz/a		C	10 - 12" Corn					
Roundup WeatherMax	0.77 lb ae/a		22 oz/a		C	10 - 12" Corn					
19 Lexar	2.78 lb ai/a		96 oz/a		A	Pre	96.3	100.0	42.5	80.0	82.5
Touchdown Total	0.78 lb ae/a		24 oz/a		C	10 - 12" Corn					
LSD (P=.05)							3.62	1.72	18.09	18.84	16.93
Standard Deviation							2.56	1.22	12.79	13.32	11.97
CV							2.73	1.29	25.96	17.29	14.31
Grand Mean							93.79	94.33	49.28	77.04	83.68

University of Arkansas-Division of Agriculture

One-Pass Corn Programs with PRE or POST applications

Trial ID: HCO-20311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: ZEAMX Zea mays Corn
Variety: REV 28HR20
BBCH Scale: BCOR
Planting Method: PLANTD planted
Depth, Unit: 1 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: GOOD good
Harvest Date: 9/13/11
Harvested Width, Unit: 6.33 FT
% Standard Moisture: 15.0
Weighing Equipment: Almaco
Description: RR 2 / LL / Herculex / Cruiser
Planting Date: 4/18/11
Rate, Unit: 33000 S/A
Spacing Within Row, Unit: 4 IN
Soil Temperature, Unit: 66.7 F
Emergence Date: 4/24/11
Harvest Equipment: Almaco
Harvested Length, Unit: 28 FT
Moisture Meter: Almaco

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass
Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth
Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	5/10/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	Y	yes
2.	5/10/11	In Season Fertilizer	Zinc	1	PT/A	Y	yes
3.	5/10/11	In Season Fertilizer	Sulphur	1	PT/A	Y	yes
4.	6/1/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	N	no

Soil Description

Description Name: 2011 Corn
% Sand: 16
% Silt: 67
% Clay: 17
% OM: 2.2
pH: 7.1
CEC: 14
Texture: SIL silt loam
Soil Name: Herbert Silt Loam
Fert. Level: G good
Soil Drainage: G good

Application Description

	A	B	C
Application Date:	4/19/11	5/5/11	5/20/11
Time of Day:	AM	AM	AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREPRE	POSPOS	POSPOS
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	RD	JB	ZH
Air Temperature, Unit:	39.5 F	58.9 F	73.9 F
% Relative Humidity:	76.6	64.2	76.0
Wind Velocity, Unit:	1.5 MPH	3.0 MPH	6.2 MPH
Wind Direction:	W	E	SSW
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	52.3 F	60.3 F	72.8 F
Soil Moisture:	GOOD	GOOD	GOOD
% Cloud Cover:	40	10	25
Next Rain Occurred On:	4/19/11	5/16/11	5/21/11

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:	BBCH	BBCH	BBCH
Stage Majority, Percent:	V0	V2	V4
Height, Unit:	0 IN	2 IN	8 IN

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W
Height, Unit:	0 IN	1 IN	3 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W
Height, Unit:	0 IN	0.25 IN	2 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W
Height, Unit:	0 IN	0.25 IN	1 IN

University of Arkansas-Division of Agriculture

One-Pass Corn Programs with PRE or POST applications

Trial ID: HCO-20311
 Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B	C
Appl. Equipment:	Multi Boom	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix
Nozzle Size:	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Nozzles/Row:	2	2	2
% Coverage:	100	100	100
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes	Y yes

University of Arkansas-Division of Agriculture

One-Pass Corn Programs with PRE or POST applications

Trial ID: HCO-20311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed ECHCG		W Weed AMAPA		W Weed IPOSS		ECHCG		W Weed ECHCG				
Pest Code		Echinochloa cr>		Amaranthus pal>		Ipomoea sp.		Echinochloa cr>		Common barnyar>				
Pest Scientific Name		Common barnyar>		Palmer amaranth		Morning glory		Common barnyar>		Common barnyar>				
Pest Name		Common barnyar>		Palmer amaranth		Morning glory		Common barnyar>		Common barnyar>				
Crop Code		ZEAMX		ZEAMX		ZEAMX		ZEAMX		ZEAMX				
Crop Scientific Name		Zea mays		Zea mays		Zea mays		Zea mays		Zea mays				
Crop Name		Corn		Corn		Corn		Corn		Corn				
Part Assessed		PLANT C		PLANT P		PLANT P		PLANT C		PLANT C				
Assessment Date		5/10/11		5/11/11		5/11/11		5/11/11		5/11/11				
Assessment Type		COUPLA		CONTRO		CONTRO		PHYSTU		PHYCHL				
Assessment Unit		5 FT/Row		%		%		%		%				
Number of Subsamples		2		1		1		1		1				
Crop Stage Majority		V2 3-4"		V2 3-4"		V2 3-4"		V2 3-4"		V2 3-4"				
Pest Stage Majority		1"		1"		0.5"		1		1				
Assessed By		JB		JB		JB		JB		JB				
Days After First/Last Applic.		21 5		6 6		6 6		6 6		6 6				
Trt-Eval Interval		5 DA-B		6 DA-B		6 DA-B		6 DA-B		6 DA-B				
Plant-Eval Interval		22 DP-1		23 DP-1		23 DP-1		23 DP-1		23 DP-1				
Days After Emergence		16 DE-1		17 DE-1		17 DE-1		17 DE-1		17 DE-1				
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Code	1	2	3	4	5	6	7	8
1	Untreated Check						7.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Corvus AAtrex	0.115 lb ai/a	5.6 oz/a	48 oz/a	A	Pre	8.13	100.0	100.0	100.0	0.0	0.0	0.0	100.0
3	Corvus Sharpen	0.115 lb ai/a	5.6 oz/a	3 oz/a	A	Pre	8.25	100.0	100.0	100.0	2.5	2.5	0.0	100.0
4	Balance Flexx AAtrex	0.094 lb ai/a	6 oz/a	48 oz/a	A	Pre	8.13	100.0	100.0	100.0	0.0	0.0	0.0	100.0
5	Capreno COC AMS	0.081 lb ai/a	3 oz/a	15.4 oz/a	B	V1 - V2	8.00	100.0	100.0	100.0	0.0	0.0	0.0	100.0
6	Capreno Roundup PowerMax AMS	0.081 lb ai/a	3 oz/a	22 oz/a	B	V1 - V2	7.63	98.8	100.0	100.0	0.0	0.0	0.0	100.0
7	Corvus AAtrex	0.115 lb ai/a	5.6 oz/a	16 oz/a	B	V1 - V2	8.38	100.0	100.0	100.0	0.0	0.0	0.0	97.5
8	Balance Flexx AAtrex	0.094 lb ai/a	6 oz/a	32 oz/a	B	V1 - V2	7.88	100.0	100.0	100.0	0.0	0.0	0.0	98.8
9	Capreno COC AMS	0.081 lb ai/a	3 oz/a	15.4 oz/a	C	V3 - V4	8.38							
10	Capreno Roundup PowerMax AMS	0.081 lb ai/a	3 oz/a	22 oz/a	C	V3 - V4	7.88							
11	Capreno AAtrex COC AMS	0.081 lb ai/a	3 oz/a	15.4 oz/a	C	V3 - V4	7.88							
12	Capreno AAtrex Roundup PowerMax AMS	0.081 lb ai/a	3 oz/a	22 oz/a	C	V3 - V4	7.38							
13	Lexar	2.78 lb ai/a	96 oz/a		A	Pre	7.75	100.0	100.0	100.0	0.0	0.0	0.0	100.0
14	Lexar	2.78 lb ai/a	96 oz/a		B	V1 - V2	8.13	97.5	100.0	100.0	0.0	0.0	0.0	100.0
15	Harness Xtra	3.5 lb ai/a	80 oz/a		A	Pre	8.00	100.0	100.0	100.0	0.0	0.0	0.0	100.0
16	Harness Xtra	3.5 lb ai/a	80 oz/a		B	V1 - V2	8.38	95.0	97.5	100.0	0.0	5.0	5.0	97.5
17	Verdict AAtrex	0.65 lb ai/a	15 oz/a	48 oz/a	A	Pre	7.50	100.0	100.0	100.0	0.0	0.0	0.0	100.0
18	Halex GT NIS AMS	1.98 lb ai/a	58 oz/a	15.4 oz/a	C	V3 - V4	8.25							
19	Halex GT AAtrex NIS AMS	1.98 lb ai/a	58 oz/a	16 oz/a	C	V3 - V4	8.25							
LSD (P=.05)							0.839	3.30	1.98	0.00	1.98	2.95	2.29	3.05
Standard Deviation							0.593	2.31	1.39	0.00	1.39	2.07	1.60	2.13
CV							7.43	2.52	1.51	0.0	721.11	358.32	416.33	2.32
Grand Mean							7.98	91.63	92.12	92.31	0.19	0.58	0.38	91.83

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

One-Pass Corn Programs with PRE or POST applications

Trial ID: HCO-20311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG							
Pest Code	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>							
Pest Scientific Name	Palmer amaranth	Morning glory	Common barnyard	Palmer amaranth	Morning glory	Common barnyard							
Pest Name													
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX							
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays							
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	5/18/11	5/18/11	6/3/11	6/3/11	6/3/11	6/13/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	V4"	V4"	V5 18"	V5 18"	V5 18"	V9 53"							
Pest Stage Majority	1-4"	1-4"	4-8"	4-12"	2-4"	8-12"							
Assessed By	JM	JM	JB	JB	JB	JB							
Days After First/Last Applic.	13 13	13 13	29 3	29 3	29 3	55 24							
Trt-Eval Interval	13 DA-B	13 DA-B	14 DA-C	14 DA-C	14 DA-C	24 DA-C							
Plant-Eval Interval	30 DP-1	30 DP-1	46 DP-1	46 DP-1	46 DP-1	56 DP-1							
Days After Emergence	24 DE-1	24 DE-1	40 DE-1	40 DE-1	40 DE-1	50 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	9	10	11	12	13	14
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	Corvus AAtrex	0.115 1.5	lb ai/a lb ai/a	5.6 48	oz/a oz/a	A A	Pre Pre	100.0	100.0	100.0	100.0	100.0	93.8
3	Corvus Sharpen	0.115 0.067	lb ai/a lb ai/a	5.6 3	oz/a oz/a	A A	Pre Pre	100.0	100.0	100.0	100.0	100.0	92.5
4	Balance Flexx AAtrex	0.094 1.5	lb ai/a lb ai/a	6 48	oz/a oz/a	A A	Pre Pre	100.0	100.0	97.5	97.5	100.0	87.3
5	Capreno COC AMS	0.081 1 5	lb ai/a % v/v gal/100 gal	3 15.4 77	oz/a oz/a oz/a	B B B	V1 - V2 V1 - V2 V1 - V2	100.0	100.0	100.0	85.0	100.0	88.8
6	Capreno Roundup PowerMax AMS	0.081 0.77 5	lb ai/a lb ae/a gal/100 gal	3 22 77	oz/a oz/a oz/a	B B B	V1 - V2 V1 - V2 V1 - V2	100.0	100.0	100.0	82.5	100.0	88.8
7	Corvus AAtrex	0.115 0.5	lb ai/a lb ai/a	5.6 16	oz/a oz/a	B B	V1 - V2 V1 - V2	97.5	97.5	100.0	100.0	100.0	92.8
8	Balance Flexx AAtrex	0.094 1	lb ai/a lb ai/a	6 32	oz/a oz/a	B B	V1 - V2 V1 - V2	100.0	100.0	90.0	100.0	100.0	87.8
9	Capreno COC AMS	0.081 1 5	lb ai/a % v/v gal/100 gal	3 15.4 77	oz/a oz/a oz/a	C C C	V3 - V4 V3 - V4 V3 - V4			97.5	96.3	100.0	91.3
10	Capreno Roundup PowerMax AMS	0.081 0.77 5	lb ai/a lb ae/a gal/100 gal	3 22 77	oz/a oz/a oz/a	C C C	V3 - V4 V3 - V4 V3 - V4			100.0	100.0	100.0	96.3
11	Capreno AAtrex COC AMS	0.081 1 1 5	lb ai/a lb ai/a % v/v gal/100 gal	3 32 15.4 77	oz/a oz/a oz/a oz/a	C C C C	V3 - V4 V3 - V4 V3 - V4 V3 - V4			100.0	100.0	100.0	98.8
12	Capreno AAtrex Roundup PowerMax AMS	0.081 1 0.77 5	lb ai/a lb ai/a lb ae/a gal/100 gal	3 32 22 77	oz/a oz/a oz/a oz/a	C C C C	V3 - V4 V3 - V4 V3 - V4 V3 - V4			100.0	100.0	100.0	95.0
13	Lexar	2.78	lb ai/a	96	oz/a	A	Pre	100.0	100.0	100.0	100.0	100.0	95.5
14	Lexar	2.78	lb ai/a	96	oz/a	B	V1 - V2	100.0	100.0	95.0	100.0	100.0	92.5
15	Harness Xtra	3.5	lb ai/a	80	oz/a	A	Pre	100.0	100.0	100.0	97.5	100.0	88.8
16	Harness Xtra	3.5	lb ai/a	80	oz/a	B	V1 - V2	100.0	100.0	90.0	100.0	100.0	85.0
17	Verdict AAtrex	0.65 1.5	lb ai/a lb ai/a	15 48	oz/a oz/a	A A	Pre Pre	100.0	100.0	97.5	100.0	100.0	90.0
18	Halex GT NIS AMS	1.98 1 5	lb ai/a % v/v gal/100 gal	58 15.4 77	oz/a oz/a oz/a	C C C	V3 - V4 V3 - V4 V3 - V4			100.0	100.0	100.0	97.5
19	Halex GT AAtrex NIS AMS	1.98 0.5 1 5	lb ai/a lb ai/a % v/v gal/100 gal	58 16 15.4 77	oz/a oz/a oz/a oz/a	C C C C	V3 - V4 V3 - V4 V3 - V4 V3 - V4			100.0	100.0	100.0	100.0
LSD (P=.05)								1.98	1.98	5.60	5.25	0.00	8.28
Standard Deviation								1.39	1.39	3.96	3.72	0.00	5.86
CV								1.51	1.51	4.26	4.01	0.0	6.7
Grand Mean								92.12	92.12	93.03	92.57	94.74	87.47

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

One-Pass Corn Programs with PRE or POST applications

Trial ID: HCO-20311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed								
Pest Code	AMAPA	IPOSS	ECHCG	AMAPA	IPOSS	ECHCG								
Pest Scientific Name	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>								
Pest Name	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>								
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX								
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays								
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn								
Part Assessed	PLANT P	PLANT P	PLANT C	PLANT P	PLANT P	PLANT P								
Assessment Date	6/13/11	6/13/11	6/13/11	6/23/11	6/23/11	6/23/11								
Assessment Type	CONTRO	CONTRO	PHYSTU	CONTRO	CONTRO	CONTRO								
Assessment Unit	%	%	%	%	%	%								
Number of Subsamples	1	1	1	1	1	1								
Crop Stage Majority	V9 53*	V9 53*	V9 53*	VT 65*	VT 65*	VT 65*								
Pest Stage Majority	6-20"	4-6"	10-20"	10-50"	10-40"	20-40"								
Assessed By	JB	JB	JB	JB	JB	JB								
Days After First/Last Applic.	55 24	55 24	55 24	49 23	49 23	49 23								
Trt-Eval Interval	24 DA-C	24 DA-C	24 DA-C	34 DA-C	34 DA-C	34 DA-C								
Plant-Eval Interval	56 DP-1	56 DP-1	56 DP-1	66 DP-1	66 DP-1	66 DP-1								
Days After Emergence	50 DE-1	50 DE-1	50 DE-1	60 DE-1	60 DE-1	60 DE-1								
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	15	16	17	18	19	20	21
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Corvus AAtrex	0.115 1.5	lb ai/a lb ai/a	5.6 48	oz/a oz/a	A A	Pre Pre	96.3	100.0	5.0	91.3	100.0	100.0	0.0
3	Corvus Sharpen	0.115 0.067	lb ai/a lb ai/a	5.6 3	oz/a oz/a	A A	Pre Pre	97.5	98.8	2.5	90.5	97.0	99.5	0.0
4	Balance Flexx AAtrex	0.094 1.5	lb ai/a lb ai/a	6 48	oz/a oz/a	A A	Pre Pre	98.8	100.0	0.0	86.3	97.8	98.8	0.0
5	Capreno COC AMS	0.081 1 5	lb ai/a % v/v gal/100 gal	3 15.4 77	oz/a oz/a oz/a	B B B	V1 - V2 V1 - V2 V1 - V2	80.0	97.5	3.8	88.8	80.0	95.0	0.0
6	Capreno Roundup PowerMax AMS	0.081 0.77 5	lb ai/a lb ae/a gal/100 gal	3 22 77	oz/a oz/a oz/a	B B B	V1 - V2 V1 - V2 V1 - V2	72.5	92.5	2.5	82.5	72.5	90.0	0.0
7	Corvus AAtrex	0.115 0.5	lb ai/a lb ai/a	5.6 16	oz/a oz/a	B B	V1 - V2 V1 - V2	100.0	100.0	0.0	95.8	100.0	100.0	0.0
8	Balance Flexx AAtrex	0.094 1	lb ai/a lb ai/a	6 32	oz/a oz/a	B B	V1 - V2 V1 - V2	93.8	98.8	5.0	84.8	98.8	98.8	0.0
9	Capreno COC AMS	0.081 1 5	lb ai/a % v/v gal/100 gal	3 15.4 77	oz/a oz/a oz/a	C C C	V3 - V4 V3 - V4 V3 - V4	92.5	100.0	8.8	90.0	92.5	97.5	0.0
10	Capreno Roundup PowerMax AMS	0.081 0.77 5	lb ai/a lb ae/a gal/100 gal	3 22 77	oz/a oz/a oz/a	C C C	V3 - V4 V3 - V4 V3 - V4	97.5	100.0	1.3	94.3	99.5	100.0	0.0
11	Capreno AAtrex COC AMS	0.081 1 1 5	lb ai/a lb ai/a % v/v gal/100 gal	3 32 15.4 77	oz/a oz/a oz/a oz/a	C C C C	V3 - V4 V3 - V4 V3 - V4 V3 - V4	100.0	100.0	11.3	94.0	100.0	100.0	0.0
12	Capreno AAtrex Roundup PowerMax AMS	0.081 1 0.77 5	lb ai/a lb ai/a lb ae/a gal/100 gal	3 32 22 77	oz/a oz/a oz/a oz/a	C C C C	V3 - V4 V3 - V4 V3 - V4 V3 - V4	99.3	100.0	2.5	93.8	100.0	100.0	0.0
13	Lexar	2.78	lb ai/a	96	oz/a	A	Pre	98.8	100.0	2.5	92.0	96.5	99.0	0.0
14	Lexar	2.78	lb ai/a	96	oz/a	B	V1 - V2	100.0	100.0	11.3	96.5	100.0	100.0	0.0
15	Harness Xtra	3.5	lb ai/a	80	oz/a	A	Pre	95.0	97.5	1.3	85.0	92.5	97.5	0.0
16	Harness Xtra	3.5	lb ai/a	80	oz/a	B	V1 - V2	100.0	100.0	6.3	87.0	97.5	100.0	0.0
17	Verdict AAtrex	0.65 1.5	lb ai/a lb ai/a	15 48	oz/a oz/a	A A	Pre Pre	95.0	100.0	12.5	92.5	100.0	100.0	0.0
18	Halex GT NIS AMS	1.98 1 5	lb ai/a % v/v gal/100 gal	58 15.4 77	oz/a oz/a oz/a	C C C	V3 - V4 V3 - V4 V3 - V4	100.0	100.0	6.3	100.0	100.0	100.0	0.0
19	Halex GT AAtrex NIS AMS	1.98 0.5 1 5	lb ai/a lb ai/a % v/v gal/100 gal	58 16 15.4 77	oz/a oz/a oz/a oz/a	C C C C	V3 - V4 V3 - V4 V3 - V4 V3 - V4	100.0	100.0	3.8	98.8	100.0	100.0	0.0
LSD (P=.05)								9.00	3.01	6.85	8.14	9.84	4.21	0.00
Standard Deviation								6.36	2.13	4.84	5.76	6.95	2.98	0.00
CV								7.04	2.26	106.68	6.65	7.66	3.19	0.0
Grand Mean								90.36	93.95	4.54	86.5	90.76	93.47	0.0

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

One-Pass Corn Programs with PRE or POST applications

Trial ID: HCO-20311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed		W Weed					
Pest Code		AMAPA		IPOSS					
Pest Scientific Name		Amaranthus pal		Ipomoea sp.					
Pest Name		Palmer amaranth		Morning glory					
Crop Code		ZEAMX		ZEAMX					
Crop Scientific Name		Zea mays		Zea mays					
Crop Name		Corn		Corn					
Part Assessed		PLANT P		PLANT P					
Assessment Date		9/7/11		9/7/11					
Assessment Type		CONTRO		CONTRO					
Assessment Unit		%		%					
Number of Subsamples		1		1					
Crop Stage Majority		R6 75"		R6 75"					
Pest Stage Majority		40-70"		10-50"					
Assessed By		JB		JB					
Days After First/Last Applic.		141 93		141 93					
Trt-Eval Interval		17 DA-D		17 DA-D					
Plant-Eval Interval		142 DP-1		142 DP-1					
Days After Emergence		136 DE-1		136 DE-1					
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	22	23
1	Untreated Check							0.0	0.0
2	Corvus	0.115 lb ai/a		5.6 oz/a		A	Pre	68.8	90.0
	AAtrex	1.5 lb ai/a		48 oz/a		A	Pre		
3	Corvus	0.115 lb ai/a		5.6 oz/a		A	Pre	76.3	92.5
	Sharpen	0.067 lb ai/a		3 oz/a		A	Pre		
4	Balance Flexx	0.094 lb ai/a		6 oz/a		A	Pre	58.8	82.5
	AAtrex	1.5 lb ai/a		48 oz/a		A	Pre		
5	Capreno	0.081 lb ai/a		3 oz/a		B	V1 - V2	50.0	90.0
	COC	1 % v/v		15.4 oz/a		B	V1 - V2		
	AMS	5 gal/100 gal		77 oz/a		B	V1 - V2		
6	Capreno	0.081 lb ai/a		3 oz/a		B	V1 - V2	68.8	83.8
	Roundup PowerMax	0.77 lb ae/a		22 oz/a		B	V1 - V2		
	AMS	5 gal/100 gal		77 oz/a		B	V1 - V2		
7	Corvus	0.115 lb ai/a		5.6 oz/a		B	V1 - V2	67.5	85.0
	AAtrex	0.5 lb ai/a		16 oz/a		B	V1 - V2		
8	Balance Flexx	0.094 lb ai/a		6 oz/a		B	V1 - V2	62.5	90.0
	AAtrex	1 lb ai/a		32 oz/a		B	V1 - V2		
9	Capreno	0.081 lb ai/a		3 oz/a		C	V3 - V4	42.5	75.0
	COC	1 % v/v		15.4 oz/a		C	V3 - V4		
	AMS	5 gal/100 gal		77 oz/a		C	V3 - V4		
10	Capreno	0.081 lb ai/a		3 oz/a		C	V3 - V4	42.5	82.5
	Roundup PowerMax	0.77 lb ae/a		22 oz/a		C	V3 - V4		
	AMS	5 gal/100 gal		77 oz/a		C	V3 - V4		
11	Capreno	0.081 lb ai/a		3 oz/a		C	V3 - V4	66.3	91.3
	AAtrex	1 lb ai/a		32 oz/a		C	V3 - V4		
	COC	1 % v/v		15.4 oz/a		C	V3 - V4		
	AMS	5 gal/100 gal		77 oz/a		C	V3 - V4		
12	Capreno	0.081 lb ai/a		3 oz/a		C	V3 - V4	85.0	87.5
	AAtrex	1 lb ai/a		32 oz/a		C	V3 - V4		
	Roundup PowerMax	0.77 lb ae/a		22 oz/a		C	V3 - V4		
	AMS	5 gal/100 gal		77 oz/a		C	V3 - V4		
13	Lexar	2.78 lb ai/a		96 oz/a		A	Pre	87.5	91.3
14	Lexar	2.78 lb ai/a		96 oz/a		B	V1 - V2	91.3	91.3
15	Harness Xtra	3.5 lb ai/a		80 oz/a		A	Pre	48.8	67.5
16	Harness Xtra	3.5 lb ai/a		80 oz/a		B	V1 - V2	75.0	91.3
17	Verdict	0.65 lb ai/a		15 oz/a		A	Pre	66.3	88.8
	AAtrex	1.5 lb ai/a		48 oz/a		A	Pre		
18	Halex GT	1.98 lb ai/a		58 oz/a		C	V3 - V4	87.5	87.5
	NIS	1 % v/v		15.4 oz/a		C	V3 - V4		
	AMS	5 gal/100 gal		77 oz/a		C	V3 - V4		
19	Halex GT	1.98 lb ai/a		58 oz/a		C	V3 - V4	83.8	86.3
	AAtrex	0.5 lb ai/a		16 oz/a		C	V3 - V4		
	NIS	1 % v/v		15.4 oz/a		C	V3 - V4		
	AMS	5 gal/100 gal		77 oz/a		C	V3 - V4		
LSD (P=.05)								21.21	14.54
Standard Deviation								14.99	10.28
CV								23.19	12.58
Grand Mean								64.67	81.78

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Two-Pass Corn Programs with PRE & POST applications

Trial ID: HCO-20411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: ZEAMX Zea mays Corn
Variety: REV 28HR20
Description: RR 2 / LL / Herculex / Cruiser
BBCH Scale: BCOR **Planting Date:** 4/18/11
Planting Method: PLANTD planted **Rate, Unit:** 33000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 38 IN **Spacing Within Row, Unit:** 4 IN
Seed Bed: MEDIUM medium **Soil Temperature, Unit:** 66.7 F
Soil Moisture: GOOD good **Emergence Date:** 4/24/11
Harvest Date: 9/15/11 **Harvest Equipment:** Almaco
Harvested Width, Unit: 6.33 FT **Harvested Length, Unit:** 28 FT
% Standard Moisture: 15.0 **Moisture Meter:** Almaco
Weighing Equipment: Almaco

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT **Site Type:** FIELD field
Plot Length, Unit: 28 FT **Experimental Unit:** 1 PLOT plot
Plot Area, Unit: 354.48 FT² **Tillage Type:** CONTIL conventional-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	5/10/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	Y	yes
2.	5/10/11	In Season Fertilizer	Zinc	1	PT/A	Y	yes
3.	5/10/11	In Season Fertilizer	Sulphur	1	PT/A	Y	yes
4.	6/1/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	N	no

Soil Description

Description Name: 2011 Corn
% Sand: 16 **% OM:** 2.2 **Texture:** SIL silt loam
% Silt: 67 **pH:** 7.1 **Soil Name:** Herbert Silt Loam
% Clay: 17 **CEC:** 14 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B	C	D
Application Date:	4/19/11	5/5/11	5/20/11	6/6/11
Time of Day:	AM	AM	AM	AM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PREPRE	POSPOS	POSPOS	POSPOS
Application Placement:	BROSOI	BROFOL	BROFOL	BROFOL
Applied By:	RD	JM	ZH	JM
Air Temperature, Unit:	39.5 F	58.9 F	73.9 F	84.4 F
% Relative Humidity:	76.6	64.2	76.0	66.3
Wind Velocity, Unit:	1.5 MPH	3.0 MPH	6.2 MPH	0.5 MPH
Wind Direction:	W	E	SSW	E
Dew Presence (Y/N):	Y yes	N no	N no	N no
Soil Temperature, Unit:	52.3 F	60.3 F	72.8 F	84.1 F
Soil Moisture:	GOOD	GOOD	GOOD	GOOD
% Cloud Cover:	40	10	25	20
Next Rain Occurred On:	4/19/11	5/16/11	6/21/11	6/7/11

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:	BBCH	BBCH	BBCH	BBCH
Stage Majority, Percent:	V0	V2	V4	V6
Height, Unit:	0 IN	2 IN	8 IN	14 IN

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W	ECHCG W
Height, Unit:	0 IN	1 IN	3 IN	8 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W	AMAPA W
Height, Unit:	0 IN	0.25 IN	2 IN	10 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W	IPOSS W
Height, Unit:	0 IN	0.25 IN	1 IN	4 IN

University of Arkansas-Division of Agriculture

Two-Pass Corn Programs with PRE & POST applications

Trial ID: HCO-20411
Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B	C	D
Appl. Equipment:	Multi Boom	Multi Boom	Multi Boom	Hand Boom
Equipment Type:	SPTRMO	SPTRMO	SPTRMO	SPRBAC
Operation Pressure, Unit:	50 PSI	50 PSI	50 PSI	45 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix	Air-Mix
Nozzle Size:	110015	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN	19 IN
Nozzles/Row:	2	2	2	2
% Coverage:	100	100	100	100
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN	18 IN
Carrier:	WATER	WATER	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes	Y yes	Y yes

No.	Date	By	Deviations
1.5/5/11	JM		Treatment 8 Application C was applied at V1-V2 by error
			Treatment 12 Application B was applied Late on 5/9/2011

University of Arkansas-Division of Agriculture

Two-Pass Corn Programs with PRE & POST applications

Trial ID: HCO-20411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type Pest Code Pest Scientific Name Pest Name	W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth>	W Weed IPOSS Ipomoea sp. Morning glory	W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	Rate		Appl		1		2		3		4		5		6		7	
						Rate	Unit	Code	Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Crop Code Crop Scientific Name Crop Name Part Assessed Assessment Date Assessment Type Assessment Unit Number of Subsamples Crop Stage Majority Pest Stage Majority Assessed By Days After First/Last Applic. Trt-Eval Interval Plant-Eval Interval Days After Emergence	ZEAMX Zea mays Corn PLANT C 5/10/11 COUPLA 5 FT/Row 2	ZEAMX Zea mays Corn PLANT P 5/18/11 CONTRO %	ZEAMX Zea mays Corn PLANT P 5/18/11 CONTRO %	ZEAMX Zea mays Corn PLANT C 5/18/11 PHYGEN %	ZEAMX Zea mays Corn PLANT P 6/3/11 CONTRO %	ZEAMX Zea mays Corn PLANT P 6/3/11 CONTRO %	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1 Untreated Check						8.00				8.00					8.00						8.00		
2 Corvus AAtrex Laudis Roundup PowerMax AMS	0.0616 lb ai/a 1 lb ai/a 0.082 lb ai/a 0.77 lb ae/a 5 gal/100 gal	3 oz/a 32 oz/a 3 oz/a 22 oz/a 77 oz/a	A A C C C	Pre Pre V3 - V4 V3 - V4 V3 - V4		7.63	100.0			100.0				100.0							100.0		100.0
3 Corvus AAtrex Roundup PowerMax AMS	0.0616 lb ai/a 1 lb ai/a 0.77 lb ae/a 5 gal/100 gal	3 oz/a 32 oz/a 22 oz/a 77 oz/a	A A C C	Pre Pre V3 - V4 V3 - V4		7.75	100.0			100.0				100.0							100.0		100.0
4 Corvus Laudis Roundup PowerMax AMS	0.0616 lb ai/a 0.082 lb ai/a 0.77 lb ae/a 5 gal/100 gal	3 oz/a 3 oz/a 22 oz/a 77 oz/a	A C C C	Pre V3 - V4 V3 - V4 V3 - V4		7.75	100.0			100.0				100.0							100.0		100.0
5 Corvus AAtrex Capreno COC AMS	0.0616 lb ai/a 1 lb ai/a 0.081 lb ai/a 1 % v/v 5 gal/100 gal	3 oz/a 32 oz/a 3 oz/a 15.4 oz/a 77 oz/a	A A C C C	Pre Pre V3 - V4 V3 - V4 V3 - V4		7.88	100.0			100.0				100.0							100.0		100.0
6 Corvus Capreno COC AMS	0.0616 lb ai/a 0.081 lb ai/a 1 % v/v 5 gal/100 gal	3 oz/a 3 oz/a 15.4 oz/a 77 oz/a	A C C C	Pre V3 - V4 V3 - V4 V3 - V4		8.25	100.0			100.0				100.0							100.0		100.0
7 Corvus AAtrex Laudis Roundup PowerMax AMS	0.0616 lb ai/a 1 lb ai/a 0.082 lb ai/a 0.77 lb ae/a 5 gal/100 gal	3 oz/a 32 oz/a 3 oz/a 22 oz/a 77 oz/a	B B D D D	V1 - V2 V1 - V2 V5 - V6 V5 - V6 V5 - V6		7.75	100.0			100.0				100.0							100.0		100.0
8 Balance Flexx AAtrex Laudis Roundup PowerMax AMS	0.047 lb ai/a 1 lb ai/a 0.082 lb ai/a 0.77 lb ae/a 5 gal/100 gal	3 oz/a 32 oz/a 3 oz/a 22 oz/a 77 oz/a	A A C C C	Pre Pre V3 - V4 V3 - V4 V3 - V4		7.88	100.0			100.0				100.0							100.0		100.0
9 Balance Flexx Laudis Roundup PowerMax AMS	0.047 lb ai/a 0.082 lb ai/a 0.77 lb ae/a 5 gal/100 gal	3 oz/a 3 oz/a 22 oz/a 77 oz/a	A C C C	Pre V3 - V4 V3 - V4 V3 - V4		7.88	100.0			100.0				100.0							100.0		100.0
10 Balance Flexx AAtrex Capreno COC AMS	0.047 lb ai/a 1 lb ai/a 0.081 lb ai/a 1 % v/v 5 gal/100 gal	3 oz/a 32 oz/a 3 oz/a 15.4 oz/a 77 oz/a	A A C C C	Pre Pre V3 - V4 V3 - V4 V3 - V4		7.88	100.0			100.0				100.0							100.0		100.0
11 Balance Flexx Capreno COC AMS	0.047 lb ai/a 0.081 lb ai/a 1 % v/v 5 gal/100 gal	3 oz/a 3 oz/a 15.4 oz/a 77 oz/a	A C C C	Pre V3 - V4 V3 - V4 V3 - V4		7.63	100.0			100.0				100.0							100.0		100.0
12 Balance Flexx AAtrex Laudis Roundup PowerMax AMS	0.047 lb ai/a 1 lb ai/a 0.082 lb ai/a 0.77 lb ae/a 5 gal/100 gal	3 oz/a 32 oz/a 3 oz/a 22 oz/a 77 oz/a	B B D D D	V1 - V2 V1 - V2 V5 - V6 V5 - V6 V5 - V6		8.00	98.8			100.0				100.0							95.0		100.0
13 Dual II Magnum Capreno AAtrex Roundup PowerMax AMS	0.955 lb ai/a 0.081 lb ai/a 1 lb ai/a 0.77 lb ae/a 5 gal/100 gal	16 oz/a 3 oz/a 32 oz/a 22 oz/a 77 oz/a	A C C C C	Pre V3 - V4 V3 - V4 V3 - V4 V3 - V4		7.38	100.0			100.0				100.0							100.0		100.0
14 Lexar Touchdown Total AMS	2.78 lb ai/a 0.78 lb ae/a 5 gal/100 gal	96 oz/a 24 oz/a 77 oz/a	A C C	Pre V3 - V4 V3 - V4		7.75	100.0			100.0				100.0							100.0		100.0
15 Lexar Halax GT NIS AMS	2.78 lb ai/a 1.98 lb ai/a 0.25 % v/v 5 gal/100 gal	96 oz/a 58 oz/a 3.84 oz/a 77 oz/a	A C C C	Pre V3 - V4 V3 - V4 V3 - V4		7.25	100.0			100.0				100.0							100.0		100.0
16 Harness Xtra Roundup PowerMax AMS	3.5 lb ai/a 0.77 lb ae/a 5 gal/100 gal	80 oz/a 22 oz/a 77 oz/a	A C C	Pre V3 - V4 V3 - V4		7.88	100.0			100.0				100.0							100.0		100.0

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Two-Pass Corn Programs with PRE & POST applications

Trial ID: HCO-20411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed ECHCG	W Weed AMAPA	W Weed IPOSS		W Weed ECHCG	W Weed AMAPA							
Pest Code		Echinochloa cr>	Amaranthus pal>	Ipomoea sp.		Echinochloa cr>	Amaranthus pal>							
Pest Scientific Name		Common barnyar>	Palmer amaranth	Morning glory		Common barnyar>	Palmer amaranth							
Pest Name														
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX							
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays							
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn	Corn							
Part Assessed	PLANT C	PLANT P	PLANT P	PLANT P	PLANT C	PLANT P	PLANT P							
Assessment Date	5/10/11	5/18/11	5/18/11	5/18/11	5/18/11	6/3/11	6/3/11							
Assessment Type	COUPLA	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO							
Assessment Unit	5 FT/Row	%	%	%	%	%	%							
Number of Subsamples	2	1	1	1	1	1	1							
Crop Stage Majority		V4"	V4"	V4"	V4"	V5 18"	V5 18"							
Pest Stage Majority		1-4"	1-4"	1-4"		2-6"	2-6"							
Assessed By	JB	JM	JM	JM	JM	JB	JB							
Days After First/Last Applic.	21 5	13 13	13 13	13 13	29 13	29 3	29 3							
Trt-Eval Interval	5 DA-B	13 DA-B	13 DA-B	13 DA-B	13 DA-B	14 DA-C	14 DA-C							
Plant-Eval Interval	22 DP-1	30 DP-1	30 DP-1	30 DP-1	30 DP-1	46 DP-1	46 DP-1							
Days After Emergence	16 DE-1	24 DE-1	24 DE-1	24 DE-1	24 DE-1	40 DE-1	40 DE-1							
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6	7
17	Verdict	0.65	lb ai/a	15	oz/a	A	Pre	7.50	100.0	100.0	100.0	0.0	100.0	100.0
	Status	0.095	lb ai/a	2.5	oz/a	C	V3 - V4							
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	V3 - V4							
	AMS		5 gal/100 gal	77	oz/a	C	V3 - V4							
18	AAtrex	1	lb ai/a	32	oz/a	A	Pre	7.13	100.0	100.0	100.0	0.0	100.0	100.0
	Dual II Magnum	0.955	lb ai/a	16	oz/a	A	Pre							
	AAtrex	1	lb ai/a	32	oz/a	C	V3 - V4							
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	V3 - V4							
	AMS		5 gal/100 gal	77	oz/a	C	V3 - V4							
	LSD (P=.05)			0.805				0.83	0.00	0.00	0.00	0.00	1.92	0.00
	Standard Deviation			0.569				0.59	0.00	0.00	0.00	0.00	1.36	0.00
	CV			7.36				0.62	0.0	0.0	0.0	0.0	1.45	0.0
	Grand Mean			7.73				94.38	94.44	94.44	0.0	0.0	94.17	94.44

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Two-Pass Corn Programs with PRE & POST applications

Trial ID: HCO-20411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

			W Weed IPOSS Ipomoea sp. Morning glory	W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory	W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth				
Pest Type												
Pest Code												
Pest Scientific Name												
Pest Name												
Crop Code			ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX				
Crop Scientific Name			Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays				
Crop Name			Corn	Corn	Corn	Corn	Corn	Corn				
Part Assessed			PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P				
Assessment Date			6/3/11	6/13/11	6/13/11	6/13/11	6/23/11	6/23/11				
Assessment Type			CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO				
Assessment Unit			%	%	%	%	%	%				
Number of Subsamples			1	1	1	1	1	1				
Crop Stage Majority			V5 18"	V9 53"	V9 53"	V9 53"	VT 65"	VT 65"				
Pest Stage Majority			1-3"	8-12"	6-20"	4-6"	10-30"	10-50"				
Assessed By			JB	JB	JB	JB	JB	JB				
Days After First/Last Applic.			29 3	55 24	55 24	55 24	49 23	49 23				
Trt-Eval Interval			14 DA-C	7 DA-D	7 DA-D	7 DA-D	17 DA-D	17 DA-D				
Plant-Eval Interval			46 DP-1	56 DP-1	56 DP-1	56 DP-1	66 DP-1	66 DP-1				
Days After Emergence			40 DE-1	50 DE-1	50 DE-1	50 DE-1	60 DE-1	60 DE-1				
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	8	9	10	11	12	13
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0
2	Corvus AAtrex Laudis Roundup PowerMax AMS	0.0616 lb ai/a 1 lb ai/a 0.082 lb ai/a 0.77 lb ae/a 5 gal/100 gal	3 oz/a 32 oz/a 3 oz/a 22 oz/a 77 oz/a	3 oz/a 32 oz/a 3 oz/a 22 oz/a 77 oz/a	A A C C C	Pre Pre V3 - V4 V3 - V4 V3 - V4	100.0	96.8	98.0	100.0	93.8	98.8
3	Corvus AAtrex Roundup PowerMax AMS	0.0616 lb ai/a 1 lb ai/a 0.77 lb ae/a 5 gal/100 gal	3 oz/a 32 oz/a 22 oz/a 77 oz/a	3 oz/a 32 oz/a 22 oz/a 77 oz/a	A A C C	Pre Pre V3 - V4 V3 - V4	100.0	97.5	97.5	100.0	95.0	97.5
4	Corvus Laudis Roundup PowerMax AMS	0.0616 lb ai/a 0.082 lb ai/a 0.77 lb ae/a 5 gal/100 gal	3 oz/a 3 oz/a 22 oz/a 77 oz/a	3 oz/a 3 oz/a 22 oz/a 77 oz/a	A C C C	Pre V3 - V4 V3 - V4 V3 - V4	100.0	96.3	97.5	100.0	92.5	100.0
5	Corvus AAtrex Capreno COC AMS	0.0616 lb ai/a 1 lb ai/a 0.081 lb ai/a 1 % v/v 5 gal/100 gal	3 oz/a 32 oz/a 3 oz/a 15.4 oz/a 77 oz/a	3 oz/a 32 oz/a 3 oz/a 15.4 oz/a 77 oz/a	A A C C C	Pre Pre V3 - V4 V3 - V4 V3 - V4	100.0	98.0	98.0	100.0	93.8	96.3
6	Corvus Capreno COC AMS	0.0616 lb ai/a 0.081 lb ai/a 1 % v/v 5 gal/100 gal	3 oz/a 3 oz/a 15.4 oz/a 77 oz/a	3 oz/a 3 oz/a 15.4 oz/a 77 oz/a	A C C C	Pre V3 - V4 V3 - V4 V3 - V4	100.0	96.0	98.8	100.0	95.5	100.0
7	Corvus AAtrex Laudis Roundup PowerMax AMS	0.0616 lb ai/a 1 lb ai/a 0.082 lb ai/a 0.77 lb ae/a 5 gal/100 gal	3 oz/a 32 oz/a 3 oz/a 22 oz/a 77 oz/a	3 oz/a 32 oz/a 3 oz/a 22 oz/a 77 oz/a	B B D D D	V1 - V2 V1 - V2 V5 - V6 V5 - V6 V5 - V6	100.0	99.3	100.0	100.0	98.0	100.0
8	Balance Flexx AAtrex Laudis Roundup PowerMax AMS	0.047 lb ai/a 1 lb ai/a 0.082 lb ai/a 0.77 lb ae/a 5 gal/100 gal	3 oz/a 32 oz/a 3 oz/a 22 oz/a 77 oz/a	3 oz/a 32 oz/a 3 oz/a 22 oz/a 77 oz/a	A A C C C	Pre Pre V3 - V4 V3 - V4 V3 - V4	100.0	93.0	98.0	100.0	91.5	98.8
9	Balance Flexx Laudis Roundup PowerMax AMS	0.047 lb ai/a 0.082 lb ai/a 0.77 lb ae/a 5 gal/100 gal	3 oz/a 3 oz/a 22 oz/a 77 oz/a	3 oz/a 3 oz/a 22 oz/a 77 oz/a	A C C C	Pre V3 - V4 V3 - V4 V3 - V4	100.0	92.5	96.3	100.0	91.0	100.0
10	Balance Flexx AAtrex Capreno COC AMS	0.047 lb ai/a 1 lb ai/a 0.081 lb ai/a 1 % v/v 5 gal/100 gal	3 oz/a 32 oz/a 3 oz/a 15.4 oz/a 77 oz/a	3 oz/a 32 oz/a 3 oz/a 15.4 oz/a 77 oz/a	A A C C C	Pre Pre V3 - V4 V3 - V4 V3 - V4	100.0	98.0	100.0	100.0	93.0	97.5
11	Balance Flexx Capreno COC AMS	0.047 lb ai/a 0.081 lb ai/a 1 % v/v 5 gal/100 gal	3 oz/a 3 oz/a 15.4 oz/a 77 oz/a	3 oz/a 3 oz/a 15.4 oz/a 77 oz/a	A C C C	Pre V3 - V4 V3 - V4 V3 - V4	100.0	99.3	98.0	100.0	95.5	97.5
12	Balance Flexx AAtrex Laudis Roundup PowerMax AMS	0.047 lb ai/a 1 lb ai/a 0.082 lb ai/a 0.77 lb ae/a 5 gal/100 gal	3 oz/a 32 oz/a 3 oz/a 22 oz/a 77 oz/a	3 oz/a 32 oz/a 3 oz/a 22 oz/a 77 oz/a	B B D D D	V1 - V2 V1 - V2 V5 - V6 V5 - V6 V5 - V6	100.0	98.8	99.3	100.0	93.8	100.0
13	Dual II Magnum Capreno AAtrex Roundup PowerMax AMS	0.955 lb ai/a 0.081 lb ai/a 1 lb ai/a 0.77 lb ae/a 5 gal/100 gal	16 oz/a 3 oz/a 32 oz/a 22 oz/a 77 oz/a	16 oz/a 3 oz/a 32 oz/a 22 oz/a 77 oz/a	A C C C C	Pre V3 - V4 V3 - V4 V3 - V4 V3 - V4	100.0	98.8	100.0	100.0	96.3	100.0
14	Lexar Touchdown Total AMS	2.78 lb ai/a 0.78 lb ae/a 5 gal/100 gal	96 oz/a 24 oz/a 77 oz/a	96 oz/a 24 oz/a 77 oz/a	A C C	Pre V3 - V4 V3 - V4	100.0	95.5	96.0	100.0	92.5	100.0
15	Lexar Halex GT NIS AMS	2.78 lb ai/a 1.98 lb ai/a 0.25 % v/v 5 gal/100 gal	96 oz/a 58 oz/a 3.84 oz/a 77 oz/a	96 oz/a 58 oz/a 3.84 oz/a 77 oz/a	A C C C	Pre V3 - V4 V3 - V4 V3 - V4	100.0	100.0	98.0	99.3	97.8	100.0
16	Harness Xtra Roundup PowerMax AMS	3.5 lb ai/a 0.77 lb ae/a 5 gal/100 gal	80 oz/a 22 oz/a 77 oz/a	80 oz/a 22 oz/a 77 oz/a	A C C	Pre V3 - V4 V3 - V4	100.0	94.3	94.3	98.0	93.8	95.0

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Two-Pass Corn Programs with PRE & POST applications

Trial ID: HCO-20411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed							
Pest Code	IPOSS	ECHCG	AMAPA	IPOSS	ECHCG	AMAPA							
Pest Scientific Name	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>							
Pest Name	Morning glory	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth							
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX							
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays							
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	6/3/11	6/13/11	6/13/11	6/13/11	6/23/11	6/23/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	V5 18"	V9 53"	V9 53"	V9 53"	VT 65"	VT 65"							
Pest Stage Majority	1-3"	8-12"	6-20"	4-6"	10-30"	10-50"							
Assessed By	JB	JB	JB	JB	JB	JB							
Days After First/Last Applic.	29 3	55 24	55 24	55 24	49 23	49 23							
Trt-Eval Interval	14 DA-C	7 DA-D	7 DA-D	7 DA-D	17 DA-D	17 DA-D							
Plant-Eval Interval	46 DP-1	56 DP-1	56 DP-1	56 DP-1	66 DP-1	66 DP-1							
Days After Emergence	40 DE-1	50 DE-1	50 DE-1	50 DE-1	60 DE-1	60 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	8	9	10	11	12	13
17	Verdict	0.65	lb ai/a	15	oz/a	A	Pre	100.0	96.3	98.8	99.0	94.5	100.0
	Status	0.095	lb ai/a	2.5	oz/a	C	V3 - V4						
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	V3 - V4						
	AMS		5 gal/100 gal	77	oz/a	C	V3 - V4						
18	AAtrex	1	lb ai/a	32	oz/a	A	Pre	100.0	98.8	100.0	100.0	95.5	98.8
	Dual II Magnum	0.955	lb ai/a	16	oz/a	A	Pre						
	AAtrex	1	lb ai/a	32	oz/a	C	V3 - V4						
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	V3 - V4						
	AMS		5 gal/100 gal	77	oz/a	C	V3 - V4						
	LSD (P=.05)			0.00				0.00	4.23	4.21	1.50	4.82	3.92
	Standard Deviation			0.00				0.00	2.99	2.98	1.06	3.41	2.77
	CV			0.0				0.0	3.27	3.21	1.13	3.83	2.97
	Grand Mean			94.44				94.44	91.6	92.68	94.24	89.08	93.33

University of Arkansas-Division of Agriculture

Two-Pass Corn Programs with PRE & POST applications

Trial ID: HCO-20411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS							
Pest Code	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Scientific Name	Morning glory	Common barnyar>	Palmer amaranth	Morning glory							
Pest Name											
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX							
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays							
Crop Name	Corn	Corn	Corn	Corn							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	6/23/11	9/7/11	9/7/11	9/7/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%							
Number of Subsamples	1	1	1	1							
Crop Stage Majority	VT 65"	R6 75"	R6 75"	R6 75"							
Pest Stage Majority	10-40"	20-40"	40-70"	10-50"							
Assessed By	JB	JB	JB	JB							
Days After First/Last Applic.	49 23	141 93	141 93	141 93							
Trt-Eval Interval	17 DA-D	17 DA-D	17 DA-D	17 DA-D							
Plant-Eval Interval	66 DP-1	142 DP-1	142 DP-1	142 DP-1							
Days After Emergence	60 DE-1	136 DE-1	136 DE-1	136 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	14	15	16	17
1	Untreated Check							0.0	0.0	0.0	0.0
2	Corvus	0.0616	lb ai/a	3	oz/a	A	Pre	100.0	0.0	68.8	91.3
	AAtrex		1 lb ai/a	32	oz/a	A	Pre				
	Laudis	0.082	lb ai/a	3	oz/a	C	V3 - V4				
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	V3 - V4				
	AMS		5 gal/100 gal	77	oz/a	C	V3 - V4				
3	Corvus	0.0616	lb ai/a	3	oz/a	A	Pre	100.0	0.0	76.3	91.3
	AAtrex		1 lb ai/a	32	oz/a	A	Pre				
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	V3 - V4				
	AMS		5 gal/100 gal	77	oz/a	C	V3 - V4				
4	Corvus	0.0616	lb ai/a	3	oz/a	A	Pre	100.0	0.0	71.3	91.3
	Laudis	0.082	lb ai/a	3	oz/a	C	V3 - V4				
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	V3 - V4				
	AMS		5 gal/100 gal	77	oz/a	C	V3 - V4				
5	Corvus	0.0616	lb ai/a	3	oz/a	A	Pre	100.0	0.0	65.0	90.0
	AAtrex		1 lb ai/a	32	oz/a	A	Pre				
	Capreno	0.081	lb ai/a	3	oz/a	C	V3 - V4				
	COC		1 % v/v	15.4	oz/a	C	V3 - V4				
	AMS		5 gal/100 gal	77	oz/a	C	V3 - V4				
6	Corvus	0.0616	lb ai/a	3	oz/a	A	Pre	100.0	0.0	41.3	91.3
	Capreno	0.081	lb ai/a	3	oz/a	C	V3 - V4				
	COC		1 % v/v	15.4	oz/a	C	V3 - V4				
	AMS		5 gal/100 gal	77	oz/a	C	V3 - V4				
7	Corvus	0.0616	lb ai/a	3	oz/a	B	V1 - V2	100.0	0.0	86.3	88.8
	AAtrex		1 lb ai/a	32	oz/a	B	V1 - V2				
	Laudis	0.082	lb ai/a	3	oz/a	D	V5 - V6				
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	D	V5 - V6				
	AMS		5 gal/100 gal	77	oz/a	D	V5 - V6				
8	Balance Flexx	0.047	lb ai/a	3	oz/a	A	Pre	100.0	0.0	70.0	82.5
	AAtrex		1 lb ai/a	32	oz/a	A	Pre				
	Laudis	0.082	lb ai/a	3	oz/a	C	V3 - V4				
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	V3 - V4				
	AMS		5 gal/100 gal	77	oz/a	C	V3 - V4				
9	Balance Flexx	0.047	lb ai/a	3	oz/a	A	Pre	100.0	0.0	53.8	82.5
	Laudis	0.082	lb ai/a	3	oz/a	C	V3 - V4				
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	V3 - V4				
	AMS		5 gal/100 gal	77	oz/a	C	V3 - V4				
10	Balance Flexx	0.047	lb ai/a	3	oz/a	A	Pre	100.0	0.0	50.0	90.0
	AAtrex		1 lb ai/a	32	oz/a	A	Pre				
	Capreno	0.081	lb ai/a	3	oz/a	C	V3 - V4				
	COC		1 % v/v	15.4	oz/a	C	V3 - V4				
	AMS		5 gal/100 gal	77	oz/a	C	V3 - V4				
11	Balance Flexx	0.047	lb ai/a	3	oz/a	A	Pre	100.0	0.0	75.0	91.3
	Capreno	0.081	lb ai/a	3	oz/a	C	V3 - V4				
	COC		1 % v/v	15.4	oz/a	C	V3 - V4				
	AMS		5 gal/100 gal	77	oz/a	C	V3 - V4				
12	Balance Flexx	0.047	lb ai/a	3	oz/a	B	V1 - V2	100.0	0.0	80.0	93.8
	AAtrex		1 lb ai/a	32	oz/a	B	V1 - V2				
	Laudis	0.082	lb ai/a	3	oz/a	D	V5 - V6				
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	D	V5 - V6				
	AMS		5 gal/100 gal	77	oz/a	D	V5 - V6				
13	Dual II Magnum	0.955	lb ai/a	16	oz/a	A	Pre	100.0	0.0	67.5	91.3
	Capreno	0.081	lb ai/a	3	oz/a	C	V3 - V4				
	AAtrex		1 lb ai/a	32	oz/a	C	V3 - V4				
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	V3 - V4				
	AMS		5 gal/100 gal	77	oz/a	C	V3 - V4				
14	Lexar	2.78	lb ai/a	96	oz/a	A	Pre	100.0	0.0	55.0	91.3
	Touchdown Total	0.78	lb ae/a	24	oz/a	C	V3 - V4				
	AMS		5 gal/100 gal	77	oz/a	C	V3 - V4				
15	Lexar	2.78	lb ai/a	96	oz/a	A	Pre	100.0	0.0	86.3	87.5
	Halex GT	1.98	lb ai/a	58	oz/a	C	V3 - V4				
	NIS	0.25	% v/v	3.84	oz/a	C	V3 - V4				
	AMS		5 gal/100 gal	77	oz/a	C	V3 - V4				
16	Harness Xtra	3.5	lb ai/a	80	oz/a	A	Pre	100.0	0.0	60.0	91.3
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	V3 - V4				
	AMS		5 gal/100 gal	77	oz/a	C	V3 - V4				

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Two-Pass Corn Programs with PRE & POST applications

Trial ID: HCO-20411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed							
Pest Code	IPOSS	ECHCG	AMAPA	IPOSS							
Pest Scientific Name	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Name	Morning glory	Common barnyar>	Palmer amaranth	Morning glory							
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX							
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays							
Crop Name	Corn	Corn	Corn	Corn							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	6/23/11	9/7/11	9/7/11	9/7/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%							
Number of Subsamples	1	1	1	1							
Crop Stage Majority	VT 65"	R6 75"	R6 75"	R6 75"							
Pest Stage Majority	10-40"	20-40"	40-70"	10-50"							
Assessed By	JB	JB	JB	JB							
Days After First/Last Applic.	49 23	141 93	141 93	141 93							
Trt-Eval Interval	17 DA-D	17 DA-D	17 DA-D	17 DA-D							
Plant-Eval Interval	66 DP-1	142 DP-1	142 DP-1	142 DP-1							
Days After Emergence	60 DE-1	136 DE-1	136 DE-1	136 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	14	15	16	17
17	Verdict	0.65	lb ai/a	15	oz/a	A	Pre	100.0	0.0	37.5	90.0
	Status	0.095	lb ai/a	2.5	oz/a	C	V3 - V4				
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	V3 - V4				
	AMS		5 gal/100 gal	77	oz/a	C	V3 - V4				
18	AAtrex	1	lb ai/a	32	oz/a	A	Pre	98.8	0.0	32.5	60.0
	Dual II Magnum	0.955	lb ai/a	16	oz/a	A	Pre				
	AAtrex	1	lb ai/a	32	oz/a	C	V3 - V4				
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	V3 - V4				
	AMS		5 gal/100 gal	77	oz/a	C	V3 - V4				
	LSD (P=.05)			0.83				0.83	0.00	29.58	16.55
	Standard Deviation			0.59				0.59	0.00	20.92	11.70
	CV			0.62				0.62	0.0	34.98	14.09
	Grand Mean			94.38				94.38	0.0	59.79	83.06

University of Arkansas-Division of Agriculture

Late Season Weed Control with Dual & Atrazine Early

Trial ID: HCO-20711
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: ZEAMX Zea mays Corn
Variety: REV 28HR20
BBCH Scale: BCOR
Planting Method: PLANTD planted
Depth, Unit: 1 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: GOOD good
Description: RR 2 / LL / Herculex / Cruiser
Planting Date: 4/18/11
Rate, Unit: 33000 S/A
Spacing Within Row, Unit: 4 IN
Soil Temperature, Unit: 66.7 F
Emergence Date: 4/24/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-til
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	5/10/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	Y	yes
2.	5/10/11	In Season Fertilizer	Zinc	1	PT/A	Y	yes
3.	5/10/11	In Season Fertilizer	Sulphur	1	PT/A	Y	yes
4.	6/1/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	N	no

Soil Description

Description Name: 2011 Corn
% Sand: 16
% Silt: 67
% Clay: 17
% OM: 2.2
pH: 7.1
CEC: 14
Texture: SIL silt loam
Soil Name: Herbert Silt Loam
Fert. Level: G good
Soil Drainage: G good

Application Description

	A	B
Application Date:	4/19/11	5/31/11
Time of Day:	AM	AM
Application Method:	SPRAY	SPRAY
Application Timing:	PREPRE	POSPOS
Application Placement:	BROSOI	BROFOL
Applied By:	RD	RD
Air Temperature, Unit:	39.5 F	80.9 F
% Relative Humidity:	76.6	69.2
Wind Velocity, Unit:	1.5 MPH	5.7 MPH
Wind Direction:	W	W
Dew Presence (Y/N):	Y yes	N no
Soil Temperature, Unit:	52.3 F	79.6 F
Soil Moisture:	GOOD	GOOD
% Cloud Cover:	40	20
Next Rain Occurred On:	4/19/11	6/1/11

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:	BBCH	BBCH
Stage Majority, Percent:	V0	V5
Height, Unit:	0 IN	16 IN

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W
Height, Unit:	0 IN	6 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W
Height, Unit:	0 IN	5 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W
Height, Unit:	0 IN	3 IN

University of Arkansas-Division of Agriculture

Late Season Weed Control with Dual & Atrazine Early

Trial ID: HCO-20711
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Application Equipment

	A	B
Appl. Equipment:	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN
Nozzles/Row:	2	2
% Coverage:	100	100
Boom Length, Unit:	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN
Carrier:	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes

University of Arkansas-Division of Agriculture

Late Season Weed Control with Dual & Atrazine Early

Trial ID: HCO-20711
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type			W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS					
Pest Code			Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.					
Pest Scientific Name			Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory					
Pest Name													
Crop Code			ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX					
Crop Scientific Name			Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays					
Crop Name			Corn	Corn	Corn	Corn	Corn	Corn					
Part Assessed			PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P					
Assessment Date			6/3/11	6/3/11	6/3/11	6/10/11	6/10/11	6/10/11					
Assessment Type			CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Assessment Unit			%	%	%	%	%	%					
Number of Subsamples			1	1	1	1	1	1					
Crop Stage Majority			V5-V6"	V5-V6"	V5-V6"	V8 30"	V8 30"	V8 30"					
Pest Stage Majority			2-6"	2-8"	2-3"	4-14"	4-24"	2-12"					
Assessed By			JB	JB	JB	JB	JB	JB					
Days After First/Last Applic.			28 28	28 28	28 28	52 10	52 10	52 10					
Trt-Eval Interval			3 DA-B	3 DA-B	3 DA-B	10 DA-B	10 DA-B	10 DA-B					
Plant-Eval Interval			28 DP-1	28 DP-1	28 DP-1	53 DP-1	53 DP-1	53 DP-1					
Days After Emergence			24 DE-1	24 DE-1	24 DE-1	47 DE-1	47 DE-1	47 DE-1					
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	AAtrax	1 lb ai/a		32 oz/a		A	Pre	100.0	96.3	100.0	100.0	100.0	97.5
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn						
	AMS	2.5 lb ai/a		5 gal/100 gal		B	15 - 20" Corn						
3	AAtrax	1 lb ai/a		32 oz/a		A	Pre	100.0	100.0	100.0	99.3	98.8	100.0
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre						
	Callisto	0.094 lb ai/a		3 oz/a		B	15 - 20" Corn						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn						
4	AAtrax	1 lb ai/a		32 oz/a		A	Pre	100.0	100.0	100.0	100.0	99.3	98.8
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre						
	Cadet	0.00427 lb ai/a		0.6 oz/a		B	15 - 20" Corn						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn						
5	AAtrax	1 lb ai/a		32 oz/a		A	Pre	100.0	100.0	100.0	98.8	100.0	100.0
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre						
	Impact	0.0164 lb ai/a	0.75 oz/a		B	15 - 20" Corn							
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn						
6	AAtrax	1 lb ai/a		32 oz/a		A	Pre	100.0	97.5	100.0	100.0	100.0	100.0
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre						
	Laudis	0.082 lb ai/a		3 oz/a		B	15 - 20" Corn						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn						
7	AAtrax	1 lb ai/a		32 oz/a		A	Pre	100.0	100.0	100.0	100.0	100.0	100.0
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre						
	Capreno	0.081 lb ai/a		3 oz/a		B	15 - 20" Corn						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn						
8	AAtrax	1 lb ai/a		32 oz/a		A	Pre	100.0	100.0	100.0	98.8	100.0	100.0
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre						
	Clarity	0.25 lb ae/a		8 oz/a		B	15 - 20" Corn						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn						
9	AAtrax	1 lb ai/a		32 oz/a		A	Pre	100.0	100.0	100.0	99.3	98.8	99.3
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre						
	Status	0.19 lb ai/a		5 oz/a		B	15 - 20" Corn						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn						
10	AAtrax	1 lb ai/a		32 oz/a		A	Pre	100.0	100.0	100.0	100.0	100.0	98.8
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre						
	Resolve Q			1.25 oz/a		B	15 - 20" Corn						
	>Rimsulfuron (Resolve DF)	0.0144 lb ai/a		0.92 oz/a		B	15 - 20" Corn						
11	AAtrax	1 lb ai/a		32 oz/a		A	Pre	100.0	100.0	100.0	100.0	100.0	99.3
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre						
	Realm Q			4 oz/a		B	15 - 20" Corn						
	>Rimsulfuron (Resolve DF)	0.0188 lb ai/a		1.2 oz/a		B	15 - 20" Corn						
12	AAtrax	1 lb ai/a		32 oz/a		A	Pre	100.0	100.0	100.0	99.3	99.3	98.0
	Dual II Magnum	0.955 lb ai/a		16 oz/a		A	Pre						
	AAtrax	1 lb ai/a		32 oz/a		B	15 - 20" Corn						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn						
13	Lexar	2.78 lb ai/a		96 oz/a		A	Pre	100.0	100.0	100.0	100.0	100.0	98.8
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn						
	AMS	2.5 lb ai/a		5 gal/100 gal		B	15 - 20" Corn						
LSD (P=.05)							0.00	3.62	0.00	1.69	1.66	2.33	
Standard Deviation							0.00	2.53	0.00	1.18	1.16	1.63	
CV							0.0	2.76	0.0	1.29	1.26	1.78	
Grand Mean							92.31	91.83	92.31	91.94	92.0	91.56	

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Late Season Weed Control with Dual & Atrazine Early

Trial ID: HCO-20711
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed ECHCG	W Weed AMAPA	W Weed IPOSS							
Pest Code		Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Scientific Name		Common barnyar>	Palmer amaranth	Morning glory							
Pest Name											
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX							
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays							
Crop Name	Corn	Corn	Corn	Corn							
Part Assessed	PLANT C	PLANT P	PLANT P	PLANT P							
Assessment Date	6/10/11	6/23/11	6/23/11	6/23/11							
Assessment Type	PHYSTU	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%							
Number of Subsamples	1	1	1	1							
Crop Stage Majority	V8 30"	VT 65"	VT 65"	VT 65"							
Pest Stage Majority		10-30"	10-50"	10-30"							
Assessed By	JB	JB	JB	JB							
Days After First/Last Applic.	52 10	49 23	49 23	49 23							
Trt-Eval Interval	10 DA-B	23 DA-B	23 DA-B	23 DA-B							
Plant-Eval Interval	53 DP-1	66 DP-1	66 DP-1	66 DP-1							
Days After Emergence	47 DE-1	60 DE-1	60 DE-1	60 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	7	8	9	10
1	Untreated Check							0.0	0.0	0.0	0.0
2	AAtrax	1 lb ai/a		32 oz/a		A	Pre	3.8	97.5	99.5	100.0
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre				
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn				
	AMS	2.5 lb ai/a		5 gal/100 gal		B	15 - 20" Corn				
3	AAtrax	1 lb ai/a		32 oz/a		A	Pre	2.5	94.8	98.8	100.0
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre				
	Callisto	0.094 lb ai/a		3 oz/a		B	15 - 20" Corn				
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn				
	AMS	2.5 lb ai/a		5 gal/100 gal		B	15 - 20" Corn				
4	AAtrax	1 lb ai/a		32 oz/a		A	Pre	0.0	97.0	100.0	100.0
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre				
	Cadet	0.00427 lb ai/a		0.6 oz/a		B	15 - 20" Corn				
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn				
	AMS	2.5 lb ai/a		5 gal/100 gal		B	15 - 20" Corn				
5	AAtrax	1 lb ai/a		32 oz/a		A	Pre	0.0	97.3	100.0	99.5
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre				
	Impact	0.0164 lb ai/a		0.75 oz/a		B	15 - 20" Corn				
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn				
	AMS	2.5 lb ai/a		5 gal/100 gal		B	15 - 20" Corn				
6	AAtrax	1 lb ai/a		32 oz/a		A	Pre	0.0	96.0	100.0	100.0
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre				
	Laudis	0.082 lb ai/a		3 oz/a		B	15 - 20" Corn				
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn				
	AMS	2.5 lb ai/a		5 gal/100 gal		B	15 - 20" Corn				
7	AAtrax	1 lb ai/a		32 oz/a		A	Pre	2.5	96.0	100.0	100.0
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre				
	Capreno	0.081 lb ai/a		3 oz/a		B	15 - 20" Corn				
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn				
	AMS	2.5 lb ai/a		5 gal/100 gal		B	15 - 20" Corn				
8	AAtrax	1 lb ai/a		32 oz/a		A	Pre	0.0	97.5	100.0	100.0
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre				
	Clarity	0.25 lb ae/a		8 oz/a		B	15 - 20" Corn				
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn				
	AMS	2.5 lb ai/a		5 gal/100 gal		B	15 - 20" Corn				
9	AAtrax	1 lb ai/a		32 oz/a		A	Pre	5.0	98.0	100.0	100.0
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre				
	Status	0.19 lb ai/a		5 oz/a		B	15 - 20" Corn				
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn				
	AMS	2.5 lb ai/a		5 gal/100 gal		B	15 - 20" Corn				
10	AAtrax	1 lb ai/a		32 oz/a		A	Pre	0.0	95.8	99.5	100.0
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre				
	Resolve Q			1.25 oz/a		B	15 - 20" Corn				
	>Rimsulfuron (Resolve DF)	0.0144 lb ai/a		0.92 oz/a		B	15 - 20" Corn				
	>Thifensulfuron (Harmony SG)	0.00313 lb ai/a		0.1 oz/a		B	15 - 20" Corn				
	>Isoxadifen-ethyl	0.0072 lb ai/a		0.23 oz/a		B	15 - 20" Corn				
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn				
	AMS	2.5 lb ai/a		5 gal/100 gal		B	15 - 20" Corn				
11	AAtrax	1 lb ai/a		32 oz/a		A	Pre	2.5	95.5	100.0	100.0
	Dual II Magnum	1.43 lb ai/a		24 oz/a		A	Pre				
	Realm Q			4 oz/a		B	15 - 20" Corn				
	>Rimsulfuron (Resolve DF)	0.0188 lb ai/a		1.2 oz/a		B	15 - 20" Corn				
	>Mesotrione	0.078 lb ai/a		2.5 oz/a		B	15 - 20" Corn				
	>Isoxadifen-ethyl	0.0094 lb ai/a		0.3 oz/a		B	15 - 20" Corn				
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn				
	AMS	2.5 lb ai/a		5 gal/100 gal		B	15 - 20" Corn				
12	AAtrax	1 lb ai/a		32 oz/a		A	Pre	2.5	93.8	98.8	98.8
	Dual II Magnum	0.955 lb ai/a		16 oz/a		A	Pre				
	AAtrax	1 lb ai/a		32 oz/a		B	15 - 20" Corn				
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn				
	AMS	2.5 lb ai/a		5 gal/100 gal		B	15 - 20" Corn				
13	Lexar	2.78 lb ai/a		96 oz/a		A	Pre	0.0	96.0	100.0	100.0
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	15 - 20" Corn				
	AMS	2.5 lb ai/a		5 gal/100 gal		B	15 - 20" Corn				
LSD (P=.05)								6.36	3.61	1.49	1.04
Standard Deviation								4.45	2.52	1.04	0.73
CV								308.66	2.84	1.13	0.79
Grand Mean								1.44	88.85	92.04	92.17

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Kixor Two-Pass Weed Program

Trial ID: HCO-20911
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: ZEAMX Zea mays Corn
Variety: REV 28HR20
BBCH Scale: BCOR
Planting Method: PLANTD planted
Depth, Unit: 1 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: GOOD good
Description: RR 2 / LL / Herculex / Cruiser
Planting Date: 4/18/11
Rate, Unit: 33000 S/A
Spacing Within Row, Unit: 4 IN
Soil Temperature, Unit: 66.7 F
Emergence Date: 4/24/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-til
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	5/10/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	Y	yes
2.	5/10/11	In Season Fertilizer	Zinc	1	PT/A	Y	yes
3.	5/10/11	In Season Fertilizer	Sulphur	1	PT/A	Y	yes
4.	6/1/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	N	no

Soil Description

Description Name: 2011 Corn
% Sand: 16
% Silt: 67
% Clay: 17
% OM: 2.2
pH: 7.1
CEC: 14
Texture: SIL silt loam
Soil Name: Herbert Silt Loam
Fert. Level: G good
Soil Drainage: G good

Application Description

	A	B
Application Date:	4/19/11	5/31/11
Time of Day:	AM	AM
Application Method:	SPRAY	SPRAY
Application Timing:	PREPRE	POSPOS
Application Placement:	BROSOI	BROFOL
Applied By:	RD	JB
Air Temperature, Unit:	39.5 F	80.9 F
% Relative Humidity:	76.6	69.2
Wind Velocity, Unit:	1.5 MPH	5.7 MPH
Wind Direction:	W	W
Dew Presence (Y/N):	Y yes	N no
Soil Temperature, Unit:	52.3 F	79.6 F
Soil Moisture:	GOOD	GOOD
% Cloud Cover:	40	20
Next Rain Occurred On:	4/19/11	6/1/11

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:	BBCH	BBCH
Stage Majority, Percent:	V0	V5
Height, Unit:	0 IN	13 IN

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W
Height, Unit:	0 IN	6 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W
Height, Unit:	0 IN	6 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W
Height, Unit:	0 IN	4 IN

University of Arkansas-Division of Agriculture

Kixor Two-Pass Weed Program

Trial ID: HCO-20911
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Application Equipment

	A	B
Appl. Equipment:	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN
Nozzles/Row:	2	2
% Coverage:	100	100
Boom Length, Unit:	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN
Carrier:	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes

University of Arkansas-Division of Agriculture

Kixor Two-Pass Weed Program

Trial ID: HCO-20911
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA							
Pest Code		Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>							
Pest Scientific Name		Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth							
Pest Name													
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX							
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays							
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn							
Part Assessed	PLANT C	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	5/10/11	5/11/11	5/11/11	5/11/11	5/19/11	5/19/11							
Assessment Type	COUPLA	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	5 FT/Row	%	%	%	%	%							
Number of Subsamples	2	1	1	1	1	1							
Crop Stage Majority		V2 3-4"	V2 3-4"	V2 3-4"	V4"	V4"							
Pest Stage Majority		1"	0.5"	0.25"	1-4"	1-4"							
Assessed By	JB	JB	JB	JB	JM	JM							
Days After First/Last Applic.	21 5	22 22	22 22	22 22	30 30	30 30							
Trt-Eval Interval	21 DA-A	22 DA-A	22 DA-A	22 DA-A	30 DA-A	30 DA-A							
Plant-Eval Interval	22 DP-1	23 DP-1	23 DP-1	23 DP-1	31 DP-1	31 DP-1							
Days After Emergence	16 DE-1	17 DE-1	17 DE-1	17 DE-1	25 DE-1	25 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6
1	Untreated Check							7.50	0.0	0.0	0.0	0.0	0.0
2	Verdict	0.65 lb ai/a		15 oz/a		A	Pre	8.25	100.0	100.0	100.0	100.0	100.0
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
3	Lexar	2.08 lb ai/a		72 oz/a		A	Pre	7.88	100.0	100.0	100.0	100.0	100.0
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
4	Corvus	0.115 lb ai/a		5.6 oz/a		A	Pre	7.13	100.0	100.0	100.0	100.0	100.0
	AAtrex	1 lb ai/a		32 oz/a		A	Pre						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
5	Sharpen	0.0557 lb ai/a		2.5 oz/a		A	Pre	7.63	100.0	100.0	100.0	100.0	100.0
	Prowl H20	1.43 lb ai/a		3 pt/a		A	Pre						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
6	Harness Xtra	2.08 lb ai/a		47.5 oz/a		A	Pre	8.13	100.0	100.0	100.0	100.0	100.0
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
7	Sharpen	0.0557 lb ai/a		2.5 oz/a		A	Pre	8.13	100.0	100.0	100.0	100.0	100.0
	Guardsman Max	3.0 lb ai/a		77 oz/a		A	Pre						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
8	Verdict	0.566 lb ai/a		13 oz/a		A	Pre	8.13	100.0	100.0	100.0	100.0	100.0
	Status	0.095 lb ai/a		2.5 oz/a		B	10 - 14" Corn						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
9	AAtrex	1 lb ai/a		32 oz/a		A	Pre	8.00	100.0	100.0	100.0	100.0	100.0
	Dual II Magnum	0.955 lb ai/a		16 oz/a		A	Pre						
	AAtrex	1 lb ai/a		32 oz/a		B	10 - 14" Corn						
	Dual II Magnum	0.955 lb ai/a		16 oz/a		B	10 - 14" Corn						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
	LSD (P=.05)							0.846	0.00	0.00	0.00	0.00	0.00
	Standard Deviation							0.580	0.00	0.00	0.00	0.00	0.00
	CV							7.38	0.0	0.0	0.0	0.0	0.0
	Grand Mean							7.86	88.89	88.89	88.89	88.89	88.89

University of Arkansas-Division of Agriculture

Kixor Two-Pass Weed Program

Trial ID: HCO-20911
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed IPOSS Ipomoea sp. Morning glory	W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory	W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth							
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX							
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays							
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	5/19/11	6/3/11	6/3/11	6/3/11	6/10/11	6/10/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	V4"	V5"	V5"	V5"	V8 30"	V8 30"							
Pest Stage Majority	1-4"	2-6"	2-4"	2-4"	4-14"	2-24"							
Assessed By	JM	JM	JM	JM	JB	JB							
Days After First/Last Applic.	30 30	45 3	45 3	45 3	52 4	52 4							
Trt-Eval Interval	30 DA-A	3 DA-B	3 DA-B	3 DA-B	10 DA-B	10 DA-B							
Plant-Eval Interval	31 DP-1	46 DP-1	46 DP-1	46 DP-1	53 DP-1	53 DP-1							
Days After Emergence	25 DE-1	40 DE-1	40 DE-1	40 DE-1	47 DE-1	47 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	7	8	9	10	11	12
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	Verdict	0.65 lb ai/a		15 oz/a		A	Pre	100.0	100.0	100.0	100.0	92.5	92.5
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
3	Lexar	2.08 lb ai/a		72 oz/a		A	Pre	100.0	100.0	100.0	100.0	98.8	98.8
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
4	Corvus	0.115 lb ai/a		5.6 oz/a		A	Pre	100.0	100.0	100.0	100.0	96.3	97.5
	AAtrex	1 lb ai/a		32 oz/a		A	Pre						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
5	Sharpen	0.0557 lb ai/a		2.5 oz/a		A	Pre	100.0	100.0	100.0	100.0	98.8	100.0
	Prowl H20	1.43 lb ai/a		3 pt/a		A	Pre						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
6	Harness Xtra	2.08 lb ai/a		47.5 oz/a		A	Pre	100.0	100.0	100.0	100.0	95.0	96.3
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
7	Sharpen	0.0557 lb ai/a		2.5 oz/a		A	Pre	100.0	100.0	100.0	100.0	93.8	95.0
	Guardsman Max	3.0 lb ai/a		77 oz/a		A	Pre						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
8	Verdict	0.566 lb ai/a		13 oz/a		A	Pre	100.0	100.0	100.0	100.0	96.3	97.5
	Status	0.095 lb ai/a		2.5 oz/a		B	10 - 14" Corn						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
9	AAtrex	1 lb ai/a		32 oz/a		A	Pre	100.0	100.0	100.0	100.0	98.8	100.0
	Dual II Magnum	0.955 lb ai/a		16 oz/a		A	Pre						
	AAtrex	1 lb ai/a		32 oz/a		B	10 - 14" Corn						
	Dual II Magnum	0.955 lb ai/a		16 oz/a		B	10 - 14" Corn						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
LSD (P=.05)								0.00	0.00	0.00	0.00	4.02	4.90
Standard Deviation								0.00	0.00	0.00	0.00	2.75	3.36
CV								0.0	0.0	0.0	0.0	3.22	3.89
Grand Mean								88.89	88.89	88.89	88.89	85.56	86.39

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Kixor Two-Pass Weed Program

Trial ID: HCO-20911
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed								
Pest Code	IPOSS	ECHCG	AMAPA	IPOSS	ECHCG								
Pest Scientific Name	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>								
Pest Name	Morning glory	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>								
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX								
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays								
Crop Name	Corn	Corn	Corn	Corn	Corn								
Part Assessed	PLANT P	PLANT C	PLANT P	PLANT P	PLANT P								
Assessment Date	6/10/11	6/10/11	6/23/11	6/23/11	6/23/11								
Assessment Type	CONTRO	PHYSTU	CONTRO	CONTRO	CONTRO								
Assessment Unit	%	%	%	%	%								
Number of Subsamples	1	1	1	1	1								
Crop Stage Majority	V8 30"	V8 30"	VT 65"	VT 65"	VT 65"								
Pest Stage Majority	2-12"	2-12"	10-30"	10-30"	10-30"								
Assessed By	JB	JB	JB	JB	JB								
Days After First/Last Applic.	52 4	52 4	65 17	65 17	65 17								
Trt-Eval Interval	10 DA-B	10 DA-B	23 DA-B	23 DA-B	23 DA-B								
Plant-Eval Interval	53 DP-1	53 DP-1	66 DP-1	66 DP-1	66 DP-1								
Days After Emergence	47 DE-1	47 DE-1	60 DE-1	60 DE-1	60 DE-1								
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	13	14	15	16	17	18
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	Verdict	0.65 lb ai/a		15 oz/a		A	Pre	96.3	0.0	90.3	95.3	97.8	40.0
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
3	Lexar	2.08 lb ai/a		72 oz/a		A	Pre	98.8	0.0	92.3	98.8	98.8	40.0
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
4	Corvus	0.115 lb ai/a		5.6 oz/a		A	Pre	98.8	0.0	94.8	100.0	100.0	40.0
	AAtrex	1 lb ai/a		32 oz/a		A	Pre						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
5	Sharpen	0.0557 lb ai/a		2.5 oz/a		A	Pre	100.0	0.0	98.0	100.0	100.0	37.5
	Prowl H20	1.43 lb ai/a		3 pt/a		A	Pre						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
6	Harness Xtra	2.08 lb ai/a		47.5 oz/a		A	Pre	97.5	0.0	92.8	97.5	97.5	40.0
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
7	Sharpen	0.0557 lb ai/a		2.5 oz/a		A	Pre	97.5	0.0	92.5	95.0	97.5	40.0
	Guardsman Max	3.0 lb ai/a		77 oz/a		A	Pre						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
8	Verdict	0.566 lb ai/a		13 oz/a		A	Pre	100.0	0.0	90.8	95.8	96.3	40.0
	Status	0.095 lb ai/a		2.5 oz/a		B	10 - 14" Corn						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
9	AAtrex	1 lb ai/a		32 oz/a		A	Pre	100.0	0.0	97.5	100.0	100.0	40.0
	Dual II Magnum	0.955 lb ai/a		16 oz/a		A	Pre						
	AAtrex	1 lb ai/a		32 oz/a		B	10 - 14" Corn						
	Dual II Magnum	0.955 lb ai/a		16 oz/a		B	10 - 14" Corn						
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		B	10 - 14" Corn						
	NIS	0.25 % v/v		3.84 oz/a		B	10 - 14" Corn						
	AMS	5 gal/100 gal		77 oz/a		B	10 - 14" Corn						
LSD (P=.05)								3.83	0.00	5.69	4.74	4.51	2.43
Standard Deviation								2.62	0.00	3.90	3.25	3.09	1.67
CV								2.99	0.0	4.68	3.74	3.53	4.72
Grand Mean								87.64	0.0	83.19	86.92	87.53	35.28

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Kixor Two-Pass Weed Program

Trial ID: HCO-20911
 Location: Rohwer, AR
 Investigator: Kenneth Smith

							W Weed AMAPA	W Weed IPOSS	
							Amaranthus pal>	Ipomoea sp.	
							Palmer amaranth	Morning glory	
							ZEAMX	ZEAMX	
							Zea mays	Zea mays	
							Corn	Corn	
							PLANT P	PLANT P	
							9/7/11	9/7/11	
							CONTRO	CONTRO	
							%	%	
							1	1	
							R6 75"	R6 75"	
							30-70"	20-50"	
							JB	JB	
							141 93	141 93	
							17 DA-D	17 DA-D	
							142 DP-1	142 DP-1	
							136 DE-1	136 DE-1	
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	19	20
1	Untreated Check							0.0	0.0
2	Verdict	0.65	lb ai/a	15	oz/a	A	Pre	72.5	90.0
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	10 - 14" Corn		
	NIS	0.25	% v/v	3.84	oz/a	B	10 - 14" Corn		
	AMS	5	gal/100 gal	77	oz/a	B	10 - 14" Corn		
3	Lexar	2.08	lb ai/a	72	oz/a	A	Pre	86.3	81.3
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	10 - 14" Corn		
	NIS	0.25	% v/v	3.84	oz/a	B	10 - 14" Corn		
	AMS	5	gal/100 gal	77	oz/a	B	10 - 14" Corn		
4	Corvus	0.115	lb ai/a	5.6	oz/a	A	Pre	83.8	86.3
	AAtrex	1	lb ai/a	32	oz/a	A	Pre		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	10 - 14" Corn		
	NIS	0.25	% v/v	3.84	oz/a	B	10 - 14" Corn		
	AMS	5	gal/100 gal	77	oz/a	B	10 - 14" Corn		
5	Sharpen	0.0557	lb ai/a	2.5	oz/a	A	Pre	76.3	78.8
	Prowl H20	1.43	lb ai/a	3	pt/a	A	Pre		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	10 - 14" Corn		
	NIS	0.25	% v/v	3.84	oz/a	B	10 - 14" Corn		
	AMS	5	gal/100 gal	77	oz/a	B	10 - 14" Corn		
6	Harness Xtra	2.08	lb ai/a	47.5	oz/a	A	Pre	87.5	86.3
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	10 - 14" Corn		
	NIS	0.25	% v/v	3.84	oz/a	B	10 - 14" Corn		
	AMS	5	gal/100 gal	77	oz/a	B	10 - 14" Corn		
7	Sharpen	0.0557	lb ai/a	2.5	oz/a	A	Pre	85.0	87.5
	Guardman Max	3.0	lb ai/a	77	oz/a	A	Pre		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	10 - 14" Corn		
	NIS	0.25	% v/v	3.84	oz/a	B	10 - 14" Corn		
	AMS	5	gal/100 gal	77	oz/a	B	10 - 14" Corn		
8	Verdict	0.566	lb ai/a	13	oz/a	A	Pre	85.0	87.5
	Status	0.095	lb ai/a	2.5	oz/a	B	10 - 14" Corn		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	10 - 14" Corn		
	NIS	0.25	% v/v	3.84	oz/a	B	10 - 14" Corn		
	AMS	5	gal/100 gal	77	oz/a	B	10 - 14" Corn		
9	AAtrex	1	lb ai/a	32	oz/a	A	Pre	87.5	82.5
	Dual II Magnum	0.955	lb ai/a	16	oz/a	A	Pre		
	AAtrex	1	lb ai/a	32	oz/a	B	10 - 14" Corn		
	Dual II Magnum	0.955	lb ai/a	16	oz/a	B	10 - 14" Corn		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	10 - 14" Corn		
	NIS	0.25	% v/v	3.84	oz/a	B	10 - 14" Corn		
	AMS	5	gal/100 gal	77	oz/a	B	10 - 14" Corn		
LSD (P=.05)								15.50	15.81
Standard Deviation								10.62	10.83
CV								14.4	14.34
Grand Mean								73.75	75.56

University of Arkansas-Division of Agriculture

Determine the Efficacy of Zidua in a One-Pass System

Trial ID: HCO-21011
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: ZEAMX Zea mays Corn
Variety: REV 28HR20
BBCH Scale: BCOR
Planting Method: PLANTD planted
Depth, Unit: 1 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: GOOD good
Harvest Date: 9/12/11
Harvested Width, Unit: 6.33 FT
% Standard Moisture: 15.0
Weighing Equipment: Almaco
Description: RR 2 / LL / Herculex / Cruiser
Planting Date: 4/18/11
Rate, Unit: 33000 S/A
Spacing Within Row, Unit: 4 IN
Soil Temperature, Unit: 66.7 F
Emergence Date: 4/24/11
Harvest Equipment: Almaco
Harvested Length, Unit: 28 FT
Moisture Meter: Almaco

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass
Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth
Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	5/10/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	Y	yes
2.	5/10/11	In Season Fertilizer	Zinc	1	PT/A	Y	yes
3.	5/10/11	In Season Fertilizer	Sulphur	1	PT/A	Y	yes
4.	6/1/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	N	no

Soil Description

Description Name: 2011 Corn
% Sand: 16
% Silt: 67
% Clay: 17
% OM: 2.2
pH: 7.1
CEC: 14
Texture: SIL silt loam
Soil Name: Herbert Silt Loam
Fert. Level: G good
Soil Drainage: G good

Application Description

A	
Application Date:	4/19/11
Time of Day:	AM
Application Method:	SPRAY
Application Timing:	PREPRE
Application Placement:	BROSOI
Applied By:	RD
Air Temperature, Unit:	39.5 F
% Relative Humidity:	76.6
Wind Velocity, Unit:	1.5 MPH
Wind Direction:	W
Dew Presence (Y/N):	Y yes
Soil Temperature, Unit:	52.3 F
Soil Moisture:	GOOD
% Cloud Cover:	40
Next Rain Occurred On:	4/19/11

Crop Stage At Each Application

A	
Crop 1 Code, BBCH Scale:	ZEAMX BCOR
Stage Scale Used:	BBCH
Stage Majority, Percent:	V0
Height, Unit:	0 IN

Pest Stage At Each Application

A	
Pest 1 Code, Type, Scale:	ECHCG W
Height, Unit:	0 IN
Pest 2 Code, Type, Scale:	AMAPA W
Height, Unit:	0 IN
Pest 3 Code, Type, Scale:	IPOSS W
Height, Unit:	0 IN

University of Arkansas-Division of Agriculture

Determine the Efficacy of Zidua in a One-Pass System

Trial ID: HCO-21011
Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A
Appl. Equipment:	Multi Boom
Equipment Type:	SPTRMO
Operation Pressure, Unit:	50 PSI
Nozzle Type:	Air-Mix
Nozzle Size:	110015
Nozzle Spacing, Unit:	19 IN
Nozzles/Row:	2
% Coverage:	100
Boom Length, Unit:	12.6 FT
Boom Height, Unit:	18 IN
Carrier:	WATER
Spray Volume, Unit:	12 gal/ac
Mix Size, Unit:	3 Liters
Propellant:	COMCO2
Tank Mix (Y/N):	Y yes

University of Arkansas-Division of Agriculture

Determine the Efficacy of Zidua in a One-Pass System

Trial ID: HCO-21011
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed	W Weed	W Weed	W Weed	W Weed	W Weed							
Pest Code		ECHCG	AMAPA	IPOSS	ECHCG	AMAPA	IPOSS							
Pest Scientific Name		Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Name		Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory							
Crop Code		ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX							
Crop Scientific Name		Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays							
Crop Name		Corn	Corn	Corn	Corn	Corn	Corn							
Part Assessed		PLANT C	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date		5/10/11	5/11/11	5/11/11	5/19/11	5/19/11	5/19/11							
Assessment Type		COUPLA	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit		5 FT/Row	%	%	%	%	%							
Number of Subsamples		2	1	1	1	1	1							
Crop Stage Majority		V3 3-4"	V3 3-4"	V3 3-4"	V4"	V4"	V4"							
Pest Stage Majority		1"	0.5"	0.25"	1-4"	1-4"	1-4"							
Assessed By		JB	JB	JB	JM	JM	JM							
Days After First/Last Applic.		21 5	22 22	22 22	30 30	30 30	30 30							
Trt-Eval Interval		21 DA-A	22 DA-A	22 DA-A	30 DA-A	30 DA-A	30 DA-A							
Plant-Eval Interval		22 DP-1	23 DP-1	23 DP-1	31 DP-1	31 DP-1	31 DP-1							
Days After Emergence		16 DE-1	17 DE-1	17 DE-1	25 DE-1	25 DE-1	25 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6	7
1	Untreated Check							7.25	0.0	0.0	0.0	0.0	0.0	0.0
2	Zidua AMS	0.133	lb ai/a 5 gal/100 gal	2.5	oz/a 77 oz/a	A	Pre	7.50	100.0	100.0	100.0	100.0	100.0	100.0
3	Zidua AMS	0.266	lb ai/a 5 gal/100 gal	5	oz/a 77 oz/a	A	Pre	7.38	100.0	100.0	100.0	100.0	100.0	100.0
4	Zidua Sharpen AMS MSO	0.106 0.0445 5 1	lb ai/a lb ai/a gal/100 gal % v/v	2 2 77 15.4	oz/a oz/a oz/a oz/a	A A A A	Pre Pre Pre Pre	8.00	100.0	100.0	100.0	100.0	100.0	100.0
5	Zidua Verdict AMS MSO	0.106 0.435 5 1	lb ai/a lb ai/a gal/100 gal % v/v	2 10 77 15.4	oz/a oz/a oz/a oz/a	A A A A	Pre Pre Pre Pre	7.75	100.0	100.0	100.0	100.0	100.0	100.0
6	Zidua AAtrex AMS	0.106 1 5	lb ai/a lb ai/a gal/100 gal	2 32 77	oz/a oz/a oz/a	A A A	Pre Pre Pre	8.00	100.0	100.0	100.0	100.0	100.0	100.0
7	Zidua Dual II Magnum AMS	0.106 1.27 5	lb ai/a lb ai/a gal/100 gal	2 21.3 77	oz/a oz/a oz/a	A A A	Pre Pre Pre	8.13	100.0	100.0	100.0	100.0	100.0	100.0
8	Zidua Dual II Magnum AMS	0.133 1.27 5	lb ai/a lb ai/a gal/100 gal	2.5 21.3 77	oz/a oz/a oz/a	A A A	Pre Pre Pre	7.63	100.0	100.0	100.0	100.0	100.0	100.0
9	Zidua AAtrex AMS	0.133 1 5	lb ai/a lb ai/a gal/100 gal	2.5 32 77	oz/a oz/a oz/a	A A A	Pre Pre Pre	8.13	100.0	100.0	100.0	100.0	100.0	100.0
10	Zidua Dual II Magnum AMS	0.266 1.27 5	lb ai/a lb ai/a gal/100 gal	5 21.3 77	oz/a oz/a oz/a	A A A	Pre Pre Pre	7.75	100.0	100.0	100.0	100.0	100.0	100.0
11	Zidua AAtrex AMS	0.266 1 5	lb ai/a lb ai/a gal/100 gal	5 32 77	oz/a oz/a oz/a	A A A	Pre Pre Pre	7.38	100.0	100.0	100.0	100.0	100.0	100.0
12	Fierce 2,4-D Amine AMS	0.143 0.5 5	lb ai/a lb ai/a gal/100 gal	3 16 77	oz/a oz/a oz/a	A A A	Pre Pre Pre	7.38	100.0	100.0	100.0	100.0	100.0	100.0
13	AAtrex AMS	1 5	lb ai/a gal/100 gal	32 77	oz/a oz/a	A A	Pre Pre	7.63	100.0	100.0	100.0	100.0	100.0	100.0
14	Dual II Magnum AMS	1.27 5	lb ai/a gal/100 gal	21.3 77	oz/a oz/a	A A	Pre Pre	7.88	100.0	100.0	100.0	100.0	100.0	100.0
15	Lexar AMS	2.78 5	lb ai/a gal/100 gal	96 77	oz/a oz/a	A A	Pre Pre	8.50	100.0	100.0	100.0	100.0	100.0	100.0
LSD (P=.05)				0.955	0.00			0.955	0.00	0.00	0.00	0.00	0.00	0.00
Standard Deviation				0.668	0.00			0.668	0.00	0.00	0.00	0.00	0.00	0.00
CV				8.63	0.0			8.63	0.0	0.0	0.0	0.0	0.0	0.0
Grand Mean				7.75	93.33			7.75	93.33	93.33	93.33	93.33	93.33	93.33

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Determine the Efficacy of Zidua in a One-Pass System

Trial ID: HCO-21011
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed							
Pest Code		ECHCG	AMAPA	IPOSS	ECHCG	AMAPA	IPOSS								
Pest Scientific Name		Echinochloa c>	Amaranthus pal>	Ipomoea sp.	Echinochloa c>	Amaranthus pal>	Ipomoea sp.								
Pest Name		Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory								
Crop Code		ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX							
Crop Scientific Name		Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays							
Crop Name		Corn	Corn	Corn	Corn	Corn	Corn	Corn							
Part Assessed		PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT C							
Assessment Date		6/3/11	6/3/11	6/3/11	6/13/11	6/13/11	6/13/11	6/13/11							
Assessment Type		CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	PHYSTU							
Assessment Unit		%	%	%	%	%	%	%							
Number of Subsamples		1	1	1	1	1	1	1							
Crop Stage Majority		V5"	V5"	V5"	V9 49"	V9 49"	V9 49"	V9 49"							
Pest Stage Majority		2-6"	2-4"	2-4"	8-12"	6-36"	4-14"								
Assessed By		JM	JM	JM	JB	JB	JB	JB							
Days After First/Last Applic.		45 3	45 3	45 3	55 55	55 55	55 55	55 55							
Trt-Eval Interval		45 DA-A	45 DA-A	45 DA-A	55 DA-A	55 DA-A	55 DA-A	55 DA-A							
Plant-Eval Interval		46 DP-1	46 DP-1	46 DP-1	56 DP-1	56 DP-1	56 DP-1	56 DP-1							
Days After Emergence		40 DE-1	40 DE-1	40 DE-1	50 DE-1	50 DE-1	50 DE-1	50 DE-1							
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Rate	Appl Unit	Appl Code	Description	8	9	10	11	12	13	14
1	Untreated Check								0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Zidua AMS	0.133	lb ai/a	2.5	oz/a	A	Pre		100.0	100.0	98.8	93.8	95.0	97.5	1.3
		5	gal/100 gal	77	oz/a	A	Pre								
3	Zidua AMS	0.266	lb ai/a	5	oz/a	A	Pre		100.0	100.0	100.0	98.8	98.0	100.0	3.8
		5	gal/100 gal	77	oz/a	A	Pre								
4	Zidua Sharpen AMS MSO	0.106	lb ai/a	2	oz/a	A	Pre		100.0	100.0	100.0	94.3	98.8	100.0	8.8
		0.0445	lb ai/a	2	oz/a	A	Pre								
		5	gal/100 gal	77	oz/a	A	Pre								
		1	% v/v	15.4	oz/a	A	Pre								
5	Zidua Verdict AMS MSO	0.106	lb ai/a	2	oz/a	A	Pre		100.0	100.0	100.0	94.3	97.5	100.0	1.3
		0.435	lb ai/a	10	oz/a	A	Pre								
		5	gal/100 gal	77	oz/a	A	Pre								
		1	% v/v	15.4	oz/a	A	Pre								
6	Zidua AAtrex AMS	0.106	lb ai/a	2	oz/a	A	Pre		100.0	100.0	100.0	96.5	98.8	100.0	6.3
		1	lb ai/a	32	oz/a	A	Pre								
		5	gal/100 gal	77	oz/a	A	Pre								
7	Zidua Dual II Magnum AMS	0.106	lb ai/a	2	oz/a	A	Pre		100.0	100.0	100.0	95.0	98.8	100.0	1.3
		1.27	lb ai/a	21.3	oz/a	A	Pre								
		5	gal/100 gal	77	oz/a	A	Pre								
8	Zidua Dual II Magnum AMS	0.133	lb ai/a	2.5	oz/a	A	Pre		100.0	100.0	100.0	99.0	98.8	99.5	6.3
		1.27	lb ai/a	21.3	oz/a	A	Pre								
		5	gal/100 gal	77	oz/a	A	Pre								
9	Zidua AAtrex AMS	0.133	lb ai/a	2.5	oz/a	A	Pre		100.0	100.0	100.0	93.8	100.0	100.0	0.0
		1	lb ai/a	32	oz/a	A	Pre								
		5	gal/100 gal	77	oz/a	A	Pre								
10	Zidua Dual II Magnum AMS	0.266	lb ai/a	5	oz/a	A	Pre		100.0	100.0	100.0	97.5	98.8	100.0	8.8
		1.27	lb ai/a	21.3	oz/a	A	Pre								
		5	gal/100 gal	77	oz/a	A	Pre								
11	Zidua AAtrex AMS	0.266	lb ai/a	5	oz/a	A	Pre		100.0	100.0	100.0	100.0	100.0	98.8	11.3
		1	lb ai/a	32	oz/a	A	Pre								
		5	gal/100 gal	77	oz/a	A	Pre								
12	Fierce 2,4-D Amine AMS	0.143	lb ai/a	3	oz/a	A	Pre		100.0	100.0	100.0	96.5	98.8	100.0	0.0
		0.5	lb ai/a	16	oz/a	A	Pre								
		5	gal/100 gal	77	oz/a	A	Pre								
13	AAtrex AMS	1	lb ai/a	32	oz/a	A	Pre		82.5	90.0	97.5	86.3	91.3	97.5	0.0
		5	gal/100 gal	77	oz/a	A	Pre								
14	Dual II Magnum AMS	1.27	lb ai/a	21.3	oz/a	A	Pre		97.5	92.5	98.8	90.0	93.0	97.5	0.0
		5	gal/100 gal	77	oz/a	A	Pre								
15	Lexar AMS	2.78	lb ai/a	96	oz/a	A	Pre		100.0	100.0	100.0	96.3	100.0	100.0	1.3
		5	gal/100 gal	77	oz/a	A	Pre								
LSD (P=.05)									7.78	5.59	2.27	5.48	4.17	2.95	8.41
Standard Deviation									5.44	3.91	1.59	3.84	2.92	2.06	5.88
CV									5.91	4.25	1.71	4.32	3.2	2.23	176.52
Grand Mean									92.0	92.17	93.0	88.78	91.15	92.72	3.33

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Determine the Efficacy of Zidua in a One-Pass System

Trial ID: HCO-21011
 Location: Rohwer, AR
 Investigator: Kenneth Smith

		W Weed ECHCG Echinochloa c> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory	W Weed ECHCG Echinochloa c> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory							
		ZEAMX Zea mays Corn	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn							
		PLANT P 6/23/11 CONTRO	PLANT P 6/23/11 CONTRO	PLANT P 6/23/11 CONTRO	PLANT P 9/7/11 CONTRO	PLANT P 9/7/11 CONTRO	PLANT P 9/7/11 CONTRO							
		% 1	% 1	% 1	% 1	% 1	% 1							
		VT 65" 10-30"	VT 65" 10-30"	VT 65" 10-30"	R6 75" 20-40"	R6 75" 30-70"	R6 75" 20-50"							
		JB 65 17	JB 65 17	JB 65 17	JB 141 93	JB 141 93	JB 141 93							
		65 DA-A 66 DP-1 60 DE-1	65 DA-A 66 DP-1 60 DE-1	65 DA-A 66 DP-1 60 DE-1	17 DA-D 142 DP-1 136 DE-1	17 DA-D 142 DP-1 136 DE-1	17 DA-D 142 DP-1 136 DE-1							
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Rate	Appl Unit	Appl Code	Description	15	16	17	18	19	20
1	Untreated Check								0.0	0.0	0.0	0.0	0.0	0.0
2	Zidua AMS	0.133	lb ai/a 5 gal/100 gal	2.5	oz/a 77 oz/a	A	Pre		94.8	100.0	100.0	40.0	90.0	90.0
3	Zidua AMS	0.266	lb ai/a 5 gal/100 gal	5	oz/a 77 oz/a	A	Pre		98.5	100.0	100.0	40.0	87.5	80.0
4	Zidua Sharpen AMS MSO	0.106 0.0445 5 1	lb ai/a lb ai/a gal/100 gal % v/v	2 2	oz/a oz/a 77 oz/a 15.4 oz/a	A A A A	Pre Pre Pre Pre		94.0	100.0	100.0	40.0	90.0	90.0
5	Zidua Verdict AMS MSO	0.106 0.435 5 1	lb ai/a lb ai/a gal/100 gal % v/v	2 10	oz/a oz/a 77 oz/a 15.4 oz/a	A A A A	Pre Pre Pre Pre		94.5	100.0	100.0	40.0	80.0	82.5
6	Zidua AAtrex AMS	0.106 1 5	lb ai/a lb ai/a gal/100 gal	2 32	oz/a oz/a 77 oz/a	A A A	Pre Pre Pre		94.8	100.0	100.0	40.0	82.5	67.5
7	Zidua Dual II Magnum AMS	0.106 1.27 5	lb ai/a lb ai/a gal/100 gal	2 21.3	oz/a oz/a 77 oz/a	A A A	Pre Pre Pre		96.5	100.0	100.0	45.0	62.5	70.0
8	Zidua Dual II Magnum AMS	0.133 1.27 5	lb ai/a lb ai/a gal/100 gal	2.5 21.3	oz/a oz/a 77 oz/a	A A A	Pre Pre Pre		96.0	100.0	100.0	40.0	85.0	72.5
9	Zidua AAtrex AMS	0.133 1 5	lb ai/a lb ai/a gal/100 gal	2.5 32	oz/a oz/a 77 oz/a	A A A	Pre Pre Pre		94.3	100.0	100.0	40.0	90.0	85.0
10	Zidua Dual II Magnum AMS	0.266 1.27 5	lb ai/a lb ai/a gal/100 gal	5 21.3	oz/a oz/a 77 oz/a	A A A	Pre Pre Pre		96.0	100.0	100.0	40.0	72.5	85.0
11	Zidua AAtrex AMS	0.266 1 5	lb ai/a lb ai/a gal/100 gal	5 32	oz/a oz/a 77 oz/a	A A A	Pre Pre Pre		97.5	100.0	100.0	40.0	82.5	82.5
12	Fierce 2,4-D Amine AMS	0.143 0.5 5	lb ai/a lb ai/a gal/100 gal	3 16	oz/a oz/a 77 oz/a	A A A	Pre Pre Pre		93.5	100.0	100.0	40.0	82.5	77.5
13	AAtrex AMS	1 5	lb ai/a gal/100 gal	32 77	oz/a oz/a	A A	Pre Pre		83.3	92.3	93.5	40.0	90.0	85.0
14	Dual II Magnum AMS	1.27 5	lb ai/a gal/100 gal	21.3 77	oz/a oz/a	A A	Pre Pre		91.8	98.0	100.0	40.0	80.0	57.5
15	Lexar AMS	2.78 5	lb ai/a gal/100 gal	96 77	oz/a oz/a	A A	Pre Pre		93.5	100.0	100.0	40.0	75.0	77.5
LSD (P=.05)									2.82	2.85	2.20	2.13	14.82	20.80
Standard Deviation									1.98	2.00	1.54	1.49	10.37	14.56
CV									2.25	2.15	1.66	3.96	13.53	19.81
Grand Mean									87.92	92.68	92.9	37.67	76.67	73.5

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of Anthem applied PRE & Post in Corn Program

Trial ID: HCO-21111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: ZEAMX Zea mays Corn
Variety: REV 28HR20
Description: RR 2 / LL / Herculex / Cruiser
BBCH Scale: BCOR
Planting Date: 5/6/11
Planting Method: PLANTD planted
Rate, Unit: 33000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 38 IN
Spacing Within Row, Unit: 4 IN
Seed Bed: MEDIUM medium
Soil Temperature, Unit: 73.8 F
Soil Moisture: GOOD good
Emergence Date: 5/11/11
Harvest Date: 9/13/11
Harvest Equipment: Almaco
Harvested Width, Unit: 6.33 FT
Harvested Length, Unit: 28 FT
% Standard Moisture: 15.0
Moisture Meter: Almaco
Weighing Equipment: Almaco

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	5/10/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	Y	yes
2.	5/10/11	In Season Fertilizer	Zinc	1	PT/A	Y	yes
3.	5/10/11	In Season Fertilizer	Sulphur	1	PT/A	Y	yes
4.	6/1/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	N	no

Soil Description

Description Name: 2011 Corn
% Sand: 16
% Silt: 67
% Clay: 17
% OM: 2.2
pH: 7.1
CEC: 14
Texture: SIL silt loam
Soil Name: Herbert Silt Loam
Fert. Level: G good
Soil Drainage: G good

Application Description

	A	B	C
Application Date:	5/6/11	5/20/11	
Time of Day:	AM	AM	
Application Method:	SPRAY	SPRAY	
Application Timing:	PREPRE	POSPOS	
Application Placement:	BROSOI	BROFOL	
Applied By:	JM	ZH	
Air Temperature, Unit:	63.7 F	73.9 F	
% Relative Humidity:	69.0	76.0	
Wind Velocity, Unit:	2.1 MPH	6.2 MPH	
Wind Direction:	W	SSW	
Dew Presence (Y/N):	N no	N no	
Soil Temperature, Unit:	62.6 F	72.8 F	
Soil Moisture:	GOOD	GOOD	
% Cloud Cover:	25	30	

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:	BBCH	BBCH	
Stage Majority, Percent:	V0	V3	
Height, Unit:	0 IN	6 IN	

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W
Height, Unit:	0 IN	1 IN	
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W
Height, Unit:	0 IN	1 IN	
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W
Height, Unit:	0 IN	0.5 IN	

University of Arkansas-Division of Agriculture

Efficacy of Anthem applied PRE & Post in Corn Program

Trial ID: HCO-21111
 Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B	C
Appl. Equipment:	Multi Boom	Multi Boom	
Equipment Type:	SPTRMO	SPTRMO	
Operation Pressure, Unit:	50 PSI	50 PSI	
Nozzle Type:	Air-Mix	Air-Mix	
Nozzle Size:	110015	110015	
Nozzle Spacing, Unit:	19 IN	19 IN	
Nozzles/Row:	2	2	
% Coverage:	100	100	
Boom Length, Unit:	12.6 FT	12.6 FT	
Boom Height, Unit:	18 IN	18 IN	
Carrier:	WATER	WATER	
Spray Volume, Unit:	12 gal/ac	12 gal/ac	
Mix Size, Unit:	3 Liters	3 Liters	
Propellant:	COMCO2	COMCO2	
Tank Mix (Y/N):	Y yes	Y yes	

No. Date	By	Deviations
1.6/13/11	BM	Application C applied to wrong trial area

University of Arkansas-Division of Agriculture

Efficacy of Anthem applied PRE & Post in Corn Program

Trial ID: HCO-21111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type Pest Code Pest Scientific Name Pest Name Crop Code Crop Scientific Name Crop Name Part Assessed Assessment Date Assessment Type Assessment Unit Number of Subsamples Crop Stage Majority Pest Stage Majority Assessed By Days After First/Last Applic. Trt-Eval Interval Plant-Eval Interval Days After Emergence	W Weed ECHCG Echinochloa cr> Common barnyar>		W Weed AMAPA Amaranthus pal> Palmer amaranth		W Weed IPOSS Ipomoea sp. Morning glory		W Weed ECHCG Echinochloa cr> Common barnyar>		W Weed AMAPA Amaranthus pal> Palmer amaranth			
	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	1	2	3	4	5	6
1 Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2 Anthem Roundup WeatherMax AMS	0.118 0.77 5 gal/100 gal	lb ai/a lb ae/a gal/100 gal	7 oz/a 22 oz/a 77 oz/a	oz/a	A C C	Pre V6 - V8 V6 - V8	100.0	100.0	100.0	0.0	97.5	95.0
3 Anthem Roundup WeatherMax AMS	0.151 0.77 5 gal/100 gal	lb ai/a lb ae/a gal/100 gal	9 oz/a 22 oz/a 77 oz/a	oz/a	A C C	Pre V6 - V8 V6 - V8	100.0	100.0	100.0	0.0	93.8	95.0
4 Anthem AAtrex Roundup WeatherMax AMS	0.118 0.9 0.77 5 gal/100 gal	lb ai/a lb ai/a lb ae/a gal/100 gal	7 oz/a 28.8 oz/a 22 oz/a 77 oz/a	oz/a	A A C C	Pre Pre V6 - V8 V6 - V8	100.0	100.0	100.0	0.0	98.8	100.0
5 Anthem AAtrex Roundup WeatherMax AMS	0.151 1.16 0.77 5 gal/100 gal	lb ai/a lb ai/a lb ae/a gal/100 gal	9 oz/a 37 oz/a 22 oz/a 77 oz/a	oz/a	A A C C	Pre Pre V6 - V8 V6 - V8	100.0	100.0	100.0	0.0	100.0	100.0
6 Dual II Magnum Roundup WeatherMax AMS	1.31 0.77 5 gal/100 gal	lb ai/a lb ae/a gal/100 gal	22 oz/a 22 oz/a 77 oz/a	oz/a	A C C	Pre V6 - V8 V6 - V8	100.0	100.0	100.0	0.0	97.5	87.5
7 Bicep II Magnum Roundup WeatherMax AMS	3.22 0.77 5 gal/100 gal	lb ai/a lb ae/a gal/100 gal	75 oz/a 22 oz/a 77 oz/a	oz/a	A C C	Pre V6 - V8 V6 - V8	100.0	100.0	100.0	0.0	100.0	100.0
8 Lexar Roundup WeatherMax AMS	2.78 0.77 5 gal/100 gal	lb ai/a lb ae/a gal/100 gal	96 oz/a 22 oz/a 77 oz/a	oz/a	A C C	Pre V6 - V8 V6 - V8	100.0	100.0	100.0	0.0	97.5	100.0
9 Balance Flexx Roundup WeatherMax AMS	0.078 0.77 5 gal/100 gal	lb ai/a lb ae/a gal/100 gal	5 oz/a 22 oz/a 77 oz/a	oz/a	A C C	Pre V6 - V8 V6 - V8	100.0	100.0	100.0	0.0	88.8	91.3
10 Anthem Roundup WeatherMax Roundup WeatherMax AMS	0.101 0.77 0.77 5 gal/100 gal	lb ai/a lb ae/a lb ae/a gal/100 gal	6 oz/a 22 oz/a 22 oz/a 77 oz/a	oz/a	B B C C	V2 - V3 V2 - V3 V6 - V8 V6 - V8				0.0	100.0	98.8
11 Anthem Roundup WeatherMax Roundup WeatherMax AMS	0.134 0.77 0.77 5 gal/100 gal	lb ai/a lb ae/a lb ae/a gal/100 gal	8 oz/a 22 oz/a 22 oz/a 77 oz/a	oz/a	B B C C	V2 - V3 V2 - V3 V6 - V8 V6 - V8				0.0	100.0	100.0
12 Anthem AAtrex Roundup WeatherMax Roundup WeatherMax AMS	0.101 0.8 0.77 0.77 5 gal/100 gal	lb ai/a lb ai/a lb ae/a lb ae/a gal/100 gal	6 oz/a 25.6 oz/a 22 oz/a 22 oz/a 77 oz/a	oz/a	B B B C C	V2 - V3 V2 - V3 V2 - V3 V6 - V8 V6 - V8				0.0	100.0	100.0
13 Halex GT Roundup WeatherMax AMS	1.99 0.77 5 gal/100 gal	lb ai/a lb ae/a gal/100 gal	58 oz/a 22 oz/a 77 oz/a	oz/a	B C C	V2 - V3 V6 - V8 V6 - V8				0.0	100.0	100.0
14 Lexar Roundup WeatherMax AMS	2.78 0.77 5 gal/100 gal	lb ai/a lb ae/a gal/100 gal	96 oz/a 22 oz/a 77 oz/a	oz/a	B C C	V2 - V3 V6 - V8 V6 - V8				0.0	97.5	100.0
15 Roundup WeatherMax Roundup WeatherMax AMS	0.77 0.77 5 gal/100 gal	lb ae/a lb ae/a gal/100 gal	22 oz/a 22 oz/a 77 oz/a	oz/a	B C C	V2 - V3 V6 - V8 V6 - V8				0.0	82.5	80.0
16 Anthem	0.118	lb ai/a	7 oz/a	oz/a	A	Pre	100.0	100.0	100.0	0.0	87.5	85.0
17 Anthem	0.151	lb ai/a	9 oz/a	oz/a	A	Pre	100.0	100.0	100.0	0.0	95.0	91.3
18 Anthem AAtrex	0.118 0.9	lb ai/a lb ai/a	7 oz/a 28.8 oz/a	oz/a	A A	Pre Pre	100.0	100.0	100.0	0.0	97.5	100.0
19 Anthem AAtrex	0.151 1.16	lb ai/a lb ai/a	9 oz/a 37 oz/a	oz/a	A A	Pre Pre	100.0	100.0	100.0	0.0	100.0	100.0
20 Lexar	2.78	lb ai/a	96 oz/a	oz/a	A	Pre	100.0	100.0	100.0	0.0	95.0	98.8
LSD (P=.05)							0.00	0.00	0.00	0.00	8.38	7.52
Standard Deviation							0.00	0.00	0.00	0.00	5.92	5.32
CV							0.0	0.0	0.0	0.0	6.48	5.84
Grand Mean							92.86	92.86	92.86	0.0	91.44	91.13

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of Anthem applied PRE & Post in Corn Program

Trial ID: HCO-21111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

			W Weed IPOSS Ipomoea sp. Morning glory	W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory	W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth					
Pest Type	Pest Code	Pest Scientific Name											
Crop Code	Crop Scientific Name	Crop Name	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn					
Part Assessed	Assessment Date	Assessment Type	PLANT P 6/3/11	PLANT P 6/23/11	PLANT P 6/23/11	PLANT P 6/23/11	PLANT P 9/7/11	PLANT P 9/7/11					
Assessment Unit	Number of Subsamples	Crop Stage Majority	CONTRO %	CONTRO %	CONTRO %	CONTRO %	CONTRO %	CONTRO %					
Pest Stage Majority	Assessed By	Days After First/Last Applic.	V5" 2-4"	V9 55" 10-20"	V9 55" 10-40"	V9 55" 10-19"	R6 75" 20-40"	R6 75" 30-70"					
Trt-Eval Interval	Plant-Eval Interval	Days After Emergence	JM 45 3	JB 65 17	JB 65 17	JB 65 17	JB 141 93	JB 141 93					
			14 DA-B 46 DP-1 40 DE-1	34 DA-B 66 DP-1 60 DE-1	34 DA-B 66 DP-1 60 DE-1	34 DA-B 66 DP-1 60 DE-1	17 DA-D 142 DP-1 136 DE-1	17 DA-D 142 DP-1 136 DE-1					
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	7	8	9	10	11	12
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	Anthem Roundup WeatherMax AMS	0.118 lb ai/a 0.77 lb ae/a 5 gal/100 gal		7 oz/a 22 oz/a 77 oz/a		A C C	Pre V6 - V8 V6 - V8	97.5	97.5	97.5	100.0	87.5	87.5
3	Anthem Roundup WeatherMax AMS	0.151 lb ai/a 0.77 lb ae/a 5 gal/100 gal		9 oz/a 22 oz/a 77 oz/a		A C C	Pre V6 - V8 V6 - V8	97.5	96.3	96.3	98.8	87.5	92.5
4	Anthem AAtrex Roundup WeatherMax AMS	0.118 lb ai/a 0.9 lb ai/a 0.77 lb ae/a 5 gal/100 gal		7 oz/a 28.8 oz/a 22 oz/a 77 oz/a		A C C C	Pre Pre V6 - V8 V6 - V8	100.0	98.8	100.0	100.0	83.8	92.5
5	Anthem AAtrex Roundup WeatherMax AMS	0.151 lb ai/a 1.16 lb ai/a 0.77 lb ae/a 5 gal/100 gal		9 oz/a 37 oz/a 22 oz/a 77 oz/a		A C C C	Pre Pre V6 - V8 V6 - V8	100.0	100.0	97.5	98.8	91.3	92.5
6	Dual II Magnum Roundup WeatherMax AMS	1.31 lb ai/a 0.77 lb ae/a 5 gal/100 gal		22 oz/a 22 oz/a 77 oz/a		A C C	Pre V6 - V8 V6 - V8	90.0	90.0	92.5	97.5	88.8	88.8
7	Bicep II Magnum Roundup WeatherMax AMS	3.22 lb ai/a 0.77 lb ae/a 5 gal/100 gal		75 oz/a 22 oz/a 77 oz/a		A C C	Pre V6 - V8 V6 - V8	100.0	100.0	100.0	96.3	90.0	92.5
8	Lexar Roundup WeatherMax AMS	2.78 lb ai/a 0.77 lb ae/a 5 gal/100 gal		96 oz/a 22 oz/a 77 oz/a		A C C	Pre V6 - V8 V6 - V8	97.5	98.8	97.5	100.0	88.8	91.3
9	Balance Flexx Roundup WeatherMax AMS	0.078 lb ai/a 0.77 lb ae/a 5 gal/100 gal		5 oz/a 22 oz/a 77 oz/a		A C C	Pre V6 - V8 V6 - V8	88.8	80.0	80.0	85.0	87.5	78.8
10	Anthem Roundup WeatherMax Roundup WeatherMax AMS	0.101 lb ai/a 0.77 lb ae/a 0.77 lb ae/a 5 gal/100 gal		6 oz/a 22 oz/a 22 oz/a 77 oz/a		B B C C	V2 - V3 V2 - V3 V6 - V8 V6 - V8	98.8	100.0	100.0	97.5	91.3	96.3
11	Anthem Roundup WeatherMax Roundup WeatherMax AMS	0.134 lb ai/a 0.77 lb ae/a 0.77 lb ae/a 5 gal/100 gal		8 oz/a 22 oz/a 22 oz/a 77 oz/a		B B C C	V2 - V3 V2 - V3 V6 - V8 V6 - V8	100.0	98.8	100.0	98.8	97.5	97.5
12	Anthem AAtrex Roundup WeatherMax Roundup WeatherMax AMS	0.101 lb ai/a 0.8 lb ai/a 0.77 lb ae/a 0.77 lb ae/a 5 gal/100 gal		6 oz/a 25.6 oz/a 22 oz/a 22 oz/a 77 oz/a		B B B C C	V2 - V3 V2 - V3 V2 - V3 V6 - V8 V6 - V8	100.0	98.8	100.0	100.0	96.3	93.8
13	Halex GT Roundup WeatherMax AMS	1.99 lb ai/a 0.77 lb ae/a 5 gal/100 gal		58 oz/a 22 oz/a 77 oz/a		B C C	V2 - V3 V6 - V8 V6 - V8	100.0	98.8	98.8	100.0	92.5	96.3
14	Lexar Roundup WeatherMax AMS	2.78 lb ai/a 0.77 lb ae/a 5 gal/100 gal		96 oz/a 22 oz/a 77 oz/a		B C C	V2 - V3 V6 - V8 V6 - V8	100.0	100.0	100.0	100.0	95.0	97.5
15	Roundup WeatherMax Roundup WeatherMax AMS	0.77 lb ae/a 0.77 lb ae/a 5 gal/100 gal		22 oz/a 22 oz/a 77 oz/a		B C C	V2 - V3 V6 - V8 V6 - V8	82.5	68.8	72.5	81.3	77.5	70.0
16	Anthem	0.118 lb ai/a		7 oz/a		A	Pre	92.5	92.5	100.0	100.0	85.0	80.0
17	Anthem	0.151 lb ai/a		9 oz/a		A	Pre	97.5	97.5	91.3	100.0	90.0	97.5
18	Anthem AAtrex	0.118 lb ai/a 0.9 lb ai/a		7 oz/a 28.8 oz/a		A A	Pre Pre	100.0	97.5	100.0	100.0	92.5	97.5
19	Anthem AAtrex	0.151 lb ai/a 1.16 lb ai/a		9 oz/a 37 oz/a		A A	Pre Pre	100.0	100.0	100.0	100.0	90.0	97.5
20	Lexar	2.78 lb ai/a		96 oz/a		A	Pre	98.8	97.5	98.8	97.5	93.8	88.8
LSD (P=.05)				7.30				7.30	7.46	8.09	7.49	13.05	13.52
Standard Deviation				5.16				5.16	5.27	5.72	5.29	9.23	9.56
CV				5.61				5.61	5.82	6.28	5.72	10.82	11.06
Grand Mean				92.06				92.06	90.56	91.13	92.56	85.31	86.44

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of Anthem applied PRE & Post in Corn Program

Trial ID: HCO-21111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	13
	Pest Type	W Weed						
	Pest Code	IPOSS						
	Pest Scientific Name	Ipomoea sp.						
	Pest Name	Morning glory						
	Crop Code	ZEAMX						
	Crop Scientific Name	Zea mays						
	Crop Name	Corn						
	Part Assessed	PLANT P						
	Assessment Date	9/7/11						
	Assessment Type	CONTRO						
	Assessment Unit	%						
	Number of Subsamples	1						
	Crop Stage Majority	R6 75"						
	Pest Stage Majority	20-50"						
	Assessed By	JB						
	Days After First/Last Applic.	141 93						
	Trt-Eval Interval	17 DA-D						
	Plant-Eval Interval	142 DP-1						
	Days After Emergence	136 DE-1						
1	Untreated Check							0.0
2	Anthem	0.118	lb ai/a	7	oz/a	A	Pre	92.5
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	V6 - V8	
	AMS	5	gal/100 gal	77	oz/a	C	V6 - V8	
3	Anthem	0.151	lb ai/a	9	oz/a	A	Pre	87.5
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	V6 - V8	
	AMS	5	gal/100 gal	77	oz/a	C	V6 - V8	
4	Anthem	0.118	lb ai/a	7	oz/a	A	Pre	90.0
	AAtrex	0.9	lb ai/a	28.8	oz/a	A	Pre	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	V6 - V8	
	AMS	5	gal/100 gal	77	oz/a	C	V6 - V8	
5	Anthem	0.151	lb ai/a	9	oz/a	A	Pre	91.3
	AAtrex	1.16	lb ai/a	37	oz/a	A	Pre	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	V6 - V8	
	AMS	5	gal/100 gal	77	oz/a	C	V6 - V8	
6	Dual II Magnum	1.31	lb ai/a	22	oz/a	A	Pre	82.5
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	V6 - V8	
	AMS	5	gal/100 gal	77	oz/a	C	V6 - V8	
7	Bicep II Magnum	3.22	lb ai/a	75	oz/a	A	Pre	95.0
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	V6 - V8	
	AMS	5	gal/100 gal	77	oz/a	C	V6 - V8	
8	Lexar	2.78	lb ai/a	96	oz/a	A	Pre	82.5
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	V6 - V8	
	AMS	5	gal/100 gal	77	oz/a	C	V6 - V8	
9	Balance Flexx	0.078	lb ai/a	5	oz/a	A	Pre	70.0
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	V6 - V8	
	AMS	5	gal/100 gal	77	oz/a	C	V6 - V8	
10	Anthem	0.101	lb ai/a	6	oz/a	B	V2 - V3	95.0
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	V2 - V3	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	V6 - V8	
	AMS	5	gal/100 gal	77	oz/a	C	V6 - V8	
11	Anthem	0.134	lb ai/a	8	oz/a	B	V2 - V3	95.0
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	V2 - V3	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	V6 - V8	
	AMS	5	gal/100 gal	77	oz/a	C	V6 - V8	
12	Anthem	0.101	lb ai/a	6	oz/a	B	V2 - V3	95.0
	AAtrex	0.8	lb ai/a	25.6	oz/a	B	V2 - V3	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	V2 - V3	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	V6 - V8	
	AMS	5	gal/100 gal	77	oz/a	C	V6 - V8	
13	Halex GT	1.99	lb ai/a	58	oz/a	B	V2 - V3	95.0
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	V6 - V8	
	AMS	5	gal/100 gal	77	oz/a	C	V6 - V8	
14	Lexar	2.78	lb ai/a	96	oz/a	B	V2 - V3	97.5
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	V6 - V8	
	AMS	5	gal/100 gal	77	oz/a	C	V6 - V8	
15	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	V2 - V3	70.0
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	V6 - V8	
	AMS	5	gal/100 gal	77	oz/a	C	V6 - V8	
16	Anthem	0.118	lb ai/a	7	oz/a	A	Pre	77.5
17	Anthem	0.151	lb ai/a	9	oz/a	A	Pre	87.5
18	Anthem	0.118	lb ai/a	7	oz/a	A	Pre	97.5
	AAtrex	0.9	lb ai/a	28.8	oz/a	A	Pre	
19	Anthem	0.151	lb ai/a	9	oz/a	A	Pre	97.5
	AAtrex	1.16	lb ai/a	37	oz/a	A	Pre	
20	Lexar	2.78	lb ai/a	96	oz/a	A	Pre	92.5
	LSD (P=.05)	17.00						
	Standard Deviation	12.02						
	CV	14.21						
	Grand Mean	84.56						

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Cadet POST Programs in Corn

Trial ID: HCO-21211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: ZEAMX Zea mays Corn
Variety: REV 28HR20
BBCH Scale: BCOR
Planting Method: PLANTD planted
Depth, Unit: 1 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: GOOD good
Description: RR 2 / LL / Herculex / Cruiser
Planting Date: 4/18/11
Rate, Unit: 33000 S/A
Spacing Within Row, Unit: 4 IN
Soil Temperature, Unit: 66.7 F
Emergence Date: 4/24/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-til
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	5/10/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	Y	yes
2.	5/10/11	In Season Fertilizer	Zinc	1	PT/A	Y	yes
3.	5/10/11	In Season Fertilizer	Sulphur	1	PT/A	Y	yes
4.	6/1/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	N	no

Soil Description

Description Name: 2011 Corn
% Sand: 16
% Silt: 67
% Clay: 17
% OM: 2.2
pH: 7.1
CEC: 14
Texture: SIL silt loam
Soil Name: Herbert Silt Loam
Fert. Level: G good
Soil Drainage: G good

Application Description

	A	B	C
Application Date:	4/19/11	5/20/11	5/31/11
Time of Day:	AM	AM	AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREPRE	POSPOS	POSPOS
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	RD	ZH	RD
Air Temperature, Unit:	39.5 F	73.9 F	80.9 F
% Relative Humidity:	76.6	76.0	69.2
Wind Velocity, Unit:	1.5 MPH	6.2 MPH	5.7 MPH
Wind Direction:	W	SSW	W
Dew Presence (Y/N):	Y yes	N no	N no
Soil Temperature, Unit:	52.3 F	72.8 F	79.6 F
Soil Moisture:	GOOD	GOOD	GOOD
% Cloud Cover:	40	25	20
Next Rain Occurred On:	4/19/11	6/21/11	6/1/11

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:	BBCH	BBCH	BBCH
Stage Majority, Percent:	V0	V2	V4
Height, Unit:	0 IN	4 IN	12 IN

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W
Height, Unit:	0 IN	1 IN	5 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W
Height, Unit:	0 IN	2 IN	5 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W
Height, Unit:	0 IN	1 IN	2 IN

University of Arkansas-Division of Agriculture

Cadet POST Programs in Corn

Trial ID: HCO-21211
Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B	C
Appl. Equipment:	Multi Boom	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix
Nozzle Size:	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Nozzles/Row:	2	2	2
% Coverage:	100	100	100
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes	Y yes

University of Arkansas-Division of Agriculture

Cadet POST Programs in Corn

Trial ID: HCO-21211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

		W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory			W Weed ECHCG Echinochloa cr> Common barnyar>							
		ZEAMX Zea mays Corn	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn	ZEAMX Zea mays Corn							
		PLANT P 5/11/11	PLANT P 5/11/11	PLANT P 5/11/11	PLANT C 5/11/11	PLANT C 5/11/11	PLANT P 5/11/11							
		CONTRO %	CONTRO %	CONTRO %	PHYSTU %	PHYCHL %	CONTRO %							
		1	1	1	1	1	1							
		V3 3-4"	V3 3-4"	V3 3-4"	V3 3-4"	V3 3-4"	V4"							
		1"	0.5"	0.5"			1-4"							
		JB	JB	JB	JB	JB	JM							
		6 6	6 6	6 6	6 6	6 6	30 30							
		22 DA-A	22 DA-A	22 DA-A	22 DA-A	22 DA-A	30 DA-A							
		23 DP-1	23 DP-1	23 DP-1	23 DP-1	23 DP-1	31 DP-1							
		17 DE-1	17 DE-1	17 DE-1	17 DE-1	17 DE-1	25 DE-1							
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	1	2	3	4	5	6	7
1	Untreated Check							0.0	0.0	0.0	0.0	1.3	0.0	0.0
2	Dual II Magnum	0.478	lb ai/a	8 oz/a		A	Pre	98.8	100.0	100.0	0.0	5.0	0.0	97.5
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		B	1 - 2" Weeds							
3	Dual II Magnum	0.478	lb ai/a	8 oz/a		A	Pre	100.0	99.3	100.0	0.0	5.0	0.0	92.5
	Cadet	0.00427	lb ai/a	0.6 oz/a		B	1 - 2" Weeds							
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		B	1 - 2" Weeds							
4	Dual II Magnum	0.478	lb ai/a	8 oz/a		A	Pre	100.0	100.0	100.0	0.0	2.5	0.0	100.0
	Cadet	0.00427	lb ai/a	0.6 oz/a		B	1 - 2" Weeds							
	AAtrex	0.75	lb ai/a	24 oz/a		B	1 - 2" Weeds							
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		B	1 - 2" Weeds							
5	Dual II Magnum	0.478	lb ai/a	8 oz/a		A	Pre	100.0	100.0	100.0	0.0	1.3	0.0	100.0
	AAtrex	0.75	lb ai/a	24 oz/a		A	Pre							
	Cadet	0.00427	lb ai/a	0.6 oz/a		C	4 - 6" Weeds							
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		C	4 - 6" Weeds							
6	Dual II Magnum	0.478	lb ai/a	8 oz/a		A	Pre	100.0	100.0	100.0	0.0	5.0	1.3	100.0
	AAtrex	0.75	lb ai/a	24 oz/a		A	Pre							
	Anthem	0.118	lb ai/a	7 oz/a		A	Pre							
	Cadet	0.00427	lb ai/a	0.6 oz/a		C	4 - 6" Weeds							
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		C	4 - 6" Weeds							
7	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		B	1 - 2" Weeds							
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		C	4 - 6" Weeds							
8	Dual II Magnum	0.478	lb ai/a	8 oz/a		A	Pre	98.8	100.0	100.0	0.0	2.5	0.0	100.0
	AAtrex	0.75	lb ai/a	24 oz/a		A	Pre							
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		C	4 - 6" Weeds							
9	Dual II Magnum	0.955	lb ai/a	16 oz/a		A	Pre	97.5	98.8	98.8	0.0	7.5	0.0	100.0
	AAtrex	0.75	lb ai/a	24 oz/a		A	Pre							
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		C	4 - 6" Weeds							
	AAtrex	0.75	lb ai/a	24 oz/a		C	4 - 6" Weeds							
10	Lexar	2.78	lb ai/a	96 oz/a		A	Pre	97.5	100.0	100.0	0.0	1.3	0.0	97.5
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		C	4 - 6" Weeds							
	LSD (P=.05)							3.73	1.34	1.22	0.00	5.80	1.22	4.39
	Standard Deviation							2.56	0.92	0.83	0.00	3.97	0.83	3.00
	CV							2.9	1.03	0.94	0.0	114.47	600.0	3.43
	Grand Mean							88.06	88.67	88.75	0.0	3.47	0.14	87.5

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Cadet POST Programs in Corn

Trial ID: HCO-21211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG							
Pest Code	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>							
Pest Scientific Name	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>							
Pest Name													
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX							
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays							
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	5/19/11	5/19/11	6/3/11	6/3/11	6/3/11	6/13/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	V4"	V4"	V5"	V5"	V5"	V9 45"							
Pest Stage Majority	1-4"	1-4"	2-6"	3-9"	2-4"	6-18"							
Assessed By	JM	JM	JM	JM	JM	JB							
Days After First/Last Applic.	30 30	30 30	29 3	29 3	29 3	55 13							
Trt-Eval Interval	30 DA-A	30 DA-A	3 DA-C	3 DA-C	3 DA-C	13 DA-C							
Plant-Eval Interval	31 DP-1	31 DP-1	46 DP-1	46 DP-1	46 DP-1	56 DP-1							
Days After Emergence	25 DE-1	25 DE-1	40 DE-1	40 DE-1	40 DE-1	50 DE-1							
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	8	9	10	11	12	13
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	Dual II Magnum	0.478	lb ai/a	8 oz/a		A	Pre	100.0	92.5	95.0	87.5	100.0	92.5
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		B	1 - 2" Weeds						
3	Dual II Magnum	0.478	lb ai/a	8 oz/a		A	Pre	100.0	82.5	97.5	95.0	97.5	90.0
	Cadet	0.00427	lb ai/a	0.6 oz/a		B	1 - 2" Weeds						
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		B	1 - 2" Weeds						
4	Dual II Magnum	0.478	lb ai/a	8 oz/a		A	Pre	100.0	96.3	100.0	100.0	100.0	93.8
	Cadet	0.00427	lb ai/a	0.6 oz/a		B	1 - 2" Weeds						
	AAtrex	0.75	lb ai/a	24 oz/a		B	1 - 2" Weeds						
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		B	1 - 2" Weeds						
5	Dual II Magnum	0.478	lb ai/a	8 oz/a		A	Pre	100.0	100.0	92.5	85.0	100.0	91.3
	AAtrex	0.75	lb ai/a	24 oz/a		A	Pre						
	Cadet	0.00427	lb ai/a	0.6 oz/a		C	4 - 6" Weeds						
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		C	4 - 6" Weeds						
6	Dual II Magnum	0.478	lb ai/a	8 oz/a		A	Pre	100.0	100.0	100.0	100.0	100.0	95.0
	AAtrex	0.75	lb ai/a	24 oz/a		A	Pre						
	Anthem	0.118	lb ai/a	7 oz/a		A	Pre						
	Cadet	0.00427	lb ai/a	0.6 oz/a		C	4 - 6" Weeds						
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		C	4 - 6" Weeds						
7	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		B	1 - 2" Weeds			95.0	75.0	100.0	93.8
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		C	4 - 6" Weeds						
8	Dual II Magnum	0.478	lb ai/a	8 oz/a		A	Pre	100.0	100.0	97.5	88.8	100.0	92.5
	AAtrex	0.75	lb ai/a	24 oz/a		A	Pre						
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		C	4 - 6" Weeds						
9	Dual II Magnum	0.955	lb ai/a	16 oz/a		A	Pre	100.0	100.0	95.0	91.3	100.0	91.3
	AAtrex	0.75	lb ai/a	24 oz/a		A	Pre						
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		C	4 - 6" Weeds						
	AAtrex	0.75	lb ai/a	24 oz/a		C	4 - 6" Weeds						
10	Lexar	2.78	lb ai/a	96 oz/a		A	Pre	100.0	97.5	97.5	92.5	100.0	95.0
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		C	4 - 6" Weeds						
	LSD (P=.05)							0.00	8.32	7.90	12.03	2.29	5.00
	Standard Deviation							0.00	5.70	5.44	8.29	1.58	3.44
	CV							0.0	6.68	6.26	10.18	1.76	4.12
	Grand Mean							88.89	85.42	87.0	81.5	89.75	83.5

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Cadet POST Programs in Corn

Trial ID: HCO-21211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS							
Pest Code	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Scientific Name	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory							
Pest Name												
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX							
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays							
Crop Name	Corn	Corn	Corn	Corn	Corn							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	6/13/11	6/13/11	6/23/11	6/23/11	6/23/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1							
Crop Stage Majority	V9 45"	V9 45"	VT 65"	VT 65"	VT 65"							
Pest Stage Majority	8-38"	4-14"	2-60"	2-48"	2-48"							
Assessed By	JB	JB	JB	JB	JB							
Days After First/Last Applic.	55 13	55 13	49 23	49 23	49 23							
Trt-Eval Interval	13 DA-C	13 DA-C	23 DA-C	23 DA-C	23 DA-C							
Plant-Eval Interval	56 DP-1	56 DP-1	66 DP-1	66 DP-1	66 DP-1							
Days After Emergence	50 DE-1	50 DE-1	60 DE-1	60 DE-1	60 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	14	15	16	17	18
1	Untreated Check							0.0	0.0	0.0	0.0	0.0
2	Dual II Magnum	0.478	lb ai/a	8 oz/a		A	Pre	85.0	96.3	75.0	71.7	81.3
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		B	1 - 2" Weeds					
3	Dual II Magnum	0.478	lb ai/a	8 oz/a		A	Pre	89.3	95.0	76.3	81.7	83.8
	Cadet	0.00427	lb ai/a	0.6 oz/a		B	1 - 2" Weeds					
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		B	1 - 2" Weeds					
4	Dual II Magnum	0.478	lb ai/a	8 oz/a		A	Pre	96.3	95.0	75.0	78.8	93.8
	Cadet	0.00427	lb ai/a	0.6 oz/a		B	1 - 2" Weeds					
	AAtrex	0.75	lb ai/a	24 oz/a		B	1 - 2" Weeds					
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		B	1 - 2" Weeds					
5	Dual II Magnum	0.478	lb ai/a	8 oz/a		A	Pre	90.0	92.5	71.3	67.5	85.0
	AAtrex	0.75	lb ai/a	24 oz/a		A	Pre					
	Cadet	0.00427	lb ai/a	0.6 oz/a		C	4 - 6" Weeds					
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		C	4 - 6" Weeds					
6	Dual II Magnum	0.478	lb ai/a	8 oz/a		A	Pre	95.0	95.0	95.0	97.5	97.0
	AAtrex	0.75	lb ai/a	24 oz/a		A	Pre					
	Anthem	0.118	lb ai/a	7 oz/a		A	Pre					
	Cadet	0.00427	lb ai/a	0.6 oz/a		C	4 - 6" Weeds					
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		C	4 - 6" Weeds					
7	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		B	1 - 2" Weeds	87.5	95.0	68.3	66.7	91.7
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		C	4 - 6" Weeds					
8	Dual II Magnum	0.478	lb ai/a	8 oz/a		A	Pre	90.0	95.0	71.3	85.0	91.3
	AAtrex	0.75	lb ai/a	24 oz/a		A	Pre					
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		C	4 - 6" Weeds					
9	Dual II Magnum	0.955	lb ai/a	16 oz/a		A	Pre	90.0	93.8	80.0	79.5	93.3
	AAtrex	0.75	lb ai/a	24 oz/a		A	Pre					
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		C	4 - 6" Weeds					
	AAtrex	0.75	lb ai/a	24 oz/a		C	4 - 6" Weeds					
10	Lexar	2.78	lb ai/a	96 oz/a		A	Pre	96.3	97.5	86.3	85.3	95.3
	Roundup WeatherMax	0.77	lb ae/a	22 oz/a		C	4 - 6" Weeds					
	LSD (P=.05)							9.58	6.71	13.04	24.47	12.94
	Standard Deviation							6.60	4.62	8.97	16.73	8.90
	CV							8.06	5.41	12.84	23.44	10.96
	Grand Mean							81.93	85.5	69.83	71.35	81.22

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Lengths of Control of Residuals in Corn

Trial ID: HCO-21311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: ZEAMX Zea mays Corn
Variety: REV 28HR20
BBCH Scale: BCOR
Planting Method: PLANTD planted
Depth, Unit: 1 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: GOOD good
Description: RR 2 / LL / Herculex / Cruiser
Planting Date: 4/18/11
Rate, Unit: 33000 S/A
Spacing Within Row, Unit: 4 IN
Soil Temperature, Unit: 66.7 F
Emergence Date: 4/24/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-til
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	5/10/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	Y	yes
2.	5/10/11	In Season Fertilizer	Zinc	1	PT/A	Y	yes
3.	5/10/11	In Season Fertilizer	Sulphur	1	PT/A	Y	yes
4.	6/1/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	N	no

Soil Description

Description Name: 2011 Corn
% Sand: 16
% Silt: 67
% Clay: 17
% OM: 2.2
pH: 7.1
CEC: 14
Texture: SIL silt loam
Soil Name: Herbert Silt Loam
Fert. Level: G good
Soil Drainage: G good

Application Description

A	
Application Date:	4/25/11
Time of Day:	AM
Application Method:	SPRAY
Application Timing:	POSPRE
Application Placement:	BROFOL
Applied By:	JB
Air Temperature, Unit:	73.3 F
% Relative Humidity:	83.5
Wind Velocity, Unit:	7.5 MPH
Wind Direction:	SE
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	69.6 F
Soil Moisture:	SLIWET
% Cloud Cover:	70
Next Rain Occurred On:	4/26/11

Crop Stage At Each Application

A	
Crop 1 Code, BBCH Scale:	ZEAMX BCOR
Stage Scale Used:	BBCH
Stage Majority, Percent:	V1
Height, Unit:	1 IN

Pest Stage At Each Application

A	
Pest 1 Code, Type, Scale:	ECHCG W
Height, Unit:	0 IN
Pest 2 Code, Type, Scale:	AMAPA W
Height, Unit:	0 IN
Pest 3 Code, Type, Scale:	IPOSS W
Height, Unit:	0 IN

University of Arkansas-Division of Agriculture

Lengths of Control of Residuals in Corn

Trial ID: HCO-21311
Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A
Appl. Equipment:	Multi Boom
Equipment Type:	SPTRMO
Operation Pressure, Unit:	50 PSI
Nozzle Type:	Air-Mix
Nozzle Size:	110015
Nozzle Spacing, Unit:	19 IN
Nozzles/Row:	2
% Coverage:	100
Boom Length, Unit:	12.6 FT
Boom Height, Unit:	18 IN
Carrier:	WATER
Spray Volume, Unit:	12 gal/ac
Mix Size, Unit:	3 Liters
Propellant:	COMCO2
Tank Mix (Y/N):	Y yes

No.	Date	By	Deviations
1.	4/25/11	JB	Check Plot # 217 for No Application

Reasons: Plot was missed

University of Arkansas-Division of Agriculture

Lengths of Control of Residuals in Corn

Trial ID: HCO-21311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS								
Pest Code	Echinochloa cr>	Amaranthus pal>	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.								
Pest Scientific Name	Common barnyar>	Palmer amaranth	Common barnyar>	Palmer amaranth	Morning glory								
Pest Name													
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX							
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays							
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT C							
Assessment Date	5/4/11	5/4/11	5/11/11	5/11/11	5/11/11	5/11/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	PHYSTU							
Assessment Unit	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	V2 1-3"	V2 1-3"	V3 3-4"	V3 3-4"	V3 3-4"	V3 3-4"							
Pest Stage Majority	0.5"	0.5"	1"	0.5"	0.5"	0.5"							
Assessed By	JB	JB	JB	JB	JB	JB							
Days After First/Last Applic.	9 9	9 9	6 6	6 6	6 6	6 6							
Trt-Eval Interval	9 DA-A	9 DA-A	16 DA-A	16 DA-A	16 DA-A	16 DA-A							
Plant-Eval Interval	16 DP-1	16 DP-1	23 DP-1	23 DP-1	23 DP-1	23 DP-1							
Days After Emergence	10 DE-1	10 DE-1	17 DE-1	17 DE-1	17 DE-1	17 DE-1							
Trt No.	Trt Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	1	2	3	4	5	6
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	AAtrex	2 lb ai/a		64 oz/a		A	Spike	100.0	100.0	94.3	100.0	100.0	0.0
3	Callisto	0.219 lb ai/a		7 oz/a		A	Spike	100.0	100.0	97.5	100.0	100.0	0.0
4	Dual II Magnum	1.27 lb ai/a		21.3 oz/a		A	Spike	100.0	100.0	95.5	100.0	100.0	0.0
5	Bicep II Magnum	2.06 lb ai/a		48 oz/a		A	Spike	100.0	100.0	97.5	100.0	100.0	0.0
6	Lexar	2.76 lb ai/a		96 oz/a		A	Spike	100.0	100.0	100.0	100.0	100.0	0.0
7	Lumax	2.93 lb ai/a		96 oz/a		A	Spike	100.0	100.0	96.3	100.0	100.0	0.0
8	Dual Magnum	1.58 lb ai/a		26.5 oz/a		A	Spike	100.0	100.0	100.0	100.0	100.0	0.0
	AAtrex	2 lb ai/a		64 oz/a		A	Spike						
9	Warrant	1.13 lb ai/a		48 oz/a		A	Spike	100.0	100.0	98.8	98.8	98.8	0.0
10	Harness Xtra	3.5 lb ai/a		80 oz/a		A	Spike	100.0	100.0	98.8	100.0	100.0	0.0
11	Zidua	0.106 lb ai/a		2 oz/a		A	Spike	100.0	100.0	100.0	97.5	98.8	0.0
12	Sharpen	0.0445 lb ai/a		2 oz/a		A	Spike	100.0	100.0	97.5	100.0	100.0	0.0
13	Verdict	0.65 lb ai/a		15 oz/a		A	Spike	100.0	100.0	100.0	100.0	100.0	0.0
14	Fierce	0.143 lb ai/a		3 oz/a		A	Spike	100.0	100.0	98.8	100.0	100.0	40.0
15	Laudis	0.082 lb ai/a		3 oz/a		A	Spike	100.0	100.0	95.0	100.0	100.0	0.0
16	Balance Flexx	0.094 lb ai/a		6 oz/a		A	Spike	100.0	100.0	100.0	100.0	100.0	0.0
17	Corvus	0.115 lb ai/a		5.6 oz/a		A	Spike	100.0	100.0	100.0	100.0	100.0	0.0
18	Capreno	0.081 lb ai/a		3 oz/a		A	Spike	100.0	100.0	98.8	100.0	100.0	0.0
19	Outlook	4.5 lb ai/a		96 oz/a		A	Spike	100.0	100.0	100.0	100.0	100.0	30.0
20	Impact	0.016 lb ai/a		0.73 oz/a		A	Spike	100.0	100.0	98.8	100.0	98.8	0.0
21	Anthem	0.134 lb ai/a		8 oz/a		A	Spike	100.0	100.0	97.5	100.0	100.0	0.0
22	Cadet	0.00427 lb ai/a		0.6 oz/a		A	Spike	100.0	100.0	96.3	100.0	97.5	0.0
23	Realm Q			4 oz/a		A	Spike	100.0	100.0	100.0	100.0	100.0	0.0
	>Rimsulfuron (Resolve DF)	0.0188 lb ai/a		1.2 oz/a		A	Spike						
	>Mesotrione	0.078 lb ai/a		2.5 oz/a		A	Spike						
	>Isoxadifen-ethyl	0.0094 lb ai/a		0.3 oz/a		A	Spike						
24	Resolve Q			1.25 oz/a		A	Spike	100.0	100.0	96.3	100.0	100.0	0.0
	>Rimsulfuron (Resolve DF)	0.0144 lb ai/a		0.92 oz/a		A	Spike						
	>Thifensulfuron (Harmony SG)	0.00313 lb ai/a		0.1 oz/a		A	Spike						
	>Isoxadifen-ethyl	0.0072 lb ai/a		0.23 oz/a		A	Spike						
25	Prowl H20	1.14 lb ai/a		38.4 oz/a		A	Spike	100.0	100.0	97.5	96.8	100.0	0.0
	LSD (P=.05)							0.00	0.00	5.06	2.45	1.87	9.61
	Standard Deviation							0.00	0.00	3.58	1.73	1.33	6.80
	CV							0.0	0.0	3.8	1.81	1.38	242.81
	Grand Mean							96.0	96.0	94.19	95.72	95.75	2.8

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Lengths of Control of Residuals in Corn

Trial ID: HCO-21311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type				W Weed ECHCG	W Weed AMAPA	W Weed IPOSS		W Weed ECHCG						
Pest Code				Echinochloa c>	Amaranthus pal>	Ipomoea sp.		Echinochloa c>						
Pest Scientific Name				Common barnyar>	Palmer amaranth>	Morning glory		Common barnyar>						
Pest Name														
Crop Code	ZEAMX	ZEAMX		ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX						
Crop Scientific Name	Zea mays	Zea mays		Zea mays	Zea mays	Zea mays	Zea mays	Zea mays						
Crop Name	Corn	Corn		Corn	Corn	Corn	Corn	Corn						
Part Assessed	PLANT C	PLANT C		PLANT P	PLANT P	PLANT P	PLANT C	PLANT P						
Assessment Date	5/11/11	5/11/11		5/19/11	5/19/11	5/19/11	5/19/11	6/3/11						
Assessment Type	PHYCHL	PHYNEC		CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO						
Assessment Unit	%	%		%	%	%	%	%						
Number of Subsamples	1	1		1	1	1	1	1						
Crop Stage Majority	V3 3-4"	V3 3-4"		V4"	V4"	V4"	V4"	V5"						
Pest Stage Majority				1-4"	1-4"	1-4"		2-6"						
Assessed By	JB	JB		JM	JM	JM	JB	JB						
Days After First/Last Applic.	6 6	6 6		30 30	30 30	30 30	24 24	29 3						
Trt-Eval Interval	16 DA-A	16 DA-A		24 DA-A	24 DA-A	24 DA-A	24 DA-A	39 DA-A						
Plant-Eval Interval	23 DP-1	23 DP-1		31 DP-1	31 DP-1	31 DP-1	31 DP-1	46 DP-1						
Days After Emergence	17 DE-1	17 DE-1		25 DE-1	25 DE-1	25 DE-1	25 DE-1	40 DE-1						
Trt Treatment No. Name	Rate	Unit	Other Rate	Other Rate	Appl Unit	Appl Code	Description	7	8	9	10	11	12	13
1 Untreated Check								0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 AAtrex	2 lb ai/a		64 oz/a		A		Spike	0.0	0.0	100.0	100.0	100.0	0.0	78.8
3 Callisto	0.219 lb ai/a		7 oz/a		A		Spike	0.0	0.0	100.0	100.0	100.0	0.0	77.5
4 Dual II Magnum	1.27 lb ai/a		21.3 oz/a		A		Spike	0.0	0.0	97.5	100.0	97.5	0.0	77.5
5 Bicep II Magnum	2.06 lb ai/a		48 oz/a		A		Spike	0.0	0.0	100.0	100.0	100.0	0.0	71.3
6 Lexar	2.76 lb ai/a		96 oz/a		A		Spike	0.0	0.0	100.0	100.0	100.0	0.0	95.0
7 Lumax	2.93 lb ai/a		96 oz/a		A		Spike	1.3	0.0	100.0	100.0	100.0	0.0	98.8
8 Dual Magnum	1.58 lb ai/a		26.5 oz/a		A		Spike	0.0	0.0	100.0	100.0	100.0	0.0	91.3
AAtrex	2 lb ai/a		64 oz/a		A		Spike							
9 Warrant	1.13 lb ai/a		48 oz/a		A		Spike	0.0	0.0	95.0	100.0	100.0	20.0	68.8
10 Harness Xtra	3.5 lb ai/a		80 oz/a		A		Spike	0.0	0.0	100.0	100.0	100.0	10.0	88.8
11 Zidua	0.106 lb ai/a		2 oz/a		A		Spike	0.0	0.0	100.0	100.0	98.8	0.0	95.0
12 Sharpen	0.0445 lb ai/a		2 oz/a		A		Spike	0.0	0.0	100.0	100.0	100.0	0.0	61.7
13 Verdict	0.65 lb ai/a		15 oz/a		A		Spike	0.0	0.0	100.0	100.0	100.0	0.0	93.8
14 Fierce	0.143 lb ai/a		3 oz/a		A		Spike	0.0	0.0	97.5	97.5	97.5	33.8	90.0
15 Laudis	0.082 lb ai/a		3 oz/a		A		Spike	2.5	0.0	98.8	100.0	100.0	0.0	80.0
16 Balance Flexx	0.094 lb ai/a		6 oz/a		A		Spike	0.0	0.0	100.0	100.0	100.0	0.0	80.0
17 Corvus	0.115 lb ai/a		5.6 oz/a		A		Spike	0.0	0.0	100.0	100.0	100.0	0.0	100.0
18 Capreno	0.081 lb ai/a		3 oz/a		A		Spike	0.0	0.0	100.0	97.5	97.5	0.0	82.5
19 Outlook	4.5 lb ai/a		96 oz/a		A		Spike	0.0	0.0	100.0	100.0	100.0	37.5	100.0
20 Impact	0.016 lb ai/a		0.73 oz/a		A		Spike	0.0	0.0	90.0	95.0	90.0	0.0	63.3
21 Anthem	0.134 lb ai/a		8 oz/a		A		Spike	0.0	0.0	100.0	100.0	100.0	0.0	87.5
22 Cadet	0.00427 lb ai/a		0.6 oz/a		A		Spike	0.0	0.0	90.0	100.0	92.5	0.0	53.8
23 Realm Q			4 oz/a		A		Spike	0.0	0.0	100.0	100.0	100.0	0.0	88.8
>Rimsulfuron (Resolve DF)	0.0188 lb ai/a		1.2 oz/a		A		Spike							
>Mesotrione	0.078 lb ai/a		2.5 oz/a		A		Spike							
>Isoxadifen-ethyl	0.0094 lb ai/a		0.3 oz/a		A		Spike							
24 Resolve Q			1.25 oz/a		A		Spike	0.0	0.0	100.0	100.0	100.0	0.0	83.8
>Rimsulfuron (Resolve DF)	0.0144 lb ai/a		0.92 oz/a		A		Spike							
>Thifensulfuron (Harmony SG)	0.00313 lb ai/a		0.1 oz/a		A		Spike							
>Isoxadifen-ethyl	0.0072 lb ai/a		0.23 oz/a		A		Spike							
25 Prowl H20	1.14 lb ai/a		38.4 oz/a		A		Spike	0.0	0.0	97.5	100.0	92.5	0.0	75.0
LSD (P=.05)								1.55	0.00	6.33	3.50	7.94	18.33	20.76
Standard Deviation								1.10	0.00	4.47	2.48	5.62	12.96	14.68
CV								732.83	0.0	4.73	2.59	5.93	320.02	18.51
Grand Mean								0.15	0.0	94.65	95.6	94.65	4.05	79.3

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Lengths of Control of Residuals in Corn

Trial ID: HCO-21311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed IPOSS		W Weed ECHCG	W Weed AMAPA	W Weed IPOSS							
Pest Code	Amaranthus pal>	Ipomoea sp.		Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Scientific Name	Palmer amaranth	Morning glory		Common barnyar>	Palmer amaranth	Morning glory							
Pest Name													
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX							
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays							
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn							
Part Assessed	PLANT P	PLANT P	PLANT C	PLANT P	PLANT P	PLANT P							
Assessment Date	6/3/11	6/3/11	6/3/11	6/10/11	6/10/11	6/10/11							
Assessment Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	V5"	V5"	V4"	V8 30"	V8 30"	V8 30"							
Pest Stage Majority	3-9"	2-4"		4-14"	4-24"	2-12"							
Assessed By	JB	JB	JB	JB	JB	JB							
Days After First/Last Applic.	29 3	29 3	39 39	46 46	46 46	46 46							
Trt-Eval Interval	39 DA-A	39 DA-A	39 DA-A	46 DA-A	46 DA-A	46 DA-A							
Plant-Eval Interval	46 DP-1	46 DP-1	46 DP-1	53 DP-1	53 DP-1	53 DP-1							
Days After Emergence	40 DE-1	40 DE-1	40 DE-1	47 DE-1	47 DE-1	47 DE-1							
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	14	15	16	17	18	19
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	AAtrex	2 lb ai/a		64 oz/a		A	Spike	91.3	76.3	0.0	90.0	93.0	98.8
3	Callisto	0.219 lb ai/a		7 oz/a		A	Spike	97.5	98.8	0.0	93.5	98.0	100.0
4	Dual II Magnum	1.27 lb ai/a		21.3 oz/a		A	Spike	96.3	100.0	0.0	93.5	97.5	99.3
5	Bicep II Magnum	2.06 lb ai/a		48 oz/a		A	Spike	87.5	92.5	0.0	95.5	97.5	100.0
6	Lexar	2.76 lb ai/a		96 oz/a		A	Spike	100.0	100.0	0.0	98.5	100.0	100.0
7	Lumax	2.93 lb ai/a		96 oz/a		A	Spike	100.0	100.0	0.0	96.0	100.0	100.0
8	Dual Magnum	1.58 lb ai/a		26.5 oz/a		A	Spike	100.0	100.0	0.0	100.0	100.0	99.3
	AAtrex	2 lb ai/a		64 oz/a		A	Spike						
9	Warrant	1.13 lb ai/a		48 oz/a		A	Spike	80.0	90.0	0.0	91.0	93.8	98.8
10	Harness Xtra	3.5 lb ai/a		80 oz/a		A	Spike	97.5	100.0	0.0	98.0	98.0	100.0
11	Zidua	0.106 lb ai/a		2 oz/a		A	Spike	97.5	100.0	0.0	98.0	98.0	100.0
12	Sharpen	0.0445 lb ai/a		2 oz/a		A	Spike	91.7	95.0	0.0	85.3	92.5	95.5
13	Verdict	0.65 lb ai/a		15 oz/a		A	Spike	100.0	100.0	0.0	100.0	100.0	98.8
14	Fierce	0.143 lb ai/a		3 oz/a		A	Spike	82.5	97.5	17.5	95.5	90.5	100.0
15	Laudis	0.082 lb ai/a		3 oz/a		A	Spike	96.7	100.0	0.0	89.3	93.8	97.5
16	Balance Flexx	0.094 lb ai/a		6 oz/a		A	Spike	86.3	80.0	0.0	91.0	98.8	99.3
17	Corvus	0.115 lb ai/a		5.6 oz/a		A	Spike	100.0	100.0	0.0	100.0	100.0	99.3
18	Capreno	0.081 lb ai/a		3 oz/a		A	Spike	82.5	88.8	0.0	96.5	96.0	99.0
19	Outlook	4.5 lb ai/a		96 oz/a		A	Spike	100.0	100.0	35.0	100.0	100.0	100.0
20	Impact	0.016 lb ai/a		0.73 oz/a		A	Spike	73.3	83.3	0.0	83.8	86.5	93.8
21	Anthem	0.134 lb ai/a		8 oz/a		A	Spike	98.8	100.0	0.0	97.5	100.0	100.0
22	Cadet	0.00427 lb ai/a		0.6 oz/a		A	Spike	47.5	68.8	0.0	85.5	83.0	92.5
23	Realm Q			4 oz/a		A	Spike	98.8	98.8	0.0	93.8	97.5	98.8
	>Rimsulfuron (Resolve DF)	0.0188 lb ai/a		1.2 oz/a		A	Spike						
	>Mesotrione	0.078 lb ai/a		2.5 oz/a		A	Spike						
	>Isoxadifen-ethyl	0.0094 lb ai/a		0.3 oz/a		A	Spike						
24	Resolve Q			1.25 oz/a		A	Spike	80.0	83.8	0.0	93.0	97.5	98.8
	>Rimsulfuron (Resolve DF)	0.0144 lb ai/a		0.92 oz/a		A	Spike						
	>Thifensulfuron (Harmony SG)	0.00313 lb ai/a		0.1 oz/a		A	Spike						
	>Isoxadifen-ethyl	0.0072 lb ai/a		0.23 oz/a		A	Spike						
25	Prowl H20	1.14 lb ai/a		38.4 oz/a		A	Spike	55.0	70.0	0.0	92.5	83.5	96.3
	LSD (P=.05)							14.71	16.90	9.09	6.33	6.65	4.42
	Standard Deviation							10.40	11.95	6.42	4.48	4.70	3.12
	CV							12.15	13.44	305.94	4.96	5.12	3.3
	Grand Mean							85.62	88.93	2.1	90.3	91.81	94.61

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Lengths of Control of Residuals in Corn

Trial ID: HCO-21311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed								
Pest Code	ECHCG	AMAPA	IPOSS								
Pest Scientific Name	Echinochloa cr->	Amaranthus pal->	Ipomoea sp.								
Pest Name	Common barnyard	Palmer amaranth	Morning glory								
Crop Code	ZEAMX	ZEAMX	ZEAMX								
Crop Scientific Name	Zea mays	Zea mays	Zea mays								
Crop Name	Corn	Corn	Corn								
Part Assessed	PLANT P	PLANT P	PLANT P								
Assessment Date	6/23/11	6/23/11	6/23/11								
Assessment Type	CONTRO	CONTRO	CONTRO								
Assessment Unit	%	%	%								
Number of Subsamples	1	1	1								
Crop Stage Majority	VT 65"	VT 65"	VT 65"								
Pest Stage Majority	10-30"	10-50"	10-30"								
Assessed By	JB	JB	JB								
Days After First/Last Applic.	49 23	49 23	49 23								
Trt-Eval Interval	59 DA-A	59 DA-A	59 DA-A								
Plant-Eval Interval	66 DP-1	66 DP-1	66 DP-1								
Days After Emergence	60 DE-1	60 DE-1	60 DE-1								
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Rate	Appl Unit	Appl Code	Appl Description	20	21	22
1	Untreated Check								0.0	0.0	0.0
2	AAtrex	2 lb ai/a		64 oz/a		A	Spike		81.5	91.0	97.0
3	Callisto	0.219 lb ai/a		7 oz/a		A	Spike		83.5	96.3	97.5
4	Dual II Magnum	1.27 lb ai/a		21.3 oz/a		A	Spike		90.5	93.8	99.0
5	Bicep II Magnum	2.06 lb ai/a		48 oz/a		A	Spike		89.0	98.8	100.0
6	Lexar	2.76 lb ai/a		96 oz/a		A	Spike		97.8	100.0	100.0
7	Lumax	2.93 lb ai/a		96 oz/a		A	Spike		91.5	100.0	100.0
8	Dual Magnum	1.58 lb ai/a		26.5 oz/a		A	Spike		97.8	100.0	98.8
	AAtrex	2 lb ai/a		64 oz/a		A	Spike				
9	Warrant	1.13 lb ai/a		48 oz/a		A	Spike		84.8	90.0	100.0
10	Harness Xtra	3.5 lb ai/a		80 oz/a		A	Spike		92.5	98.8	100.0
11	Zidua	0.106 lb ai/a		2 oz/a		A	Spike		95.0	95.0	98.8
12	Sharpen	0.0445 lb ai/a		2 oz/a		A	Spike		65.0	78.8	90.0
13	Verdict	0.65 lb ai/a		15 oz/a		A	Spike		88.5	100.0	100.0
14	Fierce	0.143 lb ai/a		3 oz/a		A	Spike		91.3	90.0	100.0
15	Laudis	0.082 lb ai/a		3 oz/a		A	Spike		78.8	86.8	90.0
16	Balance Flexx	0.094 lb ai/a		6 oz/a		A	Spike		77.5	97.5	97.5
17	Corvus	0.115 lb ai/a		5.6 oz/a		A	Spike		92.8	100.0	100.0
18	Capreno	0.081 lb ai/a		3 oz/a		A	Spike		85.0	95.0	100.0
19	Outlook	4.5 lb ai/a		96 oz/a		A	Spike		98.5	100.0	99.5
20	Impact	0.016 lb ai/a		0.73 oz/a		A	Spike		73.0	76.3	87.5
21	Anthem	0.134 lb ai/a		8 oz/a		A	Spike		98.5	100.0	100.0
22	Cadet	0.00427 lb ai/a		0.6 oz/a		A	Spike		72.5	65.0	85.0
23	Realm Q			4 oz/a		A	Spike		90.8	100.0	100.0
	>Rimsulfuron (Resolve DF)	0.0188 lb ai/a		1.2 oz/a		A	Spike				
	>Mesotrione	0.078 lb ai/a		2.5 oz/a		A	Spike				
	>Isoxadifen-ethyl	0.0094 lb ai/a		0.3 oz/a		A	Spike				
24	Resolve Q			1.25 oz/a		A	Spike		86.8	90.0	96.3
	>Rimsulfuron (Resolve DF)	0.0144 lb ai/a		0.92 oz/a		A	Spike				
	>Thifensulfuron (Harmony SG)	0.00313 lb ai/a		0.1 oz/a		A	Spike				
	>Isoxadifen-ethyl	0.0072 lb ai/a		0.23 oz/a		A	Spike				
25	Prowl H20	1.14 lb ai/a		38.4 oz/a		A	Spike		83.8	77.5	90.0
LSD (P=.05)									10.57	10.67	10.06
Standard Deviation									7.48	7.55	7.12
CV									8.96	8.5	7.65
Grand Mean									83.45	88.81	93.07

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Programs using Impact for Corn Weed Control

Trial ID: HCO-21411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: ZEAMX Zea mays Corn
Variety: REV 28HR20
BBCH Scale: BCOR
Planting Method: PLANTD planted
Depth, Unit: 1 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: GOOD good
Description: RR 2 / LL / Herculex / Cruiser
Planting Date: 4/18/11
Rate, Unit: 33000 S/A
Spacing Within Row, Unit: 4 IN
Soil Temperature, Unit: 66.7 F
Emergence Date: 4/24/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-til
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	5/10/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	Y	yes
2.	5/10/11	In Season Fertilizer	Zinc	1	PT/A	Y	yes
3.	5/10/11	In Season Fertilizer	Sulphur	1	PT/A	Y	yes
4.	6/1/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	N	no

Soil Description

Description Name: 2011 Corn
% Sand: 16
% Silt: 67
% Clay: 17
% OM: 2.2
pH: 7.1
CEC: 14
Texture: SIL silt loam
Soil Name: Herbert Silt Loam
Fert. Level: G good
Soil Drainage: G good

Application Description

A	
Application Date:	5/20/11
Time of Day:	AM
Application Method:	SPRAY
Application Timing:	POSPOS
Application Placement:	BROFOL
Applied By:	ZH
Air Temperature, Unit:	73.9 F
% Relative Humidity:	76.0
Wind Velocity, Unit:	6.2 MPH
Wind Direction:	SSW
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	72.8 F
Soil Moisture:	GOOD
% Cloud Cover:	20
Next Rain Occurred On:	5/21/11

Crop Stage At Each Application

A	
Crop 1 Code, BBCH Scale:	ZEAMX BCOR
Stage Scale Used:	BBCH
Stage Majority, Percent:	V3
Height, Unit:	6 IN

Pest Stage At Each Application

A	
Pest 1 Code, Type, Scale:	ECHCG W
Height, Unit:	4 IN
Pest 2 Code, Type, Scale:	AMAPA W
Height, Unit:	3 IN
Pest 3 Code, Type, Scale:	IPOSS W
Height, Unit:	1 IN

University of Arkansas-Division of Agriculture

Programs using Impact for Corn Weed Control

Trial ID: HCO-21411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Application Equipment

	A
Appl. Equipment:	Multi Boom
Equipment Type:	SPTRMO
Operation Pressure, Unit:	50 PSI
Nozzle Type:	Air-Mix
Nozzle Size:	110015
Nozzle Spacing, Unit:	19 IN
Nozzles/Row:	2
% Coverage:	100
Boom Length, Unit:	12.6 FT
Boom Height, Unit:	18 IN
Carrier:	WATER
Spray Volume, Unit:	12 gal/ac
Mix Size, Unit:	3 Liters
Propellant:	COMCO2
Tank Mix (Y/N):	Y yes

University of Arkansas-Division of Agriculture

Programs using Impact for Corn Weed Control

Trial ID: HCO-21411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG							
Pest Code	Echinochloa cr>	Amaranthus pal>	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>							
Pest Scientific Name	Common barnyar>	Palmer amaranth>	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>							
Pest Name													
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX							
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays							
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	6/3/11	6/3/11	6/11/11	6/11/11	6/11/11	6/23/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	V5"	V5"	V8 30"	V8 30"	V8 30"	VT 65"							
Pest Stage Majority	2-6"	3-9"	4-14"	4-24"	2-12"	10-30"							
Assessed By	JM	JM	JM	JM	JM	JB							
Days After First/Last Applic.	29 3	29 3	22 22	22 22	22 22	49 23							
Trt-Eval Interval	14 DA-A	14 DA-A	22 DA-A	22 DA-A	22 DA-A	34 DA-A							
Plant-Eval Interval	46 DP-1	46 DP-1	54 DP-1	54 DP-1	54 DP-1	66 DP-1							
Days After Emergence	40 DE-1	40 DE-1	48 DE-1	48 DE-1	48 DE-1	60 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	Callisto COC	0.094 1	lb ai/a % v/v	3 15.4	oz/a oz/a	A A	V2 - V3 V2 - V3	47.5	40.0	78.8	67.5	82.5	70.0
3	Laudis MSO	0.082 1	lb ai/a % v/v	3 15.4	oz/a oz/a	A A	V2 - V3 V2 - V3	70.0	56.7	77.5	67.5	87.5	62.5
4	Impact MSO	0.0164 1	lb ai/a % v/v	0.75 15.4	oz/a oz/a	A A	V2 - V3 V2 - V3	71.3	60.0	86.3	79.3	92.5	75.0
5	AAtrex COC	1 1	lb ai/a % v/v	32 15.4	oz/a oz/a	A A	V2 - V3 V2 - V3	52.5	85.0	85.8	83.5	93.8	67.5
6	AAtrex Callisto COC	1 0.094 1	lb ai/a lb ai/a % v/v	32 3 15.4	oz/a oz/a oz/a	A A A	V2 - V3 V2 - V3 V2 - V3	72.5	91.3	91.3	97.5	98.8	85.0
7	AAtrex Laudis COC	1 0.082 1	lb ai/a lb ai/a % v/v	32 3 15.4	oz/a oz/a oz/a	A A A	V2 - V3 V2 - V3 V2 - V3	57.5	90.0	95.0	95.5	98.8	87.5
8	AAtrex Impact COC	1 0.0164 1	lb ai/a lb ai/a % v/v	32 0.75 15.4	oz/a oz/a oz/a	A A A	V2 - V3 V2 - V3 V2 - V3	58.8	65.0	91.3	96.3	98.8	85.0
9	AAtrex Dual II Magnum COC	1 0.955 1	lb ai/a lb ai/a % v/v	32 16 15.4	oz/a oz/a oz/a	A A A	V2 - V3 V2 - V3 V2 - V3	47.5	72.5	84.8	84.3	97.5	70.0
10	Lexar COC	2.31 1	lb ai/a % v/v	80 15.4	oz/a oz/a	A A	V2 - V3 V2 - V3	75.0	97.5	94.3	97.5	98.8	87.5
LSD (P=.05)								25.49	22.35	12.51	9.76	9.42	12.69
Standard Deviation								17.56	15.31	8.62	6.73	6.49	8.75
CV								31.79	23.27	10.99	8.75	7.65	12.67
Grand Mean								55.25	65.79	78.48	76.88	84.88	69.0

University of Arkansas-Division of Agriculture

Programs using Impact for Corn Weed Control

Trial ID: HCO-21411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS							
Pest Code	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Scientific Name	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory							
Pest Name												
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX							
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays							
Crop Name	Corn	Corn	Corn	Corn	Corn							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	6/23/11	6/23/11	9/7/11	9/7/11	9/7/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1							
Crop Stage Majority	VT 65"	VT 65"	R6 75"	R6 75"	R6 75"							
Pest Stage Majority	10-50"	10-30"	20-40"	40-70"	20-60"							
Assessed By	JB	JB	JB	JB	JB							
Days After First/Last Applic.	49 23	49 23	141 93	141 93	141 93							
Trt-Eval Interval	34 DA-A	34 DA-A	17 DA-D	17 DA-D	17 DA-D							
Plant-Eval Interval	66 DP-1	66 DP-1	142 DP-1	142 DP-1	142 DP-1							
Days After Emergence	60 DE-1	60 DE-1	136 DE-1	136 DE-1	136 DE-1							
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	7	8	9	10	11
1	Untreated Check							0.0	0.0	0.0	0.0	0.0
2	Callisto COC	0.094 1	lb ai/a % v/v	3 15.4	oz/a oz/a	A A	V2 - V3 V2 - V3	60.0	80.0	42.5	53.8	53.8
3	Laudis MSO	0.082 1	lb ai/a % v/v	3 15.4	oz/a oz/a	A A	V2 - V3 V2 - V3	60.0	70.0	51.3	50.0	51.3
4	Impact MSO	0.0164 1	lb ai/a % v/v	0.75 15.4	oz/a oz/a	A A	V2 - V3 V2 - V3	72.5	85.0	62.5	60.0	55.0
5	AAtrex COC	1 1	lb ai/a % v/v	32 15.4	oz/a oz/a	A A	V2 - V3 V2 - V3	65.0	80.0	52.5	77.5	90.0
6	AAtrex Callisto COC	1 0.094 1	lb ai/a lb ai/a % v/v	32 3 15.4	oz/a oz/a oz/a	A A A	V2 - V3 V2 - V3 V2 - V3	92.5	93.8	55.0	85.0	87.5
7	AAtrex Laudis COC	1 0.082 1	lb ai/a lb ai/a % v/v	32 3 15.4	oz/a oz/a oz/a	A A A	V2 - V3 V2 - V3 V2 - V3	87.5	95.0	40.0	70.0	70.0
8	AAtrex Impact COC	1 0.0164 1	lb ai/a lb ai/a % v/v	32 0.75 15.4	oz/a oz/a oz/a	A A A	V2 - V3 V2 - V3 V2 - V3	87.5	95.0	40.0	72.5	70.0
9	AAtrex Dual II Magnum COC	1 0.955 1	lb ai/a lb ai/a % v/v	32 16 15.4	oz/a oz/a oz/a	A A A	V2 - V3 V2 - V3 V2 - V3	75.0	82.5	47.5	57.5	70.0
10	Lexar COC	2.31 1	lb ai/a % v/v	80 15.4	oz/a oz/a	A A	V2 - V3 V2 - V3	94.5	95.0	45.0	82.5	85.0
LSD (P=.05)								17.68	14.28	30.62	28.23	27.87
Standard Deviation								12.18	9.84	21.10	19.45	19.21
CV								17.54	12.68	48.37	31.95	30.37
Grand Mean								69.45	77.63	43.63	60.88	63.25

University of Arkansas-Division of Agriculture

PRE Weed Control without Atrazine

Trial ID: HCO-21611
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: ZEAMX Zea mays Corn
Variety: REV 28HR20
BBCH Scale: BCOR
Planting Method: PLANTD planted
Depth, Unit: 1 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: GOOD good
Description: RR 2 / LL / Herculex / Cruiser
Planting Date: 5/6/11
Rate, Unit: 33000 S/A
Spacing Within Row, Unit: 4 IN
Soil Temperature, Unit: 73.8 F
Emergence Date: 5/10/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-til
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	5/10/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	Y	yes
2.	5/10/11	In Season Fertilizer	Zinc	1	PT/A	Y	yes
3.	5/10/11	In Season Fertilizer	Sulphur	1	PT/A	Y	yes
4.	6/1/11	In Season Fertilizer	38% Liquid Nitrogen	150	LB/A	N	no

Soil Description

Description Name: 2011 Corn
% Sand: 16
% Silt: 67
% Clay: 17
% OM: 2.2
pH: 7.1
CEC: 14
Texture: SIL silt loam
Soil Name: Herbert Silt Loam
Fert. Level: G good
Soil Drainage: G good

Application Description

	A	B
Application Date:	5/6/11	6/13/11
Time of Day:	AM	PM
Application Method:	SPRAY	SPRAY
Application Timing:	PREPRE	POSPOS
Application Placement:	BROSOI	BROFOL
Applied By:	JM	BM
Air Temperature, Unit:	63.7 F	85.6 F
% Relative Humidity:	69.0	58.0
Wind Velocity, Unit:	2.1 MPH	5.1 MPH
Wind Direction:	W	W
Dew Presence (Y/N):	N no	N no
Soil Temperature, Unit:	62.6 F	85.9 F
Soil Moisture:	GOOD	NORMAL
% Cloud Cover:	25	10
Next Rain Occurred On:	5/16/11	6/14/11

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:	BBCH	BBCH
Stage Majority, Percent:	V0	V7
Height, Unit:	0 IN	24 IN

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W
Height, Unit:	0 IN	8 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W
Height, Unit:	0 IN	8 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W
Height, Unit:	0 IN	4 IN

University of Arkansas-Division of Agriculture

PRE Weed Control without Atrazine

Trial ID: HCO-21611
 Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B
Appl. Equipment:	Multi Boom	Hand Boom
Equipment Type:	SPTRMO	SPRBAC
Operation Pressure, Unit:	50 PSI	45 PSI
Nozzle Type:	Air-Mix	Air-Mix
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN
Nozzles/Row:	2	2
% Coverage:	100	100
Boom Length, Unit:	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN
Carrier:	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes

University of Arkansas-Division of Agriculture

PRE Weed Control without Atrazine

Trial ID: HCO-21611
 Location: Rohwer, AR
 Investigator: Kenneth Smith

		W Weed ECHCG Echinochloa cr> Common barnyar>		W Weed AMAPA Amaranthus pal> Palmer amaranth		W Weed IPOSS Ipomoea sp. Morning glory		W Weed ECHCG Echinochloa cr> Common barnyar>		W Weed AMAPA Amaranthus pal> Palmer amaranth			
Pest Type	Pest Code	ZEAMX		ZEAMX		ZEAMX		ZEAMX		ZEAMX			
Pest Scientific Name	Pest Name	Zea mays Corn		Zea mays Corn		Zea mays Corn		Zea mays Corn		Zea mays Corn			
Crop Code	Crop Scientific Name	PLANT P		PLANT P		PLANT P		PLANT C		PLANT P			
Crop Name	Part Assessed	5/19/11		5/19/11		5/19/11		5/19/11		6/3/11			
Assessment Date	Assessment Type	CONTRO		CONTRO		CONTRO		PHYGEN		CONTRO			
Assessment Unit	Number of Subsamples	%		%		%		%		%			
Assessment Unit	Number of Subsamples	1		1		1		1		1			
Crop Stage Majority	Pest Stage Majority	V2"		V2"		V2"		V2"		V5 18"			
Assessed By	Days After First/Last Applic.	1-3"		1-2"		1-4"		1-4"		2-6"			
Days After First/Last Applic.	Trt-Eval Interval	JM		JM		JM		JB		JM			
Days After First/Last Applic.	Plant-Eval Interval	13 13		13 13		13 13		13 13		45 3			
Days After First/Last Applic.	Days After Emergence	13 DA-A		13 DA-A		13 DA-A		13 DA-A		28 DA-A			
Days After First/Last Applic.	Days After Emergence	13 DP-1		13 DP-1		13 DP-1		13 DP-1		46 DP-1			
Days After First/Last Applic.	Days After Emergence	9 DE-1		9 DE-1		9 DE-1		9 DE-1		40 DE-1			
Days After First/Last Applic.	Days After Emergence	9 DE-1		9 DE-1		9 DE-1		9 DE-1		40 DE-1			
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	Dual II Magnum Roundup WeatherMax AMS	1.43 0.77 2.5	lb ai/a lb ae/a lb ai/a	24 22 5	oz/a oz/a gal/100 gal	A B B	Pre 15 - 20" Corn 15 - 20" Corn	100.0	100.0	100.0	0.0	95.0	83.8
3	Dual II Magnum Callisto Roundup WeatherMax AMS	1.43 0.094 0.77 2.5	lb ai/a lb ai/a lb ae/a lb ai/a	24 3 22 5	oz/a oz/a oz/a gal/100 gal	A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	100.0	100.0	100.0	0.0	90.0	88.8
4	Dual II Magnum Cadet Roundup WeatherMax AMS	1.43 0.00427 0.77 2.5	lb ai/a lb ai/a lb ae/a lb ai/a	24 0.6 22 5	oz/a oz/a oz/a gal/100 gal	A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	100.0	100.0	100.0	0.0	87.5	82.5
5	Dual II Magnum Zidua Roundup WeatherMax AMS	1.43 0.106 0.77 2.5	lb ai/a lb ai/a lb ae/a lb ai/a	24 2 22 5	oz/a oz/a oz/a gal/100 gal	A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	100.0	100.0	100.0	0.0	93.8	91.3
6	Dual II Magnum Warrant Roundup WeatherMax AMS	1.43 1.13 0.77 2.5	lb ai/a lb ai/a lb ae/a lb ai/a	24 48 22 5	oz/a oz/a oz/a gal/100 gal	A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	100.0	100.0	100.0	0.0	92.5	86.3
7	Dual II Magnum Impact Roundup WeatherMax AMS	1.43 0.0164 0.77 2.5	lb ai/a lb ai/a lb ae/a lb ai/a	24 0.75 22 5	oz/a oz/a oz/a gal/100 gal	A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	100.0	100.0	100.0	0.0	85.0	82.5
8	Dual II Magnum Anthem Roundup WeatherMax AMS	1.43 0.134 0.77 2.5	lb ai/a lb ai/a lb ae/a lb ai/a	24 8 22 5	oz/a oz/a oz/a gal/100 gal	A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	100.0	100.0	100.0	0.0	95.0	95.0
9	Dual II Magnum Laudis Roundup WeatherMax AMS	1.43 0.082 0.77 2.5	lb ai/a lb ai/a lb ae/a lb ai/a	24 3 22 5	oz/a oz/a oz/a gal/100 gal	A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	100.0	100.0	100.0	0.0	88.8	75.0
10	Dual II Magnum Balance Flexx Roundup WeatherMax AMS	1.43 0.078 0.77 2.5	lb ai/a lb ai/a lb ae/a lb ai/a	24 5 22 5	oz/a oz/a oz/a gal/100 gal	A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	100.0	100.0	100.0	0.0	95.0	87.5
11	Dual II Magnum Capreno Roundup WeatherMax AMS	1.43 0.081 0.77 2.5	lb ai/a lb ai/a lb ae/a lb ai/a	24 3 22 5	oz/a oz/a oz/a gal/100 gal	A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	100.0	100.0	100.0	0.0	97.5	87.5
12	Dual II Magnum Corvus Roundup WeatherMax AMS	1.43 0.103 0.77 2.5	lb ai/a lb ai/a lb ae/a lb ai/a	24 5 22 5	oz/a oz/a oz/a gal/100 gal	A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	100.0	100.0	100.0	0.0	98.8	92.5
13	Dual II Magnum Sharpen Roundup WeatherMax AMS	1.43 0.0557 0.77 2.5	lb ai/a lb ai/a lb ae/a lb ai/a	24 2.5 22 5	oz/a oz/a oz/a gal/100 gal	A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	100.0	100.0	100.0	0.0	95.0	82.5
14	Dual II Magnum Resolve Q >Rimsulfuron (Resolve DF) >Thifensulfuron (Harmony SG) >Isoxadifen-ethyl Roundup WeatherMax AMS	1.43 0.0144 0.00313 0.0072 0.77 2.5	lb ai/a lb ai/a lb ai/a lb ai/a lb ae/a lb ai/a	24 1.25 0.92 0.1 22 5	oz/a oz/a oz/a oz/a oz/a gal/100 gal	A A A A B B	Pre Pre Pre Pre 15 - 20" Corn 15 - 20" Corn	100.0	100.0	100.0	0.0	92.5	82.5
15	Dual II Magnum Realm Q >Rimsulfuron (Resolve DF) >Mesotrione >Isoxadifen-ethyl Roundup WeatherMax AMS	1.43 0.0188 0.078 0.0094 0.77 2.5	lb ai/a lb ai/a lb ai/a lb ai/a lb ae/a lb ai/a	24 4 1.2 2.5 0.3 22 5	oz/a oz/a oz/a oz/a oz/a gal/100 gal	A A A A B B	Pre Pre Pre Pre 15 - 20" Corn 15 - 20" Corn	100.0	100.0	97.5	0.0	93.8	88.8
16	Dual II Magnum AAtrex Roundup WeatherMax AMS	0.955 2 0.77 2.5	lb ai/a lb ai/a lb ae/a lb ai/a	16 64 22 5	oz/a oz/a oz/a gal/100 gal	A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	100.0	100.0	100.0	0.0	97.5	100.0

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

PRE Weed Control without Atrazine

Trial ID: HCO-21611
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed		W Weed	W Weed						
Pest Code	ECHCG	AMAPA	IPOSS		ECHCG	AMAPA						
Pest Scientific Name	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.		Echinochloa cr>	Amaranthus pal>						
Pest Name	Common barnyar>	Palmer amaranth	Morning glory		Common barnyar>	Palmer amaranth						
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX						
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays						
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn						
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT C	PLANT P	PLANT P						
Assessment Date	5/19/11	5/19/11	5/19/11	5/19/11	6/3/11	6/3/11						
Assessment Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO						
Assessment Unit	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	V2"	V2"	V2"	V2"	V5 18"	V5 18"						
Pest Stage Majority	1-3"	1-2"	1-4"		2-6"	2-4"						
Assessed By	JM	JM	JM	JB	JM	JM						
Days After First/Last Applic.	13 13	13 13	13 13	13 13	45 3	45 3						
Trt-Eval Interval	13 DA-A	13 DA-A	13 DA-A	13 DA-A	28 DA-A	28 DA-A						
Plant-Eval Interval	13 DP-1	13 DP-1	13 DP-1	13 DP-1	46 DP-1	46 DP-1						
Days After Emergence	9 DE-1	9 DE-1	9 DE-1	9 DE-1	40 DE-1	40 DE-1						
Trt Treatment No. Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6
17 Lexar	2.78	lb ai/a	96	oz/a	A	Pre	100.0	100.0	100.0	0.0	97.5	100.0
Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	15 - 20" Corn						
AMS	2.5	lb ai/a	5	gal/100 gal	B	15 - 20" Corn						
LSD (P=.05)							0.00	0.00	1.73	0.00	10.87	12.30
Standard Deviation							0.00	0.00	1.21	0.00	7.61	8.61
CV							0.0	0.0	1.29	0.0	8.65	10.4
Grand Mean							94.12	94.12	93.97	0.0	87.94	82.72

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

PRE Weed Control without Atrazine

Trial ID: HCO-21611
 Location: Rohwer, AR
 Investigator: Kenneth Smith

							W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	
							Ipomoea sp. Morning glory	Echinochloa cr> Common barnyar>	Amaranthus pal> Palmer amaranth	Ipomoea sp. Morning glory	Echinochloa cr> Common barnyar>	Amaranthus pal> Palmer amaranth	
							ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	
							Zea mays Corn	Zea mays Corn	Zea mays Corn	Zea mays Corn	Zea mays Corn	Zea mays Corn	
							PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	
							6/3/11	6/23/11	6/23/11	6/23/11	9/7/11	9/7/11	
							CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	
							%	%	%	%	%	%	
							1	1	1	1	1	1	
							V5 18"	V9 55"	V9 55"	V9 55"	R6 75"	R6 75"	
							1-3"	10-20"	10-40"	10-65"	20-40"	40-70"	
							JM	JB	JB	JB	JB	JB	
							45 3	65 17	65 17	65 17	141 93	141 93	
							28 DA-A	10 DA-B	10 DA-B	10 DA-B	17 DA-D	17 DA-D	
							46 DP-1	66 DP-1	66 DP-1	66 DP-1	142 DP-1	142 DP-1	
							40 DE-1	60 DE-1	60 DE-1	60 DE-1	136 DE-1	136 DE-1	
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	7	8	9	10	11	12
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	Dual II Magnum Roundup WeatherMax AMS	1.43 lb ai/a 0.77 lb ae/a 2.5 lb ai/a	ai/a ae/a ai/a	24 oz/a 22 oz/a 5 gal/100 gal		A B B	Pre 15 - 20" Corn 15 - 20" Corn	90.0	100.0	98.8	100.0	70.0	85.0
3	Dual II Magnum Callisto Roundup WeatherMax AMS	1.43 lb ai/a 0.094 lb ai/a 0.77 lb ae/a 2.5 lb ai/a	ai/a ai/a ae/a ai/a	24 oz/a 3 oz/a 22 oz/a 5 gal/100 gal		A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	95.0	97.5	100.0	100.0	75.0	90.0
4	Dual II Magnum Cadet Roundup WeatherMax AMS	1.43 lb ai/a 0.00427 lb ai/a 0.77 lb ae/a 2.5 lb ai/a	ai/a ai/a ae/a ai/a	24 oz/a 0.6 oz/a 22 oz/a 5 gal/100 gal		A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	96.3	98.8	100.0	100.0	86.3	90.0
5	Dual II Magnum Zidua Roundup WeatherMax AMS	1.43 lb ai/a 0.106 lb ai/a 0.77 lb ae/a 2.5 lb ai/a	ai/a ai/a ae/a ai/a	24 oz/a 2 oz/a 22 oz/a 5 gal/100 gal		A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	96.3	100.0	100.0	100.0	81.3	92.5
6	Dual II Magnum Warrant Roundup WeatherMax AMS	1.43 lb ai/a 1.13 lb ai/a 0.77 lb ae/a 2.5 lb ai/a	ai/a ai/a ae/a ai/a	24 oz/a 48 oz/a 22 oz/a 5 gal/100 gal		A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	95.0	98.8	98.8	100.0	87.5	91.3
7	Dual II Magnum Impact Roundup WeatherMax AMS	1.43 lb ai/a 0.0164 lb ai/a 0.77 lb ae/a 2.5 lb ai/a	ai/a ai/a ae/a ai/a	24 oz/a 0.75 oz/a 22 oz/a 5 gal/100 gal		A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	92.5	100.0	100.0	97.5	82.5	90.0
8	Dual II Magnum Anthem Roundup WeatherMax AMS	1.43 lb ai/a 0.134 lb ai/a 0.77 lb ae/a 2.5 lb ai/a	ai/a ai/a ae/a ai/a	24 oz/a 8 oz/a 22 oz/a 5 gal/100 gal		A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	97.5	100.0	100.0	100.0	85.0	87.5
9	Dual II Magnum Laudis Roundup WeatherMax AMS	1.43 lb ai/a 0.082 lb ai/a 0.77 lb ae/a 2.5 lb ai/a	ai/a ai/a ae/a ai/a	24 oz/a 3 oz/a 22 oz/a 5 gal/100 gal		A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	85.0	100.0	96.3	97.5	81.3	88.8
10	Dual II Magnum Balance Flexx Roundup WeatherMax AMS	1.43 lb ai/a 0.078 lb ai/a 0.77 lb ae/a 2.5 lb ai/a	ai/a ai/a ae/a ai/a	24 oz/a 5 oz/a 22 oz/a 5 gal/100 gal		A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	97.5	100.0	100.0	100.0	91.3	95.0
11	Dual II Magnum Capreno Roundup WeatherMax AMS	1.43 lb ai/a 0.081 lb ai/a 0.77 lb ae/a 2.5 lb ai/a	ai/a ai/a ae/a ai/a	24 oz/a 3 oz/a 22 oz/a 5 gal/100 gal		A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	95.0	100.0	98.8	98.8	80.0	88.8
12	Dual II Magnum Corvus Roundup WeatherMax AMS	1.43 lb ai/a 0.103 lb ai/a 0.77 lb ae/a 2.5 lb ai/a	ai/a ai/a ae/a ai/a	24 oz/a 5 oz/a 22 oz/a 5 gal/100 gal		A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	95.0	100.0	100.0	100.0	85.0	93.8
13	Dual II Magnum Sharpen Roundup WeatherMax AMS	1.43 lb ai/a 0.0557 lb ai/a 0.77 lb ae/a 2.5 lb ai/a	ai/a ai/a ae/a ai/a	24 oz/a 2.5 oz/a 22 oz/a 5 gal/100 gal		A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	97.5	100.0	100.0	100.0	77.5	92.5
14	Dual II Magnum Resolve Q >Rimsulfuron (Resolve DF) >Thifensulfuron (Harmony SG) >Isoxadifen-ethyl Roundup WeatherMax AMS	1.43 lb ai/a 0.0144 lb ai/a 0.00313 lb ai/a 0.0072 lb ai/a 0.77 lb ae/a 2.5 lb ai/a	ai/a ai/a ai/a ai/a ae/a ai/a	24 oz/a 1.25 oz/a 0.92 oz/a 0.1 oz/a 22 oz/a 5 gal/100 gal		A A A A B B	Pre Pre Pre Pre 15 - 20" Corn 15 - 20" Corn	92.5	100.0	100.0	100.0	91.3	91.3
15	Dual II Magnum Realm Q >Rimsulfuron (Resolve DF) >Mesotrione >Isoxadifen-ethyl Roundup WeatherMax AMS	1.43 lb ai/a 0.0188 lb ai/a 0.078 lb ai/a 0.0094 lb ai/a 0.77 lb ae/a 2.5 lb ai/a	ai/a ai/a ai/a ai/a ae/a ai/a	24 oz/a 4 oz/a 1.2 oz/a 2.5 oz/a 22 oz/a 5 gal/100 gal		A A A A B B	Pre Pre Pre Pre 15 - 20" Corn 15 - 20" Corn	92.5	100.0	97.5	100.0	75.0	88.8
16	Dual II Magnum AAtrex Roundup WeatherMax AMS	0.955 lb ai/a 2 lb ai/a 0.77 lb ae/a 2.5 lb ai/a	ai/a ai/a ae/a ai/a	16 oz/a 64 oz/a 22 oz/a 5 gal/100 gal		A A B B	Pre Pre 15 - 20" Corn 15 - 20" Corn	97.5	100.0	100.0	100.0	80.0	82.5

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

PRE Weed Control without Atrazine

Trial ID: HCO-21611
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA						
Pest Code	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>						
Pest Scientific Name	Morning glory	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth						
Pest Name												
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX						
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays						
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn						
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P						
Assessment Date	6/3/11	6/23/11	6/23/11	6/23/11	9/7/11	9/7/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	V5 18"	V9 55"	V9 55"	V9 55"	R6 75"	R6 75"						
Pest Stage Majority	1-3"	10-20"	10-40"	10-65"	20-40"	40-70"						
Assessed By	JM	JB	JB	JB	JB	JB						
Days After First/Last Applic.	45 3	65 17	65 17	65 17	141 93	141 93						
Trt-Eval Interval	28 DA-A	10 DA-B	10 DA-B	10 DA-B	17 DA-D	17 DA-D						
Plant-Eval Interval	46 DP-1	66 DP-1	66 DP-1	66 DP-1	142 DP-1	142 DP-1						
Days After Emergence	40 DE-1	60 DE-1	60 DE-1	60 DE-1	136 DE-1	136 DE-1						
Trt Treatment No. Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	7	8	9	10	11	12
17 Lexar	2.78	lb ai/a	96	oz/a	A	Pre	100.0	100.0	100.0	100.0	85.0	92.5
Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	15 - 20" Corn						
AMS	2.5	lb ai/a	5	gal/100 gal	B	15 - 20" Corn						
LSD (P=.05)							9.09	2.13	3.26	2.65	17.42	7.77
Standard Deviation							6.36	1.49	2.28	1.85	12.19	5.44
CV							7.14	1.59	2.44	1.98	15.77	6.42
Grand Mean							89.12	93.82	93.53	93.75	77.28	84.71

University of Arkansas-Division of Agriculture

PRE Weed Control without Atrazine

Trial ID: HCO-21611
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	13
1	Untreated Check							0.0
2	Dual II Magnum	1.43	lb ai/a	24	oz/a	A	Pre	78.8
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	15 - 20" Corn	
	AMS	2.5	lb ai/a	5	gal/100 gal	B	15 - 20" Corn	
3	Dual II Magnum	1.43	lb ai/a	24	oz/a	A	Pre	85.0
	Callisto	0.094	lb ai/a	3	oz/a	A	Pre	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	15 - 20" Corn	
	AMS	2.5	lb ai/a	5	gal/100 gal	B	15 - 20" Corn	
4	Dual II Magnum	1.43	lb ai/a	24	oz/a	A	Pre	81.3
	Cadet	0.00427	lb ai/a	0.6	oz/a	A	Pre	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	15 - 20" Corn	
	AMS	2.5	lb ai/a	5	gal/100 gal	B	15 - 20" Corn	
5	Dual II Magnum	1.43	lb ai/a	24	oz/a	A	Pre	92.5
	Zidua	0.106	lb ai/a	2	oz/a	A	Pre	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	15 - 20" Corn	
	AMS	2.5	lb ai/a	5	gal/100 gal	B	15 - 20" Corn	
6	Dual II Magnum	1.43	lb ai/a	24	oz/a	A	Pre	78.8
	Warrant	1.13	lb ai/a	48	oz/a	A	Pre	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	15 - 20" Corn	
	AMS	2.5	lb ai/a	5	gal/100 gal	B	15 - 20" Corn	
7	Dual II Magnum	1.43	lb ai/a	24	oz/a	A	Pre	72.5
	Impact	0.0164	lb ai/a	0.75	oz/a	A	Pre	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	15 - 20" Corn	
	AMS	2.5	lb ai/a	5	gal/100 gal	B	15 - 20" Corn	
8	Dual II Magnum	1.43	lb ai/a	24	oz/a	A	Pre	87.5
	Anthem	0.134	lb ai/a	8	oz/a	A	Pre	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	15 - 20" Corn	
	AMS	2.5	lb ai/a	5	gal/100 gal	B	15 - 20" Corn	
9	Dual II Magnum	1.43	lb ai/a	24	oz/a	A	Pre	87.5
	Laudis	0.082	lb ai/a	3	oz/a	A	Pre	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	15 - 20" Corn	
	AMS	2.5	lb ai/a	5	gal/100 gal	B	15 - 20" Corn	
10	Dual II Magnum	1.43	lb ai/a	24	oz/a	A	Pre	90.0
	Balance Flexx	0.078	lb ai/a	5	oz/a	A	Pre	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	15 - 20" Corn	
	AMS	2.5	lb ai/a	5	gal/100 gal	B	15 - 20" Corn	
11	Dual II Magnum	1.43	lb ai/a	24	oz/a	A	Pre	92.5
	Capreno	0.081	lb ai/a	3	oz/a	A	Pre	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	15 - 20" Corn	
	AMS	2.5	lb ai/a	5	gal/100 gal	B	15 - 20" Corn	
12	Dual II Magnum	1.43	lb ai/a	24	oz/a	A	Pre	93.8
	Corvus	0.103	lb ai/a	5	oz/a	A	Pre	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	15 - 20" Corn	
	AMS	2.5	lb ai/a	5	gal/100 gal	B	15 - 20" Corn	
13	Dual II Magnum	1.43	lb ai/a	24	oz/a	A	Pre	90.0
	Sharpen	0.0557	lb ai/a	2.5	oz/a	A	Pre	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	15 - 20" Corn	
	AMS	2.5	lb ai/a	5	gal/100 gal	B	15 - 20" Corn	
14	Dual II Magnum	1.43	lb ai/a	24	oz/a	A	Pre	92.5
	Resolve Q			1.25	oz/a	A	Pre	
	>Rimsulfuron (Resolve DF)	0.0144	lb ai/a	0.92	oz/a	A	Pre	
	>Thifensulfuron (Harmony SG)	0.00313	lb ai/a	0.1	oz/a	A	Pre	
	>Isoxadifen-ethyl	0.0072	lb ai/a	0.23	oz/a	A	Pre	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	15 - 20" Corn	
	AMS	2.5	lb ai/a	5	gal/100 gal	B	15 - 20" Corn	
15	Dual II Magnum	1.43	lb ai/a	24	oz/a	A	Pre	80.0
	Realm Q			4	oz/a	A	Pre	
	>Rimsulfuron (Resolve DF)	0.0188	lb ai/a	1.2	oz/a	A	Pre	
	>Mesotrione	0.078	lb ai/a	2.5	oz/a	A	Pre	
	>Isoxadifen-ethyl	0.0094	lb ai/a	0.3	oz/a	A	Pre	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	15 - 20" Corn	
	AMS	2.5	lb ai/a	5	gal/100 gal	B	15 - 20" Corn	
16	Dual II Magnum	0.955	lb ai/a	16	oz/a	A	Pre	90.0
	AAtrex	2	lb ai/a	64	oz/a	A	Pre	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	15 - 20" Corn	
	AMS	2.5	lb ai/a	5	gal/100 gal	B	15 - 20" Corn	

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

PRE Weed Control without Atrazine

Trial ID: HCO-21611
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed						
Pest Code	IPOSS						
Pest Scientific Name	Ipomoea sp.						
Pest Name	Morning glory						
Crop Code	ZEAMX						
Crop Scientific Name	Zea mays						
Crop Name	Corn						
Part Assessed	PLANT P						
Assessment Date	9/7/11						
Assessment Type	CONTRO						
Assessment Unit	%						
Number of Subsamples	1						
Crop Stage Majority	R6 75"						
Pest Stage Majority	20-60"						
Assessed By	JB						
Days After First/Last Applic.	141 93						
Trt-Eval Interval	17 DA-D						
Plant-Eval Interval	142 DP-1						
Days After Emergence	136 DE-1						
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code Description	
17	Lexar	2.78	lb ai/a	96	oz/a	A Pre	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B 15 - 20" Corn	
	AMS	2.5	lb ai/a	5	gal/100 gal	B 15 - 20" Corn	
	LSD (P=.05)						14.91
	Standard Deviation						10.43
	CV						12.81
	Grand Mean						81.47

University of Arkansas-Division of Agriculture

Fomesafen Program Efficacy in GT Cotton

Trial ID: HCT-40111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop 1:		Crop Description
GOSHI	Gossypium hirsutum American upland cotton	
Variety: Delta Pine 0912 B2RF		
BBCH Scale: BCOT	Planting Date: 5/24/11	
Seed Bed: COMPAC compacted	Soil Temperature, Unit: 74.8 F	
	Emergence Date: 5/30/11	
Harvest Date: 10/3/11	Harvest Equipment: International Picker	
Harvested Width, Unit: 6.33 FT	Harvested Length, Unit: 28 FT	
Weighing Equipment: International Picker		

Pest 1 Type: W		Pest Description
Code: AMAPA	Amaranthus palmeri	
Common Name: Palmer amaranth		
Pest 2 Type: W	Code: ECHCG Echinochloa crus-galli	
Common Name: Common barnyardgrass		
Pest 3 Type: W	Code: BRAPP Brachiaria platyphylla	
Common Name: Broadleaf signalgrass		
Pest 4 Type: W	Code: IPOSS Ipomoea sp.	
Common Name: Morning glory		

Site and Design	
Plot Width, Unit: 12.66 FT	
Plot Length, Unit: 28 FT	
Plot Area, Unit: 354.48 FT ²	
Replications: 4	Study Design: RACOB L Randomized Complete Block (RCB)

Maintenance				
No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Asana XL	12	OZ
2.	7/19/11	Diamond	6	OZ
3.	7/19/11	Acephate	8	OZ
4.	7/19/11	Compact	20	OZ

Soil Description	
Description Name: Silt Loam	Texture: SIL silt loam
% Sand: 16	% OM: 2.2
% Silt: 67	pH: 7.1
% Clay: 17	CEC: 14
	Soil Name: Herbert Silt Loam
	Fert. Level: G
	Soil Drainage: G good

Application Description					
	A	B	C	D	E
Application Date:	5/11/11	5/24/11	6/7/11	6/27/11	7/11/11
Time of Day:	Afternoon	Afternoon	Afternoon	Afternoon	Afternoon
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PREPLA	PREMCR	POSPOS	POSDIR	POSDIR
Application Placement:	BROSIOI	BROSIOI	BROFOL	BRODIR	BRODIR
Applied By:	RD	RD	RD	RD	RD
Air Temperature, Unit:	76.0 F	77.3 F	85.7 F	83.1 F	85.2 F
% Relative Humidity:	71.5	74.1	58.0	73.5	70.5
Wind Velocity, Unit:	6.6 MPH	10.5 MPH	1.9 MPH	4.5 MPH	2.5 MPH
Wind Direction:	WSW	SW	SW	W	W
Dew Presence (Y/N):	N no	N no	N no	N no	N no
Soil Temperature, Unit:	73.8 F	74.8 F	85.2 F	85.9 F	87.6 F
Soil Moisture:	GOOD	GOOD	GOOD	GOOD	GOOD
% Cloud Cover:	60	50	50	50	50
Next Rain Occurred On:	5/21/11	5/26/11	6/17/11	6/29/11	7/14/11

Crop Stage At Each Application					
	A	B	C	D	E
Crop 1 Code, BBCH Scale:	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT
Stage Scale Used:	BBCH	BBCH	BBCH	BBCH	BBCH
Stage Majority, Percent:	13 DPP	PRE	2-3 LF	8-9 LF	10-12 LF

Pest Stage At Each Application					
	A	B	C	D	E
Pest 1 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W	AMAPA W	AMAPA W
Pest 2 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W	ECHCG W	ECHCG W
Pest 3 Code, Type, Scale:	BRAPP W	BRAPP W	BRAPP W	BRAPP W	BRAPP W
Pest 4 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W	IPOSS W	IPOSS W

University of Arkansas-Division of Agriculture

Fomesafen Program Efficacy in GT Cotton

Trial ID: HCT-40111
 Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B	C	D	E
Appl. Equipment:	Multi-Boom	Multi-Boom	Multi-Boom	HoodSpray	HoodSpray
Operation Pressure, Unit:	55 PSI	55 PSI	55 PSI	35 PSI	35 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix	TeeJet	TeeJet
Nozzle Size:	110015	110015	110015		
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN	38 IN	38 IN
Nozzles/Row:	2	2	2	3	3
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN	4 IN	4 IN
Ground Speed, Unit:	3.8 MPH	3.8 MPH	3.8 MPH	3.8 MPH	3.8 MPH
Carrier:	H2O	H2O	H2O	H2O	H2O
Spray Volume, Unit:	12 GPA	12 GPA	12 GPA	15 GPA	15 GPA
Mix Size, Unit:	3 Liters	3 Liters	3 Liters	2 Gallons	2 Gallons
Propellant:	CO2	CO2	CO2	CO2	CO2

University of Arkansas-Division of Agriculture

Fomesafen Program Efficacy in GT Cotton

Trial ID: HCT-40111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed ECHCG	W Weed BRAPP						
Pest Code	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Echinochloa cr>	Brachiaria pla>						
Pest Scientific Name	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Common barnyar>	Broadleaf sign>						
Pest Name												
Crop Code	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -						
Crop Scientific Name	6/23/11	6/23/11	6/23/11	7/13/11	7/13/11	7/13/11						
Crop Name	Control	Control	Control	Control	Control	Control						
Part Assessed	%	%	%	%	%	%						
Assessment Date	1	1	1	1	1	1						
Assessment Type	6 lf	6 lf	6 lf	1stBloom	1stBloom	1stBloom						
Assessment Unit	2-24"	2-24"	2-24"	2-60"	2-24"	2 DA-E						
Number of Subsamples	RD	RD	RD	RD	RD	RD						
Crop Stage Majority	43 16	43 16	43 16	63 2	63 2	63 2						
Pest Stage Majority	16 DA-C	16 DA-C	16 DA-C	2 DA-E	2 DA-E	2 DA-E						
Assessed By	30 DP-1	30 DP-1	30 DP-1	50 DP-1	50 DP-1	50 DP-1						
Days After First/Last Applic.	24 DE-1	24 DE-1	24 DE-1	44 DE-1	44 DE-1	44 DE-1						
Trt-Eval Interval												
Plant-Eval Interval												
Days After Emergence												
Trt Treatment No. Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6
1 UTC							0.0	0.0	0.0	0.0	0.0	0.0
2 Reflex	0.25	lb ai/a	16	oz/a	A	13 DPP	91.3	92.5	92.5	83.3	86.3	93.8
Sequence	1.64	lb ai/a	40	oz/a	C	2-3 lf Cotton						
Suprend	1.2	lb ai/a	24	oz/a	D	8-9 lf Cotton						
COC	1	% v/v	15.4	oz/a	D	8-9 lf Cotton						
Caparol	1	lb ai/a	32	oz/a	E	10-12 lf Cotton						
MSMA	2.02	lb ai/a	43	oz/a	E	10-12 lf Cotton						
3 Reflex	0.25	lb ai/a	16	oz/a	A	13 DPP	94.5	93.3	94.5	93.3	95.0	95.0
Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	2-3 lf Cotton						
Dual Magnum	0.95	lb ai/a	16	oz/a	C	2-3 lf Cotton						
Suprend	1.2	lb ai/a	24	oz/a	D	8-9 lf Cotton						
COC	1	% v/v	15.4	oz/a	D	8-9 lf Cotton						
Valor	0.064	lb ai/a	2	oz/a	E	10-12 lf Cotton						
MSMA	2.02	lb ai/a	43	oz/a	E	10-12 lf Cotton						
4 Reflex	0.25	lb ai/a	16	oz/a	A	13 DPP	94.0	90.3	88.8	92.8	86.3	92.5
Caparol	0.75	lb ai/a	24	oz/a	B	PRE						
Sequence	1.64	lb ai/a	40	oz/a	C	2-3 lf Cotton						
Valor	0.064	lb ai/a	2	oz/a	D	8-9 lf Cotton						
MSMA	2.02	lb ai/a	43	oz/a	D	8-9 lf Cotton						
5 Reflex	0.25	lb ai/a	16	oz/a	A	13 DPP	99.5	98.3	99.5	98.3	98.8	100.0
Cotoran	0.75	lb ai/a	24	oz/a	B	PRE						
Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	2-3 lf Cotton						
Dual Magnum	0.95	lb ai/a	16	oz/a	C	2-3 lf Cotton						
Valor	0.064	lb ai/a	2	oz/a	D	8-9 lf Cotton						
MSMA	2.02	lb ai/a	43	oz/a	D	8-9 lf Cotton						
6 Cotoran	0.75	lb ai/a	24	oz/a	B	PRE	92.8	95.0	92.5	92.5	95.0	91.3
Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	2-3 lf Cotton						
Dual Magnum	0.95	lb ai/a	16	oz/a	C	2-3 lf Cotton						
Caparol	1	lb ai/a	32	oz/a	D	8-9 lf Cotton						
MSMA	2.02	lb ai/a	43	oz/a	D	8-9 lf Cotton						
Prefix	1.32	lb ai/a	32	oz/a	E	10-12 lf Cotton						
Touchdown Total	0.77	lb ae/a	24	oz/a	E	10-12 lf Cotton						
7 Cotoran	0.75	lb ai/a	24	oz/a	B	PRE	82.5	88.8	86.3	91.3	95.8	96.3
Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	2-3 lf Cotton						
Dual Magnum	0.95	lb ai/a	16	oz/a	C	2-3 lf Cotton						
Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	D	8-9 lf Cotton						
Valor	0.064	lb ai/a	2	oz/a	E	10-12 lf Cotton						
MSMA	2.02	lb ai/a	43	oz/a	E	10-12 lf Cotton						
8 Cotoran	0.75	lb ai/a	24	oz/a	B	PRE	90.0	88.8	92.0	92.0	90.0	87.5
Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	2-3 lf Cotton						
Dual Magnum	0.95	lb ai/a	16	oz/a	C	2-3 lf Cotton						
Gramoxone Inteon	0.625	lb ai/a	40	oz/a	E	10-12 lf Cotton						
Prefix	1.32	lb ai/a	32	oz/a	E	10-12 lf Cotton						
NIS	0.25	% v/v	3.84	oz/a	E	10-12 lf Cotton						
LSD (P=.05)							11.99	13.52	7.56	13.41	8.47	7.29
Standard Deviation							8.15	9.19	5.14	9.12	5.76	4.96
CV							10.12	11.37	6.36	11.34	7.12	6.05
Grand Mean							80.56	80.84	80.75	80.41	80.88	82.03

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Fomesafen Program Efficacy in GT Cotton

Trial ID: HCT-40111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed AMAPA	W Weed ECHCG	W Weed BRAPP	W Weed AMAPA								
Pest Code		Amaranthus pal>	Echinochloa cr>	Brachiaria pla>	Amaranthus pal>								
Pest Scientific Name		Palmer amaranth	Common barnyar>	Broadleaf sign>	Palmer amaranth								
Pest Name													
Crop Code						GOSHI	GOSHI						
Crop Scientific Name						Gossypium hirs>	Gossypium hirs>						
Crop Name						American uplan>	American uplan>						
Part Assessed		PLANT -	PLANT -	PLANT -	PLANT -	PLANT C	PLANT C						
Assessment Date		7/27/11	7/27/11	7/27/11	9/21/11	10/3/11	10/3/11						
Assessment Type		Control	Control	Control	Control	YIELD	YIELD						
Assessment Unit		%	%	%	%	lb/plot	lb/ac						
Number of Subsamples		1	1	1	1	1	1						
Crop Stage Majority		5-6 NAWF	5-6 NAWF	5-6 NAWF	Mature	Harvest	Harvest						
Pest Stage Majority		12-72"	12-36"	12-36"	24-72"	Mature	Mature						
Assessed By		RD	RD	RD	RD	DR-RD	DR-RD						
Days After First/Last Applic.		77 16	77 16	77 16	133 72	145 84	145 84						
Trt-Eval Interval		16 DA-E	16 DA-E	16 DA-E	72 DA-E	84 DA-E	84 DA-E						
Plant-Eval Interval		64 DP-1	64 DP-1	64 DP-1	120 DP-1	132 DP-1	132 DP-1						
Days After Emergence		58 DE-1	58 DE-1	58 DE-1	114 DE-1	126 DE-1	126 DE-1						
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	7	8	9	10	11	12
1	UTC							0.0	0.0	0.0	0.0	5.543	1362.17
2	Reflex	0.25	lb ai/a	16	oz/a	A	13 DPP	86.3	88.8	91.3	92.0	8.533	2097.02
	Sequence	1.64	lb ai/a	40	oz/a	C	2-3 lf Cotton						
	Suprend	1.2	lb ai/a	24	oz/a	D	8-9 lf Cotton						
	COC	1	% v/v	15.4	oz/a	D	8-9 lf Cotton						
	Caparol	1	lb ai/a	32	oz/a	E	10-12 lf Cotton						
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 lf Cotton						
3	Reflex	0.25	lb ai/a	16	oz/a	A	13 DPP	91.3	95.0	95.0	92.0	8.568	2105.62
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	2-3 lf Cotton						
	Dual Magnum	0.95	lb ai/a	16	oz/a	C	2-3 lf Cotton						
	Suprend	1.2	lb ai/a	24	oz/a	D	8-9 lf Cotton						
	COC	1	% v/v	15.4	oz/a	D	8-9 lf Cotton						
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 lf Cotton						
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 lf Cotton						
4	Reflex	0.25	lb ai/a	16	oz/a	A	13 DPP	86.3	90.0	93.8	67.5	8.368	2056.47
	Caparol	0.75	lb ai/a	24	oz/a	B	PRE						
	Sequence	1.64	lb ai/a	40	oz/a	C	2-3 lf Cotton						
	Valor	0.064	lb ai/a	2	oz/a	D	8-9 lf Cotton						
	MSMA	2.02	lb ai/a	43	oz/a	D	8-9 lf Cotton						
5	Reflex	0.25	lb ai/a	16	oz/a	A	13 DPP	98.3	98.3	98.3	96.3	10.170	2499.46
	Cotoran	0.75	lb ai/a	24	oz/a	B	PRE						
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	2-3 lf Cotton						
	Dual Magnum	0.95	lb ai/a	16	oz/a	C	2-3 lf Cotton						
	Valor	0.064	lb ai/a	2	oz/a	D	8-9 lf Cotton						
	MSMA	2.02	lb ai/a	43	oz/a	D	8-9 lf Cotton						
6	Cotoran	0.75	lb ai/a	24	oz/a	B	PRE	93.8	98.8	98.8	92.0	8.593	2111.77
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	2-3 lf Cotton						
	Dual Magnum	0.95	lb ai/a	16	oz/a	C	2-3 lf Cotton						
	Caparol	1	lb ai/a	32	oz/a	D	8-9 lf Cotton						
	MSMA	2.02	lb ai/a	43	oz/a	D	8-9 lf Cotton						
	Prefix	1.32	lb ai/a	32	oz/a	E	10-12 lf Cotton						
	Touchdown Total	0.77	lb ae/a	24	oz/a	E	10-12 lf Cotton						
7	Cotoran	0.75	lb ai/a	24	oz/a	B	PRE	97.5	98.8	98.8	97.5	9.797	2407.71
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	2-3 lf Cotton						
	Dual Magnum	0.95	lb ai/a	16	oz/a	C	2-3 lf Cotton						
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	D	8-9 lf Cotton						
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 lf Cotton						
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 lf Cotton						
8	Cotoran	0.75	lb ai/a	24	oz/a	B	PRE	90.0	93.8	92.5	93.8	8.365	2055.85
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	2-3 lf Cotton						
	Dual Magnum	0.95	lb ai/a	16	oz/a	C	2-3 lf Cotton						
	Gramoxone Inteon	0.625	lb ai/a	40	oz/a	E	10-12 lf Cotton						
	Prefix	1.32	lb ai/a	32	oz/a	E	10-12 lf Cotton						
	NIS	0.25	% v/v	3.84	oz/a	E	10-12 lf Cotton						
	LSD (P=.05)							14.17	9.53	10.29	11.66	3.3053	812.341
	Standard Deviation							9.64	6.48	6.99	7.93	2.2333	548.888
	CV							11.98	7.81	8.37	10.05	26.3	26.3
	Grand Mean							80.41	82.91	83.53	78.88	8.49	2087.01

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Fomesafen Program Efficacy in GT Cotton

Trial ID: HCT-40111
Location: Rohwer, AR

Investigator: Kenneth Smith

ARM Action Codes
TY1 = 245.7684*[11]

University of Arkansas-Division of Agriculture

Determine the Efficacy and Selectivity of Dawn Applied EPP and PRE to Cotton

Trial ID: HCT-40211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description
Crop 1: GOSHI <i>Gossypium hirsutum</i> American upland cotton Variety: Delta Pine 0912 B2RF BBCH Scale: BCOT Planting Date: 5/24/11 Seed Bed: COMPAC compacted Soil Temperature, Unit: 74.8 F Emergence Date: 5/30/11

Pest Description
Pest 1 Type: W Code: AMAPA <i>Amaranthus palmeri</i> Common Name: Palmer amaranth
Pest 2 Type: W Code: IPOSS <i>Ipomoea</i> sp. Common Name: Morning glory
Pest 3 Type: W Code: ECHCG <i>Echinochloa crus-galli</i> Common Name: Common barnyardgrass
Pest 4 Type: W Code: BRAPP <i>Brachiaria platyphylla</i> Common Name: Broadleaf signalgrass

Site and Design
Plot Width, Unit: 12.66 FT Plot Length, Unit: 28 FT Plot Area, Unit: 354.48 FT ² Replications: 4 Study Design: RACOB L Randomized Complete Block (RCB)

Maintenance				
No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Asana XL	12	OZ
2.	7/19/11	Diamond	6	OZ
3.	7/19/11	Acephate	8	OZ
4.	7/19/11	Compact	20	OZ

Soil Description			
Description Name: Silt Loam % Sand: 16 % OM: 2.2 Texture: SIL silt loam % Silt: 67 pH: 7.1 Soil Name: Herbert Silt Loam % Clay: 17 CEC: 14 Fert. Level: G Soil Drainage: G good			

Application Description		
	A	B
Application Date:	5/11/11	5/24/11
Time of Day:	Afternoon	Afternoon
Application Method:	SPRAY	SPRAY
Application Timing:	PREPLA	PREPRE
Application Placement:	BROSOI	BROSOI
Applied By:	RD	RD
Air Temperature, Unit:	76.0 F	77.3 F
% Relative Humidity:	71.5	74.1
Wind Velocity, Unit:	6.6 MPH	10.5 MPH
Wind Direction:	WSW	SW
Dew Presence (Y/N):	N no	N no
Soil Temperature, Unit:	73.8 F	74.8 F
Soil Moisture:	GOOD	GOOD
% Cloud Cover:	60	50
Next Rain Occurred On:	5/21/11	5/26/11

Crop Stage At Each Application		
	A	B
Crop 1 Code, BBCH Scale:	GOSHI BCOT	GOSHI BCOT

Pest Stage At Each Application		
	A	B
Pest 1 Code, Type, Scale:	AMAPA W	AMAPA W
Pest 2 Code, Type, Scale:	IPOSS W	IPOSS W
Pest 3 Code, Type, Scale:	ECHCG W	ECHCG W
Pest 4 Code, Type, Scale:	BRAPP W	BRAPP W

University of Arkansas-Division of Agriculture

Determine the Efficacy and Selectivity of Dawn Applied EPP and PRE to Cotton

Trial ID: HCT-40211
 Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B
Appl. Equipment:	Multi-Boom	Multi-Boom
Operation Pressure, Unit:	55 PSI	55 PSI
Nozzle Type:	Air-Mix	Air-Mix
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN
Nozzles/Row:	2	2
Boom Length, Unit:	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN
Ground Speed, Unit:	3.8 MPH	3.8 MPH
Carrier:	H2O	H2O
Spray Volume, Unit:	12 GPA	12 GPA
Mix Size, Unit:	3 Liters	3 Liters
Propellant:	CO2	CO2

University of Arkansas-Division of Agriculture

Determine the Efficacy and Selectivity of Dawn Applied EPP and PRE to Cotton

Trial ID: HCT-40211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed BRAPP
Pest Code	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Brachiaria pla>
Pest Scientific Name	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Broadleaf sign>
Pest Name							
Crop Code							
Crop Scientific Name							
Crop Name							
Part Assessed	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -
Assessment Date	6/9/11	6/9/11	6/9/11	6/23/11	6/23/11	6/23/11	6/23/11
Assessment Type	Control	Control	Control	Control	Control	Control	Control
Assessment Unit	%	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1	1
Crop Stage Majority	2-3 lf	2-3 lf	2-3 lf	5 lf	5 lf	5 lf	5 lf
Pest Stage Majority	2-18"	2-18"	2-18"	2-24"	2-24"	2-24"	2-24"
Assessed By							
Days After First/Last Applic.	29 16	29 16	29 16	43 30	43 30	43 30	43 30
Trt-Eval Interval	16 DA-B	16 DA-B	16 DA-B	30 DA-B	30 DA-B	30 DA-B	30 DA-B
Plant-Eval Interval	16 DP-1	16 DP-1	16 DP-1	30 DP-1	30 DP-1	30 DP-1	30 DP-1
Days After Emergence	10 DE-1	10 DE-1	10 DE-1	24 DE-1	24 DE-1	24 DE-1	24 DE-1
Trt Treatment	Rate	Other	Other	Appl	Appl		
No. Name	Rate	Unit	Rate	Rate	Unit	Code	Description
	1		2			3	
	4		5			6	7
1 UTC	0.0		0.0			0.0	0.0
2 DAWN	0.375 lb ai/a	24 oz/a	A	13 DPP		95.0	87.5
3 REFLEX	0.375 lb ai/a	24 oz/a	A	13 DPP		90.0	93.8
4 REFLEX	0.375 lb ai/a	24 oz/a	A	13 DPP		98.8	92.5
	Goal 2XL	0.25 lb ai/a	16 oz/a	A	13 DPP		98.8
5 DAWN	0.188 lb ai/a	12 oz/a	B	PRE		76.3	76.3
6 REFLEX	0.188 lb ai/a	12 oz/a	B	PRE		87.5	85.0
7 DAWN	0.25 lb ai/a	16 oz/a	B	PRE		90.0	87.5
8 REFLEX	0.25 lb ai/a	16 oz/a	B	PRE		87.5	90.0
9 DAWN	0.375 lb ai/a	24 oz/a	B	PRE		93.8	95.0
10 REFLEX	0.375 lb ai/a	24 oz/a	B	PRE		86.3	91.3
11 DAWN	0.188 lb ai/a	12 oz/a	B	PRE		87.5	96.3
	Prowl H2O	1 lb ai/a	33.7 oz/a	B	PRE		87.5
12 REFLEX	0.188 lb ai/a	12 oz/a	B	PRE		88.8	90.0
	Prowl H2O	1 lb ai/a	33.7 oz/a	B	PRE		88.8
13 Goal 2XL	0.25 lb ai/a	16 oz/a	B	PRE		81.3	73.8
LSD (P=.05)						12.28	14.38
Standard Deviation						8.59	10.06
CV						10.51	12.35
Grand Mean						81.73	81.44
						13.79	9.65
						26.43	18.50
						51.24	35.86
						40.82	28.56
						28.07	61.34
						58.47	58.47
						48.85	48.85
						37.25	26.06
						61.47	61.47
						42.4	42.4

University of Arkansas-Division of Agriculture

Stoneville 4145 vs: Phytogen 375 Crop Response to Ignite.

Trial ID: HCT-40311
 Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B	C	D	E	F
Appl. Equipment:	Multi-Boom	Multi-Boom	Multi-Boom	Multi-Boom	Multi-Boom	Multi-Boom
Operation Pressure, Unit:	55 PSI	55 PSI	55 PSI	55 PSI	55 PSI	55 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix	Air-Mix	Air-Mix	Air-Mix
Nozzle Size:	110015	110015	110015	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN	19 IN	19 IN	19 IN
Nozzles/Row:	2	2	2	2	2	2
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN	18 IN	18 IN	18 IN
Ground Speed, Unit:	3.8 MPH	3.8 MPH	3.8 MPH	3.8 MPH	3.8 MPH	3.8 MPH
Carrier:	H2O	H2O	H2O	H2O	H2O	H2O
Spray Volume, Unit:	12 GPA	12 GPA	12 GPA	12 GPA	12 GPA	12 GPA
Mix Size, Unit:	3 Liters	3 Liters	3 Liters	3 Liters	3 Liters	3 Liters
Propellant:	CO2	CO2	CO2	CO2	CO2	CO2

University of Arkansas-Division of Agriculture

Stoneville 4145 vs: Phytogen 375 Crop Response to Ignite.

Trial ID: HCT-40311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type				W Weed AMAPA Amaranthus pal-> Palmer amaranth						
Pest Code										
Pest Scientific Name										
Pest Name										
Crop Code										
Crop Scientific Name										
Crop Name										
Part Assessed	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -
Assessment Date	6/9/11	6/9/11	6/9/11	6/23/11	6/23/11	6/23/11	7/13/11	7/27/11	9/21/11	
Assessment Type	PHYCHL	PHYNEC	PHYSTU	Control	PHYNEC	PHYSTU	PHYSTU	PHYSTU	PHYSTU	
Assessment Unit	%	%	%	%	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1	1	1	1	1
Crop Stage Majority	4-5 lf	4-5 lf	4-5 lf	8 lf	8 lf	8 lf	8 NAWF	5-6 NAWF	Mature	
Pest Stage Majority				2-24"						
Assessed By	RD	RD	RD	RD	RD	RD	RD	RD	RD	RD
Days After First/Last Applic.	27 7	27 7	27 7	41 9	41 9	41 9	61 2	75 16	131 72	
Trt-Eval Interval	7 DA-B	7 DA-B	7 DA-B	9 DA-C	9 DA-C	9 DA-C	2 DA-F	16 DA-F	72 DA-F	
Plant-Eval Interval	28 DP-1	28 DP-1	28 DP-1	42 DP-1	42 DP-1	42 DP-1	62 DP-1	76 DP-1	132 DP-1	
Days After Emergence	22 DE-1	22 DE-1	22 DE-1	36 DE-1	36 DE-1	36 DE-1	56 DE-1	70 DE-1	126 DE-1	
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description				
		Rate	Unit	Rate	Unit		1	2	3	4
1	Stoneville 4145 Weed Free						0.0	0.0	0.0	43.8
	Cotoran	1 lb ai/a	32 oz/a		A	PRE				
	Dual Magnum	0.95 lb ai/a	16 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		C	4-6 lf Cotton				
	Caparol	1 lb ai/a	32 oz/a		E	PD 8-10 lf Cotton				
	MSMA	2.02 lb ai/a	43 oz/a		E	PD 8-10 lf Cotton				
	Valor	0.064 lb ai/a	2 oz/a		F	Layby 12-14 node Cotton				
2	Phytogen Weed Free						0.0	7.5	0.0	50.0
	Cotoran	1 lb ai/a	32 oz/a		A	PRE				
	Dual Magnum	0.95 lb ai/a	16 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		C	4-6 lf Cotton				
	Caparol	1 lb ai/a	32 oz/a		E	PD 8-10 lf Cotton				
	MSMA	2.02 lb ai/a	43 oz/a		E	PD 8-10 lf Cotton				
	Valor	0.064 lb ai/a	2 oz/a		F	Layby 12-14 node Cotton				
3	Stoneville 4145						0.0	8.8	0.0	98.8
	Cotoran	1 lb ai/a	32 oz/a		A	PRE				
	Ignite 280	0.53 lb ai/a	29 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		C	4-6 lf Cotton				
	Caparol	1 lb ai/a	32 oz/a		E	PD 8-10 lf Cotton				
	MSMA	2.02 lb ai/a	43 oz/a		E	PD 8-10 lf Cotton				
	Valor	0.064 lb ai/a	2 oz/a		F	Layby 12-14 node Cotton				
4	Phytogen						0.0	13.8	0.0	96.3
	Cotoran	1 lb ai/a	32 oz/a		A	PRE				
	Ignite 280	0.53 lb ai/a	29 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		C	4-6 lf Cotton				
	Caparol	1 lb ai/a	32 oz/a		E	PD 8-10 lf Cotton				
	MSMA	2.02 lb ai/a	43 oz/a		E	PD 8-10 lf Cotton				
	Valor	0.064 lb ai/a	2 oz/a		F	Layby 12-14 node Cotton				
5	Stoneville 4145						0.0	11.3	0.0	98.8
	Cotoran	1 lb ai/a	32 oz/a		A	PRE				
	Ignite 280	0.53 lb ai/a	29 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		B	1-2 lf Cotton				
	Ignite 280	0.53 lb ai/a	29 oz/a		C	4-6 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		C	4-6 lf Cotton				
	Caparol	1 lb ai/a	32 oz/a		E	PD 8-10 lf Cotton				
	MSMA	2.02 lb ai/a	43 oz/a		E	PD 8-10 lf Cotton				
	Valor	0.064 lb ai/a	2 oz/a		F	Layby 12-14 node Cotton				
6	Phytogen						0.0	13.8	0.0	99.5
	Cotoran	1 lb ai/a	32 oz/a		A	PRE				
	Ignite 280	0.53 lb ai/a	29 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		B	1-2 lf Cotton				
	Ignite 280	0.53 lb ai/a	29 oz/a		C	4-6 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		C	4-6 lf Cotton				
	Caparol	1 lb ai/a	32 oz/a		E	PD 8-10 lf Cotton				
	MSMA	2.02 lb ai/a	43 oz/a		E	PD 8-10 lf Cotton				
	Valor	0.064 lb ai/a	2 oz/a		F	Layby 12-14 node Cotton				
7	Stoneville 4145						0.0	6.3	0.0	100.0
	Cotoran	1 lb ai/a	32 oz/a		A	PRE				
	Ignite 280	0.53 lb ai/a	29 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		B	1-2 lf Cotton				
	Ignite 280	0.53 lb ai/a	29 oz/a		C	4-6 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		C	4-6 lf Cotton				
	Ignite 280	0.53 lb ai/a	29 oz/a		D	OT 8-10lf Cotton				
	Valor	0.064 lb ai/a	2 oz/a		F	Layby 12-14 node Cotton				
8	Phytogen						0.0	18.8	0.0	100.0
	Cotoran	1 lb ai/a	32 oz/a		A	PRE				
	Ignite 280	0.53 lb ai/a	29 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		B	1-2 lf Cotton				
	Ignite 280	0.53 lb ai/a	29 oz/a		C	4-6 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		C	4-6 lf Cotton				
	Ignite 280	0.53 lb ai/a	29 oz/a		D	OT 8-10lf Cotton				
	Valor	0.064 lb ai/a	2 oz/a		F	Layby 12-14 node Cotton				

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Stoneville 4145 vs: Phytogen 375 Crop Response to Ignite.

Trial ID: HCT-40311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type									
Pest Code									
Pest Scientific Name	W Weed AMAPA								
Pest Name	Amaranthus pal-> Palmer amaranth								
Crop Code									
Crop Scientific Name									
Crop Name									
Part Assessed	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -
Assessment Date	6/9/11	6/9/11	6/9/11	6/23/11	6/23/11	6/23/11	7/13/11	7/27/11	9/21/11
Assessment Type	PHYCHL	PHYNEC	PHYSTU	Control	PHYNEC	PHYSTU	PHYSTU	PHYSTU	PHYSTU
Assessment Unit	%	%	%	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1	1	1	1
Crop Stage Majority	4-5 lf	4-5 lf	4-5 lf	8 lf	8 lf	8 lf	8 NAWF	5-6 NAWF	Mature
Pest Stage Majority	2-24"								
Assessed By	RD	RD	RD	RD	RD	RD	RD	RD	RD
Days After First/Last Applic.	27 7	27 7	27 7	41 9	41 9	41 9	61 2	75 16	131 72
Trt-Eval Interval	7 DA-B	7 DA-B	7 DA-B	9 DA-C	9 DA-C	9 DA-C	2 DA-F	16 DA-F	72 DA-F
Plant-Eval Interval	28 DP-1	28 DP-1	28 DP-1	42 DP-1	42 DP-1	42 DP-1	62 DP-1	76 DP-1	132 DP-1
Days After Emergence	22 DE-1	22 DE-1	22 DE-1	36 DE-1	36 DE-1	36 DE-1	56 DE-1	70 DE-1	126 DE-1
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Code	Description		
1	2	3	4	5	6	7	8	9	
9	Stoneville 4145								
	Cotoran	1 lb ai/a	32 oz/a	A	PRE				
	Ignite 280	0.79 lb ai/a	43 oz/a	B	1-2 lf Cotton	0.0	13.8	0.0	100.0
	Dual Magnum	0.95 lb ai/a	16 oz/a	B	1-2 lf Cotton	0.0			0.0
	Ignite 280	0.53 lb ai/a	29 oz/a	C	4-6 lf Cotton	0.0			5.0
	Dual Magnum	0.95 lb ai/a	16 oz/a	C	4-6 lf Cotton	0.0			0.0
	Caparol	1 lb ai/a	32 oz/a	E	PD 8-10 lf Cotton	0.0			0.0
	MSMA	2.02 lb ai/a	43 oz/a	E	PD 8-10 lf Cotton	0.0			0.0
	Valor	0.064 lb ai/a	2 oz/a	F	Layby 12-14 node Cotton	0.0			0.0
10	Phytogen								
	Cotoran	1 lb ai/a	32 oz/a	A	PRE	0.0	26.3	0.0	98.3
	Ignite 280	0.79 lb ai/a	43 oz/a	B	1-2 lf Cotton	0.0			0.0
	Dual Magnum	0.95 lb ai/a	16 oz/a	B	1-2 lf Cotton	0.0			0.0
	Ignite 280	0.53 lb ai/a	29 oz/a	C	4-6 lf Cotton	0.0			0.0
	Dual Magnum	0.95 lb ai/a	16 oz/a	C	4-6 lf Cotton	0.0			0.0
	Caparol	1 lb ai/a	32 oz/a	E	PD 8-10 lf Cotton	0.0			0.0
	MSMA	2.02 lb ai/a	43 oz/a	E	PD 8-10 lf Cotton	0.0			0.0
	Valor	0.064 lb ai/a	2 oz/a	F	Layby 12-14 node Cotton	0.0			0.0
	LSD (P=.05)	0.00	12.46	0.00		14.30	0.00	4.59	0.00
	Standard Deviation	0.00	8.59	0.00		9.85	0.00	3.16	0.00
	CV	0.0	71.54	0.0		11.13	0.0	632.46	0.0
	Grand Mean	0.0	12.0	0.0		88.53	0.0	0.5	0.0

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Stoneville 4145 vs: Phytogen 375 Crop Response to Ignite.

Trial ID: HCT-40311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed									
Pest Code	AMAPA									
Pest Scientific Name	Amaranthus pal									
Pest Name	Palmer amaranth									
Crop Code		GOSHI	GOSHI							
Crop Scientific Name		Gossypium hirs>	Gossypium hirs>							
Crop Name		American uplan>	American uplan>							
Part Assessed	PLANT -	PLANT C	PLANT C							
Assessment Date	9/21/11	10/3/11	10/3/11							
Assessment Type	Control	YIELD	YIELD							
Assessment Unit	%	lb/plot	lb/ac							
Number of Subsamples	1	1	1							
Crop Stage Majority	Mature	Harvest	Harvest							
Pest Stage Majority	24-48"	Mature	Mature							
Assessed By	RD	DR-RD	DR-RD							
Days After First/Last Applic.	131 72	143 84	143 84							
Trt-Eval Interval	72 DA-F	84 DA-F	84 DA-F							
Plant-Eval Interval	132 DP-1	144 DP-1	144 DP-1							
Days After Emergence	126 DE-1	138 DE-1	138 DE-1							
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Code	Appl Description	10	11	12
1	Stoneville 4145							77.5	4.658	1144.67
	Weed Free									
	Cotoran	1 lb ai/a	32 oz/a		A	PRE				
	Dual Magnum	0.95 lb ai/a	16 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		C	4-6 lf Cotton				
	Caparol	1 lb ai/a	32 oz/a		E	PD 8-10 lf Cotton				
	MSMA	2.02 lb ai/a	43 oz/a		E	PD 8-10 lf Cotton				
	Valor	0.064 lb ai/a	2 oz/a		F	Layby 12-14 node Cotton				
2	Phytogen							70.0	8.863	2178.12
	Weed Free									
	Cotoran	1 lb ai/a	32 oz/a		A	PRE				
	Dual Magnum	0.95 lb ai/a	16 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		C	4-6 lf Cotton				
	Caparol	1 lb ai/a	32 oz/a		E	PD 8-10 lf Cotton				
	MSMA	2.02 lb ai/a	43 oz/a		E	PD 8-10 lf Cotton				
	Valor	0.064 lb ai/a	2 oz/a		F	Layby 12-14 node Cotton				
3	Stoneville 4145							92.5	10.730	2637.10
	Cotoran	1 lb ai/a	32 oz/a		A	PRE				
	Ignite 280	0.53 lb ai/a	29 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		C	4-6 lf Cotton				
	Caparol	1 lb ai/a	32 oz/a		E	PD 8-10 lf Cotton				
	MSMA	2.02 lb ai/a	43 oz/a		E	PD 8-10 lf Cotton				
	Valor	0.064 lb ai/a	2 oz/a		F	Layby 12-14 node Cotton				
4	Phytogen							100.0	12.740	3131.09
	Cotoran	1 lb ai/a	32 oz/a		A	PRE				
	Ignite 280	0.53 lb ai/a	29 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		C	4-6 lf Cotton				
	Caparol	1 lb ai/a	32 oz/a		E	PD 8-10 lf Cotton				
	MSMA	2.02 lb ai/a	43 oz/a		E	PD 8-10 lf Cotton				
	Valor	0.064 lb ai/a	2 oz/a		F	Layby 12-14 node Cotton				
5	Stoneville 4145							100.0	11.903	2925.26
	Cotoran	1 lb ai/a	32 oz/a		A	PRE				
	Ignite 280	0.53 lb ai/a	29 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		B	1-2 lf Cotton				
	Ignite 280	0.53 lb ai/a	29 oz/a		C	4-6 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		C	4-6 lf Cotton				
	Caparol	1 lb ai/a	32 oz/a		E	PD 8-10 lf Cotton				
	MSMA	2.02 lb ai/a	43 oz/a		E	PD 8-10 lf Cotton				
	Valor	0.064 lb ai/a	2 oz/a		F	Layby 12-14 node Cotton				
6	Phytogen							100.0	14.508	3565.49
	Cotoran	1 lb ai/a	32 oz/a		A	PRE				
	Ignite 280	0.53 lb ai/a	29 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		B	1-2 lf Cotton				
	Ignite 280	0.53 lb ai/a	29 oz/a		C	4-6 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		C	4-6 lf Cotton				
	Caparol	1 lb ai/a	32 oz/a		E	PD 8-10 lf Cotton				
	MSMA	2.02 lb ai/a	43 oz/a		E	PD 8-10 lf Cotton				
	Valor	0.064 lb ai/a	2 oz/a		F	Layby 12-14 node Cotton				
7	Stoneville 4145							100.0	12.610	3099.14
	Cotoran	1 lb ai/a	32 oz/a		A	PRE				
	Ignite 280	0.53 lb ai/a	29 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		B	1-2 lf Cotton				
	Ignite 280	0.53 lb ai/a	29 oz/a		C	4-6 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		C	4-6 lf Cotton				
	Ignite 280	0.53 lb ai/a	29 oz/a		D	OT 8-10lf Cotton				
	Valor	0.064 lb ai/a	2 oz/a		F	Layby 12-14 node Cotton				
8	Phytogen							100.0	13.273	3261.96
	Cotoran	1 lb ai/a	32 oz/a		A	PRE				
	Ignite 280	0.53 lb ai/a	29 oz/a		B	1-2 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		B	1-2 lf Cotton				
	Ignite 280	0.53 lb ai/a	29 oz/a		C	4-6 lf Cotton				
	Dual Magnum	0.95 lb ai/a	16 oz/a		C	4-6 lf Cotton				
	Ignite 280	0.53 lb ai/a	29 oz/a		D	OT 8-10lf Cotton				
	Valor	0.064 lb ai/a	2 oz/a		F	Layby 12-14 node Cotton				

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Stoneville 4145 vs: Phytogen 375 Crop Response to Ignite.

Trial ID: HCT-40311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

							W Weed		
							AMAPA		
							Amaranthus pal		
							Palmer amaranth		
Pest Type									
Pest Code									
Pest Scientific Name									
Pest Name									
Crop Code								GOSHI	GOSHI
Crop Scientific Name								Gossypium hirs>	Gossypium hirs>
Crop Name								American uplan>	American uplan>
Part Assessed								PLANT C	PLANT C
Assessment Date							PLANT -	10/3/11	10/3/11
Assessment Type							9/21/11	YIELD	YIELD
Assessment Unit							Control	lb/plot	lb/ac
Number of Subsamples							%	1	1
Crop Stage Majority							1	Harvest	Harvest
Pest Stage Majority							Mature	Mature	Mature
Assessed By							24-48"	DR-RD	DR-RD
Days After First/Last Applic.							RD	143 84	143 84
Trt-Eval Interval							131 72	84 DA-F	84 DA-F
Plant-Eval Interval							72 DA-F	144 DP-1	144 DP-1
Days After Emergence							132 DP-1	138 DE-1	138 DE-1
126 DE-1									
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Rate	Appl Unit	Appl Code	Appl Description	
									10 11 12
9	Stoneville 4145								100.0 11.570 2843.54
	Cotoran	1 lb ai/a		32 oz/a		A	PRE		
	Ignite 280	0.79 lb ai/a		43 oz/a		B	1-2 lf Cotton		
	Dual Magnum	0.95 lb ai/a		16 oz/a		B	1-2 lf Cotton		
	Ignite 280	0.53 lb ai/a		29 oz/a		C	4-6 lf Cotton		
	Dual Magnum	0.95 lb ai/a		16 oz/a		C	4-6 lf Cotton		
	Caparol	1 lb ai/a		32 oz/a		E	PD 8-10 lf Cotton		
	MSMA	2.02 lb ai/a		43 oz/a		E	PD 8-10 lf Cotton		
	Valor	0.064 lb ai/a		2 oz/a		F	Layby 12-14 node Cotton		
10	Phytogen								100.0 10.850 2666.59
	Cotoran	1 lb ai/a		32 oz/a		A	PRE		
	Ignite 280	0.79 lb ai/a		43 oz/a		B	1-2 lf Cotton		
	Dual Magnum	0.95 lb ai/a		16 oz/a		B	1-2 lf Cotton		
	Ignite 280	0.53 lb ai/a		29 oz/a		C	4-6 lf Cotton		
	Dual Magnum	0.95 lb ai/a		16 oz/a		C	4-6 lf Cotton		
	Caparol	1 lb ai/a		32 oz/a		E	PD 8-10 lf Cotton		
	MSMA	2.02 lb ai/a		43 oz/a		E	PD 8-10 lf Cotton		
	Valor	0.064 lb ai/a		2 oz/a		F	Layby 12-14 node Cotton		
LSD (P=.05)							10.26	3.0450	748.373
Standard Deviation							7.07	2.0986	515.769
CV							7.52	18.79	18.79
Grand Mean							94.0	11.17	2745.29

University of Arkansas-Division of Agriculture

Stoneville 4145 vs: Phytogen 375 Crop Response to Ignite.

Trial ID: HCT-40311
Location: Rohwer, AR

Investigator: Kenneth Smith

ARM Action Codes
TY1 = 245.7684*[C11]

University of Arkansas-Division of Agriculture

Warrant, Dual Magnum, & Zidua Comparisons in Cotton

Trial ID: HCT-40411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GOSHI Gossypium hirsutum American upland cotton
Variety: Stoneville 4145 LL B2
BBCH Scale: BCOT **Planting Date:** 5/12/11
Planting Method: PLANTD planted
Seed Bed: COMPAC compacted **Soil Temperature, Unit:** 74.1 F
Emergence Date: 5/18/11

Pest Description

Pest 1 Type: W **Code:** AMAPA *Amaranthus palmeri*
Common Name: Palmer amaranth

Pest 2 Type: W **Code:** ECHCG *Echinochloa crus-galli*
Common Name: Common barnyardgrass

Site and Design

Plot Width, Unit: 12.66 FT **Site Type:** FIELD field
Plot Length, Unit: 28 FT **Experimental Unit:** 1 PLOT plot
Plot Area, Unit: 354.48 FT2 **Tillage Type:** CONTIL conventional-till
Replications: 4 **Study Design:** SPLBLO Split-Block
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Asana XL	12	OZ
2.	7/19/11	Diamond	6	OZ
3.	7/19/11	Acephate	8	OZ
4.	7/19/11	Compact	20	OZ

Soil Description

Description Name: Silt Loam **Texture:** SIL silt loam
% Sand: 16 **% OM:** 2.2 **Soil Name:** Herbert Silt Loam
% Silt: 67 **pH:** 7.1 **Fert. Level:** G
% Clay: 17 **CEC:** 14 **Soil Drainage:** G good

Application Description

	A	B	C
Application Date:	5/13/11	6/2/11	6/14/11
Time of Day:	Morning	Morning	Morning
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREPRE	POSPOS	POSPOS
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	RD	RD	RD
Air Temperature, Unit:	76.9 F	85.1 F	82.4 F
% Relative Humidity:	69.9	62.5	63.8
Wind Velocity, Unit:	8.8 MPH	2.0 MPH	3.5 MPH
Wind Direction:	W	SE	WSW
Dew Presence (Y/N):	Y yes	N no	N no
Soil Temperature, Unit:	75.9 F	82.5 F	83.9 F
Soil Moisture:	GOOD	GOOD	GOOD
% Cloud Cover:	50	30	50
Next Rain Occurred On:	5/21/11	6/17/11	6/17/11

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT
Height, Unit:	0 IN	3 IN	

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W
Pest 2 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W

University of Arkansas-Division of Agriculture

Warrant, Dual Magnum, & Zidua Comparisons in Cotton

Trial ID: HCT-40411
 Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B	C
Appl. Equipment:	Multi Boom	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix
Nozzle Size:	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Nozzles/Row:	2	2	2
% Coverage:	100	100	100
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes	Y yes

University of Arkansas-Division of Agriculture

Warrant, Dual Magnum, & Zidua Comparisons in Cotton

Trial ID: HCT-40411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed	W Weed		W Weed		W Weed	
Pest Code		AMAPA	ECHCG		AMAPA		AMAPA	
Pest Scientific Name		Amaranthus pal>	Echinochloa cr>		Amaranthus pal>		Amaranthus pal>	
Pest Name		Palmer amaranth	Common barnyar>		Palmer amaranth		Palmer amaranth	
Crop Code								
Crop Scientific Name								
Crop Name								
Part Assessed		PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -
Assessment Date		6/9/11	6/9/11	6/9/11	6/23/11	6/23/11	6/23/11	7/13/11
Assessment Type		Control	Control	PHYNEC	Control	PHYNEC	PHYSTU	Control
Assessment Unit		%	%	%	%	%	%	%
Number of Subsamples		1	1	1	1	1	1	1
Crop Stage Majority		4-5 lf	4-5 lf	4-5 lf	6-8 lf	6-8 lf	6-8 lf	8 NAWF
Pest Stage Majority		2-24"	2-18"		2-48"			8 NAWF
Assessed By								
Days After First/Last Applic.		27 7	27 7	27 7	41 9	41 9	41 9	61 29
Trt-Eval Interval		7 DA-B	7 DA-B	7 DA-B	9 DA-C	9 DA-C	9 DA-C	29 DA-C
Plant-Eval Interval		28 DP-1	28 DP-1	28 DP-1	42 DP-1	42 DP-1	42 DP-1	62 DP-1
Days After Emergence		22 DE-1	22 DE-1	22 DE-1	36 DE-1	36 DE-1	36 DE-1	56 DE-1
Trt No.	Treatment	Rate	Rate	Other	Other	Appl	Appl	Description
		Unit	Unit	Rate	Rate	Unit	Unit	
1	Untreated Check					A	PRE	0.0
	Untreated Check					B	1-2 lf Cotton	0.0
	Untreated Check					C	4-6 lf Cotton	0.0
2	Warrant	0.5625 lb ai/a	24 oz/a			A	PRE	40.0
3	Dual Magnum	0.475 lb ai/a	8 oz/a			A	PRE	25.0
4	Zidua	0.05313 lb ai/a	1 oz/a			A	PRE	60.0
5	Warrant	0.84375 lb ai/a	36 oz/a			A	PRE	51.3
6	Dual Magnum	0.7125 lb ai/a	12 oz/a			A	PRE	50.0
7	Zidua	0.07969 lb ai/a	1.5 oz/a			A	PRE	63.8
8	Warrant	1.125 lb ai/a	48 oz/a			A	PRE	50.0
9	Dual Magnum	0.95 lb ai/a	16 oz/a			A	PRE	72.5
10	Zidua	0.10625 lb ai/a	2 oz/a			A	PRE	83.8
11	Warrant	2.25 lb ai/a	96 oz/a			A	PRE	77.5
12	Dual Magnum	1.9 lb ai/a	32 oz/a			A	PRE	80.0
13	Zidua	0.2125 lb ai/a	4 oz/a			A	PRE	88.8
14	Warrant	0.5625 lb ai/a	24 oz/a			B	1-2 lf Cotton	77.5
	Ignite 280	0.53 lb ai/a	29 oz/a			B	1-2 lf Cotton	91.3
15	Dual Magnum	0.475 lb ai/a	8 oz/a			B	1-2 lf Cotton	72.5
	Ignite 280	0.53 lb ai/a	29 oz/a			B	1-2 lf Cotton	82.5
16	Zidua	0.05313 lb ai/a	1 oz/a			B	1-2 lf Cotton	67.5
	Ignite 280	0.53 lb ai/a	29 oz/a			B	1-2 lf Cotton	86.3
17	Warrant	0.84375 lb ai/a	36 oz/a			B	1-2 lf Cotton	62.5
	Ignite 280	0.53 lb ai/a	29 oz/a			B	1-2 lf Cotton	90.0
18	Dual Magnum	0.7125 lb ai/a	12 oz/a			B	1-2 lf Cotton	73.8
	Ignite 280	0.53 lb ai/a	29 oz/a			B	1-2 lf Cotton	92.5
19	Zidua	0.07969 lb ai/a	1.5 oz/a			B	1-2 lf Cotton	78.8
	Ignite 280	0.53 lb ai/a	29 oz/a			B	1-2 lf Cotton	91.3
20	Warrant	1.125 lb ai/a	48 oz/a			B	1-2 lf Cotton	80.0
	Ignite 280	0.53 lb ai/a	29 oz/a			B	1-2 lf Cotton	93.8
21	Dual Magnum	0.95 lb ai/a	16 oz/a			B	1-2 lf Cotton	80.0
	Ignite 280	0.53 lb ai/a	29 oz/a			B	1-2 lf Cotton	90.0
22	Zidua	0.10625 lb ai/a	2 oz/a			B	1-2 lf Cotton	75.0
	Ignite 280	0.53 lb ai/a	29 oz/a			B	1-2 lf Cotton	86.3
23	Warrant	2.25 lb ai/a	96 oz/a			B	1-2 lf Cotton	78.8
	Ignite 280	0.53 lb ai/a	29 oz/a			B	1-2 lf Cotton	85.0
24	Dual Magnum	1.9 lb ai/a	32 oz/a			B	1-2 lf Cotton	75.0
	Ignite 280	0.53 lb ai/a	29 oz/a			B	1-2 lf Cotton	90.0
25	Zidua	0.2125 lb ai/a	4 oz/a			B	1-2 lf Cotton	85.0
	Ignite 280	0.53 lb ai/a	29 oz/a			B	1-2 lf Cotton	93.3
26	Ignite 280	0.53 lb ai/a	29 oz/a			B	1-2 lf Cotton	
	Warrant	0.5625 lb ai/a	24 oz/a			C	4-6 lf Cotton	36.3
	Ignite 280	0.53 lb ai/a	29 oz/a			C	4-6 lf Cotton	0.0
27	Ignite 280	0.53 lb ai/a	29 oz/a			B	1-2 lf Cotton	80.0
	Dual Magnum	0.475 lb ai/a	8 oz/a			C	4-6 lf Cotton	80.0
	Ignite 280	0.53 lb ai/a	29 oz/a			C	4-6 lf Cotton	0.0
28	Ignite 280	0.53 lb ai/a	29 oz/a			B	1-2 lf Cotton	
	Zidua	0.05313 lb ai/a	1 oz/a			C	4-6 lf Cotton	82.5
	Ignite 280	0.53 lb ai/a	29 oz/a			C	4-6 lf Cotton	12.5
29	Ignite 280	0.53 lb ai/a	29 oz/a			B	1-2 lf Cotton	
	Warrant	0.84375 lb ai/a	36 oz/a			C	4-6 lf Cotton	73.8
	Ignite 280	0.53 lb ai/a	29 oz/a			C	4-6 lf Cotton	0.0
30	Ignite 280	0.53 lb ai/a	29 oz/a			B	1-2 lf Cotton	
	Dual Magnum	0.7125 lb ai/a	12 oz/a			C	4-6 lf Cotton	77.5
	Ignite 280	0.53 lb ai/a	29 oz/a			C	4-6 lf Cotton	0.0
31	Ignite 280	0.53 lb ai/a	29 oz/a			B	1-2 lf Cotton	
	Zidua	0.07969 lb ai/a	1.5 oz/a			C	4-6 lf Cotton	83.8
	Ignite 280	0.53 lb ai/a	29 oz/a			C	4-6 lf Cotton	22.5

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant, Dual Magnum, & Zidua Comparisons in Cotton

Trial ID: HCT-40411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed	W Weed		W Weed		W Weed								
Pest Code		AMAPA	ECHCG		AMAPA		AMAPA								
Pest Scientific Name		Amaranthus pal>	Echinochloa cr>		Amaranthus pal>		Amaranthus pal>								
Pest Name		Palmer amaranth	Common barnyar>		Palmer amaranth		Palmer amaranth								
Crop Code															
Crop Scientific Name															
Crop Name															
Part Assessed		PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -							
Assessment Date		6/9/11	6/9/11	6/9/11	6/23/11	6/23/11	6/23/11	7/13/11	7/13/11						
Assessment Type		Control	Control	PHYNEC	Control	PHYNEC	PHYSTU	Control	PHYSTU						
Assessment Unit		%	%	%	%	%	%	%	%						
Number of Subsamples		1	1	1	1	1	1	1	1						
Crop Stage Majority		4-5 lf	4-5 lf	4-5 lf	6-8 lf	6-8 lf	6-8 lf	8 NAWF	8 NAWF						
Pest Stage Majority		2-24"	2-18"		2-48"			2-60"							
Assessed By															
Days After First/Last Applic.		27 7	27 7	27 7	41 9	41 9	41 9	61 29	61 29						
Trt-Eval Interval		7 DA-B	7 DA-B	7 DA-B	9 DA-C	9 DA-C	9 DA-C	29 DA-C	29 DA-C						
Plant-Eval Interval		28 DP-1	28 DP-1	28 DP-1	42 DP-1	42 DP-1	42 DP-1	62 DP-1	62 DP-1						
Days After Emergence		22 DE-1	22 DE-1	22 DE-1	36 DE-1	36 DE-1	36 DE-1	56 DE-1	56 DE-1						
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6	7	8
32	Ignite 280	0.53	lb ai/a	29	oz/a	B	1-2 lf Cotton				48.8	0.0	0.0	85.8	2.5
	Warrant	1.125	lb ai/a	48	oz/a	C	4-6 lf Cotton								
	Ignite 280	0.53	lb ai/a	29	oz/a	C	4-6 lf Cotton								
33	Ignite 280	0.53	lb ai/a	29	oz/a	B	1-2 lf Cotton				55.0	0.0	0.0	82.5	0.0
	Dual Magnum	0.95	lb ai/a	16	oz/a	C	4-6 lf Cotton								
	Ignite 280	0.53	lb ai/a	29	oz/a	C	4-6 lf Cotton								
34	Ignite 280	0.53	lb ai/a	29	oz/a	B	1-2 lf Cotton				56.3	18.8	26.3	78.8	10.0
	Zidua	0.10625	lb ai/a	2	oz/a	C	4-6 lf Cotton								
	Ignite 280	0.53	lb ai/a	29	oz/a	C	4-6 lf Cotton								
35	Ignite 280	0.53	lb ai/a	29	oz/a	B	1-2 lf Cotton				70.0	0.0	0.0	93.3	0.0
	Warrant	2.25	lb ai/a	96	oz/a	C	4-6 lf Cotton								
	Ignite 280	0.53	lb ai/a	29	oz/a	C	4-6 lf Cotton								
36	Ignite 280	0.53	lb ai/a	29	oz/a	B	1-2 lf Cotton				80.0	0.0	0.0	92.0	5.0
	Dual Magnum	1.9	lb ai/a	32	oz/a	C	4-6 lf Cotton								
	Ignite 280	0.53	lb ai/a	29	oz/a	C	4-6 lf Cotton								
37	Ignite 280	0.53	lb ai/a	29	oz/a	B	1-2 lf Cotton				58.8	32.5	47.5	83.3	10.0
	Zidua	0.2125	lb ai/a	4	oz/a	C	4-6 lf Cotton								
	Ignite 280	0.53	lb ai/a	29	oz/a	C	4-6 lf Cotton								
	LSD (P=.05)							26.72	27.17	14.43	36.96	3.90	12.12	20.90	7.27
	Standard Deviation							18.90	19.21	10.20	26.40	2.79	8.66	14.93	5.20
	CV							28.42	24.36	63.99	85.97	116.17	85.14	33.48	161.89
	Grand Mean							66.49	78.88	15.95	30.71	2.4	10.17	44.59	3.21

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Galigan Tank-mix Combinations PD in Cotton

Trial ID: HCT-40511
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop 1:		Crop Description
GOSHI	Gossypium hirsutum American upland cotton	
Variety: Delta Pine 0912 B2RF		
BBCH Scale: BCOT	Planting Date: 5/11/11	
Seed Bed: COMPAC compacted	Soil Temperature, Unit: 73.8 F	
Harvest Date: 10/3/11	Emergence Date: 5/17/11	
Harvested Width, Unit: 6.33 FT	Harvest Equipment: International Picker	
Weighing Equipment: International Picker	Harvested Length, Unit: 28 FT	

Pest 1 Type: W		Pest Description
Code: AMAPA	Amaranthus palmeri	
Common Name: Palmer amaranth		
Pest 2 Type: W	Code: ECHCG Echinochloa crus-galli	
Common Name: Common barnyardgrass		
Pest 3 Type: W	Code: BRAPP Brachiaria platyphylla	
Common Name: Broadleaf signalgrass		

Site and Design	
Plot Width, Unit: 12.66 FT	
Plot Length, Unit: 28 FT	
Plot Area, Unit: 354.48 FT ²	
Replications: 4	Study Design: RACOB L Randomized Complete Block (RCB)

Maintenance				
No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	5/12/11	Cotoran	24	OZ/A
2.	7/19/11	Asana XL	12	OZ
3.	7/19/11	Diamond	6	OZ
4.	7/19/11	Acephate	8	OZ
5.	7/19/11	Compact	20	OZ

Field Prep./Maintenance:
 COTORAN PRE 24 OZ
 DUAL 2 LF 16 OZ

Soil Description	
Description Name: Silt Loam	Texture: SIL silt loam
% Sand: 16	% OM: 2.2
% Silt: 67	pH: 7.1
% Clay: 17	Soil Name: Herbert Silt Loam
CEC: 14	Fert. Level: G
	Soil Drainage: G good

Application Description	
	A
Application Date:	7/13/11
Time of Day:	Morning
Application Method:	SPRAY
Application Timing:	POSDIR
Application Placement:	BRODIR
Applied By:	RD
Air Temperature, Unit:	85.7 F
% Relative Humidity:	74.9
Wind Velocity, Unit:	1.7 MPH
Wind Direction:	SSE
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	89.6 F
Soil Moisture:	GOOD
% Cloud Cover:	50
Next Rain Occurred On:	7/14/11

Crop Stage At Each Application	
	A
Crop 1 Code, BBCH Scale:	GOSHI BCOT
Stage Scale Used:	BBCH
Stage Majority, Percent:	5 NAWF

Pest Stage At Each Application	
	A
Pest 1 Code, Type, Scale:	AMAPA W
Pest 2 Code, Type, Scale:	ECHCG W
Pest 3 Code, Type, Scale:	BRAPP W

Galigan Tank-mix Combinations PD in Cotton

Trial ID: HCT-40511
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Application Equipment

	A
Appl. Equipment:	HoodSpray
Operation Pressure, Unit:	35 PSI
Nozzle Type:	TeeJet
Nozzle Spacing, Unit:	38 IN
Nozzles/Row:	3
Boom Length, Unit:	12.6 FT
Boom Height, Unit:	4 IN
Ground Speed, Unit:	3.8 MPH
Carrier:	H2O
Spray Volume, Unit:	15 GPA
Mix Size, Unit:	2 Gallons
Propellant:	CO2

University of Arkansas-Division of Agriculture

Galigan Tank-mix Combinations PD in Cotton

Trial ID: HCT-40511
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed ECHCG	W Weed AMAPA	W Weed ECHCG	W Weed AMAPA	W Weed BRAPP								
Pest Code	Amaranthus pal>	Echinochloa cr>	Amaranthus pal>	Echinochloa cr>	Amaranthus pal>	Brachiaria pla>								
Pest Scientific Name	Palmer amaranth	Common barnyar>	Palmer amaranth	Common barnyar>	Palmer amaranth	Broadleaf sign>								
Pest Name														
Crop Code							GOSHI							
Crop Scientific Name							Gossypium hirs>							
Crop Name							American uplan>							
Part Assessed	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT C							
Assessment Date	7/27/11	7/27/11	8/3/11	8/3/11	9/21/11	9/21/11	10/3/11							
Assessment Type	Control	Control	Control	Control	Control	Control	YIELD							
Assessment Unit	%	%	%	%	%	%	lb/plot							
Number of Subsamples	1	1	1	1	1	1	1							
Crop Stage Majority	5 NAWF	5 NAWF	2 NAWF	2 NAWF	Mature	Mature	Harvest							
Pest Stage Majority	4-24"	4-24"	4-24"	4-24"	24-72"	24-48"	Mature							
Assessed By	RD	RD	RD	RD	RD	RD	DR-RD							
Days After First/Last Appl.	14 14	14 14	21 21	21 21	70 70	70 70	82 82							
Trt-Eval Interval	14 DA-A	14 DA-A	21 DA-A	21 DA-A	70 DA-A	70 DA-A	82 DA-A							
Plant-Eval Interval	77 DP-1	77 DP-1	84 DP-1	84 DP-1	133 DP-1	133 DP-1	145 DP-1							
Days After Emergence	71 DE-1	71 DE-1	78 DE-1	78 DE-1	127 DE-1	127 DE-1	139 DE-1							
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Code	Appl Description	1	2	3	4	5	6	7
1	UTC							0.0	0.0	0.0	0.0	0.0	0.0	9.035
2	Galigan MSMA NIS	0.25 lb ai/a 2 lb ai/a 0.25 % v/v	16 oz/a 42.72 oz/a 4.8 oz/a		A	5	NAWF PD NAWF PD NAWF PD	97.5	100.0	97.5	100.0	96.3	93.8	12.983
3	Galigan MSMA NIS	0.5 lb ai/a 2 lb ai/a 0.25 % v/v	32 oz/a 42.72 oz/a 4.8 oz/a		A	5	NAWF PD NAWF PD NAWF PD	100.0	100.0	100.0	100.0	99.0	92.5	11.595
4	Galigan Diuron MSMA NIS	0.25 lb ai/a 0.5 lb ai/a 2 lb ai/a 0.25 % v/v	16 oz/a 16 oz/a 42.72 oz/a 4.8 oz/a		A	5	NAWF PD NAWF PD NAWF PD NAWF PD	100.0	100.0	100.0	100.0	86.3	90.0	9.953
5	Galigan Cotoran MSMA NIS	0.25 lb ai/a 0.5 lb ai/a 2 lb ai/a 0.25 % v/v	16 oz/a 16 oz/a 42.72 oz/a 4.8 oz/a		A	5	NAWF PD NAWF PD NAWF PD NAWF PD	100.0	100.0	100.0	100.0	97.0	88.8	11.375
6	Galigan Cotton Pro MSMA NIS	0.25 lb ai/a 0.5 lb ai/a 2 lb ai/a 0.25 % v/v	16 oz/a 16 oz/a 42.72 oz/a 4.8 oz/a		A	5	NAWF PD NAWF PD NAWF PD NAWF PD	100.0	100.0	100.0	100.0	98.8	95.0	9.670
7	Galigan PyrriMax MSMA NIS	0.25 lb ai/a 0.075 lb ai/a 2 lb ai/a 0.25 % v/v	16 oz/a 3 oz/a 42.72 oz/a 4.8 oz/a		A	5	NAWF PD NAWF PD NAWF PD NAWF PD	100.0	100.0	100.0	100.0	68.8	68.8	10.907
8	Diuron MSMA NIS	1 lb ai/a 2 lb ai/a 0.25 % v/v	32 oz/a 42.72 oz/a 4.8 oz/a		A	5	NAWF PD NAWF PD NAWF PD	100.0	100.0	100.0	100.0	45.0	33.8	7.893
9	Cotoran MSMA NIS	1 lb ai/a 2 lb ai/a 0.25 % v/v	32 oz/a 42.72 oz/a 4.8 oz/a		A	5	NAWF PD NAWF PD NAWF PD	100.0	100.0	100.0	100.0	72.0	58.8	9.480
10	Cotton Pro MSMA NIS	1 lb ai/a 2 lb ai/a 0.25 % v/v	32 oz/a 42.72 oz/a 4.8 oz/a		A	5	NAWF PD NAWF PD NAWF PD	100.0	100.0	100.0	100.0	40.0	36.3	6.368
11	PyrriMax MSMA NIS	0.075 lb ai/a 2 lb ai/a 0.25 % v/v	3 oz/a 42.72 oz/a 4.8 oz/a		A	5	NAWF PD NAWF PD NAWF PD	100.0	100.0	100.0	100.0	21.3	23.8	7.908
LSD (P=.05)								2.18	0.00	2.18	0.00	48.40	46.14	3.4660
Standard Deviation								1.51	0.00	1.51	0.00	33.52	31.96	2.3969
CV								1.66	0.0	1.66	0.0	50.91	51.6	24.6
Grand Mean								90.68	90.91	90.68	90.91	65.84	61.93	9.74

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Galigan Tank-mix Combinations PD in Cotton

Trial ID: HCT-40511
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type Pest Code Pest Scientific Name Pest Name Crop Code Crop Scientific Name Crop Name Part Assessed Assessment Date Assessment Type Assessment Unit Number of Subsamples Crop Stage Majority Pest Stage Majority Assessed By Days After First/Last Applic. Trt-Eval Interval Plant-Eval Interval Days After Emergence	GOSHI Gossypium hirs> American uplan> PLANT_C 10/3/11 YIELD LB 1 Harvest Mature DR-RD 82 82 82 DA-A 145 DP-1 139 DE-1																																																																																																																																																																																																																																																																																																																																															
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PD</td> </tr> <tr> <td>10</td> <td>Cotton Pro</td> <td>1</td> <td>lb ai/a</td> <td>32</td> <td>oz/a</td> <td>A</td> <td>5 NAWF PD</td> <td rowspan="3">1564.93</td> </tr> <tr> <td></td> <td>MSMA</td> <td>2</td> <td>lb ai/a</td> <td>42.72</td> <td>oz/a</td> <td>A</td> <td>5 NAWF PD</td> </tr> <tr> <td></td> <td>NIS</td> <td>0.25</td> <td>% v/v</td> <td>4.8</td> <td>oz/a</td> <td>A</td> <td>5 NAWF PD</td> </tr> <tr> <td>11</td> <td>PyriMax</td> <td>0.075</td> <td>lb ai/a</td> <td>3</td> <td>oz/a</td> <td>A</td> <td>5 NAWF PD</td> <td rowspan="3">1943.41</td> </tr> <tr> <td></td> <td>MSMA</td> <td>2</td> <td>lb ai/a</td> <td>42.72</td> <td>oz/a</td> <td>A</td> <td>5 NAWF PD</td> </tr> <tr> <td></td> <td>NIS</td> <td>0.25</td> <td>% v/v</td> <td>4.8</td> <td>oz/a</td> <td>A</td> <td>5 NAWF PD</td> </tr> <tr> <td colspan="8">LSD (P=.05)</td> <td>851.832</td> </tr> <tr> <td colspan="8">Standard Deviation</td> <td>589.081</td> </tr> <tr> <td colspan="8">CV</td> <td>24.6</td> </tr> <tr> <td 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ai/a	3	oz/a	A	5 NAWF PD		MSMA	2	lb ai/a	42.72	oz/a	A	5 NAWF PD		NIS	0.25	% v/v	4.8	oz/a	A	5 NAWF PD	8	Diuron	1	lb ai/a	32	oz/a	A	5 NAWF PD	1939.73		MSMA	2	lb ai/a	42.72	oz/a	A	5 NAWF PD		NIS	0.25	% v/v	4.8	oz/a	A	5 NAWF PD	9	Cotoran	1	lb ai/a	32	oz/a	A	5 NAWF PD	2329.88		MSMA	2	lb ai/a	42.72	oz/a	A	5 NAWF PD		NIS	0.25	% v/v	4.8	oz/a	A	5 NAWF PD	10	Cotton Pro	1	lb ai/a	32	oz/a	A	5 NAWF PD	1564.93		MSMA	2	lb ai/a	42.72	oz/a	A	5 NAWF PD		NIS	0.25	% v/v	4.8	oz/a	A	5 NAWF PD	11	PyriMax	0.075	lb ai/a	3	oz/a	A	5 NAWF PD	1943.41		MSMA	2	lb ai/a	42.72	oz/a	A	5 NAWF PD		NIS	0.25	% v/v	4.8	oz/a	A	5 NAWF PD	LSD (P=.05)								851.832	Standard Deviation								589.081	CV								24.6	Grand Mean								2394.32
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3	Galigan	0.5	lb ai/a	32	oz/a	A	5 NAWF PD	2849.68																																																																																																																																																																																																																																																																																																																																								
	MSMA	2	lb ai/a	42.72	oz/a	A	5 NAWF PD																																																																																																																																																																																																																																																																																																																																									
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4	Galigan	0.25	lb ai/a	16	oz/a	A	5 NAWF PD	2446.01																																																																																																																																																																																																																																																																																																																																								
	Diuron	0.5	lb ai/a	16	oz/a	A	5 NAWF PD																																																																																																																																																																																																																																																																																																																																									
	MSMA	2	lb ai/a	42.72	oz/a	A	5 NAWF PD																																																																																																																																																																																																																																																																																																																																									
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5	Galigan	0.25	lb ai/a	16	oz/a	A	5 NAWF PD	2795.62																																																																																																																																																																																																																																																																																																																																								
	Cotoran	0.5	lb ai/a	16	oz/a	A	5 NAWF PD																																																																																																																																																																																																																																																																																																																																									
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6	Galigan	0.25	lb ai/a	16	oz/a	A	5 NAWF PD	2376.58																																																																																																																																																																																																																																																																																																																																								
	Cotton Pro	0.5	lb ai/a	16	oz/a	A	5 NAWF PD																																																																																																																																																																																																																																																																																																																																									
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7	Galigan	0.25	lb ai/a	16	oz/a	A	5 NAWF PD	2680.51																																																																																																																																																																																																																																																																																																																																								
	PyriMax	0.075	lb ai/a	3	oz/a	A	5 NAWF PD																																																																																																																																																																																																																																																																																																																																									
	MSMA	2	lb ai/a	42.72	oz/a	A	5 NAWF PD																																																																																																																																																																																																																																																																																																																																									
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8	Diuron	1	lb ai/a	32	oz/a	A	5 NAWF PD	1939.73																																																																																																																																																																																																																																																																																																																																								
	MSMA	2	lb ai/a	42.72	oz/a	A	5 NAWF PD																																																																																																																																																																																																																																																																																																																																									
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9	Cotoran	1	lb ai/a	32	oz/a	A	5 NAWF PD	2329.88																																																																																																																																																																																																																																																																																																																																								
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10	Cotton Pro	1	lb ai/a	32	oz/a	A	5 NAWF PD	1564.93																																																																																																																																																																																																																																																																																																																																								
	MSMA	2	lb ai/a	42.72	oz/a	A	5 NAWF PD																																																																																																																																																																																																																																																																																																																																									
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11	PyriMax	0.075	lb ai/a	3	oz/a	A	5 NAWF PD	1943.41																																																																																																																																																																																																																																																																																																																																								
	MSMA	2	lb ai/a	42.72	oz/a	A	5 NAWF PD																																																																																																																																																																																																																																																																																																																																									
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LSD (P=.05)								851.832																																																																																																																																																																																																																																																																																																																																								
Standard Deviation								589.081																																																																																																																																																																																																																																																																																																																																								
CV								24.6																																																																																																																																																																																																																																																																																																																																								
Grand Mean								2394.32																																																																																																																																																																																																																																																																																																																																								

University of Arkansas-Division of Agriculture

Galigan Tank-mix Combinations PD in Cotton

Trial ID: HCT-40511
Location: Rohwer, AR

Investigator: Kenneth Smith

ARM Action Codes
TY1 = 245.7684*[7]

University of Arkansas-Division of Agriculture

Evaluate Tomahawk 5 in Flex Cotton

Trial ID: HCT-40811
Location: Rohwer, AR

Investigator: Kenneth Smith

University of Arkansas-Division of Agriculture

Evaluate Tomahawk 5 in Flex Cotton

Trial ID: HCT-40811
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type Pest Code Pest Scientific Name Pest Name Crop Code Crop Scientific Name Crop Name Part Assessed	W Weed AMAPA Amaranthus pal> Palmer amaranth			W Weed AMAPA Amaranthus pal> Palmer amaranth											
	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -						
Assessment Date	6/23/11	6/23/11	6/23/11	7/13/11	7/13/11	7/13/11	7/27/11	9/21/11							
Assessment Type	Control	PHYNEC	PHYSTU	Control	PHYNEC	PHYSTU	PHYSTU	PHYSTU							
Assessment Unit	%	%	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1	1	1							
Crop Stage Majority	5-6 lf	5-6 lf	5-6 lf	8 NAWF	8 NAWF	8 NAWF	3 NAWF	Mature							
Pest Stage Majority	2-36"			2-60"											
Assessed By															
Days After First/Last Applic.	42 9	42 9	42 9	62 2	62 2	62 2	76 16	132 72							
Trt-Eval Interval	9 DA-C	9 DA-C	9 DA-C	2 DA-G	2 DA-G	2 DA-G	16 DA-G	72 DA-G							
Plant-Eval Interval	43 DP-1	43 DP-1	43 DP-1	63 DP-1	63 DP-1	63 DP-1	77 DP-1	133 DP-1							
Days After Emergence	37 DE-1	37 DE-1	37 DE-1	57 DE-1	57 DE-1	57 DE-1	71 DE-1	127 DE-1							
Trt No. Name	Treatment Rate	Rate Unit	Other Rate	Other Rate	Appl Unit	Appl Code	Description	1	2	3	4	5	6	7	8
1	UTC							0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Tomahawk	0.94 lb ai/a	24 oz/a		C		4-6 lf Cotton	50.0	15.0	21.3	25.0	6.3	31.3	27.5	0.0
	Tomahawk	0.94 lb ai/a	24 oz/a		E		8-10 lf Cotton								
	Tomahawk	0.94 lb ai/a	24 oz/a		F		12-14 lf Cotton OT								
3	Roundup PowerMax	0.75 lb ae/a	21.3 oz/a		C		4-6 lf Cotton	60.0	20.0	43.8	27.5	2.5	28.8	25.0	0.0
	Roundup PowerMax	0.75 lb ae/a	21.3 oz/a		E		8-10 lf Cotton								
	Roundup PowerMax	0.75 lb ae/a	21.3 oz/a		F		12-14 lf Cotton OT								
4	Tomahawk	1.88 lb ai/a	48 oz/a		C		4-6 lf Cotton	42.5	3.8	35.0	25.0	5.0	30.0	28.8	0.0
	Tomahawk	1.88 lb ai/a	48 oz/a		E		8-10 lf Cotton								
	Tomahawk	1.88 lb ai/a	48 oz/a		F		12-14 lf Cotton OT								
5	Roundup PowerMax	1.5 lb ae/a	42.6 oz/a		C		4-6 lf Cotton	61.3	6.3	36.3	25.0	12.5	35.0	30.0	0.0
	Roundup PowerMax	1.5 lb ae/a	42.7 oz/a		E		8-10 lf Cotton								
	Roundup PowerMax	1.5 lb ae/a	42.7 oz/a		F		12-14 lf Cotton OT								
6	Cotoran	1 lb ai/a	32 oz/a		A		PRE	95.0	0.0	38.8	98.3	2.5	10.0	8.8	0.0
	Tomahawk	0.94 lb ai/a	24 oz/a		B		2-3 lf Cotton								
	Dual Magnum	0.95 lb ai/a	16 oz/a		B		2-3 lf Cotton								
	Tomahawk	0.94 lb ai/a	24 oz/a		D		6-7 lf Cotton								
	Tomahawk	0.94 lb ai/a	24 oz/a		E		8-10 lf Cotton								
	MSMA	2.02 lb ai/a	43 oz/a		G		12-14 lf Layby PD								
	Valor	0.064 lb ai/a	2 oz/a		G		12-14 lf Layby PD								
7	Cotoran	1 lb ai/a	32 oz/a		A		PRE	93.3	0.0	5.0	100.0	0.0	0.0	0.0	0.0
	Roundup PowerMax	0.75 lb ae/a	21.3 oz/a		B		2-3 lf Cotton								
	Dual Magnum	0.95 lb ai/a	16 oz/a		B		2-3 lf Cotton								
	Roundup PowerMax	0.75 lb ae/a	21.3 oz/a		D		6-7 lf Cotton								
	Roundup PowerMax	0.75 lb ae/a	21.3 oz/a		E		8-10 lf Cotton								
	MSMA	2.02 lb ai/a	43 oz/a		G		12-14 lf Layby PD								
	Valor	0.064 lb ai/a	2 oz/a		G		12-14 lf Layby PD								
8	Cotoran	1 lb ai/a	32 oz/a		A		PRE	93.8	0.0	0.0	99.5	0.0	2.5	2.5	0.0
	Tomahawk	1.88 lb ai/a	48 oz/a		B		2-3 lf Cotton								
	Dual Magnum	0.95 lb ai/a	16 oz/a		B		2-3 lf Cotton								
	Tomahawk	1.88 lb ai/a	48 oz/a		D		6-7 lf Cotton								
	Tomahawk	1.88 lb ai/a	48 oz/a		E		8-10 lf Cotton								
	MSMA	2.02 lb ai/a	43 oz/a		G		12-14 lf Layby PD								
	Valor	0.064 lb ai/a	2 oz/a		G		12-14 lf Layby PD								
9	Cotoran	1 lb ai/a	32 oz/a		A		PRE	93.3	0.0	42.5	99.5	0.0	10.0	10.0	0.0
	Roundup PowerMax	1.55 lb ae/a	44 oz/a		B		2-3 lf Cotton								
	Dual Magnum	0.95 lb ai/a	16 oz/a		B		2-3 lf Cotton								
	Roundup PowerMax	1.55 lb ae/a	44 oz/a		D		6-7 lf Cotton								
	Roundup PowerMax	1.55 lb ae/a	44 oz/a		E		8-10 lf Cotton								
	MSMA	2.02 lb ai/a	43 oz/a		G		12-14 lf Layby PD								
	Valor	0.064 lb ai/a	2 oz/a		G		12-14 lf Layby PD								
LSD (P=.05)								19.22	21.24	23.37	23.40	7.93	20.02	16.56	0.00
Standard Deviation								13.17	14.55	16.01	16.03	5.43	13.72	11.35	0.00
CV								20.12	291.03	64.77	28.87	170.07	83.69	77.08	0.0
Grand Mean								65.44	5.0	24.72	55.53	3.19	16.39	14.72	0.0

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Evaluate Tomahawk 5 in Flex Cotton

Trial ID: HCT-40811
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type Pest Code Pest Scientific Name Pest Name Crop Code Crop Scientific Name Crop Name Part Assessed Assessment Date Assessment Type Assessment Unit Number of Subsamples Crop Stage Majority Pest Stage Majority Assessed By Days After First/Last Applic. Trt-Eval Interval Plant-Eval Interval Days After Emergence	W Weed AMAPA Amaranthus pal> Palmer amaranth PLANT - 9/21/11 Control % 1 Mature 2-60" 132 72 72 DA-G 133 DP-1 127 DE-1																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">Trt No.</th> <th style="width: 15%;">Treatment Name</th> <th style="width: 5%;">Rate</th> <th style="width: 5%;">Unit</th> <th style="width: 5%;">Other Rate</th> <th style="width: 5%;">Other Rate</th> <th style="width: 5%;">Other Unit</th> <th style="width: 5%;">Appl Code</th> <th style="width: 15%;">Appl Description</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>UTC</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: right;">0.0</td> </tr> <tr> <td>2</td> <td>Tomahawk</td> <td>0.94</td> <td>lb ai/a</td> <td>24</td> <td>oz/a</td> <td></td> <td>C</td> <td>4-6 If Cotton</td> <td style="text-align: right;">0.0</td> </tr> <tr> <td></td> <td>Tomahawk</td> <td>0.94</td> <td>lb ai/a</td> <td>24</td> <td>oz/a</td> <td></td> <td>E</td> <td>8-10 If Cotton</td> <td></td> </tr> <tr> <td></td> <td>Tomahawk</td> <td>0.94</td> <td>lb ai/a</td> <td>24</td> <td>oz/a</td> <td></td> <td>F</td> <td>12-14 If Cotton OT</td> <td></td> </tr> <tr> <td>3</td> <td>Roundup PowerMax</td> <td>0.75</td> <td>lb ae/a</td> <td>21.3</td> <td>oz/a</td> <td></td> <td>C</td> <td>4-6 If Cotton</td> <td style="text-align: right;">0.0</td> </tr> <tr> <td></td> <td>Roundup PowerMax</td> <td>0.75</td> <td>lb ae/a</td> <td>21.3</td> <td>oz/a</td> <td></td> <td>E</td> <td>8-10 If Cotton</td> <td></td> </tr> <tr> <td></td> <td>Roundup PowerMax</td> <td>0.75</td> <td>lb ae/a</td> <td>21.3</td> <td>oz/a</td> <td></td> <td>F</td> <td>12-14 If Cotton OT</td> <td></td> </tr> <tr> <td>4</td> <td>Tomahawk</td> <td>1.88</td> <td>lb ai/a</td> <td>48</td> <td>oz/a</td> <td></td> <td>C</td> <td>4-6 If Cotton</td> <td style="text-align: right;">0.0</td> </tr> <tr> <td></td> <td>Tomahawk</td> <td>1.88</td> <td>lb ai/a</td> <td>48</td> <td>oz/a</td> <td></td> <td>E</td> <td>8-10 If Cotton</td> <td></td> </tr> <tr> <td></td> <td>Tomahawk</td> <td>1.88</td> <td>lb ai/a</td> <td>48</td> <td>oz/a</td> <td></td> <td>F</td> <td>12-14 If Cotton OT</td> <td></td> </tr> <tr> <td>5</td> <td>Roundup PowerMax</td> <td>1.5</td> <td>lb ae/a</td> <td>42.6</td> <td>oz/a</td> <td></td> <td>C</td> <td>4-6 If Cotton</td> <td style="text-align: right;">0.0</td> </tr> <tr> <td></td> <td>Roundup PowerMax</td> <td>1.5</td> <td>lb ae/a</td> <td>42.7</td> <td>oz/a</td> <td></td> <td>E</td> <td>8-10 If Cotton</td> <td></td> </tr> <tr> <td></td> <td>Roundup PowerMax</td> <td>1.5</td> <td>lb ae/a</td> <td>42.7</td> <td>oz/a</td> <td></td> <td>F</td> <td>12-14 If Cotton OT</td> <td></td> </tr> <tr> <td>6</td> <td>Cotoran</td> <td>1</td> <td>lb ai/a</td> <td>32</td> <td>oz/a</td> <td></td> <td>A</td> <td>PRE</td> <td style="text-align: right;">97.5</td> </tr> <tr> <td></td> <td>Tomahawk</td> <td>0.94</td> <td>lb ai/a</td> <td>24</td> <td>oz/a</td> <td></td> <td>B</td> <td>2-3 If Cotton</td> <td></td> </tr> <tr> <td></td> <td>Dual 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University of Arkansas-Division of Agriculture

Pyrimax Tank-mix Combinatons PRE in Cotton

Trial ID: HCT-40911
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description
Crop 1: GOSHI Gossypium hirsutum American upland cotton Variety: Delta Pine 0912 B2RF BBCH Scale: BCOT Planting Date: 5/11/11 Seed Bed: COMPAC compacted Soil Temperature, Unit: 73.8 F Emergence Date: 5/17/11

Pest Description
Pest 1 Type: W Code: AMAPA <i>Amaranthus palmeri</i> Common Name: Palmer amaranth
Pest 2 Type: W Code: ECHCG <i>Echinochloa crus-galli</i> Common Name: Common barnyardgrass

Site and Design
Plot Width, Unit: 12.66 FT Plot Length, Unit: 28 FT Plot Area, Unit: 354.48 FT2 Replications: 4 Study Design: RACOBL Randomized Complete Block (RCB)

Maintenance				
No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Asana XL	12	OZ
2.	7/19/11	Diamond	6	OZ
3.	7/19/11	Acephate	8	OZ
4.	7/19/11	Compact	20	OZ

Soil Description
Description Name: Silt Loam % Sand: 16 % OM: 2.2 Texture: SIL silt loam % Silt: 67 pH: 7.1 Soil Name: Herbert Silt Loam % Clay: 17 CEC: 14 Fert. Level: G Soil Drainage: G good

Application Description	
	A
Application Date:	5/12/11
Time of Day:	Morning
Application Method:	SPRAY
Application Timing:	PREPRE
Application Placement:	BROSOL
Applied By:	RD
Air Temperature, Unit:	75.0 F
% Relative Humidity:	65.7
Wind Velocity, Unit:	5.2 MPH
Wind Direction:	SSW
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	74.1 F
Soil Moisture:	GOOD
% Cloud Cover:	60
Next Rain Occurred On:	5/21/11

Crop Stage At Each Application	
	A
Crop 1 Code, BBCH Scale:	GOSHI BCOT
Stage Scale Used:	DESC
Stage Majority, Percent:	PRE

Pest Stage At Each Application	
	A
Pest 1 Code, Type, Scale:	AMAPA W
Stage Majority, Percent:	PRE
Pest 2 Code, Type, Scale:	ECHCG W
Stage Majority, Percent:	PRE

University of Arkansas-Division of Agriculture

Pyrimax Tank-mix Combinatons PRE in Cotton

Trial ID: HCT-40911
Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A
Appl. Equipment:	Multi-Boom
Operation Pressure, Unit:	55 PSI
Nozzle Type:	Air-Mix
Nozzle Size:	110015
Nozzle Spacing, Unit:	19 IN
Nozzles/Row:	2
Boom Length, Unit:	12.6 FT
Boom Height, Unit:	18 IN
Ground Speed, Unit:	3.8 MPH
Carrier:	H2O
Spray Volume, Unit:	12 GPA
Mix Size, Unit:	3 Liters
Propellant:	CO2

University of Arkansas-Division of Agriculture

Pyrimax Tank-mix Combinatons PRE in Cotton

Trial ID: HCT-40911
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed AMAPA	W Weed ECHCG						
Pest Code	Amaranthus pal>	Amaranthus pal>	Echinochloa cr>						
Pest Scientific Name	Palmer amaranth	Palmer amaranth	Common barnyar>						
Pest Name									
Crop Code									
Crop Scientific Name									
Crop Name									
Part Assessed	PLANT -	PLANT -	PLANT -						
Assessment Date	6/9/11	7/13/11	7/13/11						
Assessment Type	Control	Control	Control						
Assessment Unit	%	%	%						
Number of Subsamples	1	1	1						
Crop Stage Majority	4-5 lf	8 NAWF	8 NAWF						
Pest Stage Majority	2-24"	2-48"	2-24"						
Assessed By									
Days After First/Last Applic.	28 28	62 62	62 62						
Trt-Eval Interval	28 DA-A	62 DA-A	62 DA-A						
Plant-Eval Interval	29 DP-1	63 DP-1	63 DP-1						
Days After Emergence	23 DE-1	57 DE-1	57 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3
1	UTC						0.0	0.0	0.0
2	Pyrimax	0.0325 lb ai/a	1.3 oz/a		A	PRE	0.0	58.8	0.0
3	Pyrimax	0.0525 lb ai/a	2.1 oz/a		A	PRE	0.0	0.0	0.0
4	Pyrimax Cotoran	0.0325 lb ai/a 0.75 lb ai/a	1.3 oz/a 24 oz/a		A A	PRE PRE	68.8	73.8	12.5
5	Pyrimax Cotoran	0.0525 lb ai/a 0.75 lb ai/a	2.1 oz/a 24 oz/a		A A	PRE PRE	66.3	87.5	0.0
6	Pyrimax Diuron	0.0325 lb ai/a 0.75 lb ai/a	1.3 oz/a 24 oz/a		A A	PRE PRE	85.0	98.3	50.0
7	Pyrimax Diuron	0.0525 lb ai/a 0.75 lb ai/a	2.1 oz/a 24 oz/a		A A	PRE PRE	86.3	93.3	50.0
8	Pyrimax Cotton Pro	0.0325 lb ai/a 1.2 lb ai/a	1.3 oz/a 38.4 oz/a		A A	PRE PRE	61.3	75.0	12.5
9	Pyrimax Cotton Pro	0.0525 lb ai/a 1.2 lb ai/a	2.1 oz/a 38.4 oz/a		A A	PRE PRE	68.8	96.5	0.0
10	Pyrimax Parallel PCS	0.0325 lb ai/a 0.75 lb ai/a	1.3 oz/a 12 oz/a		A A	PRE PRE	65.0	90.0	0.0
11	Pyrimax Parallel PCS	0.0325 lb ai/a 0.75 lb ai/a	1.3 oz/a 12 oz/a		A A	PRE PRE	70.0	96.3	27.5
12	Cotoran	0.75 lb ai/a	24 oz/a		A	PRE	61.3	85.8	15.0
13	Diuron	0.75 lb ai/a	24 oz/a		A	PRE	83.8	91.0	0.0
14	Cotton Pro	1.2 lb ai/a	38.4 oz/a		A	PRE	55.0	90.8	0.0
15	Parallel PCS	0.75 lb ai/a	12 oz/a		A	PRE	45.0	93.8	0.0
LSD (P=.05)							14.58	12.72	28.09
Standard Deviation							10.20	8.90	19.66
CV							18.75	11.81	176.02
Grand Mean							54.42	75.37	11.17

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of MANA Cotton Herbicides Alone and in Tankmix When Applied Post-Direct

Trial ID: HCT-41311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GOSHI Gossypium hirsutum American upland cotton
Variety: Delta Pine 0912 B2RF
BBCH Scale: BCOT **Planting Date:** 5/10/11
Seed Bed: COMPAC compacted **Soil Temperature, Unit:** 73.8 F
Emergence Date: 5/16/11

Pest Description

Pest 1 Type: W **Code:** AMAPA *Amaranthus palmeri*
Common Name: Palmer amaranth

Pest 2 Type: W **Code:** ECHCG *Echinochloa crus-galli*
Common Name: Common barnyardgrass

Pest 3 Type: W **Code:** BRAPP *Brachiaria platyphylla*
Common Name: Broadleaf signalgrass

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4 **Study Design:** RACOB L Randomized Complete Block (RCB)

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	5/11/11	Cotoran	24	OZ/A
2.	7/19/11	Asana XL	12	OZ
3.	7/19/11	Diamond	6	OZ
4.	7/19/11	Acephate	8	OZ
5.	7/19/11	Compact	20	OZ

Field Prep./Maintenance:
 Cotoran PRE 24 oz/A

Dual 2 If 16 oz/A

Soil Description

Description Name: Silt Loam
% Sand: 16 **% OM:** 2.2 **Texture:** SIL silt loam
% Silt: 67 **pH:** 7.1 **Soil Name:** Herbert Silt Loam
% Clay: 17 **CEC:** 14 **Fert. Level:** G
Soil Drainage: G good

Application Description

A	
Application Date:	6/27/11
Time of Day:	Afternoon
Application Method:	SPRAY
Application Timing:	POSDIR
Application Placement:	BRODIR
Applied By:	RD
Air Temperature, Unit:	83.1 F
% Relative Humidity:	73.5
Wind Velocity, Unit:	4.5 MPH
Wind Direction:	W
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	85.9 F
Soil Moisture:	GOOD
% Cloud Cover:	50
Next Rain Occurred On:	6/29/11

Crop Stage At Each Application

A	
Crop 1 Code, BBCH Scale:	GOSHI BCOT
Stage Scale Used:	BBCH
Stage Majority, Percent:	12"

Pest Stage At Each Application

A	
Pest 1 Code, Type, Scale:	AMAPA W
Pest 2 Code, Type, Scale:	ECHCG W
Pest 3 Code, Type, Scale:	BRAPP W

University of Arkansas-Division of Agriculture

Efficacy of MANA Cotton Herbicides Alone and in Tankmix When Applied Post-Direct

Trial ID: HCT-41311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Application Equipment

	A
Appl. Equipment:	HoodSpray
Operation Pressure, Unit:	35 PSI
Nozzle Type:	TeeJet
Nozzle Spacing, Unit:	38 IN
Nozzles/Row:	3
Boom Length, Unit:	12.6 FT
Boom Height, Unit:	4 IN
Ground Speed, Unit:	3.8 MPH
Carrier:	H2O
Spray Volume, Unit:	15 GPA
Mix Size, Unit:	2 Gallons
Propellant:	CO2

University of Arkansas-Division of Agriculture

Efficacy of MANA Cotton Herbicides Alone and in Tankmix When Applied Post-Direct

Trial ID: HCT-41311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed ECHCG	W Weed AMAPA	W Weed ECHCG	W Weed AMAPA	W Weed BRAPP						
Pest Code	Amaranthus pal>	Echinochloa cr>	Amaranthus pal>	Echinochloa cr>	Amaranthus pal>	Bracharia pla>						
Pest Scientific Name	Palmer amaranth	Common barnyar>	Palmer amaranth	Common barnyar>	Palmer amaranth	Broadleaf sign>						
Pest Name												
Crop Code												
Crop Scientific Name												
Crop Name												
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P						
Assessment Date	7/13/11	7/13/11	7/21/11	7/21/11	9/29/11	9/29/11						
Assessment Type	Control	Control	Control	Control	Control	Control						
Assessment Unit	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	8 NAWF	8 NAWF	3 NAWF	3NAWF	Mature	Mature						
Pest Stage Majority	2-36"	2-36"	2-36"	2-36"	12-60"	12-48"						
Assessed By												
Days After First/Last Applic.	16 16	16 16	24 24	24 24	94 94	94 94						
Trt-Eval Interval	16 DA-A	16 DA-A	24 DA-A	24 DA-A	94 DA-A	94 DA-A						
Plant-Eval Interval	64 DP-1	64 DP-1	72 DP-1	72 DP-1	142 DP-1	142 DP-1						
Days After Emergence	58 DE-1	58 DE-1	66 DE-1	66 DE-1	136 DE-1	136 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	1	2	3	4	5	6
1	UTC						0.0	0.0	0.0	0.0	0.0	0.0
2	Cotton Pro COC	1 lb ai/a 1 % v/v	32 oz/a 1 % v/v		A	Post-Directed @ 12" Post-Directed @ 12"	88.8	87.5	88.8	87.5	86.7	40.0
3	Cotoran 4L COC	1 lb ai/a 1 % v/v	32 oz/a 1 % v/v		A	Post-Directed @ 12" Post-Directed @ 12"	86.3	62.5	86.3	62.5	83.3	0.0
4	Diuron 4L COC	1 lb ai/a 1 % v/v	32 oz/a 1 % v/v		A	Post-Directed @ 12" Post-Directed @ 12"	93.8	82.5	93.8	82.5	81.3	40.0
5	Cotton Pro MSMA COC	1 lb ai/a 2.02 lb ai/a 1 % v/v	32 oz/a 43 oz/a 1 % v/v		A	Post-Directed @ 12" Post-Directed @ 12" Post-Directed @ 12"	89.5	82.5	89.5	82.5	85.0	73.8
6	Cotoran 4L MSMA COC	1 lb ai/a 2.02 lb ai/a 1 % v/v	32 oz/a 43 oz/a 1 % v/v		A	Post-Directed @ 12" Post-Directed @ 12" Post-Directed @ 12"	92.5	77.5	92.5	77.5	40.0	58.8
7	Diuron 4L MSMA COC	1 lb ai/a 2.02 lb ai/a 1 % v/v	32 oz/a 43 oz/a 1 % v/v		A	Post-Directed @ 12" Post-Directed @ 12" Post-Directed @ 12"	93.8	75.0	93.8	75.0	23.8	17.5
8	Cotoran 4L Diuron 4L COC	0.5 lb ai/a 0.5 lb ai/a 1 % v/v	16 oz/a 16 oz/a 1 % v/v		A	Post-Directed @ 12" Post-Directed @ 12" Post-Directed @ 12"	82.8	60.0	82.8	60.0	45.0	42.5
9	Cotoran 4L Diuron 4L COC	0.5 lb ai/a 0.75 lb ai/a 1 % v/v	16 oz/a 24 oz/a 1 % v/v		A	Post-Directed @ 12" Post-Directed @ 12" Post-Directed @ 12"	92.5	86.3	92.5	86.3	40.0	12.5
10	Cotoran 4L Cotton Pro COC	0.5 lb ai/a 0.4 lb ai/a 1 % v/v	16 oz/a 12.8 oz/a 1 % v/v		A	Post-Directed @ 12" Post-Directed @ 12" Post-Directed @ 12"	90.8	85.0	90.8	85.0	85.0	68.8
11	Diuron 4L Cotton Pro COC	0.5 lb ai/a 0.4 lb ai/a 1 % v/v	16 oz/a 12.8 oz/a 1 % v/v		A	Post-Directed @ 12" Post-Directed @ 12" Post-Directed @ 12"	86.3	75.0	86.3	75.0	20.0	20.0
12	Aim EC COC	0.025 lb ai/a 1 % v/v	1.6 oz/a 1 % v/v		A	Post-Directed @ 12" Post-Directed @ 12"	85.0	81.3	85.0	81.3	68.8	40.0
13	Envoke COC	0.007 lb ai/a 1 % v/v	0.15 oz/a 1 % v/v		A	Post-Directed @ 12" Post-Directed @ 12"	91.3	91.3	91.3	91.3	17.5	15.0
14	Suprend COC	1.2 lb ai/a 1 % v/v	24 oz/a 1 % v/v		A	Post-Directed @ 12" Post-Directed @ 12"	92.0	85.0	92.0	85.0	78.3	20.0
15	PyrriMax 3.2L COC	0.065 lb ai/a 1 % v/v	2.6 oz/a 1 % v/v		A	Post-Directed @ 12" Post-Directed @ 12"	87.5	52.5	87.5	52.5	80.0	12.5
16	Staple LX COC	0.065 lb ai/a 1 % v/v	2.6 oz/a 1 % v/v		A	Post-Directed @ 12" Post-Directed @ 12"	81.3	53.8	81.3	53.8	87.5	72.5
LSD (P=.05)							15.40	30.90	15.40	30.90	46.31	49.85
Standard Deviation							10.78	21.63	10.78	21.63	32.41	34.88
CV							12.93	30.42	12.93	30.42	56.23	104.57
Grand Mean							83.36	71.09	83.36	71.09	57.63	33.36

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of DGT Cotton

Trial ID: HCT-41411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GOSHI Gossypium hirsutum American upland cotton
Variety: DGT Stacked **Description:** Trial
BBCH Scale: BCOT **Planting Date:** 6/20/11
Planting Method: BEDDED bedded **Rate, Unit:** 41000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 38 IN **Spacing Within Row, Unit:** 3 IN
Seed Bed: CRUSTE crusted **Soil Temperature, Unit:** 82 F
Soil Moisture: GOOD good **Emergence Date:** 6/24/11

Crop 2: GOSHI Gossypium hirsutum American upland cotton
Variety: Delta Pine 0912 B2RF **Description:** Border
BBCH Scale: BCOT **Planting Date:** 6/20/11
Planting Method: BEDDED bedded **Rate, Unit:** 41000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 38 IN **Spacing Within Row, Unit:** 3 IN
Seed Bed: CRUSTE crusted **Soil Temperature, Unit:** 82 F
Soil Moisture: GOOD good **Emergence Date:** 6/24/11

Pest Description

Pest 1 Type: W **Code:** AMAPA *Amaranthus palmeri*
Common Name: Palmer amaranth

Pest 2 Type: W **Code:** ECHCG *Echinochloa crus-galli*
Common Name: Common barnyardgrass

Site and Design

Plot Width, Unit: 12.66 FT **Site Type:** RESPLO research plot
Plot Length, Unit: 29 FT **PLANT** plant
Plot Area, Unit: 354.48 FT² **Tillage Type:** CONTIL conventional-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)
% Slope: 15.0 **Untreated Arrangement:** INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	5/20/11	Paraquat Trial	32	OZ/A		
2.	6/20/11	Paraquat 32 OZ/A + Cotoran 24 OZ/A Border			Y	yes
3.	7/23/11	Round up 22 oz/A + Dual Mag 16 oz/A Border			Y	yes
4.	8/30/11	MSMA 43 oz/A + Valor 2 oz/A Trial and Border			Y	yes

Soil Description

Description Name: Silt Loam
% Sand: 16 **% OM:** 2.2 **Texture:** SIL silt loam
% Silt: 67 **pH:** 7.1 **Soil Name:** Herbert Silt Loam
% Clay: 17 **CEC:** 14 **Fert. Level:** G
Soil Drainage: G good

Application Description

	A	B	C	D	E
Application Date:	6/21/11	6/21/11	7/11/11	7/29/11	8/30/11
Time of Day:	Morning	Morning	Morning	Morning	Morning
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PREPRE	PREPRE	POSPOS	POSPOS	POSDIR
Application Placement:	BROSIO	BROSIO	BROFOL	BROFOL	BRODIR
Applied By:	RD	RD	RD	RD	RD
Air Temperature, Unit:	86 F	86 F	85.2 F	77 F	73 F
% Relative Humidity:	76	76	70.5	95.7	81
Wind Velocity, Unit:	2 MPH	2 MPH	2.5 MPH	2 MPH	1 MPH
Wind Direction:	S	S	W	S	S
Dew Presence (Y/N):	N no	N no	N no	N no	N no
Soil Temperature, Unit:	77	77	87.6 F	88 F	81 F
Soil Moisture:	GOOD	GOOD	GOOD	GOOD	GOOD
% Cloud Cover:	40	40	50	50	40
Next Rain Occurred On:	6/22/11	6/22/11			

Crop Stage At Each Application

	A	B	C	D	E
Crop 1 Code, BBCH Scale:	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT
Stage Scale Used:	BBCH	BBCH	BBCH	BBCH	BBCH
Stage Majority, Percent:	PRE	PRE	1-2 lf	6-8 lf	10-12 lf
Crop 2 Code, BBCH Scale:	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT

Pest Stage At Each Application

	A	B	C	D	E
Pest 1 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W	AMAPA W	AMAPA W
Pest 2 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W	ECHCG W	ECHCG W

University of Arkansas-Division of Agriculture

Efficacy of DGT Cotton

Trial ID: HCT-41411
 Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B	C	D	E
Appl. Equipment:	Multi-Boom	Multi-Boom	Multi-Boom	Multi-Boom	HoodSpray
Operation Pressure, Unit:	55 PSI	55 PSI	55 PSI	55 PSI	35 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix	Air-Mix	TeeJet
Nozzle Size:	110015	110015	110015	110015	
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN	19 IN	38 IN
Nozzles/Row:	2	2	2	2	3
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN	18 IN	4 IN
Ground Speed, Unit:	3.8 MPH	3.8 MPH	3.8 MPH	3.8 MPH	3.8 MPH
Carrier:	H2O	H2O	H2O	H2O	H2O
Spray Volume, Unit:	12 GPA	12 GPA	12 GPA	12 GPA	15 GPA
Mix Size, Unit:	3 Liters	3 Liters	3 Liters	3 Liters	2 Gallons
Propellant:	CO2	CO2	CO2	CO2	CO2

University of Arkansas-Division of Agriculture

Efficacy of DGT Cotton

Trial ID: HCT-41411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type Pest Code Pest Scientific Name Pest Name Crop Code Crop Scientific Name Crop Name Part Assessed Assessment Date Assessment Type Assessment Unit Number of Subsamples Crop Stage Majority Pest Stage Majority Assessed By Days After First/Last Applic. Trt-Eval Interval Plant-Eval Interval Days After Emergence	W Weed AMAPA	W Weed ECHCG	W Weed AMAPA	W Weed ECHCG	W Weed AMAPA	W Weed AMAPA				
	Amaranthus pal> Palmer amaranth	Echinochloa cr> Common barnyar>	Amaranthus pal> Palmer amaranth	Echinochloa cr> Common barnyar>	Amaranthus pal> Palmer amaranth	Amaranthus pal> Palmer amaranth				
PLANT P 7/13/11 Control % 1 3lf 2-12"	PLANT P 7/13/11 Control % 1 3lf 2-12"	PLANT P 7/27/11 Control % 1 8-9 lf 12-36" RD 36 16 16 DA-C 37 DP-1 33 DE-1	PLANT P 7/27/11 Control % 1 8-9 lf 12-36" RD 36 16 16 DA-C 37 DP-1 33 DE-1	PLANT P 7/27/11 Control % 1 8-9 lf 12-36" RD 36 16 16 DA-C 37 DP-1 33 DE-1	PLANT P 9/7/11 Control % 1 1-2 NAWF 2-48" RD 78 8 8 DA-E 79 DP-1 75 DE-1	PLANT P 9/29/11 Control % 1 Mature 12-48" RD 100 30 30 DA-E 101 DP-1 97 DE-1				
Trt Treatment No. Name Rate Rate Unit Other Rate Other Rate Unit Appl Code Appl Description	1	2	3	4	5	6				
1 UTC	0.0	0.0	0.0	0.0	25.0	0.0				
2 Cotoran 4 Clarity Roundup PowerMax Ignite 280 Warrant MSMA Valor	0.75 lb ai/a 0.5 lb ae/a 0.75 lb ae/a 0.53 lb ai/a 1.125 lb ai/a 2.02 lb ai/a 0.064 lb ai/a	24 oz/a 16 oz/a 21.3 oz/a 29 oz/a 48 oz/a 43 oz/a 2 oz/a	A C C D D E E	PRE 1-2 lf Cotton 1-2 lf Cotton 6-8 lf Cotton 6-8 lf Cotton 10-12 lf Layby 10-12 lf Layby	100.0	92.5	100.0	100.0	100.0	100.0
3 Cotoran 4 Clarity Roundup PowerMax Warrant Ignite 280 Warrant MSMA Valor	0.75 lb ai/a 0.5 lb ae/a 0.75 lb ae/a 1.125 lb ai/a 0.53 lb ai/a 1.125 lb ai/a 2.02 lb ai/a 0.064 lb ai/a	24 oz/a 16 oz/a 21.3 oz/a 48 oz/a 29 oz/a 48 oz/a 43 oz/a 2 oz/a	A C C C D D E E	PRE 1-2 lf Cotton 1-2 lf Cotton 1-2 lf Cotton 6-8 lf Cotton 6-8 lf Cotton 10-12 lf Layby 10-12 lf Layby	100.0	93.8	100.0	81.3	100.0	100.0
4 Cotoran 4 Ignite 280 Warrant Ignite 280 Warrant MSMA Valor	0.75 lb ai/a 0.53 lb ai/a 1.125 lb ai/a 0.53 lb ai/a 1.125 lb ai/a 2.02 lb ai/a 0.064 lb ai/a	24 oz/a 29 oz/a 48 oz/a 29 oz/a 48 oz/a 43 oz/a 2 oz/a	A C C D D E E	PRE 1-2 lf Cotton 1-2 lf Cotton 6-8 lf Cotton 6-8 lf Cotton 10-12 lf Layby 10-12 lf Layby	100.0	100.0	100.0	100.0	100.0	100.0
5 Cotoran 4 Clarity Ignite 280 Ignite 280 Warrant MSMA Valor	0.75 lb ai/a 0.5 lb ae/a 0.53 lb ai/a 0.53 lb ai/a 1.125 lb ai/a 2.02 lb ai/a 0.064 lb ai/a	24 oz/a 16 oz/a 29 oz/a 29 oz/a 48 oz/a 43 oz/a 2 oz/a	A C C D D E E	PRE 1-2 lf Cotton 1-2 lf Cotton 6-8 lf Cotton 6-8 lf Cotton 10-12 lf Layby 10-12 lf Layby	100.0	97.5	100.0	96.3	100.0	100.0
6 Clarity Clarity Roundup PowerMax Ignite 280 Warrant MSMA Valor	0.5 lb ae/a 0.5 lb ae/a 0.75 lb ae/a 0.53 lb ai/a 1.125 lb ai/a 2.02 lb ai/a 0.064 lb ai/a	16 oz/a 16 oz/a 21.3 oz/a 29 oz/a 48 oz/a 43 oz/a 2 oz/a	B C C D D E E	PRE 1-2 lf Cotton 1-2 lf Cotton 6-8 lf Cotton 6-8 lf Cotton 10-12 lf Layby 10-12 lf Layby	100.0	0.0	100.0	60.0	100.0	100.0
7 Clarity Clarity Roundup PowerMax Warrant Ignite 280 Warrant MSMA Valor	0.5 lb ae/a 0.5 lb ae/a 0.75 lb ae/a 1.125 lb ai/a 0.53 lb ai/a 1.125 lb ai/a 2.02 lb ai/a 0.064 lb ai/a	16 oz/a 16 oz/a 21.3 oz/a 48 oz/a 29 oz/a 48 oz/a 43 oz/a 2 oz/a	B C C C D D E E	PRE 1-2 lf Cotton 1-2 lf Cotton 1-2 lf Cotton 6-8 lf Cotton 6-8 lf Cotton 10-12 lf Layby 10-12 lf Layby	100.0	0.0	100.0	52.5	100.0	100.0
8 Clarity Ignite 280 Warrant Ignite 280 Warrant MSMA Valor	0.5 lb ae/a 0.53 lb ai/a 1.125 lb ai/a 0.53 lb ai/a 1.125 lb ai/a 2.02 lb ai/a 0.064 lb ai/a	16 oz/a 29 oz/a 48 oz/a 29 oz/a 48 oz/a 43 oz/a 2 oz/a	B C C D D E E	PRE 1-2 lf Cotton 1-2 lf Cotton 6-8 lf Cotton 6-8 lf Cotton 10-12 lf Layby 10-12 lf Layby	100.0	0.0	96.3	76.3	100.0	100.0
9 Clarity Clarity Ignite 280 Ignite 280 Warrant MSMA Valor	0.5 lb ae/a 0.5 lb ae/a 0.53 lb ai/a 0.53 lb ai/a 1.125 lb ai/a 2.02 lb ai/a 0.064 lb ai/a	16 oz/a 16 oz/a 29 oz/a 29 oz/a 48 oz/a 43 oz/a 2 oz/a	B C C D D E E	PRE 1-2 lf Cotton 1-2 lf Cotton 6-8 lf Cotton 6-8 lf Cotton 10-12 lf Layby 10-12 lf Layby	100.0	0.0	96.3	77.5	100.0	100.0
10 Cotoran 4 Clarity Clarity Roundup PowerMax Ignite 280 Warrant MSMA Valor	0.75 lb ai/a 0.5 lb ae/a 0.5 lb ae/a 0.75 lb ae/a 0.53 lb ai/a 1.125 lb ai/a 2.02 lb ai/a 0.064 lb ai/a	24 oz/a 16 oz/a 16 oz/a 21.3 oz/a 29 oz/a 48 oz/a 43 oz/a 2 oz/a	A B C C D D E E	PRE PRE 1-2 lf Cotton 1-2 lf Cotton 6-8 lf Cotton 6-8 lf Cotton 10-12 lf Layby 10-12 lf Layby	100.0	99.5	100.0	100.0	100.0	100.0

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of DGT Cotton

Trial ID: HCT-41411
Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed ECHCG	W Weed AMAPA	W Weed ECHCG	W Weed AMAPA	W Weed AMAPA							
Pest Code	Amaranthus pal>	Echinochloa cr>	Amaranthus pal>	Echinochloa cr>	Amaranthus pal>	Amaranthus pal>							
Pest Scientific Name	Palmer amaranth	Common barnyar>	Palmer amaranth	Common barnyar>	Palmer amaranth	Palmer amaranth							
Pest Name													
Crop Code	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Crop Scientific Name													
Crop Name													
Part Assessed													
Assessment Date	7/13/11	7/13/11	7/27/11	7/27/11	9/7/11	9/29/11							
Assessment Type	Control	Control	Control	Control	Control	Control							
Assessment Unit	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	3lf	3lf	8-9 lf	8-9 lf	1-2 NAWF	Mature							
Pest Stage Majority	2-12"	2-12"	12-36"	12-36"	2-48"	12-48"							
Assessed By			RD	RD	RD	RD							
Days After First/Last Applic.	22 2	22 2	36 16	36 16	78 8	100 30							
Trt-Eval Interval	2 DA-C	2 DA-C	16 DA-C	16 DA-C	8 DA-E	30 DA-E							
Plant-Eval Interval	23 DP-1	23 DP-1	37 DP-1	37 DP-1	79 DP-1	101 DP-1							
Days After Emergence	19 DE-1	19 DE-1	33 DE-1	33 DE-1	75 DE-1	97 DE-1							
Trt No.	Treatment	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	1	2	3	4	5	6
11	Cotoran 4	0.75	lb ai/a	24	oz/a	A	PRE	100.0	99.5	100.0	83.8	100.0	100.0
	Clarity	0.5	lb ae/a	16	oz/a	B	PRE						
	Clarity	0.5	lb ae/a	16	oz/a	C	1-2 lf Cotton						
	Roundup PowerMax	0.75	lb ae/a	21.3	oz/a	C	1-2 lf Cotton						
	Warrant	1.125	lb ai/a	48	oz/a	C	1-2 lf Cotton						
	Ignite 280	0.53	lb ai/a	29	oz/a	D	6-8 lf Cotton						
	Warrant	1.125	lb ai/a	48	oz/a	D	6-8 lf Cotton						
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 lf Layby						
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 lf Layby						
12	Cotoran 4	0.75	lb ai/a	24	oz/a	A	PRE	100.0	100.0	100.0	100.0	100.0	100.0
	Clarity	0.5	lb ae/a	16	oz/a	B	PRE						
	Ignite 280	0.53	lb ai/a	29	oz/a	C	1-2 lf Cotton						
	Warrant	1.125	lb ai/a	48	oz/a	C	1-2 lf Cotton						
	Ignite 280	0.53	lb ai/a	29	oz/a	D	6-8 lf Cotton						
	Warrant	1.125	lb ai/a	48	oz/a	D	6-8 lf Cotton						
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 lf Layby						
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 lf Layby						
13	Cotoran 4	0.75	lb ai/a	24	oz/a	A	PRE	100.0	100.0	100.0	100.0	100.0	100.0
	Clarity	0.5	lb ae/a	16	oz/a	B	PRE						
	Clarity	0.5	lb ae/a	16	oz/a	C	1-2 lf Cotton						
	Ignite 280	0.53	lb ai/a	29	oz/a	C	1-2 lf Cotton						
	Ignite 280	0.53	lb ai/a	29	oz/a	D	6-8 lf Cotton						
	Warrant	1.125	lb ai/a	48	oz/a	D	6-8 lf Cotton						
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 lf Layby						
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 lf Layby						
14	Clarity	0.5	lb ae/a	16	oz/a	C	1-2 lf Cotton	100.0	43.8	100.0	93.8	100.0	100.0
	Roundup PowerMax	0.75	lb ae/a	21.3	oz/a	C	1-2 lf Cotton						
	Ignite 280	0.53	lb ai/a	29	oz/a	D	6-8 lf Cotton						
	Warrant	1.125	lb ai/a	48	oz/a	D	6-8 lf Cotton						
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 lf Layby						
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 lf Layby						
15	Clarity	0.5	lb ae/a	16	oz/a	C	1-2 lf Cotton	100.0	25.0	100.0	37.5	100.0	100.0
	Roundup PowerMax	0.75	lb ae/a	21.3	oz/a	C	1-2 lf Cotton						
	Warrant	1.125	lb ai/a	48	oz/a	C	1-2 lf Cotton						
	Ignite 280	0.53	lb ai/a	29	oz/a	D	6-8 lf Cotton						
	Warrant	1.125	lb ai/a	48	oz/a	D	6-8 lf Cotton						
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 lf Layby						
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 lf Layby						
16	Ignite 280	0.53	lb ai/a	29	oz/a	C	1-2 lf Cotton	100.0	25.0	100.0	80.0	100.0	100.0
	Warrant	1.125	lb ai/a	48	oz/a	C	1-2 lf Cotton						
	Ignite 280	0.53	lb ai/a	29	oz/a	D	6-8 lf Cotton						
	Warrant	1.125	lb ai/a	48	oz/a	D	6-8 lf Cotton						
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 lf Layby						
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 lf Layby						
17	Clarity	0.5	lb ae/a	16	oz/a	C	1-2 lf Cotton	100.0	40.0	100.0	80.0	100.0	100.0
	Ignite 280	0.53	lb ai/a	29	oz/a	C	1-2 lf Cotton						
	Ignite 280	0.53	lb ai/a	29	oz/a	D	6-8 lf Cotton						
	Warrant	1.125	lb ai/a	48	oz/a	D	6-8 lf Cotton						
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 lf Layby						
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 lf Layby						
18	Clarity	0.5	lb ae/a	16	oz/a	C	1-2 lf Cotton	100.0	25.0	100.0	90.0	100.0	100.0
	Roundup PowerMax	0.75	lb ae/a	21.3	oz/a	C	1-2 lf Cotton						
	Clarity	0.5	lb ae/a	16	oz/a	D	6-8 lf Cotton						
	Roundup PowerMax	0.75	lb ae/a	21.3	oz/a	D	6-8 lf Cotton						
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 lf Layby						
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 lf Layby						
19	Roundup PowerMax	0.75	lb ae/a	21.3	oz/a	C	1-2 lf Cotton	100.0	12.5	100.0	95.0	100.0	100.0
	Roundup PowerMax	0.75	lb ae/a	21.3	oz/a	D	6-8 lf Cotton						
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 lf Layby						
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 lf Layby						
LSD (P=.05)		0.00						0.00	23.82	2.87	15.30	16.22	0.00
Standard Deviation		0.00						0.00	16.84	2.03	10.82	11.47	0.00
CV		0.0						0.0	33.54	2.15	13.67	11.94	0.0
Grand Mean		94.74						94.74	50.21	94.34	79.14	96.05	94.74

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of DGT Cotton

Trial ID: HCT-41411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	
Pest Type: W Weed Pest Code: ECHCG Pest Scientific Name: Echinochloa cr> Pest Name: Common barnyar> Crop Code: Crop Scientific Name: Crop Name: Part Assessed: PLANT P Assessment Date: 9/29/11 Assessment Type: Control Assessment Unit: % Number of Subsamples: 1 Crop Stage Majority: Mature Pest Stage Majority: 12-48" Assessed By: RD Days After First/Last Applic.: 100 30 Trt-Eval Interval: 30 DA-E Plant-Eval Interval: 101 DP-1 Days After Emergence: 97 DE-1								
1	UTC							0.0
2	Cotoran 4	0.75	lb ai/a	24	oz/a	A	PRE	100.0
	Clarity	0.5	lb ae/a	16	oz/a	C	1-2 If Cotton	
	Roundup PowerMax	0.75	lb ae/a	21.3	oz/a	C	1-2 If Cotton	
	Ignite 280	0.53	lb ai/a	29	oz/a	D	6-8 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	D	6-8 If Cotton	
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 If Layby	
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 If Layby	
3	Cotoran 4	0.75	lb ai/a	24	oz/a	A	PRE	100.0
	Clarity	0.5	lb ae/a	16	oz/a	C	1-2 If Cotton	
	Roundup PowerMax	0.75	lb ae/a	21.3	oz/a	C	1-2 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	C	1-2 If Cotton	
	Ignite 280	0.53	lb ai/a	29	oz/a	D	6-8 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	D	6-8 If Cotton	
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 If Layby	
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 If Layby	
4	Cotoran 4	0.75	lb ai/a	24	oz/a	A	PRE	100.0
	Ignite 280	0.53	lb ai/a	29	oz/a	C	1-2 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	C	1-2 If Cotton	
	Ignite 280	0.53	lb ai/a	29	oz/a	D	6-8 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	D	6-8 If Cotton	
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 If Layby	
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 If Layby	
5	Cotoran 4	0.75	lb ai/a	24	oz/a	A	PRE	100.0
	Clarity	0.5	lb ae/a	16	oz/a	C	1-2 If Cotton	
	Ignite 280	0.53	lb ai/a	29	oz/a	C	1-2 If Cotton	
	Ignite 280	0.53	lb ai/a	29	oz/a	D	6-8 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	D	6-8 If Cotton	
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 If Layby	
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 If Layby	
6	Clarity	0.5	lb ae/a	16	oz/a	B	PRE	100.0
	Clarity	0.5	lb ae/a	16	oz/a	C	1-2 If Cotton	
	Roundup PowerMax	0.75	lb ae/a	21.3	oz/a	C	1-2 If Cotton	
	Ignite 280	0.53	lb ai/a	29	oz/a	D	6-8 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	D	6-8 If Cotton	
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 If Layby	
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 If Layby	
7	Clarity	0.5	lb ae/a	16	oz/a	B	PRE	100.0
	Clarity	0.5	lb ae/a	16	oz/a	C	1-2 If Cotton	
	Roundup PowerMax	0.75	lb ae/a	21.3	oz/a	C	1-2 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	C	1-2 If Cotton	
	Ignite 280	0.53	lb ai/a	29	oz/a	D	6-8 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	D	6-8 If Cotton	
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 If Layby	
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 If Layby	
8	Clarity	0.5	lb ae/a	16	oz/a	B	PRE	100.0
	Ignite 280	0.53	lb ai/a	29	oz/a	C	1-2 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	C	1-2 If Cotton	
	Ignite 280	0.53	lb ai/a	29	oz/a	D	6-8 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	D	6-8 If Cotton	
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 If Layby	
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 If Layby	
9	Clarity	0.5	lb ae/a	16	oz/a	B	PRE	100.0
	Clarity	0.5	lb ae/a	16	oz/a	C	1-2 If Cotton	
	Ignite 280	0.53	lb ai/a	29	oz/a	C	1-2 If Cotton	
	Ignite 280	0.53	lb ai/a	29	oz/a	D	6-8 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	D	6-8 If Cotton	
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 If Layby	
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 If Layby	
10	Cotoran 4	0.75	lb ai/a	24	oz/a	A	PRE	100.0
	Clarity	0.5	lb ae/a	16	oz/a	B	PRE	
	Clarity	0.5	lb ae/a	16	oz/a	C	1-2 If Cotton	
	Roundup PowerMax	0.75	lb ae/a	21.3	oz/a	C	1-2 If Cotton	
	Ignite 280	0.53	lb ai/a	29	oz/a	D	6-8 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	D	6-8 If Cotton	
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 If Layby	
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 If Layby	

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of DGT Cotton

Trial ID: HCT-41411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed						
Pest Code	ECHCG						
Pest Scientific Name	Echinochloa cr>						
Pest Name	Common barnyar>						
Crop Code							
Crop Scientific Name							
Crop Name							
Part Assessed	PLANT P						
Assessment Date	9/29/11						
Assessment Type	Control						
Assessment Unit	%						
Number of Subsamples	1						
Crop Stage Majority	Mature						
Pest Stage Majority	12-48"						
Assessed By	RD						
Days After First/Last Applic.	100 30						
Trt-Eval Interval	30 DA-E						
Plant-Eval Interval	101 DP-1						
Days After Emergence	97 DE-1						
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code Description	7
11	Cotoran 4	0.75	lb ai/a	24	oz/a	A PRE	100.0
	Clarity	0.5	lb ae/a	16	oz/a	B PRE	
	Clarity	0.5	lb ae/a	16	oz/a	C 1-2 If Cotton	
	Roundup PowerMax	0.75	lb ae/a	21.3	oz/a	C 1-2 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	C 1-2 If Cotton	
	Ignite 280	0.53	lb ai/a	29	oz/a	D 6-8 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	D 6-8 If Cotton	
	MSMA	2.02	lb ai/a	43	oz/a	E 10-12 If Layby	
	Valor	0.064	lb ai/a	2	oz/a	E 10-12 If Layby	
12	Cotoran 4	0.75	lb ai/a	24	oz/a	A PRE	100.0
	Clarity	0.5	lb ae/a	16	oz/a	B PRE	
	Ignite 280	0.53	lb ai/a	29	oz/a	C 1-2 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	C 1-2 If Cotton	
	Ignite 280	0.53	lb ai/a	29	oz/a	D 6-8 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	D 6-8 If Cotton	
	MSMA	2.02	lb ai/a	43	oz/a	E 10-12 If Layby	
	Valor	0.064	lb ai/a	2	oz/a	E 10-12 If Layby	
13	Cotoran 4	0.75	lb ai/a	24	oz/a	A PRE	100.0
	Clarity	0.5	lb ae/a	16	oz/a	B PRE	
	Clarity	0.5	lb ae/a	16	oz/a	C 1-2 If Cotton	
	Ignite 280	0.53	lb ai/a	29	oz/a	C 1-2 If Cotton	
	Ignite 280	0.53	lb ai/a	29	oz/a	D 6-8 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	D 6-8 If Cotton	
	MSMA	2.02	lb ai/a	43	oz/a	E 10-12 If Layby	
	Valor	0.064	lb ai/a	2	oz/a	E 10-12 If Layby	
14	Clarity	0.5	lb ae/a	16	oz/a	C 1-2 If Cotton	100.0
	Roundup PowerMax	0.75	lb ae/a	21.3	oz/a	C 1-2 If Cotton	
	Ignite 280	0.53	lb ai/a	29	oz/a	D 6-8 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	D 6-8 If Cotton	
	MSMA	2.02	lb ai/a	43	oz/a	E 10-12 If Layby	
	Valor	0.064	lb ai/a	2	oz/a	E 10-12 If Layby	
15	Clarity	0.5	lb ae/a	16	oz/a	C 1-2 If Cotton	100.0
	Roundup PowerMax	0.75	lb ae/a	21.3	oz/a	C 1-2 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	C 1-2 If Cotton	
	Ignite 280	0.53	lb ai/a	29	oz/a	D 6-8 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	D 6-8 If Cotton	
	MSMA	2.02	lb ai/a	43	oz/a	E 10-12 If Layby	
	Valor	0.064	lb ai/a	2	oz/a	E 10-12 If Layby	
16	Ignite 280	0.53	lb ai/a	29	oz/a	C 1-2 If Cotton	100.0
	Warrant	1.125	lb ai/a	48	oz/a	C 1-2 If Cotton	
	Ignite 280	0.53	lb ai/a	29	oz/a	D 6-8 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	D 6-8 If Cotton	
	MSMA	2.02	lb ai/a	43	oz/a	E 10-12 If Layby	
	Valor	0.064	lb ai/a	2	oz/a	E 10-12 If Layby	
17	Clarity	0.5	lb ae/a	16	oz/a	C 1-2 If Cotton	100.0
	Ignite 280	0.53	lb ai/a	29	oz/a	C 1-2 If Cotton	
	Ignite 280	0.53	lb ai/a	29	oz/a	D 6-8 If Cotton	
	Warrant	1.125	lb ai/a	48	oz/a	D 6-8 If Cotton	
	MSMA	2.02	lb ai/a	43	oz/a	E 10-12 If Layby	
	Valor	0.064	lb ai/a	2	oz/a	E 10-12 If Layby	
18	Clarity	0.5	lb ae/a	16	oz/a	C 1-2 If Cotton	100.0
	Roundup PowerMax	0.75	lb ae/a	21.3	oz/a	C 1-2 If Cotton	
	Clarity	0.5	lb ae/a	16	oz/a	D 6-8 If Cotton	
	Roundup PowerMax	0.75	lb ae/a	21.3	oz/a	D 6-8 If Cotton	
	MSMA	2.02	lb ai/a	43	oz/a	E 10-12 If Layby	
	Valor	0.064	lb ai/a	2	oz/a	E 10-12 If Layby	
19	Roundup PowerMax	0.75	lb ae/a	21.3	oz/a	C 1-2 If Cotton	100.0
	Roundup PowerMax	0.75	lb ae/a	21.3	oz/a	D 6-8 If Cotton	
	MSMA	2.02	lb ai/a	43	oz/a	E 10-12 If Layby	
	Valor	0.064	lb ai/a	2	oz/a	E 10-12 If Layby	
LSD (P=.05)							0.00
Standard Deviation							0.00
CV							0.0
Grand Mean							94.74

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Fomesafen Program Efficacy in GT Cotton

Trial ID: HCT-42111
 Location: Marianna, AR

Investigator: Kenneth Smith

Crop Description

Crop 1: GOSHI *Gossypium hirsutum* American upland cotton
Variety: Delta Pine 0912 B2RF
BBCH Scale: BCOT **Planting Date:** 5/27/11
Seed Bed: COMPAC compacted **Soil Temperature, Unit:** 69.6 f
Emergence Date: 6/1/11

Pest Description

Pest 1 Type: W **Code:** AMAPA *Amaranthus palmeri*
Common Name: Palmer amaranth

Pest 2 Type: W **Code:** ELEIN *Eleusine indica*
Common Name: Goosegrass

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)

Soil Description

Description Name: Loring Silt Loam
% Sand: 1 **% OM:** 2 **Texture:** SIL silt loam
% Silt: 82 **pH:** 7 **Soil Name:** Loring Silt Loam
% Clay: 17 **CEC:** 15 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B	C	D	E
Application Date:	5/18/11	5/27/11	6/21/11	7/6/11	7/14/11
Time of Day:	Morning	Morning	Morning	Morning	Morning
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PREPLA	PREPRE	POSPOS	POSDIR	POSDIR
Application Placement:	BROSOI	BROFOL	BROFOL	BRODIR	BRODIR
Applied By:	RD	RD	RD	RD	RD
Air Temperature, Unit:	63.0 F	64.9 F	76.6 F	79.9 F	80.7 F
% Relative Humidity:	54.1	81.8	87.6	83.2	86.1
Wind Velocity, Unit:	3.7 MPH	3.2 MPH	7.6 MPH	0.9 MPH	0.5 MPH
Wind Direction:	SSW	ESE	W	WNW	SSE
Dew Presence (Y/N):	N no	Y yes	Y yes	N no	Y yes
Soil Temperature, Unit:	67.1 F	69.6 F	86.0 F	82.7 F	86.9 F
Soil Moisture:	GOOD	GOOD	GOOD	GOOD	GOOD
% Cloud Cover:	60	50	100	40	60
Next Rain Occurred On:	5/21/11	6/17/11	6/22/11	7/7/11	7/15/11

Crop Stage At Each Application

	A	B	C	D	E
Crop 1 Code, BBCH Scale:	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT
Stage Scale Used:	BBCH	BBCH	BBCH	BBCH	BBCH
Stage Majority, Percent:	PPL	PRE	2-3 LF	8-9 LF	10-12 LF

Pest Stage At Each Application

	A	B	C	D	E
Pest 1 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W	AMAPA W	AMAPA W
Pest 2 Code, Type, Scale:	ELEIN W	ELEIN W	ELEIN W	ELEIN W	ELEIN W

Application Equipment

	A	B	C	D	E
Appl. Equipment:	Hand Boom	Multi-Boom	Multi-Boom	HoodSpray	HoodSpray
Operation Pressure, Unit:	45 PSI	55 PSI	55 PSI	35 PSI	35 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix	TeeJet	TeeJet
Nozzle Size:	110015	110015	110015		
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN	38 IN	38 IN
Nozzles/Row:	2	2	2	3	3
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN	4 IN	4 IN
Ground Speed, Unit:	3.5 MPH	3.8 MPH	3.8 MPH	3.8 MPH	3.8 MPH
Carrier:	H2O	H2O	H2O	H2O	H2O
Spray Volume, Unit:	12 GPA	12 GPA	12 GPA	15 GPA	15 GPA
Mix Size, Unit:	3 Liters	3 Liters	3 Liters	2 Gallons	2 Gallons
Propellant:	CO2	CO2	CO2	CO2	CO2

University of Arkansas-Division of Agriculture

Fomesafen Program Efficacy in GT Cotton

Trial ID: HCT-42111
 Location: Marianna, AR

Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed ELEIN	W Weed AMAPA	W Weed AMAPA	W Weed AMAPA							
Pest Code	Amaranthus pal>	Eleusine indica	Amaranthus pal>	Amaranthus pal>	Amaranthus pal>							
Pest Scientific Name	Palmer amaranth	Goosegrass	Palmer amaranth	Palmer amaranth	Palmer amaranth							
Pest Name												
Crop Code												
Crop Scientific Name												
Crop Name												
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	6/30/11	6/30/11	7/6/11	8/11/11	9/28/11							
Assessment Type	Control	Control	Control	Control	Control							
Assessment Unit	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1							
Crop Stage Majority	7-8 lf	7-8 lf	10 lf	3 NAWF	Mature							
Pest Stage Majority	1-50"	Mature	2-60"	6-72"	12-84"							
Assessed By	RD	RD	RD	RD	RD							
Days After First/Last Applic.	43 9	43 9	49 15	85 28	133 76							
Trt-Eval Interval	9 DA-C	9 DA-C	15 DA-C	28 DA-E	28 DA-E							
Plant-Eval Interval	34 DP-1	34 DP-1	40 DP-1	76 DP-1	124 DP-1							
Days After Emergence	29 DE-1	29 DE-1	35 DE-1	71 DE-1	119 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Unit	Appl Description	1	2	3	4	5
1	UTC							0.0	0.0	0.0	0.0	0.0
2	Reflex	0.25	lb ai/a	16	oz/a	A	9 DPP	90.0	100.0	97.0	99.5	93.8
	Sequence	1.64	lb ai/a	40	oz/a	C	2-3 lf Cotton					
	Suprend	1.2	lb ai/a	24	oz/a	D	8-9 lf Cotton					
	COC	1	% v/v	19.2	oz/a	D	8-9 lf Cotton					
	Caparol	1	lb ai/a	32	oz/a	E	10-12 lf Cotton					
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 lf Cotton					
3	Reflex	0.25	lb ai/a	16	oz/a	A	9 DPP	92.5	100.0	97.0	98.3	96.3
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	2-3 lf Cotton					
	Dual Magnum	0.95	lb ai/a	16	oz/a	C	2-3 lf Cotton					
	Suprend	1.2	lb ai/a	24	oz/a	D	8-9 lf Cotton					
	COC	1	% v/v	19.2	oz/a	D	8-9 lf Cotton					
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 lf Cotton					
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 lf Cotton					
4	Reflex	0.25	lb ai/a	16	oz/a	A	9 DPP	91.3	98.8	99.5	98.8	97.5
	Caparol	0.75	lb ai/a	24	oz/a	B	PRE					
	Sequence	1.64	lb ai/a	40	oz/a	C	2-3 lf Cotton					
	Valor	0.064	lb ai/a	2	oz/a	D	8-9 lf Cotton					
	MSMA	2.02	lb ai/a	43	oz/a	D	8-9 lf Cotton					
5	Reflex	0.25	lb ai/a	16	oz/a	A	9 DPP	97.5	100.0	99.0	99.5	99.0
	Cotoran	0.75	lb ai/a	24	oz/a	B	PRE					
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	2-3 lf Cotton					
	Dual Magnum	0.95	lb ai/a	16	oz/a	C	2-3 lf Cotton					
	Valor	0.064	lb ai/a	2	oz/a	D	8-9 lf Cotton					
	MSMA	2.02	lb ai/a	43	oz/a	D	8-9 lf Cotton					
6	Cotoran	0.75	lb ai/a	24	oz/a	B	PRE	92.5	100.0	99.5	96.3	98.8
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	2-3 lf Cotton					
	Dual Magnum	0.95	lb ai/a	16	oz/a	C	2-3 lf Cotton					
	Caparol	1	lb ai/a	32	oz/a	D	8-9 lf Cotton					
	MSMA	2.02	lb ai/a	43	oz/a	D	8-9 lf Cotton					
	Prefix	1.32	lb ai/a	32	oz/a	E	10-12 lf Cotton					
	Touchdown Total	0.77	lb ae/a	24	oz/a	E	10-12 lf Cotton					
7	Cotoran	0.75	lb ai/a	24	oz/a	B	PRE	87.5	98.8	95.0	87.0	85.8
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	2-3 lf Cotton					
	Dual Magnum	0.95	lb ai/a	16	oz/a	C	2-3 lf Cotton					
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	D	8-9 lf Cotton					
	Valor	0.064	lb ai/a	2	oz/a	E	10-12 lf Cotton					
	MSMA	2.02	lb ai/a	43	oz/a	E	10-12 lf Cotton					
8	Cotoran	0.75	lb ai/a	24	oz/a	B	PRE	81.3	98.8	96.0	98.3	97.5
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	2-3 lf Cotton					
	Dual Magnum	0.95	lb ai/a	16	oz/a	C	2-3 lf Cotton					
	Gramoxone Inteon	0.625	lb ai/a	40	oz/a	E	10-12 lf Cotton					
	Prefix	1.32	lb ai/a	32	oz/a	E	10-12 lf Cotton					
	NIS	0.25	% v/v	4.8	oz/a	E	10-12 lf Cotton					
LSD (P=.05)								12.44	2.36	4.38	7.79	10.18
Standard Deviation								8.46	1.60	2.98	5.29	6.92
CV								10.7	1.84	3.49	6.25	8.29
Grand Mean								79.06	87.03	85.38	84.69	83.56

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Evaluation of Warrant PPL and PRE in Cotton

Trial ID: HCT-42211
 Location: Marianna, AR

Investigator: Kenneth Smith

Crop Description

Crop 1: GOSHI *Gossypium hirsutum* American upland cotton
Variety: Delta Pine 0912 B2RF
BBCH Scale: BCOT **Planting Date:** 5/27/11
Seed Bed: COMPAC compacted **Soil Temperature, Unit:** 69.6 F
Emergence Date: 6/2/11

Pest Description

Pest 1 Type: W **Code:** AMAPA *Amaranthus palmeri*
Common Name: Palmer amaranth

Pest 2 Type: W **Code:** ELEIN *Eleusine indica*
Common Name: Goosegrass

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)

Soil Description

Description Name: Loring Silt Loam
% Sand: 1 **% OM:** 2 **Texture:** SIL silt loam
% Silt: 82 **pH:** 7 **Soil Name:** Loring Silt Loam
% Clay: 17 **CEC:** 15 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B	C
Application Date:	5/18/11	5/27/11	6/21/11
Time of Day:	Morning	Morning	Morning
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREPLA	PREPRE	POSPOS
Application Placement:	BROSOI	BROSOI	BROFOL
Applied By:	RD	RD	RD
Air Temperature, Unit:	63.0 F	64.9 F	76.6 F
% Relative Humidity:	54.1	81.8	87.6
Wind Velocity, Unit:	3.7 MPH	3.2 MPH	7.6 MPH
Wind Direction:	SSW	ESE	W
Dew Presence (Y/N):	N no	Y yes	Y yes
Soil Temperature, Unit:	67.1 F	69.6 F	86.0 F
Soil Moisture:	GOOD	GOOD	GOOD
% Cloud Cover:	60	50	100
Next Rain Occurred On:	5/21/11	6/17/11	6/22/11

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT
Stage Scale Used:	BBCH	BBCH	BBCH
Stage Majority, Percent:	PPL	PRE	2-4 LF

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W
Pest 2 Code, Type, Scale:	ELEIN W	ELEIN W	ELEIN W

Application Equipment

	A	B	C
Appl. Equipment:	Hand Boom	Multi-Boom	Multi-Boom
Operation Pressure, Unit:	45 PSI	55 PSI	55 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix
Nozzle Size:	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Nozzles/Row:	2	2	2
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN
Ground Speed, Unit:	3.5 MPH	3.8 MPH	3.8 MPH
Carrier:	H2O	H2O	H2O
Spray Volume, Unit:	12 GPA	12 GPA	12 GPA
Mix Size, Unit:	3 Liters	3 Liters	3 Liters
Propellant:	CO2	CO2	CO2

University of Arkansas-Division of Agriculture

Evaluation of Warrant PPL and PRE in Cotton

Trial ID: HCT-42211
 Location: Marianna, AR

Investigator: Kenneth Smith

							W Weed AMAPA	W Weed ELEIN	W Weed AMAPA
							Amaranthus pal>	Eleusine indica	Amaranthus pal>
							Palmer amaranth	Goosegrass	Palmer amaranth
Pest Type	Pest Code	Pest Scientific Name	Pest Name	Crop Code	Crop Scientific Name	Crop Name	PLANT -	PLANT -	PLANT -
							6/30/11	6/30/11	7/6/11
							Control	Control	Control
							%	%	%
							1	1	1
							9 lf	9 lf	10 lf
							1-50"	Mature	2-60"
							43 9	43 9	49 15
							9 DA-C	9 DA-C	15 DA-C
							34 DP-1	34 DP-1	40 DP-1
							28 DE-1	28 DE-1	34 DE-1
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	1	2	3
1	UTC						0.0	0.0	0.0
2	Roundup PowerMax Warrant	0.75 lb ae/a 1.125 lb ai/a	21.3 oz/a 48 oz/a		A A	14 DPP 14 DPP	95.0	73.8	98.3
3	Roundup PowerMax Warrant	0.75 lb ae/a 2.25 lb ai/a	21.3 oz/a 96 oz/a		A A	14 DPP 14 DPP	92.5	93.8	99.0
4	Roundup PowerMax Warrant Reflex	0.75 lb ae/a 2.25 lb ai/a 0.375 lb ai/a	21.3 oz/a 96 oz/a 24 oz/a		A A A	14 DPP 14 DPP 14 DPP	93.8	100.0	98.3
5	Roundup PowerMax Warrant Roundup PowerMax Warrant	0.75 lb ae/a 1.125 lb ai/a 0.75 lb ae/a 1.125 lb ai/a	21.3 oz/a 48 oz/a 21.3 oz/a 48 oz/a		A A B B	14 DPP 14 DPP PRE PRE	100.0	100.0	99.5
6	Roundup PowerMax Dual II Magnum	0.75 lb ae/a 1.25 lb ai/a	21.3 oz/a 21 oz/a		B B	PRE PRE	80.0	67.5	93.3
7	Roundup PowerMax Warrant	0.75 lb ae/a 1.125 lb ai/a	21.3 oz/a 48 oz/a		B B	PRE PRE	76.3	75.0	93.8
8	Roundup PowerMax Dual II Magnum	0.75 lb ae/a 2.5 lb ai/a	21.3 oz/a 42 oz/a		B B	PRE PRE	86.3	91.3	96.5
9	Roundup PowerMax Warrant	0.75 lb ae/a 2.25 lb ai/a	21.3 oz/a 96 oz/a		B B	PRE PRE	87.5	93.8	97.0
10	Roundup PowerMax Warrant Cotoran	0.75 lb ae/a 2.25 lb ai/a 1.0 lb ai/a	21.3 oz/a 96 oz/a 32 oz/a		B B B	PRE PRE PRE	81.3	90.0	95.8
11	Roundup PowerMax Warrant Roundup PowerMax Warrant Roundup PowerMax Warrant	0.75 lb ae/a 1.125 lb ai/a 0.75 lb ae/a 1.125 lb ai/a 0.75 lb ae/a 1.125 lb ai/a	21.3 oz/a 48 oz/a 21.3 oz/a 48 oz/a 21.3 oz/a 48 oz/a		A A B B C C	14 DPP 14 DPP PRE PRE 2-4 lf Cotton 2-4 lf Cotton	100.0	100.0	98.3
12	Roundup PowerMax Dual II Magnum Roundup PowerMax Dual II Magnum Roundup PowerMax Dual II Magnum	0.75 lb ae/a 1.25 lb ai/a 0.75 lb ae/a 1.25 lb ai/a 0.75 lb ae/a 1.25 lb ai/a	21.3 oz/a 21 oz/a 21.3 oz/a 21 oz/a 21.3 oz/a 21 oz/a		A A B B C C	14 DPP 14 DPP PRE PRE 2-4 lf Cotton 2-4 lf Cotton	100.0	100.0	100.0
13	Roundup PowerMax Roundup PowerMax Roundup PowerMax	0.75 lb ae/a 0.75 lb ae/a 0.75 lb ae/a	21.3 oz/a 21.3 oz/a 21.3 oz/a		A B C	14 DPP PRE 2-4 lf Cotton	62.5	95.0	87.5
LSD (P=.05)							16.79	19.84	4.61
Standard Deviation							11.75	13.88	3.22
CV							14.48	16.71	3.62
Grand Mean							81.15	83.08	89.0

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Control of Glyphosate-Resistant Palmer Amaranth with Fomesafen in Liberty Link Cotton

Trial ID: HCT-42311
 Location: Marianna, AR

Investigator: Kenneth Smith

Crop Description
Crop 1: GOSHI *Gossypium hirsutum* American upland cotton
Variety: Fiber Max 9250 GTLL B2
BBCH Scale: BCOT **Planting Date:** 5/27/11
Seed Bed: COMPAC compacted **Soil Temperature, Unit:** 69.6 F
Emergence Date: 6/1/11

Pest Description
Pest 1 Type: W **Code:** AMAPA *Amaranthus palmeri*
Common Name: Palmer amaranth
Pest 2 Type: W **Code:** ECHCG *Echinochloa crus-galli*
Common Name: Common barnyardgrass
Pest 3 Type: W **Code:** ELEIN *Eleusine indica*
Common Name: Goosegrass

Site and Design
Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4 **Study Design:** RAOBL Randomized Complete Block (RCB)

Soil Description
Description Name: Loring Silt Loam
% Sand: 1 **% OM:** 2 **Texture:** SIL silt loam
% Silt: 82 **pH:** 7 **Soil Name:** Loring Silt Loam
% Clay: 17 **CEC:** 15 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B	C	D	E
Application Date:	5/18/11	5/27/11	6/21/11	7/6/11	7/14/11
Time of Day:	Morning	Morning	Morning	Morning	Morning
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PREPLA	PREPRE	POSPOS	POSDIR	POSDIR
Application Placement:	BROSOI	BROSOI	BROFOL	BRODIR	BRODIR
Applied By:	RD	RD	RD	RD	RD
Air Temperature, Unit:	63.0 F	64.9 F	76.6 F	79.9 F	80.7 F
% Relative Humidity:	54.1	81.8	87.6	83.2	86.1
Wind Velocity, Unit:	3.7 MPH	3.2 MPH	7.6 MPH	0.9 MPH	0.5 MPH
Wind Direction:	SSW	ESE	W	WNW	SSE
Dew Presence (Y/N):	N no	Y yes	Y yes	N no	Y yes
Soil Temperature, Unit:	67.1 F	69.6 F	86.0 F	82.7 F	86.9 F
Soil Moisture:	GOOD	GOOD	GOOD	GOOD	GOOD
% Cloud Cover:	60	50	100	40	60
Next Rain Occurred On:	5/21/11	6/17/11	6/22/11	7/7/11	7/15/11

Crop Stage At Each Application

	A	B	C	D	E
Crop 1 Code, BBCH Scale:	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT
Stage Scale Used:	BBCH	BBCH	BBCH	BBCH	BBCH
Stage Majority, Percent:	PPL	PRE	3-4 LF	8-9 LF	10-12 LF

Pest Stage At Each Application

	A	B	C	D	E
Pest 1 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W	AMAPA W	AMAPA W
Pest 2 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W	ECHCG W	ECHCG W
Pest 3 Code, Type, Scale:	ELEIN W	ELEIN W	ELEIN W	ELEIN W	ELEIN W

Application Equipment

	A	B	C	D	E
Appl. Equipment:	Hand Boom	Multi-Boom	Multi-Boom	HoodSpray	HoodSpray
Operation Pressure, Unit:	50 PSI	55 PSI	55 PSI	35 PSI	35 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix	TeeJet	TeeJet
Nozzle Size:	110015	110015	110015		
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN	38 IN	38 IN
Nozzles/Row:	2	2	2	3	3
Boom Length, Unit:	12.7 FT	12.6 FT	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN	4 IN	4 IN
Ground Speed, Unit:	3 MPH	3.8 MPH	3.8 MPH	3.8 MPH	3.8 MPH
Carrier:	H2O	H2O	H2O	H2O	H2O
Spray Volume, Unit:	12 GPA	12 GPA	12 GPA	15 GPA	15 GPA
Mix Size, Unit:	3 Liters	3 Liters	3 Liters	2 Gallons	2 Gallons
Propellant:	CO2	CO2	CO2	CO2	CO2

University of Arkansas-Division of Agriculture

Control of Glyphosate-Resistant Palmer Amaranth with Fomesafen in Liberty Link Cotton

Trial ID: HCT-42311

Location: Marianna, AR

Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed ELEIN	W Weed AMAPA	W Weed AMAPA	W Weed ECHCG	W Weed ELEIN	W Weed AMAPA
Pest Code	Amaranthus pal>	Eleusine indica	Amaranthus pal>	Amaranthus pal>	Echinochloa cr>	Eleusine indica	Amaranthus pal>
Pest Scientific Name	Palmer amaranth	Goosegrass	Palmer amaranth	Palmer amaranth	Common barnyar>	Goosegrass	Palmer amaranth
Pest Name							
Crop Code							
Crop Scientific Name							
Crop Name							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P
Assessment Date	6/30/11	6/30/11	7/6/11	8/11/11	8/11/11	8/11/11	9/28/11
Assessment Type	Control	Control	Control	Control	Control	Control	Control
Assessment Unit	%	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1	1
Crop Stage Majority	9 If	9 If	10 If	3 NAWF	3 NAWF	3 NAWF	Mature
Pest Stage Majority	1-50"	Mature	2-60"	2-72"	2-36"	2-48"	12-84"
Assessed By	RD	RD	RD	RD	RD	RD	RD
Days After First/Last Applic.	43 9	43 9	49 15	85 28	85 28	85 28	133 76
Trt-Eval Interval	9 DA-C	9 DA-C	15 DA-C	28 DA-E	28 DA-E	28 DA-E	28 DA-E
Plant-Eval Interval	34 DP-1	34 DP-1	40 DP-1	76 DP-1	76 DP-1	76 DP-1	124 DP-1
Days After Emergence	29 DE-1	29 DE-1	35 DE-1	71 DE-1	71 DE-1	71 DE-1	119 DE-1
Trt Treatment	Rate	Other	Other	Appl	Appl		
No. Name	Rate	Unit	Rate	Rate	Unit	Code	Description
1 UTC							
	0.0						
2 Reflex	0.25 lb ai/a	16 oz/a	A	9 DPP			
Ignite 280	0.53 lb ai/a	29 oz/a	C	3-4 If Cotton			
Dual Magnum	0.95 lb ai/a	16 oz/a	C	3-4 If Cotton			
Suprend	1.2 lb ai/a	24 oz/a	D	8-9 If Cotton			
COC	1 % v/v	19.2 oz/a	D	8-9 If Cotton			
Valor	0.064 lb ai/a	2 oz/a	E	10-12 If Cotton			
MSMA	2.02 lb ai/a	43 oz/a	E	10-12 If Cotton			
3 Reflex	0.25 lb ai/a	16 oz/a	A	9 DPP			
Ignite 280	0.53 lb ai/a	29 oz/a	C	3-4 If Cotton			
Dual Magnum	0.95 lb ai/a	16 oz/a	C	3-4 If Cotton			
Valor	0.064 lb ai/a	2 oz/a	E	10-12 If Cotton			
MSMA	2.02 lb ai/a	43 oz/a	E	10-12 If Cotton			
4 Cotoran	1 lb ai/a	32 oz/a	B	PRE			
Ignite 280	0.53 lb ai/a	29 oz/a	C	3-4 If Cotton			
Dual Magnum	0.95 lb ai/a	16 oz/a	C	3-4 If Cotton			
Prefix	1.32 lb ai/a	32 oz/a	E	10-12 If Cotton			
Ignite 280	0.53 lb ai/a	29 oz/a	E	10-12 If Cotton			
5 Cotoran	1 lb ai/a	32 oz/a	B	PRE			
Ignite 280	0.53 lb ai/a	29 oz/a	C	3-4 If Cotton			
Dual Magnum	0.95 lb ai/a	16 oz/a	C	3-4 If Cotton			
Suprend	1.2 lb ai/a	24 oz/a	D	8-9 If Cotton			
COC	1 % v/v	19.2 oz/a	D	8-9 If Cotton			
Prefix	1.32 lb ai/a	32 oz/a	E	10-12 If Cotton			
Ignite 280	0.53 lb ai/a	29 oz/a	E	10-12 If Cotton			
6 Cotoran	1 lb ai/a	32 oz/a	B	PRE			
Ignite 280	0.53 lb ai/a	29 oz/a	C	3-4 If Cotton			
Dual Magnum	0.95 lb ai/a	16 oz/a	C	3-4 If Cotton			
Caparol	1 lb ai/a	32 oz/a	E	10-12 If Cotton			
Prefix	1.32 lb ai/a	32 oz/a	E	10-12 If Cotton			
Ignite 280	0.53 lb ai/a	29 oz/a	E	10-12 If Cotton			
7 Cotoran	1 lb ai/a	32 oz/a	B	PRE			
Ignite 280	0.53 lb ai/a	29 oz/a	C	3-4 If Cotton			
Dual Magnum	0.95 lb ai/a	16 oz/a	C	3-4 If Cotton			
Direx	0.75 lb ai/a	24 oz/a	D	8-9 If Cotton			
MSMA	2.02 lb ai/a	43 oz/a	D	8-9 If Cotton			
Caparol	1 lb ai/a	32 oz/a	E	10-12 If Cotton			
Prefix	1.32 lb ai/a	32 oz/a	E	10-12 If Cotton			
Ignite 280	0.53 lb ai/a	29 oz/a	E	10-12 If Cotton			
LSD (P=.05)	14.38	6.35	5.50	5.19	0.56	0.00	8.12
Standard Deviation	9.68	4.27	3.70	3.49	0.38	0.00	5.46
CV	12.18	5.25	4.48	4.15	0.44	0.0	6.67
Grand Mean	79.46	81.43	82.71	84.21	85.64	85.71	81.96

University of Arkansas-Division of Agriculture

Evaluation of RRF Systems in the Presence or Glyphosate-Resistant Palmer Amaranth

Trial ID: HCT-42411
 Location: Marianna, AR

Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed ELEIN	W Weed AMAPA	W Weed AMAPA	W Weed ECHCG	W Weed ELEIN						
Pest Code	Amaranthus pal>	Eleusine indica	Amaranthus pal>	Amaranthus pal>	Echinochloa cr>	Eleusine indica						
Pest Scientific Name												
Pest Name	Palmer amaranth	Goosegrass	Palmer amaranth	Palmer amaranth	Common barnyar>	Goosegrass						
Crop Code												
Crop Scientific Name												
Crop Name												
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P						
Assessment Date	6/30/11	6/30/11	7/6/11	8/11/11	8/11/11	8/11/11						
Assessment Type	Control	Control	Control	Control	Control	Control						
Assessment Unit	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	9 If	9 If	10 If	3 NAWF	3 NAWF	3 NAWF						
Pest Stage Majority	1-50"	Mature	2-60"	2-72"	2-36"	2-36"						
Assessed By	RD	RD	RD	RD	RD	RD						
Days After First/Last Applic.	43 9	43 9	49 15	85 28	85 28	85 28						
Trt-Eval Interval	9 DA-E	9 DA-E	15 DA-E	28 DA-J	28 DA-J	28 DA-J						
Plant-Eval Interval	34 DP-1	34 DP-1	40 DP-1	76 DP-1	76 DP-1	76 DP-1						
Days After Emergence	29 DE-1	29 DE-1	35 DE-1	71 DE-1	71 DE-1	71 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3	4	5	6
1	UTC						0.0	0.0	0.0	0.0	0.0	0.0
2	Reflex	0.25 lb ai/a	16 oz/a		A	9 DPP	100.0	100.0	100.0	100.0	100.0	100.0
	Cotoran	1 lb ai/a	32 oz/a		C	PRE						
	Gramoxone Inteon	0.5 lb ai/a	32 oz/a		C	PRE						
	Induce	0.5 % v/v	9.6 oz/a		C	PRE						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		D	3-4 If Cotton						
	Warrant	1.125 lb ai/a	48 oz/a		D	3-4 If Cotton						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		G	6-8 If Cotton						
	Warrant	1.125 lb ai/a	48 oz/a		G	6-8 If Cotton						
	Direx	0.75 lb ai/a	24 oz/a		I	Layby						
	MSMA	2.02 lb ai/a	43 oz/a		I	Layby						
	Induce	0.5 % v/v	9.6 oz/a		I	Layby						
3	Reflex	0.25 lb ai/a	16 oz/a		A	9 DPP	100.0	100.0	100.0	100.0	100.0	100.0
	Cotoran	1 lb ai/a	32 oz/a		C	PRE						
	Gramoxone Inteon	0.5 lb ai/a	32 oz/a		C	PRE						
	Induce	0.5 % v/v	9.6 oz/a		C	PRE						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		D	3-4 If Cotton						
	Warrant	1.125 lb ai/a	48 oz/a		D	3-4 If Cotton						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		G	6-8 If Cotton						
	Direx	0.75 lb ai/a	24 oz/a		I	Layby						
	MSMA	2.02 lb ai/a	43 oz/a		I	Layby						
	Induce	0.5 % v/v	9.6 oz/a		I	Layby						
4	Reflex	0.25 lb ai/a	16 oz/a		A	9 DPP	100.0	100.0	100.0	100.0	100.0	100.0
	Cotoran	1 lb ai/a	32 oz/a		C	PRE						
	Gramoxone Inteon	0.5 lb ai/a	32 oz/a		C	PRE						
	Induce	0.5 % v/v	9.6 oz/a		C	PRE						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		D	3-4 If Cotton						
	Warrant	1.125 lb ai/a	48 oz/a		D	3-4 If Cotton						
	Caparol	0.5 lb ai/a	16 oz/a		H	PD 8 If Cotton						
	MSMA	2.02 lb ai/a	43 oz/a		H	PD 8 If Cotton						
	Induce	0.5 % v/v	9.6 oz/a		H	PD 8 If Cotton						
	Direx	0.75 lb ai/a	24 oz/a		I	Layby						
	MSMA	2.02 lb ai/a	43 oz/a		I	Layby						
	Induce	0.5 % v/v	9.6 oz/a		I	Layby						
5	Reflex	0.25 lb ai/a	16 oz/a		A	9 DPP	100.0	100.0	100.0	100.0	100.0	100.0
	Cotoran	1 lb ai/a	32 oz/a		C	PRE						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		D	3-4 If Cotton						
	Warrant	1.125 lb ai/a	48 oz/a		D	3-4 If Cotton						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		G	6-8 If Cotton						
	Warrant	1.125 lb ai/a	48 oz/a		G	6-8 If Cotton						
	Direx	0.75 lb ai/a	24 oz/a		I	Layby						
	MSMA	2.02 lb ai/a	43 oz/a		I	Layby						
	Induce	0.5 % v/v	9.6 oz/a		I	Layby						
6	Treflan	0.75 lb ai/a	24 oz/a		B	PPI	50.0	96.3	78.8	90.0	100.0	100.0
	Gramoxone Inteon	0.5 lb ai/a	32 oz/a		C	PRE						
	Induce	0.5 % v/v	9.6 oz/a		C	PRE						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		D	3-4 If Cotton						
	Warrant	1.125 lb ai/a	48 oz/a		D	3-4 If Cotton						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		G	6-8 If Cotton						
	Warrant	1.125 lb ai/a	48 oz/a		G	6-8 If Cotton						
	Direx	0.75 lb ai/a	24 oz/a		I	Layby						
	MSMA	2.02 lb ai/a	43 oz/a		I	Layby						
	Induce	0.5 % v/v	9.6 oz/a		I	Layby						
7	Treflan	0.75 lb ai/a	24 oz/a		B	PPI	55.0	88.8	81.3	90.0	100.0	100.0
	Cotoran	1 lb ai/a	32 oz/a		C	PRE						
	Gramoxone Inteon	0.5 lb ai/a	32 oz/a		C	PRE						
	Induce	0.5 % v/v	9.6 oz/a		C	PRE						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		D	3-4 If Cotton						
	Warrant	1.125 lb ai/a	48 oz/a		D	3-4 If Cotton						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		G	6-8 If Cotton						
	Warrant	1.125 lb ai/a	48 oz/a		G	6-8 If Cotton						
	Direx	0.75 lb ai/a	24 oz/a		I	Layby						
	MSMA	2.02 lb ai/a	43 oz/a		I	Layby						
	Induce	0.5 % v/v	9.6 oz/a		I	Layby						

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Evaluation of RRF Systems in the Presence or Glyphosate-Resistant Palmer Amaranth

Trial ID: HCT-42411

Location: Marianna, AR

Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed ELEIN	W Weed AMAPA	W Weed AMAPA	W Weed ECHCG	W Weed ELEIN						
Pest Code	Amaranthus pal>	Eleusine indica	Amaranthus pal>	Amaranthus pal>	Echinochloa cr>	Eleusine indica						
Pest Scientific Name	Palmer amaranth	Goosegrass	Palmer amaranth	Palmer amaranth	Common barnyar>	Goosegrass						
Pest Name												
Crop Code												
Crop Scientific Name												
Crop Name												
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P						
Assessment Date	6/30/11	6/30/11	7/6/11	8/11/11	8/11/11	8/11/11						
Assessment Type	Control	Control	Control	Control	Control	Control						
Assessment Unit	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	9 lf	9 lf	10 lf	3 NAWF	3 NAWF	3 NAWF						
Pest Stage Majority	1-50"	Mature	2-60"	2-72"	2-36"	2-36"						
Assessed By	RD	RD	RD	RD	RD	RD						
Days After First/Last Applic.	43 9	43 9	49 15	85 28	85 28	85 28						
Trt-Eval Interval	9 DA-E	9 DA-E	15 DA-E	28 DA-J	28 DA-J	28 DA-J						
Plant-Eval Interval	34 DP-1	34 DP-1	40 DP-1	76 DP-1	76 DP-1	76 DP-1						
Days After Emergence	29 DE-1	29 DE-1	35 DE-1	71 DE-1	71 DE-1	71 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6
8	Prowl H2O	0.95 lb ai/a	32 oz/a		C	PRE	87.0	72.5	93.8	97.5	100.0	100.0
	Gramoxone Inteon	0.5 lb ai/a	32 oz/a		C	PRE						
	Induce	0.5 % v/v	9.6 oz/a		C	PRE						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		D	3-4 lf Cotton						
	Warrant	1.125 lb ai/a	48 oz/a		D	3-4 lf Cotton						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		G	6-8 lf Cotton						
	Warrant	1.125 lb ai/a	48 oz/a		G	6-8 lf Cotton						
	Direx	0.75 lb ai/a	24 oz/a		I	Layby						
	MSMA	2.02 lb ai/a	43 oz/a		I	Layby						
	Induce	0.5 % v/v	9.6 oz/a		I	Layby						
9	Gramoxone Inteon	0.5 lb ai/a	32 oz/a		C	PRE	63.8	96.3	83.8	90.0	100.0	100.0
	Induce	0.5 % v/v	9.6 oz/a		C	PRE						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		E	3" Palmer						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		F	3" Palmer						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		G	3" Palmer						
10	Gramoxone Inteon	0.5 lb ai/a	32 oz/a		C	PRE	61.3	85.0	72.5	65.0	95.0	86.3
	Induce	0.5 % v/v	9.6 oz/a		C	PRE						
	Ignite 280	0.53 lb ai/a	29 oz/a		E	3" Palmer						
	Ignite 280	0.53 lb ai/a	29 oz/a		F	3" Palmer						
	Ignite 280	0.53 lb ai/a	29 oz/a		G	3" Palmer						
11	Gramoxone Inteon	0.5 lb ai/a	32 oz/a		C	PRE	48.8	71.3	72.5	48.8	97.5	95.0
	Induce	0.5 % v/v	9.6 oz/a		C	PRE						
	Ignite 280	0.53 lb ai/a	29 oz/a		F	8-12" Palmer						
	Ignite 280	0.53 lb ai/a	29 oz/a		H	8-12" Palmer						
	Ignite 280	0.53 lb ai/a	29 oz/a		J	8-12" Palmer						
12	Reflex	0.25 lb ai/a	16 oz/a		A	9 DPP	97.5	87.5	99.5	99.5	100.0	100.0
	Cotoran	1 lb ai/a	32 oz/a		C	PRE						
	Gramoxone Inteon	0.5 lb ai/a	32 oz/a		C	PRE						
	Induce	0.5 % v/v	9.6 oz/a		C	PRE						
	Ignite 280	0.53 lb ai/a	29 oz/a		D	3-4 lf Cotton						
	Warrant	1.125 lb ai/a	48 oz/a		D	3-4 lf Cotton						
	Ignite 280	0.53 lb ai/a	29 oz/a		G	6-8 lf Cotton						
	Warrant	1.125 lb ai/a	48 oz/a		G	6-8 lf Cotton						
	Direx	0.75 lb ai/a	24 oz/a		I	Layby						
	MSMA	2.02 lb ai/a	43 oz/a		I	Layby						
	Induce	0.5 % v/v	9.6 oz/a		I	Layby						
13	Reflex	0.25 lb ai/a	16 oz/a		A	9 DPP	100.0	91.3	100.0	99.5	100.0	99.5
	Cotoran	1 lb ai/a	32 oz/a		C	PRE						
	Gramoxone Inteon	0.5 lb ai/a	32 oz/a		C	PRE						
	Induce	0.5 % v/v	9.6 oz/a		C	PRE						
	Staple LX	0.0625 lb ai/a	2.5 oz/a		D	3-4 lf Cotton						
	Warrant	1.125 lb ai/a	48 oz/a		D	3-4 lf Cotton						
	Induce	0.5 % v/v	9.6 oz/a		D	3-4 lf Cotton						
	Warrant	1.125 lb ai/a	48 oz/a		G	6-8 lf Cotton						
	Direx	0.75 lb ai/a	24 oz/a		I	Layby						
	MSMA	2.02 lb ai/a	43 oz/a		I	Layby						
	Induce	0.5 % v/v	9.6 oz/a		I	Layby						
14	Reflex	0.25 lb ai/a	16 oz/a		A	9 DPP	98.8	98.8	99.5	99.5	100.0	97.5
	Cotoran	1 lb ai/a	32 oz/a		C	PRE						
	Gramoxone Inteon	0.5 lb ai/a	32 oz/a		C	PRE						
	Induce	0.5 % v/v	9.6 oz/a		C	PRE						
	Staple LX	0.0625 lb ai/a	2.5 oz/a		D	3-4 lf Cotton						
	Warrant	1.125 lb ai/a	48 oz/a		D	3-4 lf Cotton						
	Induce	0.5 % v/v	9.6 oz/a		D	3-4 lf Cotton						
	Caparol	0.5 lb ai/a	16 oz/a		H	PD 8 lf Cotton						
	MSMA	2.02 lb ai/a	43 oz/a		H	PD 8 lf Cotton						
	Induce	0.5 % v/v	9.6 oz/a		H	PD 8 lf Cotton						
	Direx	0.75 lb ai/a	24 oz/a		I	Layby						
	MSMA	2.02 lb ai/a	43 oz/a		I	Layby						
	Induce	0.5 % v/v	9.6 oz/a		I	Layby						
15	Treflan	0.75 lb ai/a	24 oz/a		B	PPI	52.5	46.3	68.8	87.5	96.3	90.0
	Cotoran	1 lb ai/a	32 oz/a		C	PRE						
	Gramoxone Inteon	0.5 lb ai/a	32 oz/a		C	PRE						
	Induce	0.5 % v/v	9.6 oz/a		C	PRE						
	Staple LX	0.0625 lb ai/a	2.5 oz/a		D	3-4 lf Cotton						
	Warrant	1.125 lb ai/a	48 oz/a		D	3-4 lf Cotton						
	Induce	0.5 % v/v	9.6 oz/a		D	3-4 lf Cotton						
	Warrant	1.125 lb ai/a	48 oz/a		G	6-8 lf Cotton						
	Direx	0.75 lb ai/a	24 oz/a		I	Layby						
	MSMA	2.02 lb ai/a	43 oz/a		I	Layby						
	Induce	0.5 % v/v	9.6 oz/a		I	Layby						

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Evaluation of RRF Systems in the Presence or Glyphosate-Resistant Palmer Amaranth

Trial ID: HCT-42411
 Location: Marianna, AR

Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed ELEIN	W Weed AMAPA	W Weed AMAPA	W Weed ECHCG	W Weed ELEIN					
Pest Code	Amaranthus pal>	Eleusine indica	Amaranthus pal>	Amaranthus pal>	Echinochloa cr>	Eleusine indica					
Pest Scientific Name	Palmer amaranth	Goosegrass	Palmer amaranth	Palmer amaranth	Common barnyar>	Goosegrass					
Pest Name											
Crop Code	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P					
Crop Scientific Name											
Crop Name											
Part Assessed											
Assessment Date	6/30/11	6/30/11	7/6/11	8/11/11	8/11/11	8/11/11					
Assessment Type	Control	Control	Control	Control	Control	Control					
Assessment Unit	%	%	%	%	%	%					
Number of Subsamples	1	1	1	1	1	1					
Crop Stage Majority	9 lf	9 lf	10 lf	3 NAWF	3 NAWF	3 NAWF					
Pest Stage Majority	1-50"	Mature	2-60"	2-72"	2-36"	2-36"					
Assessed By	RD	RD	RD	RD	RD	RD					
Days After First/Last Applic.	43 9	43 9	49 15	85 28	85 28	85 28					
Trt-Eval Interval	9 DA-E	9 DA-E	15 DA-E	28 DA-J	28 DA-J	28 DA-J					
Plant-Eval Interval	34 DP-1	34 DP-1	40 DP-1	76 DP-1	76 DP-1	76 DP-1					
Days After Emergence	29 DE-1	29 DE-1	35 DE-1	71 DE-1	71 DE-1	71 DE-1					
Trt Treatment No. Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3	4	5	6
16 Cotoran	1 lb ai/a	32 oz/a		C	PRE	70.0	98.8	77.0	86.3	100.0	100.0
Ignite 280	0.53 lb ai/a	29 oz/a		D	3-4 lf Cotton						
Warrant	1.125 lb ai/a	48 oz/a		D	3-4 lf Cotton						
Ignite 280	0.53 lb ai/a	29 oz/a		G	6-8 lf Cotton						
Direx	0.75 lb ai/a	24 oz/a		I	Layby						
MSMA	2.02 lb ai/a	43 oz/a		I	Layby						
Induce	0.5 % v/v	9.6 oz/a		I	Layby						
17 Cotoran	1 lb ai/a	32 oz/a		C	PRE	82.0	100.0	85.8	93.8	100.0	100.0
Ignite 280	0.53 lb ai/a	29 oz/a		D	3-4 lf Cotton						
Ignite 280	0.53 lb ai/a	29 oz/a		G	6-8 lf Cotton						
Warrant	1.125 lb ai/a	48 oz/a		G	6-8 lf Cotton						
Direx	0.75 lb ai/a	24 oz/a		I	Layby						
MSMA	2.02 lb ai/a	43 oz/a		I	Layby						
Induce	0.5 % v/v	9.6 oz/a		I	Layby						
LSD (P=.05)						26.69	30.05	15.27	24.97	2.80	7.31
Standard Deviation						18.68	21.03	10.68	17.48	1.96	5.12
CV						25.07	24.96	12.85	20.53	2.09	5.55
Grand Mean						74.5	84.26	83.12	85.13	93.46	92.25

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Evaluation of RRF Systems in the Presence or Glyphosate-Resistant Palmer Amaranth

Trial ID: HCT-42411
 Location: Marianna, AR

Investigator: Kenneth Smith

Tri	Treatment	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description		
Pest Type Pest Code Pest Scientific Name Pest Name Crop Code Crop Scientific Name Crop Name Part Assessed Assessment Date Assessment Type Assessment Unit Number of Subsamples Crop Stage Majority Pest Stage Majority Assessed By Days After First/Last Applic. Trt-Eval Interval Plant-Eval Interval Days After Emergence								W Weed AMAFA Amaranthus pal Palmer amaranth PLANT P 9/28/11 Control % 1 Mature 12-84" RD 133 76 28 DA-E 124 DP-1 119 DE-1	
7								7	
1	UTC							0.0	
2	Reflex	0.25 lb ai/a		16 oz/a		A	9 DPP	98.8	
	Cotoran	1 lb ai/a		32 oz/a		C	PRE		
	Gramoxone Inteon	0.5 lb ai/a		32 oz/a		C	PRE		
	Induce	0.5 % v/v		9.6 oz/a		C	PRE		
	Roundup PowerMax	0.77 lb ae/a		22 oz/a		D	3-4 lf Cotton		
	Warrant	1.125 lb ai/a		48 oz/a		D	3-4 lf Cotton		
	Roundup PowerMax	0.77 lb ae/a		22 oz/a		G	6-8 lf Cotton		
	Warrant	1.125 lb ai/a		48 oz/a		G	6-8 lf Cotton		
	Direx	0.75 lb ai/a		24 oz/a		I	Layby		
	MSMA	2.02 lb ai/a		43 oz/a		I	Layby		
	Induce	0.5 % v/v		9.6 oz/a		I	Layby		
3	Reflex	0.25 lb ai/a		16 oz/a		A	9 DPP	100.0	
	Cotoran	1 lb ai/a		32 oz/a		C	PRE		
	Gramoxone Inteon	0.5 lb ai/a		32 oz/a		C	PRE		
	Induce	0.5 % v/v		9.6 oz/a		C	PRE		
	Roundup PowerMax	0.77 lb ae/a		22 oz/a		D	3-4 lf Cotton		
	Warrant	1.125 lb ai/a		48 oz/a		D	3-4 lf Cotton		
	Roundup PowerMax	0.77 lb ae/a		22 oz/a		G	6-8 lf Cotton		
	Direx	0.75 lb ai/a		24 oz/a		I	Layby		
	MSMA	2.02 lb ai/a		43 oz/a		I	Layby		
	Induce	0.5 % v/v		9.6 oz/a		I	Layby		
4	Reflex	0.25 lb ai/a		16 oz/a		A	9 DPP		99.5
	Cotoran	1 lb ai/a		32 oz/a		C	PRE		
	Gramoxone Inteon	0.5 lb ai/a		32 oz/a		C	PRE		
	Induce	0.5 % v/v		9.6 oz/a		C	PRE		
	Roundup PowerMax	0.77 lb ae/a		22 oz/a		D	3-4 lf Cotton		
	Warrant	1.125 lb ai/a		48 oz/a		D	3-4 lf Cotton		
	Caparol	0.5 lb ai/a		16 oz/a		H	PD 8 lf Cotton		
	MSMA	2.02 lb ai/a		43 oz/a		H	PD 8 lf Cotton		
	Induce	0.5 % v/v		9.6 oz/a		H	PD 8 lf Cotton		
	Direx	0.75 lb ai/a		24 oz/a		I	Layby		
	MSMA	2.02 lb ai/a		43 oz/a		I	Layby		
	Induce	0.5 % v/v		9.6 oz/a		I	Layby		
5	Reflex	0.25 lb ai/a		16 oz/a		A	9 DPP	100.0	
	Cotoran	1 lb ai/a		32 oz/a		C	PRE		
	Roundup PowerMax	0.77 lb ae/a		22 oz/a		D	3-4 lf Cotton		
	Warrant	1.125 lb ai/a		48 oz/a		D	3-4 lf Cotton		
	Roundup PowerMax	0.77 lb ae/a		22 oz/a		G	6-8 lf Cotton		
	Warrant	1.125 lb ai/a		48 oz/a		G	6-8 lf Cotton		
	Direx	0.75 lb ai/a		24 oz/a		I	Layby		
	MSMA	2.02 lb ai/a		43 oz/a		I	Layby		
	Induce	0.5 % v/v		9.6 oz/a		I	Layby		
6	Treflan	0.75 lb ai/a		24 oz/a		B	PPI		93.8
	Gramoxone Inteon	0.5 lb ai/a		32 oz/a		C	PRE		
	Induce	0.5 % v/v		9.6 oz/a		C	PRE		
	Roundup PowerMax	0.77 lb ae/a		22 oz/a		D	3-4 lf Cotton		
	Warrant	1.125 lb ai/a		48 oz/a		D	3-4 lf Cotton		
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	Direx	0.75 lb ai/a		24 oz/a		I	Layby		
	MSMA	2.02 lb ai/a		43 oz/a		I	Layby		
	Induce	0.5 % v/v		9.6 oz/a		I	Layby		
7	Treflan	0.75 lb ai/a		24 oz/a		B	PPI	86.3	
	Cotoran	1 lb ai/a		32 oz/a		C	PRE		
	Gramoxone Inteon	0.5 lb ai/a		32 oz/a		C	PRE		
	Induce	0.5 % v/v		9.6 oz/a		C	PRE		
	Roundup PowerMax	0.77 lb ae/a		22 oz/a		D	3-4 lf Cotton		
	Warrant	1.125 lb ai/a		48 oz/a		D	3-4 lf Cotton		
	Roundup PowerMax	0.77 lb ae/a		22 oz/a		G	6-8 lf Cotton		
	Warrant	1.125 lb ai/a		48 oz/a		G	6-8 lf Cotton		
	Direx	0.75 lb ai/a		24 oz/a		I	Layby		
	MSMA	2.02 lb ai/a		43 oz/a		I	Layby		
	Induce	0.5 % v/v		9.6 oz/a		I	Layby		

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Evaluation of RRF Systems in the Presence or Glyphosate-Resistant Palmer Amaranth

Trial ID: HCT-42411
 Location: Marianna, AR

Investigator: Kenneth Smith

Tri	Treatment No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	
									W Weed AMAPA Amaranthus pal Palmer amaranth
									PLANT P 9/28/11 Control % 1 Mature 12-84" RD 133 76 28 DA-E 124 DP-1 119 DE-1
									7
	8	Prowl H2O	0.95	lb ai/a	32	oz/a	C	PRE	94.5
		Gramoxone Inteon	0.5	lb ai/a	32	oz/a	C	PRE	
		Induce	0.5	% v/v	9.6	oz/a	C	PRE	
		Roundup PowerMax	0.77	lb ae/a	22	oz/a	D	3-4 lf Cotton	
		Warrant	1.125	lb ai/a	48	oz/a	D	3-4 lf Cotton	
		Roundup PowerMax	0.77	lb ae/a	22	oz/a	G	6-8 lf Cotton	
		Warrant	1.125	lb ai/a	48	oz/a	G	6-8 lf Cotton	
		Direx	0.75	lb ai/a	24	oz/a	I	Layby	
		MSMA	2.02	lb ai/a	43	oz/a	I	Layby	
		Induce	0.5	% v/v	9.6	oz/a	I	Layby	
	9	Gramoxone Inteon	0.5	lb ai/a	32	oz/a	C	PRE	88.3
		Induce	0.5	% v/v	9.6	oz/a	C	PRE	
		Roundup PowerMax	0.77	lb ae/a	22	oz/a	E	3" Palmer	
		Roundup PowerMax	0.77	lb ae/a	22	oz/a	F	3" Palmer	
		Roundup PowerMax	0.77	lb ae/a	22	oz/a	G	3" Palmer	
	10	Gramoxone Inteon	0.5	lb ai/a	32	oz/a	C	PRE	40.0
		Induce	0.5	% v/v	9.6	oz/a	C	PRE	
		Ignite 280	0.53	lb ai/a	29	oz/a	E	3" Palmer	
		Ignite 280	0.53	lb ai/a	29	oz/a	F	3" Palmer	
		Ignite 280	0.53	lb ai/a	29	oz/a	G	3" Palmer	
	11	Gramoxone Inteon	0.5	lb ai/a	32	oz/a	C	PRE	45.0
		Induce	0.5	% v/v	9.6	oz/a	C	PRE	
		Ignite 280	0.53	lb ai/a	29	oz/a	F	8-12" Palmer	
		Ignite 280	0.53	lb ai/a	29	oz/a	H	8-12" Palmer	
		Ignite 280	0.53	lb ai/a	29	oz/a	J	8-12" Palmer	
	12	Reflex	0.25	lb ai/a	16	oz/a	A	9 DPP	98.8
		Cotoran	1	lb ai/a	32	oz/a	C	PRE	
		Gramoxone Inteon	0.5	lb ai/a	32	oz/a	C	PRE	
		Induce	0.5	% v/v	9.6	oz/a	C	PRE	
		Ignite 280	0.53	lb ai/a	29	oz/a	D	3-4 lf Cotton	
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		Direx	0.75	lb ai/a	24	oz/a	I	Layby	
		MSMA	2.02	lb ai/a	43	oz/a	I	Layby	
		Induce	0.5	% v/v	9.6	oz/a	I	Layby	
	13	Reflex	0.25	lb ai/a	16	oz/a	A	9 DPP	100.0
		Cotoran	1	lb ai/a	32	oz/a	C	PRE	
		Gramoxone Inteon	0.5	lb ai/a	32	oz/a	C	PRE	
		Induce	0.5	% v/v	9.6	oz/a	C	PRE	
		Staple LX	0.0625	lb ai/a	2.5	oz/a	D	3-4 lf Cotton	
		Warrant	1.125	lb ai/a	48	oz/a	D	3-4 lf Cotton	
		Induce	0.5	% v/v	9.6	oz/a	D	3-4 lf Cotton	
		Warrant	1.125	lb ai/a	48	oz/a	G	6-8 lf Cotton	
		Direx	0.75	lb ai/a	24	oz/a	I	Layby	
		MSMA	2.02	lb ai/a	43	oz/a	I	Layby	
		Induce	0.5	% v/v	9.6	oz/a	I	Layby	
	14	Reflex	0.25	lb ai/a	16	oz/a	A	9 DPP	99.0
		Cotoran	1	lb ai/a	32	oz/a	C	PRE	
		Gramoxone Inteon	0.5	lb ai/a	32	oz/a	C	PRE	
		Induce	0.5	% v/v	9.6	oz/a	C	PRE	
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		Caparol	0.5	lb ai/a	16	oz/a	H	PD 8 lf Cotton	
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		MSMA	2.02	lb ai/a	43	oz/a	I	Layby	
		Induce	0.5	% v/v	9.6	oz/a	I	Layby	
	15	Treflan	0.75	lb ai/a	24	oz/a	B	PPI	78.8
		Cotoran	1	lb ai/a	32	oz/a	C	PRE	
		Gramoxone Inteon	0.5	lb ai/a	32	oz/a	C	PRE	
		Induce	0.5	% v/v	9.6	oz/a	C	PRE	
		Staple LX	0.0625	lb ai/a	2.5	oz/a	D	3-4 lf Cotton	
		Warrant	1.125	lb ai/a	48	oz/a	D	3-4 lf Cotton	
		Induce	0.5	% v/v	9.6	oz/a	D	3-4 lf Cotton	
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Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Evaluation of RRF Systems in the Presence or Glyphosate-Resistant Palmer Amaranth

Trial ID: HCT-42411
 Location: Marianna, AR

Investigator: Kenneth Smith

Pest Type Pest Code Pest Scientific Name Pest Name Crop Code Crop Scientific Name Crop Name Part Assessed Assessment Date Assessment Type Assessment Unit Number of Subsamples Crop Stage Majority Pest Stage Majority Assessed By Days After First/Last Applic. Trt-Eval Interval Plant-Eval Interval Days After Emergence	W Weed AMAPA Amaranthus pal Palmer amaranth PLANT P 9/28/11 Control % 1 Mature 12-84" RD 133 76 28 DA-E 124 DP-1 119 DE-1																																																																																																																																																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Trt No.</th> <th style="text-align: left;">Treatment Name</th> <th style="text-align: left;">Rate</th> <th style="text-align: left;">Unit</th> <th style="text-align: left;">Other Rate</th> <th style="text-align: left;">Other Rate</th> <th style="text-align: left;">Unit</th> <th style="text-align: left;">Appl Code</th> <th style="text-align: left;">Appl Description</th> <th style="text-align: center;">7</th> </tr> </thead> <tbody> <tr> <td>16</td> <td>Cotoran</td> <td>1</td> <td>lb ai/a</td> <td>32</td> <td>oz/a</td> <td></td> <td>C</td> <td>PRE</td> <td rowspan="7" style="text-align: center; vertical-align: middle;">63.8</td> </tr> <tr> <td></td> <td>Ignite 280</td> <td>0.53</td> <td>lb ai/a</td> <td>29</td> <td>oz/a</td> <td></td> <td>D</td> <td>3-4 lf Cotton</td> </tr> <tr> <td></td> <td>Warrant</td> <td>1.125</td> <td>lb ai/a</td> <td>48</td> <td>oz/a</td> <td></td> <td>D</td> <td>3-4 lf Cotton</td> </tr> <tr> <td></td> <td>Ignite 280</td> <td>0.53</td> <td>lb ai/a</td> <td>29</td> <td>oz/a</td> <td></td> <td>G</td> <td>6-8 lf Cotton</td> </tr> <tr> <td></td> <td>Direx</td> <td>0.75</td> <td>lb ai/a</td> <td>24</td> <td>oz/a</td> <td></td> <td>I</td> <td>Layby</td> </tr> <tr> <td></td> <td>MSMA</td> <td>2.02</td> <td>lb ai/a</td> <td>43</td> <td>oz/a</td> <td></td> <td>I</td> <td>Layby</td> </tr> <tr> <td></td> <td>Induce</td> <td>0.5</td> <td>% v/v</td> <td>9.6</td> <td>oz/a</td> <td></td> <td>I</td> <td>Layby</td> </tr> <tr> <td>17</td> <td>Cotoran</td> <td>1</td> <td>lb ai/a</td> <td>32</td> <td>oz/a</td> <td></td> <td>C</td> <td>PRE</td> <td rowspan="7" style="text-align: center; vertical-align: middle;">91.3</td> </tr> <tr> <td></td> <td>Ignite 280</td> <td>0.53</td> <td>lb ai/a</td> <td>29</td> <td>oz/a</td> <td></td> <td>D</td> <td>3-4 lf Cotton</td> </tr> <tr> <td></td> <td>Ignite 280</td> <td>0.53</td> <td>lb ai/a</td> <td>29</td> <td>oz/a</td> <td></td> <td>G</td> <td>6-8 lf Cotton</td> </tr> <tr> <td></td> <td>Warrant</td> <td>1.125</td> <td>lb ai/a</td> <td>48</td> <td>oz/a</td> <td></td> <td>G</td> <td>6-8 lf Cotton</td> </tr> <tr> <td></td> <td>Direx</td> <td>0.75</td> <td>lb ai/a</td> <td>24</td> <td>oz/a</td> <td></td> <td>I</td> <td>Layby</td> </tr> <tr> <td></td> <td>MSMA</td> <td>2.02</td> <td>lb ai/a</td> <td>43</td> <td>oz/a</td> <td></td> <td>I</td> <td>Layby</td> </tr> <tr> <td></td> <td>Induce</td> <td>0.5</td> <td>% v/v</td> <td>9.6</td> <td>oz/a</td> <td></td> <td>I</td> <td>Layby</td> </tr> <tr> <td colspan="9">LSD (P=.05)</td> <td style="text-align: center;">29.09</td> </tr> <tr> <td colspan="9">Standard Deviation</td> <td style="text-align: center;">20.36</td> </tr> <tr> <td colspan="9">CV</td> <td style="text-align: center;">25.12</td> </tr> <tr> <td colspan="9">Grand Mean</td> <td style="text-align: center;">81.03</td> </tr> </tbody> </table>	Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Rate	Unit	Appl Code	Appl Description	7	16	Cotoran	1	lb ai/a	32	oz/a		C	PRE	63.8		Ignite 280	0.53	lb ai/a	29	oz/a		D	3-4 lf Cotton		Warrant	1.125	lb ai/a	48	oz/a		D	3-4 lf Cotton		Ignite 280	0.53	lb ai/a	29	oz/a		G	6-8 lf Cotton		Direx	0.75	lb ai/a	24	oz/a		I	Layby		MSMA	2.02	lb ai/a	43	oz/a		I	Layby		Induce	0.5	% v/v	9.6	oz/a		I	Layby	17	Cotoran	1	lb ai/a	32	oz/a		C	PRE	91.3		Ignite 280	0.53	lb ai/a	29	oz/a		D	3-4 lf Cotton		Ignite 280	0.53	lb ai/a	29	oz/a		G	6-8 lf Cotton		Warrant	1.125	lb ai/a	48	oz/a		G	6-8 lf Cotton		Direx	0.75	lb ai/a	24	oz/a		I	Layby		MSMA	2.02	lb ai/a	43	oz/a		I	Layby		Induce	0.5	% v/v	9.6	oz/a		I	Layby	LSD (P=.05)									29.09	Standard Deviation									20.36	CV									25.12	Grand Mean									81.03
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University of Arkansas-Division of Agriculture

Efficacy of Liberty Link Systems in Liberty Link and PhytoGen 375 Cotton

Trial ID: HCT-42511
 Location: Marianna, AR

Investigator: Kenneth Smith

Crop Description

Crop 1: GOSHI *Gossypium hirsutum* American upland cotton
Variety: Stoneville 4145 LL B2
BBCH Scale: BCOT **Planting Date:** 5/27/11
Seed Bed: COMPAC compacted **Emergence Date:** 6/1/11

Crop 2: GOSHI *Gossypium hirsutum* American upland cotton
Variety: PhytoGen 499 WRF
BBCH Scale: BCOT **Planting Date:** 5/27/11
Seed Bed: COMPAC compacted **Emergence Date:** 6/1/11

Pest Description

Pest 1 Type: W **Code:** AMAPA *Amaranthus palmeri*
Common Name: Palmer amaranth

Pest 2 Type: W **Code:** ELEIN *Eleusine indica*
Common Name: Goosegrass

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4 **Study Design:** RACOB L Randomized Complete Block (RCB)

Soil Description

Description Name: Loring Silt Loam
% Sand: 1 **% OM:** 2 **Texture:** SIL silt loam
% Silt: 82 **pH:** 7 **Soil Name:** Loring Silt Loam
% Clay: 17 **CEC:** 15 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B	C	D
Application Date:	5/27/11	6/21/11	6/30/11	7/6/11
Time of Day:	Morning	Morning	Morning	Morning
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PREPRE	POSPOS	POSPOS	POSPOS
Application Placement:	BROSOI	BROFOL	BROFOL	BROFOL
Applied By:	RD	RD	RD	RD
Air Temperature, Unit:	64.9 F	76.6 F	81.8 F	79.9 F
% Relative Humidity:	81.8	87.6	78.7	83.2
Wind Velocity, Unit:	3.2 MPH	7.6 MPH	1.4 MPH	0.9 MPH
Wind Direction:	ESE	W	SSW	WNW
Dew Presence (Y/N):	Y yes	Y yes	Y yes	N no
Soil Temperature, Unit:	69.6 F	86.0 F	81.1 F	82.7 F
Soil Moisture:	GOOD	GOOD	GOOD	GOOD
% Cloud Cover:	50	100	40	40
Next Rain Occurred On:	6/17/11	6/22/11	7/1/11	7/7/11

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale:	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT
Stage Scale Used:	BBCH	BBCH	BBCH	BBCH
Stage Majority, Percent:	PRE	2-3LF	6-8 LF	10-12 LF
Crop 2 Code, BBCH Scale:	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT	GOSHI BCOT

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W	AMAPA W
Pest 2 Code, Type, Scale:	ELEIN W	ELEIN W	ELEIN W	ELEIN W

University of Arkansas-Division of Agriculture

Efficacy of Liberty Link Systems in Liberty Link and PhytoGen 375 Cotton

Trial ID: HCT-42511
 Location: Marianna, AR

Investigator: Kenneth Smith

Application Equipment

	A	B	C	D
Appl. Equipment:	Multi-Boom	Multi-Boom	Multi-Boom	Multi-Boom
Operation Pressure, Unit:	55 PSI	55 PSI	55 PSI	55 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix	Air-Mix
Nozzle Size:	110015	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN	19 IN
Nozzles/Row:	2	2	2	2
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN	18 IN
Ground Speed, Unit:	3.8 MPH	3.8 MPH	3.8 MPH	3.8 MPH
Carrier:	H2O	H2O	H2O	H2O
Spray Volume, Unit:	12 GPA	12 GPA	12 GPA	12 GPA
Mix Size, Unit:	3 Liters	3 Liters	3 Liters	3 Liters
Propellant:	CO2	CO2	CO2	CO2

University of Arkansas-Division of Agriculture

Efficacy of Liberty Link Systems in Liberty Link and PhytoGen 375 Cotton

Trial ID: HCT-42511
 Location: Marianna, AR

Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed ELEIN	W Weed AMAPA	W Weed AMAPA	W Weed ELEIN	W Weed AMAPA						
Pest Code	Amaranthus pal>	Eleusine indica	Amaranthus pal>	Amaranthus pal>	Eleusine indica	Amaranthus pal>						
Pest Scientific Name	Palmer amaranth	Goosegrass	Palmer amaranth	Palmer amaranth	Goosegrass	Palmer amaranth						
Pest Name												
Crop Code												
Crop Scientific Name												
Crop Name												
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P						
Assessment Date	6/30/11	6/30/11	7/6/11	8/11/11	8/11/11	9/28/11						
Assessment Type	Control	Control	Control	Control	Control	Control						
Assessment Unit	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	8-9 lf	8-9 lf	10 lf	3 NAWF	3 NAWF	Mature						
Pest Stage Majority	2-60"	Mature	2-60"	2-72"	2-48"	12-84"						
Assessed By	RD	RD	RD	RD	RD	RD						
Days After First/Last Applic.	34 9	34 9	40 6	76 36	76 36	124 84						
Trt-Eval Interval	9 DA-B	9 DA-B	6 DA-C	36 DA-D	36 DA-D	28 DA-E						
Plant-Eval Interval	34 DP-1	34 DP-1	40 DP-1	76 DP-1	76 DP-1	124 DP-1						
Days After Emergence	29 DE-1	29 DE-1	35 DE-1	71 DE-1	71 DE-1	119 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	1	2	3	4	5	6
1	LL UTC						0.0	0.0	0.0	0.0	0.0	0.0
2	Phytogen 375 UTC						0.0	0.0	0.0	0.0	0.0	0.0
3	LL Ignite 280 Ignite 280	0.53 lb ai/a 0.53 lb ai/a	29 oz/a 29 oz/a		B C	2-3 lf Cotton 6-8 lf Cotton	32.5 88.8	88.8 66.3	66.3 47.5	47.5 95.0	95.0 21.3	21.3
4	Phytogen 375 Ignite 280 Ignite 280	0.53 lb ai/a 0.53 lb ai/a	29 oz/a 29 oz/a		B C	2-3 lf Cotton 6-8 lf Cotton	50.0 76.3	76.3 80.0	80.0 89.3	89.3 100.0	100.0 61.7	61.7
5	LL Ignite 280 Ignite 280	0.53 lb ai/a 0.79 lb ai/a	29 oz/a 43 oz/a		B C	2-3 lf Cotton 6-8 lf Cotton	42.5 75.0	75.0 77.5	77.5 56.3	56.3 70.0	70.0 0.0	0.0
6	Phytogen 375 Ignite 280 Ignite 280	0.53 lb ai/a 0.79 lb ai/a	29 oz/a 43 oz/a		B C	2-3 lf Cotton 6-8 lf Cotton	50.0 88.8	88.8 73.8	73.8 84.3	84.3 100.0	100.0 58.8	58.8
7	LL Cotoran Ignite 280 Ignite 280	1 lb ai/a 0.53 lb ai/a 0.53 lb ai/a	32 oz/a 29 oz/a 29 oz/a		A B C	PRE 2-3 lf Cotton 6-8 lf Cotton	80.0 100.0	100.0 90.8	90.8 94.5	94.5 100.0	100.0 87.5	87.5
8	Phytogen 375 Cotoran Ignite 280 Ignite 280	1 lb ai/a 0.53 lb ai/a 0.53 lb ai/a	32 oz/a 29 oz/a 29 oz/a		A B C	PRE 2-3 lf Cotton 6-8 lf Cotton	90.0 98.8	98.8 95.8	95.8 98.3	98.3 100.0	100.0 88.8	88.8
9	LL Cotoran Ignite 280 Dual Magnum Ignite 280	1 lb ai/a 0.53 lb ai/a 1.25 lb ai/a 0.53 lb ai/a	32 oz/a 29 oz/a 21 oz/a 29 oz/a		A B B C	PRE 2-3 lf Cotton 2-3 lf Cotton 6-8 lf Cotton	97.5 98.8	98.8 98.8	98.8 99.5	99.5 100.0	100.0 92.5	92.5
10	Phytogen 375 Cotoran Ignite 280 Dual Magnum Ignite 280	1 lb ai/a 0.53 lb ai/a 1.25 lb ai/a 0.53 lb ai/a	32 oz/a 29 oz/a 21 oz/a 29 oz/a		A B B C	PRE 2-3 lf Cotton 2-3 lf Cotton 6-8 lf Cotton	98.8 98.8	98.8 100.0	100.0 100.0	100.0 100.0	100.0 100.0	100.0
11	LL Cotoran Ignite 280 Dual Magnum Ignite 280 Ignite 280	1 lb ai/a 0.53 lb ai/a 1.25 lb ai/a 0.53 lb ai/a 0.53 lb ai/a	32 oz/a 29 oz/a 21 oz/a 29 oz/a 29 oz/a		A B B C D	PRE 2-3 lf Cotton 2-3 lf Cotton 6-8 lf Cotton 10-12 lf Cotton	88.8 97.5	97.5 98.8	98.8 99.5	99.5 100.0	100.0 97.0	97.0
12	Phytogen 375 Cotoran Ignite 280 Dual Magnum Ignite 280 Ignite 280	1 lb ai/a 0.53 lb ai/a 1.25 lb ai/a 0.53 lb ai/a 0.53 lb ai/a	32 oz/a 29 oz/a 21 oz/a 29 oz/a 29 oz/a		A B B C D	PRE 2-3 lf Cotton 2-3 lf Cotton 6-8 lf Cotton 10-12 lf Cotton	78.8 88.8	88.8 93.8	93.8 98.8	98.8 98.8	98.8 96.3	96.3
LSD (P=.05)							27.96	17.85	14.53	24.43	20.51	31.68
Standard Deviation							19.36	12.36	10.06	16.92	14.21	21.94
CV							32.78	16.28	13.8	23.39	17.69	37.41
Grand Mean							59.06	75.94	72.94	72.33	80.31	58.64

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Evaluate Dicamba and 2,4-D Efficacy on Glyphosate-Resistant Palmer Amaranth

Trial ID: HGH-120111
 Location: Monticello-Greenhouse
 Investigator: Kenneth Smith

Seed Bed: COMPAC compacted	Crop Description
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Pest 1 Type: W Code: AMAPA Amaranthus palmeri Common Name: Palmer amaranth Description: Glyphosate-Resistant Establishment Rate, Unit: 30 Plants/FT2	Pest Description
---	-------------------------

Plot Width, Unit: 16 IN Plot Length, Unit: 21 IN Plot Area, Unit: 336 IN2 Replications: 4	Site and Design
Study Design: SPLBLO Split-Block	

	Application Description
	A
Application Date:	3/1/11
Time of Day:	3:00 P.M.
Application Method:	SPRAY
Application Timing:	4-6" weeds
Application Placement:	BROFOL
Applied By:	RD
Air Temperature, Unit:	62 F
% Relative Humidity:	30
Wind Velocity, Unit:	6 MPH
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	52.3 F
Soil Moisture:	good
% Cloud Cover:	0

	Pest Stage At Each Application
	A
Pest 1 Code, Type, Scale:	AMAPA W
Stage Majority, Percent:	4-8"

	Application Equipment
	A
Appl. Equipment:	Hand Boom
Operation Pressure, Unit:	45 PSI
Nozzle Type:	Air-Mix
Nozzle Size:	110015
Nozzle Spacing, Unit:	19 IN
Nozzles/Row:	2
Boom Length, Unit:	6.33 FT
Boom Height, Unit:	18 IN
MPH:	
Carrier:	H2O
Spray Volume, Unit:	12 GPA
Mix Size, Unit:	3 Liters
Propellant:	CO2

University of Arkansas-Division of Agriculture

Evaluate Dicamba and 2,4-D Efficacy on Glyphosate-Resistant Palmer Amaranth

Trial ID: HGH-120111
Location: Monticello-Greenhouse

Investigator: Kenneth Smith

Pest Type							W Weed
Pest Code							AMAPA
Pest Scientific Name							Amaranthus pal-
Pest Name							Palmer amaranth
Crop Code							
Crop Scientific Name							
Crop Name							
Part Assessed							
Assessment Date							3/11/11
Assessment Type							Control
Assessment Unit							%
Number of Subsamples							1
Crop Stage Majority							
Pest Stage Majority							
Assessed By							RD
Days After First/Last Applic.							10 10
Trt-Eval Interval							10 DA-A
Plant-Eval Interval							
Days After Emergence							
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Code	Description
1	UTC						1
2	MON 11968	0.125 lb ae/a	3.2 oz/a		A	4-8"	0.0
3	MON 11968	0.25 lb ae/a	6.4 oz/a		A	4-8"	30.0
4	MON 11968	0.5 lb ae/a	12.8 oz/a		A	4-8"	61.3
5	Clarity	0.125 lb ae/a	4 oz/a		A	4-8"	51.3
6	Clarity	0.25 lb ae/a	8 oz/a		A	4-8"	40.0
7	Clarity	0.5 lb ae/a	16 oz/a		A	4-8"	57.5
8	2,4-D Amine	0.125 lb ae/a	4.2 oz/a		A	4-8"	70.0
9	2,4-D Amine	0.25 lb ae/a	8.4 oz/a		A	4-8"	55.0
10	2,4-D Amine	0.5 lb ae/a	16.8 oz/a		A	4-8"	66.3
11	MON 11968	0.125 lb ae/a	3.2 oz/a		A	4-8"	77.5
	Roundup PowerMax	0.75 lb ae/a	21.3 oz/a		A	4-8"	85.0
12	MON 11968	0.25 lb ae/a	6.4 oz/a		A	4-8"	75.0
	Roundup PowerMax	0.75 lb ae/a	21.3 oz/a		A	4-8"	
13	MON 11968	0.5 lb ae/a	12.8 oz/a		A	4-8"	91.3
	Roundup PowerMax	0.75 lb ae/a	21.3 oz/a		A	4-8"	
14	Clarity	0.125 lb ae/a	4 oz/a		A	4-8"	88.8
	Roundup PowerMax	0.75 lb ae/a	21.3 oz/a		A	4-8"	
15	Clarity	0.25 lb ae/a	8 oz/a		A	4-8"	80.0
	Roundup PowerMax	0.75 lb ae/a	21.3 oz/a		A	4-8"	
16	Clarity	0.5 lb ae/a	16 oz/a		A	4-8"	90.0
	Roundup PowerMax	0.75 lb ae/a	21.3 oz/a		A	4-8"	
17	2,4-D Amine	0.125 lb ae/a	4.2 oz/a		A	4-8"	90.0
	Roundup PowerMax	0.75 lb ae/a	21.3 oz/a		A	4-8"	
18	2,4-D Amine	0.25 lb ae/a	8.4 oz/a		A	4-8"	77.5
	Roundup PowerMax	0.75 lb ae/a	21.3 oz/a		A	4-8"	
19	2,4-D Amine	0.5 lb ae/a	16.8 oz/a		A	4-8"	86.3
	Roundup PowerMax	0.75 lb ae/a	21.3 oz/a		A	4-8"	
20	Roundup PowerMax	0.75 lb ae/a	21.3 oz/a		A	4-8"	60.0
LSD (P=.05)							14.15
Standard Deviation							10.01
CV							15.02
Grand Mean							66.63

University of Arkansas-Division of Agriculture

Sorghum Pre Vs. Early Post Weed Control Programs

Trial ID: HGS-70211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: SORBI Sorghum bicolor Grain Sorghum
Variety: Pioneer 84G62-N271
BBCH Scale: BCOT **Planting Date:** 5/17/11
Planting Method: BEDDED bedded
Seed Bed: COMPAC compacted
Emergence Date: 5/22/11

Pest Description

Pest 1 Type: W **Code:** AMAPA *Amaranthus palmeri*
Common Name: Palmer amaranth

Pest 2 Type: W **Code:** IPOSS *Ipomoea* sp.
Common Name: Morning glory

Pest 3 Type: W **Code:** ECHCG *Echinochloa crus-galli*
Common Name: Common barnyardgrass

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4 **Study Design:** RACOB L Randomized Complete Block (RCB)

Soil Description

Description Name: Silt Loam
% Sand: 16 **% OM:** 2.2 **Texture:** SIL silt loam
% Silt: 67 **pH:** 7.1 **Soil Name:** Herbert Silt Loam
% Clay: 17 **CEC:** 14 **Fert. Level:** G
Soil Drainage: G good

Application Description

	A	B
Application Date:	5/17/11	6/7/11
Time of Day:	Afternoon	Afternoon
Application Method:	SPRAY	SPRAY
Application Timing:	PREPRE	POSPOS
Application Placement:	BROSOI	BROFOL
Applied By:	RD	RD
Air Temperature, Unit:	60.4 F	85.7 F
% Relative Humidity:	65.9	58.0
Wind Velocity, Unit:	2.2 MPH	1.9 MPH
Wind Direction:	ESE	SW
Dew Presence (Y/N):	Y yes	N no
Soil Temperature, Unit:	65.6 F	85.2 F
Soil Moisture:	GOOD	GOOD
% Cloud Cover:	50	50
Next Rain Occurred On:	5/21/11	6/17/11

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	SORBI BCOT	SORBI BCOT
Stage Scale Used:	BBCH	BBCH
Stage Majority, Percent:	PRE	2-3 LF

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	AMAPA W	AMAPA W
Pest 2 Code, Type, Scale:	IPOSS W	IPOSS W
Pest 3 Code, Type, Scale:	ECHCG W	ECHCG W

Application Equipment

	A	B
Appl. Equipment:	Multi-Boom	Multi-Boom
Operation Pressure, Unit:	55 PSI	55 PSI
Nozzle Type:	Air-Mix	Air-Mix
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN
Nozzles/Row:	2	2
Boom Length, Unit:	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN
Ground Speed, Unit:	3.8 MPH	3.8 MPH
Carrier:	H2O	H2O
Spray Volume, Unit:	12 GPA	12 GPA
Mix Size, Unit:	3 Liters	3 Liters
Propellant:	CO2	CO2

University of Arkansas-Division of Agriculture

Sorghum Pre Vs. Early Post Weed Control Programs

Trial ID: HGS-70211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type Pest Code Pest Scientific Name Pest Name	W Weed AMAPA Amaranthus pal-> Palmer amaranth	W Weed ECHCG Echinochloa cr-> Common barnyar->	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -		
Crop Code Crop Scientific Name Crop Name Part Assessed											
Assessment Date	6/9/11	6/9/11	6/9/11	6/9/11	6/9/11	6/9/11	6/23/11	6/23/11	6/23/11		
Assessment Type	Control	Control	PHYBLE	PHYNEC	PHYSTU		Control	Control	Control		
Assessment Unit	%	%	%	%	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1	1	1	1	1		
Crop Stage Majority	3-4 lf	3-4 lf	3-4 lf	3-4 lf	3-4 lf		7-8 lf	7-8 lf	7-8 lf		
Pest Stage Majority	2-12"	2-12"					2-36"	2-36"			
Assessed By											
Days After First/Last Applic.	23 2	23 2	23 2	23 2	23 2	23 2	37 16	37 16	37 16		
Trt-Eval Interval	2 DA-B	2 DA-B	2 DA-B	2 DA-B	2 DA-B	2 DA-B	16 DA-B	16 DA-B	16 DA-B		
Plant-Eval Interval	23 DP-1	23 DP-1	23 DP-1	23 DP-1	23 DP-1	23 DP-1	37 DP-1	37 DP-1	37 DP-1		
Days After Emergence	18 DE-1	18 DE-1	18 DE-1	18 DE-1	18 DE-1	18 DE-1	32 DE-1	32 DE-1	32 DE-1		
Trt No.	1	2	3	4	5	6	7	8	9		
Treatment Name	UTC	Lexar	Lumax	Laudis	Callisto	Atrazine	Lexar COC	Lumax COC	Laudis COC	Callisto COC	Atrazine COC
Rate	0.0	2.31 lb ai/a	2.46 lb ai/a	0.082 lb ai/a	0.094 lb ai/a	2 lb ai/a	2.31 lb ai/a	2.46 lb ai/a	0.082 lb ai/a	0.094 lb ai/a	2 lb ai/a
Other Rate		80 oz/a	80 oz/a	3 oz/a	3 oz/a	64 oz/a	80 oz/a	80 oz/a	3 oz/a	3 oz/a	64 oz/a
Other Rate							1 % v/v	1 % v/v	1 % v/v	1 % v/v	1 % v/v
Appl Code		A	A	A	A	A	B	B	B	B	B
Appl Description		PRE	PRE	PRE	PRE	PRE	2-3lf	2-3lf	2-3lf	2-3lf	2-3lf
	0.0	100.0	100.0	72.5	92.5	83.8	66.3	55.0	0.0	17.5	53.8
	0.0	98.8	100.0	66.3	68.8	57.5	45.0	31.3	0.0	12.5	15.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	5.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	6.3	12.5	0.0	2.5	0.0
	0.0	0.0	6.3	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0
	0.0	100.0	100.0	43.8	90.0	81.3	97.5	100.0	22.5	0.0	100.0
	0.0	100.0	100.0	42.5	88.8	86.3	97.5	100.0	12.5	0.0	100.0
	0.0	100.0	100.0	18.8	66.3	18.8	42.5	52.5	12.5	12.5	63.8
	0.0	0.0	3.8	0.0	0.0	0.0	16.3	11.3	16.3	11.3	8.8
LSD (P=.05)	15.42	24.76	4.27	3.72	5.44	25.06	29.91	34.09	20.71	23.61	9.71
Standard Deviation	10.68	17.15	2.96	2.57	3.77	17.35	20.71	23.61	6.72	6.72	6.72
CV	18.32	38.11	371.87	133.28	663.33	26.33	30.89	53.27	109.55	109.55	109.55
Grand Mean	58.3	45.0	0.8	1.93	0.57	65.91	67.05	44.32	6.14	6.14	6.14

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Sorghum Pre Vs. Early Post Weed Control Programs

Trial ID: HGS-70211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG								
Pest Code	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>								
Pest Scientific Name	Palmer amaranth	Morning glory	Common barnyar>								
Pest Name											
Crop Code											
Crop Scientific Name											
Crop Name											
Part Assessed	PLANT -	PLANT -	PLANT -	PLANT -							
Assessment Date	10/19/11	10/19/11	10/19/11	10/19/11							
Assessment Type	Control	Control	Control	PHYSTU							
Assessment Unit	%	%	%	%							
Number of Subsamples	1	1	1	1							
Crop Stage Majority	Mature	Mature	Mature	Mature							
Pest Stage Majority	12-72"	12-36"	12-36"								
Assessed By											
Days After First/Last Applic.	155 134	155 134	155 134	155 134							
Trt-Eval Interval	134 DA-B	134 DA-B	134 DA-B	134 DA-B							
Plant-Eval Interval	155 DP-1	155 DP-1	155 DP-1	155 DP-1							
Days After Emergence	150 DE-1	150 DE-1	150 DE-1	150 DE-1							
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Code	Appl Description	10	11	12	13
1	UTC							0.0	0.0	0.0	0.0
2	Lexar	2.31 lb ai/a	80 oz/a		A	PRE		97.5	100.0	97.5	0.0
3	Lumax	2.46 lb ai/a	80 oz/a		A	PRE		97.5	100.0	95.0	0.0
4	Laudis	0.082 lb ai/a	3 oz/a		A	PRE		36.3	42.5	12.5	0.0
5	Callisto	0.094 lb ai/a	3 oz/a		A	PRE		66.3	78.8	35.0	0.0
6	Atrazine	2 lb ai/a	64 oz/a		A	PRE		56.3	78.8	0.0	0.0
7	Lexar COC	2.31 lb ai/a 1 % v/v	80 oz/a 1 % v/v		B	2-3lf B		95.0	97.5	12.5	0.0
8	Lumax COC	2.46 lb ai/a 1 % v/v	80 oz/a 1 % v/v		B	2-3lf B		97.5	100.0	0.0	0.0
9	Laudis COC	0.082 lb ai/a 1 % v/v	3 oz/a 1 % v/v		B	2-3lf B		0.0	0.0	0.0	0.0
10	Callisto COC	0.094 lb ai/a 1 % v/v	3 oz/a 1 % v/v		B	2-3lf B		0.0	0.0	0.0	2.5
11	Atrazine COC	2 lb ai/a 1 % v/v	64 oz/a 1 % v/v		B	2-3lf B		97.5	100.0	31.3	0.0
LSD (P=.05)								33.60	25.93	31.16	2.18
Standard Deviation								23.27	17.93	21.55	1.51
CV								39.76	28.27	83.53	663.33
Grand Mean								58.52	63.41	25.8	0.23

University of Arkansas-Division of Agriculture

Evaluate the Effects of Furrow Irrigation on Weed Control

Trial ID: HNC-90111
Location: Rohwer, AR

Investigator: Kenneth Smith

Seed Bed: COMPAC compacted

Crop Description

Pest 1 Type: W **Code:** AMAPA **Amaranthus palmeri**
Common Name: Palmer amaranth

Pest Description

Plot Width, Unit: 9.5 FT

Plot Length, Unit: 300 FT

Plot Area, Unit: 2850 FT²

Replications: 3

Study Design: RACOBL Randomized Complete Block (RCB)

Site and Design

Application Description

	A
Application Date:	7/28/11
Time of Day:	afternoon
Application Method:	SPRAY
Application Timing:	PREPRE
Application Placement:	BROSOL
Applied By:	RD
Air Temperature, Unit:	89.7 F
% Relative Humidity:	61
Wind Velocity, Unit:	7 mph
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	87.7 F
Soil Moisture:	good
% Cloud Cover:	60

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	AMAPA W

Application Equipment

	A
Appl. Equipment:	Multi-Boom
Operation Pressure, Unit:	55 PSI
Nozzle Type:	Air-Mix
Nozzle Size:	110015
Nozzle Spacing, Unit:	19 IN
Nozzles/Row:	2
Boom Length, Unit:	9.5 FT
Boom Height, Unit:	18 IN
Ground Speed, Unit:	3.8 MPH
Carrier:	H2O
Spray Volume, Unit:	12 GPA
Mix Size, Unit:	3 Liters
Propellant:	CO2

University of Arkansas-Division of Agriculture

Evaluate the Effects of Furrow Irrigation on Weed Control

Trial ID: HNC-90111
Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type		W Weed	W Weed	W Weed	W Weed					
Pest Code		AMAPA	AMAPA	AMAPA	AMAPA					
Pest Scientific Name		Amaranthus pal>	Amaranthus pal>	Amaranthus pal>	Amaranthus pal>					
Pest Name		Palmer amaranth	Palmer amaranth	Palmer amaranth	Palmer amaranth					
Crop Code										
Crop Scientific Name										
Crop Name										
Part Assessed		PLANT P	PLANT P	PLANT P	PLANT P					
Assessment Date		8/15/11	8/15/11	9/7/11	9/7/11					
Assessment Type		20 ft	200 ft	20 ft	200 ft					
Assessment Unit		%	%	%	%					
Number of Subsamples		1	1	1	1					
Crop Stage Majority										
Pest Stage Majority		2-24"	2-24"	1-36"	1-36"					
Assessed By		RD	RD	RD	RD					
Days After First/Last Applic.		18 18	18 18	41 41	41 41					
Trt-Eval Interval		28 DA-E	28 DA-E	28 DA-E	28 DA-E					
Plant-Eval Interval		124 DP-1	124 DP-1	124 DP-1	124 DP-1					
Days After Emergence										
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3	4
1	Untreated Check				A	Pre	0.0	0.0	25.0	25.0
2	Fomesafen - Reflex	0.25 lb ai/a	16 oz/a		A	Pre	95.0	100.0	51.7	91.7
3	Flumioxazin - Valor SX	0.064 lb ai/a	2 oz/a		A	Pre	100.0	100.0	80.0	48.3
4	Acetochlor - Warrant	1.125 lb ai/a	48 oz/a		A	Pre	98.3	100.0	86.7	96.7
5	Alachlor - MicroTech	2.25 lb ai/a	72 oz/a		A	Pre	100.0	100.0	55.0	100.0
6	Dimethenamid - Outlook	0.98 lb ai/a	21 oz/a		A	Pre	99.3	100.0	88.3	98.3
7	S-Metolachlor - Dual Magnum	1.25 lb ai/a	21 oz/a		A	Pre	100.0	100.0	90.0	100.0
8	Pyriithiobac - Staple LX	0.065 lb ai/a	2.6 oz/a		A	Pre	92.7	93.3	51.7	61.7
9	Trifloxysulfuron - Envoke	0.007 lb ai/a	0.15 oz/a		A	Pre	90.0	90.0	60.0	78.3
10	Diuron - Direx	0.5 lb ai/a	16 oz/a		A	Pre	96.7	100.0	60.0	91.7
11	Prometryn - Caparol	1.4 lb ai/a	45 oz/a		A	Pre	99.3	100.0	91.7	93.3
12	Fluometuron - Cotoran	1.0 lb ai/a	32 oz/a		A	Pre	98.3	100.0	85.0	100.0
13	Atrazine - AAtrex	2.0 lb ai/a	64 oz/a		A	Pre	99.3	99.3	90.0	83.3
14	Metribuzin - Sencor	0.75 lb ai/a	16 oz/a		A	Pre	100.0	100.0	90.0	96.7
15	Pendimethalin - Prowl H20	1.0 lb ai/a	33.7 oz/a		A	Pre	98.3	98.3	85.0	96.7
16	Tembotrione - Laudis	0.082 lb ai/a	3 oz/a		A	Pre	99.3	100.0	80.0	88.3
17	Isoxaflutole - Balance Flexx	0.094 lb ai/a	6 oz/a		A	Pre	96.7	100.0	56.7	96.7
18	Mesotrione - Callisto	0.168 lb ai/a	5.4 oz/a		A	Pre	88.3	98.3	23.3	66.7
19	Pyroxasulfone - Zidua	0.14 lb ai/a	2.64 oz/a		A	Pre	100.0	100.0	93.3	96.7
20	Norflurazon - Zorial	1.5 lb ai/a	30 oz/a		A	Pre	100.0	98.3	96.7	96.7
LSD (P=.05)		8.24					8.24	7.93	45.85	34.27
Standard Deviation		4.99					4.99	4.81	27.79	20.77
CV		5.39					5.39	5.12	38.59	24.34
Grand Mean		92.58					92.58	93.88	72.0	85.33

University of Arkansas-Division of Agriculture

Fall Ryegrass Control with Plant Back to Cotton/Sorghum

Trial ID: HPB-10111
 Location: ROHWER, AR

Investigator: Kenneth Smith

Seed Bed: COMPAC compacted	Crop Description
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Pest 1 Type: W Code: LOLMG Lolium multiflorum gaudini Common Name: Annual ryegrass	Pest Description
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Plot Width, Unit: 12.66 FT Plot Length, Unit: 20 FT Plot Area, Unit: 253.2 FT ² Replications: 4	Site and Design
Study Design: RACOB L Randomized Complete Block (RCB)	

	Application Description	
	A	B
Application Date:	11/11/10	
Application Method:	SPRAY	
Application Timing:	FALPRE	
Application Placement:	BROSOL	

	Pest Stage At Each Application	
	A	B
Pest 1 Code, Type, Scale:	LOLMG W	LOLMG W

University of Arkansas-Division of Agriculture

Fall Ryegrass Control with Plant Back to Cotton/Sorghum

Trial ID: HPB-10111
Location: ROHWER, AR

Investigator: Kenneth Smith

							W Weed LOLMG Lolium multiflora Annual ryegrass	W Weed LOLMG Lolium multiflora Annual ryegrass		
Pest Type							PLAEME P	PLAEME P		
Pest Code							2/16/11	3/18/11		
Pest Scientific Name							CONTRO	CONTRO		
Pest Name							percent	percent		
Crop Code							1	1		
Crop Scientific Name										
Crop Name										
Part Assessed										
Assessment Date										
Assessment Type										
Assessment Unit										
Number of Subsamples										
Crop Stage Majority										
Pest Stage Majority										
Assessed By							97 97	127 127		
Days After First/Last Applic.							97 DA-A	127 DA-A		
Trt-Eval Interval										
Plant-Eval Interval										
Days After Emergence										
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Rate	Appl Unit	Appl Code	Appl Description		
1	UTC								1	2
									0.0	0.0
2	Dual Magnum	1.43	lb ai/a	24	oz/a		A	FALL PRE	100.0	100.0
	Dual Magnum	0.95	lb ai/a	16	oz/a		B	MARCH 1-15		
3	Dual Magnum	1.43	lb ai/a	24	oz/a		A	FALL PRE	100.0	100.0
	Dual Magnum	1.9	lb ai/a	32	oz/a		B	MARCH 1-15		
4	Dual Magnum	1.43	lb ai/a	24	oz/a		A	FALL PRE	100.0	100.0
	Command 3ME	0.4	lb ai/a	17	oz/a		B	MARCH 1-15		
5	Warrant	1.13	lb ai/a	48	oz/a		A	FALL PRE	0.0	15.0
	Warrant	1.13	lb ai/a	48	oz/a		B	MARCH 1-15		
6	Warrant	1.13	lb ai/a	48	oz/a		A	FALL PRE	0.0	7.5
	Warrant	2.25	lb ai/a	96	oz/a		B	MARCH 1-15		
7	Warrant	1.13	lb ai/a	48	oz/a		A	FALL PRE	7.5	7.5
	Command 3ME	0.4	lb ai/a	17	oz/a		B	MARCH 1-15		
8	BAS 94461H	0.053	lb ai/a	1	oz/a		A	FALL PRE	100.0	99.5
	BAS 94461H	0.053	lb ai/a	1	oz/a		B	MARCH 1-15		
9	BAS 94461H	0.053	lb ai/a	1	oz/a		A	FALL PRE	100.0	99.5
	BAS 94461H	0.106	lb ai/a	2	oz/a		B	MARCH 1-15		
10	BAS 94461H	0.053	lb ai/a	1	oz/a		A	FALL PRE	100.0	99.5
	Command 3ME	0.4	lb ai/a	17	oz/a		B	MARCH 1-15		
11	Resolve	0.0156	lb ai/a	1	oz/a		A	FALL PRE	100.0	83.8
	Resolve	0.0156	lb ai/a	1	oz/a		B	MARCH 1-15		
12	Resolve	0.0156	lb ai/a	1	oz/a		A	FALL PRE	95.0	82.5
	Resolve	0.0313	lb ai/a	2	oz/a		B	MARCH 1-15		
13	Resolve	0.0156	lb ai/a	1	oz/a		A	FALL PRE	100.0	82.5
	Command 3ME	0.4	lb ai/a	17	oz/a		B	MARCH 1-15		
LSD (P=.05)									7.42	10.18
Standard Deviation									5.19	7.12
CV									7.47	10.56
Grand Mean									69.42	67.48

University of Arkansas-Division of Agriculture

Ryegrass Control Using Sequential Residual Herbicide Applications

Trial ID: HPB-10211
 Location: ROHWER, AR
 Investigator: Kenneth Smith

Seed Bed: COMPAC compacted	Crop Description
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Pest 1 Type: W Code: LOLMG Lolium multiflorum gaudini Common Name: Annual ryegrass	Pest Description
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Plot Width, Unit: 12.66 FT Plot Length, Unit: 20 FT Plot Area, Unit: 253.2 FT ² Replications: 4	Site and Design
Study Design: RACOB� Randomized Complete Block (RCB)	

Application Description		
	A	B
Application Date:	11/11/10	
Application Method:	SPRAY	
Application Timing:	FALPRE	
Application Placement:	BROSOI	

Pest Stage At Each Application		
	A	B
Pest 1 Code, Type, Scale:	LOLMG W	LOLMG W

University of Arkansas-Division of Agriculture

Ryegrass Control Using Sequential Residual Herbicide Applications

Trial ID: HPB-10211
Location: ROHWER, AR

Investigator: Kenneth Smith

							W Weed LOLMG Lolium multiflora Annual ryegrass	W Weed LOLMG Lolium multiflora Annual ryegrass
Pest Type								
Pest Code								
Pest Scientific Name								
Pest Name								
Crop Code								
Crop Scientific Name								
Crop Name								
Part Assessed							PLAEME P	PLAEME P
Assessment Date							2/16/11	3/18/11
Assessment Type							CONTRO	CONTRO
Assessment Unit							percent	percent
Number of Subsamples							1	1
Crop Stage Majority								
Pest Stage Majority								
Assessed By								
Days After First/Last Applic.							97 97	127 127
Trt-Eval Interval							97 DA-A	127 DA-A
Plant-Eval Interval								
Days After Emergence								
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2
1	UTC						0.0	7.5
2	Command 3ME	0.4 lb ai/a	17 oz/a		A	FALL PRE	96.3	75.0
3	Command 3ME	0.4 lb ai/a	17 oz/a		A	FALL PRE	100.0	85.0
	Command 3ME	0.4 lb ai/a	17 oz/a		B	MARCH 1-15		
4	Command 3ME	0.4 lb ai/a	17 oz/a		A	FALL PRE	100.0	80.0
	Dual Magnum	1.43 lb ai/a	24 oz/a		B	MARCH 1-15		
5	Command 3ME	0.4 lb ai/a	17 oz/a		A	FALL PRE	100.0	75.0
	Direx	1 lb ai/a	32 oz/a		B	MARCH 1-15		
6	Command 3ME	0.4 lb ai/a	17 oz/a		A	FALL PRE	100.0	76.3
	Prowl H2O	1.5 lb ai/a	50.5 oz/a		B	MARCH 1-15		
7	Dual Magnum	1.43 lb ai/a	24 oz/a		A	FALL PRE	100.0	100.0
8	Dual Magnum	1.43 lb ai/a	24 oz/a		A	FALL PRE	100.0	100.0
	Command 3ME	0.4 lb ai/a	17 oz/a		B	MARCH 1-15		
9	Dual Magnum	1.43 lb ai/a	24 oz/a		A	FALL PRE	100.0	100.0
	Dual Magnum	1.43 lb ai/a	24 oz/a		B	MARCH 1-15		
10	Dual Magnum	1.43 lb ai/a	24 oz/a		A	FALL PRE	100.0	100.0
	Direx	1 lb ai/a	32 oz/a		B	MARCH 1-15		
11	Dual Magnum	1.43 lb ai/a	24 oz/a		A	FALL PRE	100.0	100.0
	Prowl H2O	1.5 lb ai/a	50.5 oz/a		B	MARCH 1-15		
12	Direx	1 lb ai/a	32 oz/a		A	FALL PRE	100.0	94.5
13	Direx	1 lb ai/a	32 oz/a		A	FALL PRE	100.0	91.3
	Command 3ME	0.4 lb ai/a	17 oz/a		B	MARCH 1-15		
14	Direx	1 lb ai/a	32 oz/a		A	FALL PRE	100.0	90.8
	Dual Magnum	1.43 lb ai/a	24 oz/a		B	MARCH 1-15		
15	Direx	1 lb ai/a	32 oz/a		A	FALL PRE	100.0	91.3
	Direx	1 lb ai/a	32 oz/a		B	MARCH 1-15		
16	Direx	1 lb ai/a	32 oz/a		A	FALL PRE	87.5	70.0
	Prowl H2O	1.5 lb ai/a	50.5 oz/a		B	MARCH 1-15		
17	Prowl H2O	1.5 lb ai/a	50.5 oz/a		A	FALL PRE	45.0	0.0
18	Prowl H2O	1.5 lb ai/a	50.5 oz/a		A	FALL PRE	25.0	5.0
	Command 3ME	0.4 lb ai/a	17 oz/a		B	MARCH 1-15		
19	Prowl H2O	1.5 lb ai/a	50.5 oz/a		A	FALL PRE	35.0	3.8
	Dual Magnum	1.43 lb ai/a	24 oz/a		B	MARCH 1-15		
20	Prowl H2O	1.5 lb ai/a	50.5 oz/a		A	FALL PRE	22.5	7.5
	Direx	1 lb ai/a	32 oz/a		B	MARCH 1-15		
21	Prowl H2O	1.5 lb ai/a	50.5 oz/a		A	FALL PRE	12.5	0.0
	Prowl H2O	1.5 lb ai/a	50.5 oz/a		B	MARCH 1-15		
LSD (P=.05)							19.48	18.19
Standard Deviation							13.77	12.86
CV							17.81	19.97
Grand Mean							77.32	64.42

University of Arkansas-Division of Agriculture

Autumn Super & IMS + TCM Fall Applications for Winter Annual Weed Control

Trial ID: HPB-10311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Description: RR + STS
BBCH Scale: BSOY
Seed Bed: COMPAC compacted

Crop 2: GLXMA Glycine max Soybean
Description: RR
BBCH Scale: BSOY
Seed Bed: COMPAC compacted

Pest Description

Pest 1 Type: W **Code:** LOLMG Lolium multiflorum gaudini
Common Name: Annual ryegrass
Artificial Population: X
Establishment Rate, Unit: 50 LB/A
Establishment Method/Description: Sown & Worked

Site and Design

Plot Width, Unit: 12.66 FT **Site Type:** FIELD field
Plot Length, Unit: 20 FT **Experimental Unit:** 1 PLOT plot
Plot Area, Unit: 253.2 FT2 **Tillage Type:** CONTL conventional-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Application Description

	A	B
Application Date:	11/11/10	3/18/11
Application Method:	SPRAY	SPRAY
Application Timing:	FALPRE	PREPLA
Application Placement:	BROSOI	BROSOI
Applied By:		JM
Air Temperature, Unit:	F	70.7 F
% Relative Humidity:		69.1
Wind Velocity, Unit:	MPH	10 MPH
Wind Direction:		ENE
Dew Presence (Y/N):		N no
Soil Temperature, Unit:	F	60 F
Soil Moisture:		FAIR
% Cloud Cover:		30
Next Rain Occurred On:		3/27/11

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
F	F	
Crop 2 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
F	F	

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	LOLMG W	LOLMG W
F	F	

Application Equipment

	A	B
Appl. Equipment:	Tractor	Hand Boom
Equipment Type:	SPTRMO	BACSPR
Operation Pressure, Unit:	50 PSI	45 PSI
Nozzle Type:	AM FF	AM FF
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN
Carrier:	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 liters	3 liters
Propellant:	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes

University of Arkansas-Division of Agriculture

Autumn Super & IMS + TCM Fall Applications for Winter Annual Weed Control

Trial ID: HPB-10311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

						W Weed LOLMG Lolium multiflora Annual ryegrass	W Weed LOLMG Lolium multiflora Annual ryegrass
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description
1	Untreated Check						
2	Autumn Roundup WeatherMax COC Ammonium Sulfate	0.00188 0.77 1 8.5	lb ai/a lb ae/a % v/v lb/100 gal	0.3 22 15.4 16.3	oz/a oz/a oz/a oz/a	A A A A	lodo Glyphosate
3	IMS + TCM 2,4-D Ester COC Ammonium Sulfate	0.016 1 1 8.5	lb ai/a lb ai/a % v/v lb/100 gal	0.5 32 15.4 16.3	oz/a oz/a oz/a oz/a	A A A A	lodo + Thien 2,4-D
4	IMS + TCM Roundup WeatherMax COC Ammonium Sulfate	0.016 0.77 1 8.5	lb ai/a lb ae/a % v/v lb/100 gal	0.5 22 15.4 16.3	oz/a oz/a oz/a oz/a	A A A A	lodo + Thien Glyphosate
5	IMS + TCM Sencor COC Ammonium Sulfate	0.016 0.77 1 8.5	lb ai/a lb ai/a % v/v lb/100 gal	0.5 16.4 15.4 16.3	oz/a oz/a oz/a oz/a	A A A A	lodo + Thien Metribuzin
6	Canopy EX >Chlorimuron (Classic WDG) >Tribenuron (Express SG) 2,4-D Ester COC Ammonium Sulfate	0.034 0.0262 0.00786 1 1 8.5	lb ai/a lb ai/a lb ai/a lb ai/a % v/v lb/100 gal	1.85 1.68 0.252 32 15.4 16.3	oz/a oz/a oz/a oz/a oz/a oz/a	A A A A A A	Chlor + Triben 2,4-D
7	Dual Magnum 2,4-D Ester COC Ammonium Sulfate	0.95 1 1 8.5	lb ai/a lb ai/a % v/v lb/100 gal	16 32 15.4 16.3	oz/a oz/a oz/a oz/a	A A A A	S-Metolachlor 2,4-D
8	IMS + TCM 2,4-D Ester COC Ammonium Sulfate Select	0.016 1 1 8.5 0.125	lb ai/a lb ai/a % v/v lb/100 gal lb ai/a	0.5 32 15.4 16.3 8	oz/a oz/a oz/a oz/a oz/a	A A A A B	lodo + Thien 2,4-D Clethodim
9	IMS + TCM Roundup WeatherMax COC Ammonium Sulfate Select	0.016 0.77 1 8.5 0.125	lb ai/a lb ae/a % v/v lb/100 gal lb ai/a	0.5 22 15.4 16.3 8	oz/a oz/a oz/a oz/a oz/a	A A A A B	lodo + Thien Glyphosate Clethodim
10	Dual Magnum 2,4-D Ester COC Ammonium Sulfate Select	0.95 1 1 8.5 0.125	lb ai/a lb ai/a % v/v lb/100 gal lb ai/a	16 32 15.4 16.3 8	oz/a oz/a oz/a oz/a oz/a	A A A A B	S-Metolachlor 2,4-D Clethodim
LSD (P=.05)						7.83	8.45
Standard Deviation						5.40	5.82
CV						6.87	7.54
Grand Mean						78.63	77.2

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Henbit / Horseweed Burndown using 2,4-D, Clarity, Sharpen, Roundup, & Gramoxone

Trial ID: HPB-10411
Location: Dumas, AR

Investigator: Kenneth Smith

Seed Bed: COMPAC compacted **Crop Description**

Pest 1 Type: W **Code:** LAMAM *Lamium amplexicaule*
Common Name: Henbit

Pest 2 Type: W **Code:** ERICA *Conyza canadensis*
Common Name: Canada horseweed

Pest 3 Type: W **Code:** STEME *Stellaria media*
Common Name: Common chickweed

Pest Description

Plot Width, Unit: 12.66 FT **Site Type:** FIELD field
Plot Length, Unit: 28 FT **Experimental Unit:** 1 PLOT plot
Plot Area, Unit: 354.48 FT² **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Site and Design

Application Description	
A	
Application Date:	3/2/11
Time of Day:	Noon
Application Method:	SPRAY
Application Timing:	PREPLA
Application Placement:	BROFOL
Applied By:	RD
Air Temperature, Unit:	62.4 F
% Relative Humidity:	41
Wind Velocity, Unit:	3.4 MPH
Wind Direction:	SW
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	56.0 F
Soil Moisture:	GOOD
% Cloud Cover:	90
Next Rain Occurred On:	3/5/11

Pest Stage At Each Application	
A	
Pest 1 Code, Type, Scale:	LAMAM W
Pest 2 Code, Type, Scale:	ERICA W
Pest 3 Code, Type, Scale:	STEME W

Application Equipment	
A	
Appl. Equipment:	Hand Boom
Equipment Type:	BACSPR
Operation Pressure, Unit:	45 PSI
Nozzle Type:	AM FF
Nozzle Size:	110015
Nozzle Spacing, Unit:	19 IN
Carrier:	WATER
Spray Volume, Unit:	12 gal/ac
Mix Size, Unit:	3 liters
Propellant:	COMCO2
Tank Mix (Y/N):	Y yes

University of Arkansas-Division of Agriculture

Henbit / Horseweed Burndown using 2,4-D, Clarity, Sharpen, Roundup, & Gramoxone

Trial ID: HPB-10411
 Location: Dumas, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ERICA	W Weed LAMAM	W Weed STEME	W Weed ERICA	W Weed LAMAM							
Pest Code	Conyza canadensis	Lamium amplexicaule	Stellaria media	Conyza canadensis	Lamium amplexicaule							
Pest Scientific Name	Conyza canadensis	Lamium amplexicaule	Stellaria media	Conyza canadensis	Lamium amplexicaule							
Pest Name	Canada horseweed	Henbit	Common chickweed	Canada horseweed	Henbit							
Crop Code												
Crop Scientific Name												
Crop Name												
Part Assessed												
Assessment Date	PLAEME P 3/7/11	PLAEME P 3/7/11	PLAEME P 3/7/11	PLAEME P 3/11/11	PLAEME P 3/11/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	percent	percent	percent	percent	percent							
Number of Subsamples	1	1	1	1	1							
Crop Stage Majority												
Pest Stage Majority												
Assessed By	JB	JB	JB	JB	JB							
Days After First/Last Applic.	5 5	5 5	5 5	9 9	9 9							
Trt-Eval Interval	5 DA-A	5 DA-A	5 DA-A	9 DA-A	9 DA-A							
Plant-Eval Interval												
Days After Emergence												
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5
1	Untreated Check							0.0	0.0	0.0	0.0	0.0
2	Roundup WeatherMax Clarity	0.77 lb ae/a 0.25 lb ai/a	ae/a ai/a	22 oz/a 8 oz/a	oz/a oz/a	A A	Burndown Burndown	17.5	15.0	17.5	25.0	25.0
3	Roundup WeatherMax Clarity FirstShot	0.77 lb ae/a 0.25 lb ai/a 0.0094 lb ai/a	ae/a ai/a ai/a	22 oz/a 8 oz/a 0.3 oz/a	oz/a oz/a oz/a	A A A	Burndown Burndown Burndown	20.0	17.5	17.5	30.0	30.0
4	Roundup WeatherMax Clarity FirstShot AMS	0.77 lb ae/a 0.25 lb ai/a 0.0094 lb ai/a 5 gal/100 gal	ae/a ai/a ai/a gal	22 oz/a 8 oz/a 0.3 oz/a 77 oz/a	oz/a oz/a oz/a oz/a	A A A A	Burndown Burndown Burndown Burndown	10.0	7.5	7.5	20.0	25.0
5	Roundup WeatherMax Clarity 2,4-D Amine	0.77 lb ae/a 0.25 lb ai/a 0.5 lb ai/a	ae/a ai/a ai/a	22 oz/a 8 oz/a 16 oz/a	oz/a oz/a oz/a	A A A	Burndown Burndown Burndown	15.0	20.0	15.0	25.0	25.0
6	Roundup WeatherMax Clarity 2,4-D Amine AMS	0.77 lb ae/a 0.25 lb ai/a 0.5 lb ai/a 5 gal/100 gal	ae/a ai/a ai/a gal	22 oz/a 8 oz/a 16 oz/a 77 oz/a	oz/a oz/a oz/a oz/a	A A A A	Burndown Burndown Burndown Burndown	12.5	12.5	12.5	27.5	27.5
7	Gramoxone Inteon COC	0.625 lb ai/a 1 % v/v	ai/a v/v	40 oz/a 15.4 oz/a	oz/a oz/a	A A	Burndown Burndown	70.0	62.5	72.5	80.0	80.0
8	Gramoxone Inteon Sencor COC	0.625 lb ai/a 0.47 lb ai/a 1 % v/v	ai/a ai/a v/v	40 oz/a 10 oz/a 15.4 oz/a	oz/a oz/a oz/a	A A A	Burndown Burndown Burndown	30.0	30.0	45.0	65.0	66.3
9	Gramoxone Inteon Sencor COC AMS	0.625 lb ai/a 0.47 lb ai/a 1 % v/v 5 gal/100 gal	ai/a ai/a v/v gal	40 oz/a 10 oz/a 15.4 oz/a 77 oz/a	oz/a oz/a oz/a oz/a	A A A A	Burndown Burndown Burndown Burndown	45.0	37.5	52.5	70.0	67.5
10	Gramoxone Inteon 2,4-D Amine COC	0.625 lb ai/a 0.5 lb ai/a 1 % v/v	ai/a ai/a v/v	40 oz/a 16 oz/a 15.4 oz/a	oz/a oz/a oz/a	A A A	Burndown Burndown Burndown	72.5	65.0	70.0	77.5	78.8
11	Gramoxone Inteon 2,4-D Amine COC AMS	0.625 lb ai/a 0.5 lb ai/a 1 % v/v 5 gal/100 gal	ai/a ai/a v/v gal	40 oz/a 16 oz/a 15.4 oz/a 77 oz/a	oz/a oz/a oz/a oz/a	A A A A	Burndown Burndown Burndown Burndown	67.5	62.5	67.5	75.0	71.3
12	Roundup WeatherMax Sharpen MSO AMS	0.77 lb ae/a 0.0223 lb ai/a 1 % v/v 5 gal/100 gal	ae/a ai/a v/v gal	22 oz/a 1 oz/a 15.4 oz/a 77 oz/a	oz/a oz/a oz/a oz/a	A A A A	Burndown Burndown Burndown Burndown	35.0	25.0	30.0	40.0	47.5
13	Roundup WeatherMax Sharpen 2,4-D Amine MSO AMS	0.77 lb ae/a 0.0223 lb ai/a 0.5 lb ai/a 1 % v/v 5 gal/100 gal	ae/a ai/a ai/a v/v gal	22 oz/a 1 oz/a 16 oz/a 15.4 oz/a 77 oz/a	oz/a oz/a oz/a oz/a oz/a	A A A A A	Burndown Burndown Burndown Burndown Burndown	22.5	27.5	22.5	32.5	32.5
LSD (P=.05)								17.26	12.12	15.27	14.63	13.56
Standard Deviation								12.08	8.48	10.68	10.24	9.49
CV								37.62	28.82	32.29	23.45	21.4
Grand Mean								32.12	29.42	33.08	43.65	44.33

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Henbit / Horseweed Burndown using 2,4-D, Clarity, Sharpen, Roundup, & Gramoxone

Trial ID: HPB-10411
 Location: Dumas, AR
 Investigator: Kenneth Smith

Pest Type	W Weed STEME	W Weed ERICA	W Weed LAMAM	W Weed STEME	W Weed ERICA							
Pest Code	Stellaria media	Conyza canadensis	Lamium amplexicaule	Stellaria media	Conyza canadensis							
Pest Scientific Name	Stellaria media	Conyza canadensis	Lamium amplexicaule	Stellaria media	Conyza canadensis							
Pest Name	Common chickweed	Canada horseweed	Henbit	Common chickweed	Canada horseweed							
Crop Code												
Crop Scientific Name												
Crop Name												
Part Assessed												
Assessment Date	3/11/11	3/18/11	3/18/11	3/18/11	3/24/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	percent	percent	percent	percent	percent							
Number of Subsamples	1	1	1	1	1							
Crop Stage Majority												
Pest Stage Majority												
Assessed By	JB	JB	JB	JB	JB							
Days After First/Last Applic.	9 9	16 16	16 16	16 16	22 22							
Trt-Eval Interval	9 DA-A	16 DA-A	16 DA-A	16 DA-A	22 DA-A							
Plant-Eval Interval												
Days After Emergence												
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	6	7	8	9	10
1	Untreated Check							0.0	0.0	0.0	0.0	0.0
2	Roundup WeatherMax Clarity	0.77 0.25	lb ae/a lb ai/a	22 8	oz/a oz/a	A A	Burndown Burndown	27.5	84.3	76.3	85.0	91.3
3	Roundup WeatherMax Clarity FirstShot	0.77 0.25 0.0094	lb ae/a lb ai/a lb ai/a	22 8 0.3	oz/a oz/a oz/a	A A A	Burndown Burndown Burndown	30.0	86.3	76.0	86.3	95.0
4	Roundup WeatherMax Clarity FirstShot AMS	0.77 0.25 0.0094 5	lb ae/a lb ai/a lb ai/a gal/100 gal	22 8 0.3 77	oz/a oz/a oz/a oz/a	A A A A	Burndown Burndown Burndown Burndown	25.0	65.0	77.5	87.5	95.0
5	Roundup WeatherMax Clarity 2,4-D Amine	0.77 0.25 0.5	lb ae/a lb ai/a lb ai/a	22 8 16	oz/a oz/a oz/a	A A A	Burndown Burndown Burndown	25.0	86.3	68.8	87.5	92.5
6	Roundup WeatherMax Clarity 2,4-D Amine AMS	0.77 0.25 0.5 5	lb ae/a lb ai/a lb ai/a gal/100 gal	22 8 16 77	oz/a oz/a oz/a oz/a	A A A A	Burndown Burndown Burndown Burndown	27.5	86.3	72.5	88.8	88.8
7	Gramoxone Inteon COC	0.625 1	lb ai/a % v/v	40 15.4	oz/a oz/a	A A	Burndown Burndown	91.3	97.5	94.3	98.8	55.0
8	Gramoxone Inteon Sencor COC	0.625 0.47 1	lb ai/a lb ai/a % v/v	40 10 15.4	oz/a oz/a oz/a	A A A	Burndown Burndown Burndown	82.5	98.0	94.3	98.0	87.5
9	Gramoxone Inteon Sencor COC AMS	0.625 0.47 1 5	lb ai/a lb ai/a % v/v gal/100 gal	40 10 15.4 77	oz/a oz/a oz/a oz/a	A A A A	Burndown Burndown Burndown Burndown	80.0	99.3	97.3	100.0	91.3
10	Gramoxone Inteon 2,4-D Amine COC	0.625 0.5 1	lb ai/a lb ai/a % v/v	40 16 15.4	oz/a oz/a oz/a	A A A	Burndown Burndown Burndown	90.0	95.0	92.5	98.0	78.8
11	Gramoxone Inteon 2,4-D Amine COC AMS	0.625 0.5 1 5	lb ai/a lb ai/a % v/v gal/100 gal	40 16 15.4 77	oz/a oz/a oz/a oz/a	A A A A	Burndown Burndown Burndown Burndown	85.0	96.3	89.5	96.3	86.3
12	Roundup WeatherMax Sharpen MSO AMS	0.77 0.0223 1 5	lb ae/a lb ai/a % v/v gal/100 gal	22 1 15.4 77	oz/a oz/a oz/a oz/a	A A A A	Burndown Burndown Burndown Burndown	50.0	96.3	95.0	97.5	91.3
13	Roundup WeatherMax Sharpen 2,4-D Amine MSO AMS	0.77 0.0223 0.5 1 5	lb ae/a lb ai/a lb ai/a % v/v gal/100 gal	22 1 16 15.4 77	oz/a oz/a oz/a oz/a oz/a	A A A A A	Burndown Burndown Burndown Burndown Burndown	40.0	96.3	83.8	96.3	97.5
LSD (P=.05)								14.95	15.94	6.09	5.53	15.37
Standard Deviation								10.46	11.16	4.26	3.87	10.76
CV								20.8	13.35	5.44	4.49	13.32
Grand Mean								50.29	83.58	78.27	86.13	80.77

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Henbit / Horseweed Burndown using 2,4-D, Clarity, Sharpen, Roundup, & Gramoxone

Trial ID: HPB-10411
 Location: Dumas, AR
 Investigator: Kenneth Smith

							W Weed LAMAM Lamium amplexi>	W Weed STEME Stellaria media	
							Henbit	Common chickwe>	
							PLAEME P 3/24/11 CONTRO percent 1	PLAEME P 3/24/11 CONTRO percent 1	
							JB 22 22 22 DA-A	JB 22 22 22 DA-A	
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	11	12
1	Untreated Check							0.0	0.0
2	Roundup WeatherMax Clarity	0.77 0.25	lb ae/a lb ai/a	22 8	oz/a oz/a	A A	Burndown Burndown	93.8	100.0
3	Roundup WeatherMax Clarity FirstShot	0.77 0.25 0.0094	lb ae/a lb ai/a lb ai/a	22 8 0.3	oz/a oz/a oz/a	A A A	Burndown Burndown Burndown	91.3	100.0
4	Roundup WeatherMax Clarity FirstShot AMS	0.77 0.25 0.0094 5	lb ae/a lb ai/a lb ai/a gal/100 gal	22 8 0.3 77	oz/a oz/a oz/a oz/a	A A A A	Burndown Burndown Burndown Burndown	92.5	100.0
5	Roundup WeatherMax Clarity 2,4-D Amine	0.77 0.25 0.5	lb ae/a lb ai/a lb ai/a	22 8 16	oz/a oz/a oz/a	A A A	Burndown Burndown Burndown	85.0	100.0
6	Roundup WeatherMax Clarity 2,4-D Amine AMS	0.77 0.25 0.5 5	lb ae/a lb ai/a lb ai/a gal/100 gal	22 8 16 77	oz/a oz/a oz/a oz/a	A A A A	Burndown Burndown Burndown Burndown	93.8	100.0
7	Gramoxone Inteon COC	0.625 1	lb ai/a % v/v	40 15.4	oz/a oz/a	A A	Burndown Burndown	95.0	100.0
8	Gramoxone Inteon Sencor COC	0.625 0.47 1	lb ai/a lb ai/a % v/v	40 10 15.4	oz/a oz/a oz/a	A A A	Burndown Burndown Burndown	100.0	100.0
9	Gramoxone Inteon Sencor COC AMS	0.625 0.47 1 5	lb ai/a lb ai/a % v/v gal/100 gal	40 10 15.4 77	oz/a oz/a oz/a oz/a	A A A A	Burndown Burndown Burndown Burndown	100.0	100.0
10	Gramoxone Inteon 2,4-D Amine COC	0.625 0.5 1	lb ai/a lb ai/a % v/v	40 16 15.4	oz/a oz/a oz/a	A A A	Burndown Burndown Burndown	93.8	100.0
11	Gramoxone Inteon 2,4-D Amine COC AMS	0.625 0.5 1 5	lb ai/a lb ai/a % v/v gal/100 gal	40 16 15.4 77	oz/a oz/a oz/a oz/a	A A A A	Burndown Burndown Burndown Burndown	91.3	100.0
12	Roundup WeatherMax Sharpen MSO AMS	0.77 0.0223 1 5	lb ae/a lb ai/a % v/v gal/100 gal	22 1 15.4 77	oz/a oz/a oz/a oz/a	A A A A	Burndown Burndown Burndown Burndown	96.3	100.0
13	Roundup WeatherMax Sharpen 2,4-D Amine MSO AMS	0.77 0.0223 0.5 1 5	lb ae/a lb ai/a lb ai/a % v/v gal/100 gal	22 1 16 15.4 77	oz/a oz/a oz/a oz/a oz/a	A A A A A	Burndown Burndown Burndown Burndown Burndown	95.0	100.0
LSD (P=.05)							8.09	0.00	
Standard Deviation							5.66	0.00	
CV							6.53	0.0	
Grand Mean							86.73	92.31	

University of Arkansas-Division of Agriculture

The Effects of AMS and COC on Horseweed and Henbit Control with Gramoxone

Trial ID: HPB-10511
Location: Dumas, AR

Investigator: Kenneth Smith

Seed Bed: COMPAC compacted **Crop Description**

Pest 1 Type: W **Code:** LAMAM *Lamium amplexicaule*
Common Name: Henbit **Pest Description**

Pest 2 Type: W **Code:** ERICA *Conyza canadensis*
Common Name: Canada horseweed

Pest 3 Type: W **Code:** STEME *Stellaria media*
Common Name: Common chickweed

Plot Width, Unit: 6.33 FT
Plot Length, Unit: 25 FT
Plot Area, Unit: 158.25 FT²
Replications: 4 **Site and Design**
Study Design: RACOB L Randomized Complete Block (RCB)

Application Description

	A
Application Date:	3/2/11
Time of Day:	Noon
Application Method:	SPRAY
Application Timing:	Burndown
Application Placement:	BROFOL
Applied By:	JM
Air Temperature, Unit:	62.4 F
% Relative Humidity:	41
Wind Velocity, Unit:	3.4 MPH
Wind Direction:	WNW
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	56.0 F
Soil Moisture:	GOOD
% Cloud Cover:	90
Next Rain Occurred On:	3/5/11

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	LAMAM W
Pest 2 Code, Type, Scale:	ERICA W
Pest 3 Code, Type, Scale:	STEME W

Application Equipment

	A
Appl. Equipment:	Hand Boom
Equipment Type:	BACSPR
Operation Pressure, Unit:	45 PSI
Nozzle Type:	AM FF
Nozzle Size:	110015
Nozzle Spacing, Unit:	19 IN
Carrier:	WATER
Spray Volume, Unit:	12 gal/ac
Mix Size, Unit:	3 liters
Propellant:	COMCO2
Tank Mix (Y/N):	Y yes

University of Arkansas-Division of Agriculture

The Effects of AMS and COC on Horseweed and Henbit Control with Gramoxone

Trial ID: HPB-10511
 Location: Dumas, AR
 Investigator: Kenneth Smith

							W Weed LAMAM Lamium amplexi>	W Weed ERICA Conyza canadens>	W Weed LAMAM Lamium amplexi>	W Weed ERICA Conyza canadens>	W Weed STEME Stellaria media	W Weed LAMAM Lamium amplexi>	
							Henbit	Canada horsewe>	Henbit	Canada horsewe>	Common chickwe>	Henbit	
							PLAEME P 3/7/11 CONTRO percent 1	PLAEME P 3/7/11 CONTRO percent 1	PLAEME P 3/11/11 CONTRO percent 1	PLAEME P 3/11/11 CONTRO percent 1	PLAEME P 3/11/11 CONTRO percent 1	PLAEME P 3/18/11 CONTRO percent 1	
							RD 5 5 5 DA-A	RD 5 5 5 DA-A	JM 9 9 9 DA-A	JM 9 9 9 DA-A	JM 9 9 9 DA-A	JM 16 16 16 DA-A	
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6
1	UTC							0.0	0.0	0.0	0.0	0.0	0.0
2	Gramoxone Inteon COC	0.4 lb ai/a 1 % v/v		25.6 oz/a 1 % v/v		A	Burndown Burndown	37.5	37.5	72.5	75.0	100.0	71.3
3	Gramoxone Inteon COC AMS	0.4 lb ai/a 1 % v/v 5 gal/100 gal		25.6 oz/a 15.4 oz/a 77 oz/a		A A A	Burndown Burndown Burndown	31.3	50.0	68.8	80.0	100.0	72.5
4	Gramoxone Inteon COC	0.6 lb ai/a 1 % v/v		38.4 oz/a 15.4 oz/a		A A	Burndown Burndown	50.0	62.5	80.0	86.3	100.0	67.5
5	Gramoxone Inteon COC AMS	0.6 lb ai/a 1 % v/v 5 gal/100 gal		38.4 oz/a 15.4 oz/a 77 oz/a		A A A	Burndown Burndown Burndown	37.5	25.0	71.3	83.3	100.0	57.5
6	Sencor DF COC	0.5 lb ai/a 1 % v/v		10.7 oz/a 15.4 oz/a		A A	Burndown Burndown	0.0	12.5	17.5	0.0	37.5	68.8
7	Gramoxone Inteon Sencor DF COC	0.4 lb ai/a 0.5 lb ai/a 1 % v/v		25.6 oz/a 10.7 oz/a 15.4 oz/a		A A A	Burndown Burndown Burndown	6.3	18.8	55.0	73.8	97.5	96.3
8	Gramoxone Inteon Sencor DF COC AMS	0.4 lb ai/a 0.5 lb ai/a 1 % v/v 5 gal/100 gal		25.6 oz/a 10.7 oz/a 15.4 oz/a 77 oz/a		A A A A	Burndown Burndown Burndown Burndown	0.0	0.0	42.5	67.5	95.0	80.0
9	Gramoxone Inteon Sencor DF COC	0.6 lb ai/a 0.5 lb ai/a 1 % v/v		38.4 oz/a 10.7 oz/a 15.4 oz/a		A A A	Burndown Burndown Burndown	25.0	25.0	62.5	80.0	100.0	100.0
10	Gramoxone Inteon Sencor DF COC AMS	0.6 lb ai/a 0.5 lb ai/a 1 % v/v 5 gal/100 gal		38.4 oz/a 10.7 oz/a 15.4 oz/a 77 oz/a		A A A A	Burndown Burndown Burndown Burndown	37.5	37.5	76.3	86.3	100.0	75.0
11	Roundup WeatherMax Clarity	0.77 lb ae/a 0.25 lb ae/a		22 oz/a 8 oz/a		A A	Burndown Burndown	0.0	0.0	15.0	53.3	40.0	50.0
12	Roundup WeatherMax Clarity AMS	0.77 lb ae/a 0.25 lb ae/a 5 gal/100 gal		22 oz/a 8 oz/a 77 oz/a		A A A	Burndown Burndown Burndown	6.3	31.3	12.5	56.3	48.8	66.3
13	Roundup WeatherMax Clarity Firstshot	0.77 lb ae/a 0.25 lb ae/a 0.0094 lb ai/a		22 oz/a 8 oz/a 0.3 oz/a		A A A	Burndown Burndown Burndown	0.0	6.3	15.0	45.0	62.5	50.0
LSD (P=.05)								13.77	20.08	11.50	17.83	16.35	20.86
Standard Deviation								9.63	13.76	8.04	12.35	11.44	14.60
CV								54.16	58.4	17.76	20.41	15.16	22.2
Grand Mean								17.79	23.56	45.29	60.51	75.48	65.77

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

The Effects of AMS and COC on Horseweed and Henbit Control with Gramoxone

Trial ID: HPB-10511
 Location: Dumas, AR
 Investigator: Kenneth Smith

							W Weed ERICA Conyza canadensis	W Weed STEME Stellaria media	W Weed LAMAM Lamium amplexi	W Weed ERICA Conyza canadensis	W Weed STEME Stellaria media	
							Canada horsewee	Common chickwee	Henbit	Canada horsewee	Common chickwee	
							PLAEME P 3/18/11 CONTRO percent 1	PLAEME P 3/18/11 CONTRO percent 1	PLAEME P 3/24/11 CONTRO percent 1	PLAEME P 3/24/11 CONTRO percent 1	PLAEME P 3/24/11 CONTRO percent 1	
							JM 16 16 16 DA-A	JM 16 16 16 DA-A	JM 22 22 22 DA-A	JM 22 22 22 DA-A	JM 22 22 22 DA-A	
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	7	8	9	10	11
1	UTC							0.0	0.0	0.0	0.0	0.0
2	Gramoxone Inteon COC	0.4 lb ai/a 1 % v/v		25.6 oz/a 1 % v/v		A	Burndown Burndown	91.3	100.0	88.8	55.0	100.0
3	Gramoxone Inteon COC AMS	0.4 lb ai/a 1 % v/v 5 gal/100 gal		25.6 oz/a 15.4 oz/a 77 oz/a		A A A	Burndown Burndown Burndown	82.5	100.0	92.5	68.8	100.0
4	Gramoxone Inteon COC	0.6 lb ai/a 1 % v/v		38.4 oz/a 15.4 oz/a		A A	Burndown Burndown	92.5	100.0	93.8	66.3	77.5
5	Gramoxone Inteon COC AMS	0.6 lb ai/a 1 % v/v 5 gal/100 gal		38.4 oz/a 15.4 oz/a 77 oz/a		A A A	Burndown Burndown Burndown	92.5	100.0	92.5	55.0	100.0
6	Sencor DF COC	0.5 lb ai/a 1 % v/v		10.7 oz/a 15.4 oz/a		A A	Burndown Burndown	46.3	100.0	97.0	43.8	100.0
7	Gramoxone Inteon Sencor DF COC	0.4 lb ai/a 0.5 lb ai/a 1 % v/v		25.6 oz/a 10.7 oz/a 15.4 oz/a		A A A	Burndown Burndown Burndown	90.0	100.0	100.0	79.5	100.0
8	Gramoxone Inteon Sencor DF COC AMS	0.4 lb ai/a 0.5 lb ai/a 1 % v/v 5 gal/100 gal		25.6 oz/a 10.7 oz/a 15.4 oz/a 77 oz/a		A A A A	Burndown Burndown Burndown Burndown	93.8	100.0	100.0	91.3	100.0
9	Gramoxone Inteon Sencor DF COC	0.6 lb ai/a 0.5 lb ai/a 1 % v/v		38.4 oz/a 10.7 oz/a 15.4 oz/a		A A A	Burndown Burndown Burndown	98.8	100.0	100.0	96.3	100.0
10	Gramoxone Inteon Sencor DF COC AMS	0.6 lb ai/a 0.5 lb ai/a 1 % v/v 5 gal/100 gal		38.4 oz/a 10.7 oz/a 15.4 oz/a 77 oz/a		A A A A	Burndown Burndown Burndown Burndown	92.5	100.0	94.5	86.3	100.0
11	Roundup WeatherMax Clarity	0.77 lb ae/a 0.25 lb ae/a		22 oz/a 8 oz/a		A A	Burndown Burndown	91.3	97.5	87.5	86.3	100.0
12	Roundup WeatherMax Clarity AMS	0.77 lb ae/a 0.25 lb ae/a 5 gal/100 gal		22 oz/a 8 oz/a 77 oz/a		A A A	Burndown Burndown Burndown	97.5	100.0	96.3	93.8	100.0
13	Roundup WeatherMax Clarity Firstshot	0.77 lb ae/a 0.25 lb ae/a 0.0094 lb ai/a		22 oz/a 8 oz/a 0.3 oz/a		A A A	Burndown Burndown Burndown	92.5	100.0	95.0	92.5	100.0
LSD (P=.05)								23.78	1.98	6.04	22.88	17.84
Standard Deviation								16.47	1.39	4.22	16.01	12.48
CV								20.18	1.51	4.83	22.76	13.78
Grand Mean								81.63	92.12	87.52	70.35	90.58

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Henbit and Horseweed Burndown options wth Harmony and Firstshot.

Trial ID: HPB-10611
Location: Dumas, AR

Investigator: Kenneth Smith

Seed Bed: COMPAC compacted **Crop Description**

Pest 1 Type: W **Code:** LAMAM *Lamium amplexicaule*
Common Name: Henbit **Pest Description**

Pest 2 Type: W **Code:** ERICA *Conyza canadensis*
Common Name: Canada horseweed

Pest 3 Type: W **Code:** STEME *Stellaria media*
Common Name: Common chickweed

Plot Width, Unit: 6.33 FT
Plot Length, Unit: 30 FT
Plot Area, Unit: 189.9 FT²
Replications: 4 **Site and Design**
Study Design: RAOBL Randomized Complete Block (RCB)

Application Description

	A
Application Date:	3/2/11
Time of Day:	Noon
Application Method:	SPRAY
Application Timing:	Burndown
Application Placement:	BROFOL
Applied By:	JM
Air Temperature, Unit:	62.4 F
% Relative Humidity:	41
Wind Velocity, Unit:	3.4 MPH
Wind Direction:	WNW
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	56.0 F
Soil Moisture:	GOOD
% Cloud Cover:	90
Next Rain Occurred On:	3/5/11

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	LAMAM W
Pest 2 Code, Type, Scale:	ERICA W
Pest 3 Code, Type, Scale:	STEME W

Application Equipment

	A
Appl. Equipment:	Hand Boom
Equipment Type:	BACSPR
Operation Pressure, Unit:	45 PSI
Nozzle Type:	AM FF
Nozzle Size:	110015
Nozzle Spacing, Unit:	19 IN
Carrier:	WATER
Spray Volume, Unit:	12 gal/ac
Mix Size, Unit:	3 liters
Propellant:	COMCO2
Tank Mix (Y/N):	Y yes

University of Arkansas-Division of Agriculture

Henbit and Horseweed Burndown options wth Harmony and Firstshot.

Trial ID: HPB-10611
 Location: Dumas, AR
 Investigator: Kenneth Smith

Pest Type	W Weed LAMAM	W Weed ERICA	W Weed LAMAM	W Weed ERICA	W Weed STEME	W Weed LAMAM							
Pest Code	Lamium amplexi>	Conyza canadens>	Lamium amplexi>	Conyza canadens>	Stellaria media	Lamium amplexi>							
Pest Scientific Name	Henbit	Canada horsewe>	Henbit	Canada horsewe>	Common chickwe>	Henbit							
Pest Name													
Crop Code													
Crop Scientific Name													
Crop Name													
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P							
Assessment Date	3/7/11	3/7/11	3/11/11	3/11/11	3/11/11	3/18/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	percent	percent	percent	percent	percent	percent							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	Flower	Bolting	Flower	Bolting	Flower	Flower							
Pest Stage Majority													
Assessed By	JM	JM	JM	JM	JM	JM							
Days After First/Last Applic.	5 5	5 5	9 9	9 9	9 9	16 16							
Trt-Eval Interval	5 DA-A	5 DA-A	9 DA-A	9 DA-A	9 DA-A	16 DA-A							
Plant-Eval Interval													
Days After Emergence													
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6
1	Untreated							0.0	0.0	0.0	0.0	0.0	7.5
2	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		A	Burndown	1.3	13.8	36.3	58.8	78.8	87.5
3	Clarity NIS	0.25 lb ai/a		8 oz/a		A	Burndown	11.3	30.0	27.5	73.8	47.5	7.5
4	2,4-D Amine NIS	0.5 lb ai/a		16 oz/a		A	Burndown	8.8	31.3	32.5	81.3	65.0	10.0
5	Harmony SG NIS	0.014 lb ai/a		0.45 oz/a		A	Burndown	0.0	10.0	26.3	37.5	46.3	8.8
6	Harmony SG NIS	0.028 lb ai/a		0.9 oz/a		A	Burndown	1.3	5.0	16.3	30.0	55.0	7.5
7	Roundup WeatherMax Clarity	0.77 lb ae/a		22 oz/a		A	Burndown	11.3	27.5	43.8	77.5	86.3	78.8
8	Roundup WeatherMax Clarity 2,4-D Amine	0.77 lb ae/a		22 oz/a		A	Burndown	15.0	35.0	37.5	82.5	86.3	77.5
9	Roundup WeatherMax Clarity Harmony SG	0.77 lb ae/a		22 oz/a		A	Burndown	18.8	33.3	45.0	81.7	85.0	85.0
10	Roundup WeatherMax Clarity Harmony SG	0.77 lb ae/a		22 oz/a		A	Burndown	15.0	27.5	51.3	77.5	91.3	85.0
11	Roundup WeatherMax Clarity Firstshot SG	0.77 lb ae/a		22 oz/a		A	Burndown	18.8	32.5	38.8	76.3	85.0	87.5
12	Roundup WeatherMax Clarity Firstshot SG	0.77 lb ae/a		22 oz/a		A	Burndown	15.0	32.5	50.0	85.0	88.8	88.8
13	Firstshot SG NIS	0.0094 lb ai/a		0.3 oz/a		A	Burndown	3.8	7.5	30.0	36.3	67.5	17.5
14	Firstshot SG NIS	0.0188 lb ai/a		0.6 oz/a		A	Burndown	3.8	6.7	21.3	30.0	50.0	25.0
LSD (P=.05)								9.71	10.23	12.65	19.15	17.61	13.08
Standard Deviation								6.79	7.09	8.85	13.26	12.33	9.15
CV								76.85	33.92	27.16	22.43	18.51	19.01
Grand Mean								8.84	20.89	32.59	59.14	66.61	48.13

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Henbit and Horseweed Burndown options wth Harmony and Firstshot.

Trial ID: HPB-10611
 Location: Dumas, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ERICA	W Weed STEME	W Weed LAMAM	W Weed ERICA	W Weed STEME							
Pest Code	Conyza canadensis	Stellaria media	Lamium amplexi	Conyza canadensis	Stellaria media							
Pest Scientific Name	Canada horsewee	Common chickwee	Henbit	Canada horsewee	Common chickwee							
Pest Name												
Crop Code												
Crop Scientific Name												
Crop Name												
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P							
Assessment Date	3/18/11	3/18/11	3/24/11	3/24/11	3/24/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	percent	percent	percent	percent	percent							
Number of Subsamples	1	1	1	1	1							
Crop Stage Majority	Bolting	Flower	Flower	Bolting	Flower							
Pest Stage Majority	JM	JM	JM	JM	JM							
Assessed By	16 16	16 16	22 22	22 22	22 22							
Days After First/Last Applic.	16 DA-A	16 DA-A	22 DA-A	22 DA-A	22 DA-A							
Trt-Eval Interval												
Plant-Eval Interval												
Days After Emergence												
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	7	8	9	10	11
1	Untreated							3.8	17.5	0.0	0.0	10.0
2	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		A	Burndown	93.3	100.0	97.3	100.0	100.0
3	Clarity NIS	0.25 lb ai/a		8 oz/a		A	Burndown	71.3	38.8	12.5	63.8	20.0
4	2,4-D Amine NIS	0.25 % v/v		3.84 oz/a		A	Burndown	76.3	37.5	20.0	62.5	32.5
5	Harmony SG NIS	0.014 lb ai/a		0.45 oz/a		A	Burndown	31.3	52.5	20.0	27.5	30.0
6	Harmony SG NIS	0.028 lb ai/a		0.9 oz/a		A	Burndown	20.0	57.5	32.5	32.5	35.0
7	Roundup WeatherMax Clarity	0.77 lb ae/a		22 oz/a		A	Burndown	91.3	100.0	92.5	100.0	100.0
8	Roundup WeatherMax Clarity 2,4-D Amine	0.77 lb ae/a		22 oz/a		A	Burndown	91.3	100.0	95.8	97.5	100.0
9	Roundup WeatherMax Clarity Harmony SG	0.77 lb ae/a		22 oz/a		A	Burndown	90.0	100.0	95.0	95.0	100.0
10	Roundup WeatherMax Clarity Harmony SG	0.77 lb ae/a		22 oz/a		A	Burndown	94.5	100.0	96.3	98.8	100.0
11	Roundup WeatherMax Clarity Firstshot SG	0.77 lb ae/a		22 oz/a		A	Burndown	92.5	100.0	97.5	96.3	100.0
12	Roundup WeatherMax Clarity Firstshot SG	0.25 lb ai/a		8 oz/a		A	Burndown	91.3	100.0	97.5	100.0	100.0
13	Firstshot SG NIS	0.0094 lb ai/a		0.3 oz/a		A	Burndown	27.5	67.5	25.0	25.0	35.0
14	Firstshot SG NIS	0.0188 lb ai/a		0.6 oz/a		A	Burndown	15.0	73.8	27.5	35.0	42.5
LSD (P=.05)								15.08	24.56	13.44	25.15	12.77
Standard Deviation								10.55	17.18	9.41	17.60	8.94
CV								16.61	23.02	16.27	26.39	13.82
Grand Mean								63.51	74.64	57.8	66.7	64.64

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Evaluation of F9007-2 in Pasture

Trial ID: HPS-80111
 Location: Monticello, AR

Investigator: Kenneth Smith

Crop Description

Pasture
Variety: Mixed/Native Grass
Seed Bed: COMPAC compacted

Pest Description

Pest 1 Type: W **Code:** CVNCP Croton capitatus
Common Name: Woolly croton

Pest 2 Type: W **Code:** POLLA Persicaria lapathifolia
Common Name: pale smartweed

Site and Design

Plot Width, Unit: 10 FT **Site Type:** PASTUR pasture
Plot Length, Unit: 12 FT **Experimental Unit:** 1 PLOT plot
Plot Area, Unit: 120 FT2 **Tillage Type:** NOTILL no-till
Replications: 4 **Study Design:** RACOB1 Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Application Description

	A
Application Date:	6/10/11
Time of Day:	5:15 pm
Application Method:	SPRAY
Application Timing:	POST
Application Placement:	BROFOL
Applied By:	JM
Air Temperature, Unit:	95.6 F
% Relative Humidity:	60.2
Wind Velocity, Unit:	2 MPH
Wind Direction:	W
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	88.9 F
Soil Moisture:	GOOD
% Cloud Cover:	10
Next Rain Occurred On:	6/17/11

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	CVNCP W
Pest 2 Code, Type, Scale:	POLLA W

Application Equipment

	A
Appl. Equipment:	Hand Boom
Equipment Type:	SPRBAC
Operation Pressure, Unit:	45 PSI
Nozzle Type:	AMFF
Nozzle Size:	110015
Nozzle Spacing, Unit:	15 IN
Propellant:	COMCO2

University of Arkansas-Division of Agriculture

Evaluation of F9007-2 in Pasture

Trial ID: HPS-80111
 Location: Monticello, AR

Investigator: Kenneth Smith

Pest Type	W Weed CVNCP	W Weed POLLA	W Weed CVNCP	W Weed POLLA	W Weed CVNCP	W Weed POLLA	W Weed CVNCP						
Pest Code	Croton capitat>	Persicaria lap>	Croton capitat>	Persicaria lap>	Croton capitat>	Persicaria lap>	Croton capitat>						
Pest Scientific Name													
Pest Name	Woolly croton	pale smart weed	Woolly croton	pale smart weed	Woolly croton	pale smart weed	Woolly croton						
Crop Code													
Crop Scientific Name													
Crop Name													
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P						
Assessment Date	6/18/11	6/18/11	6/25/11	6/25/11	7/2/11	7/2/11	7/8/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	percent	percent	percent	percent	percent	percent	percent						
Number of Subsamples	1	1	1	1	1	1	1						
Crop Stage Majority													
Pest Stage Majority	2-24 in	2-24 in	2-24 in	2-24 in	2-24 in	2-24 in	2-24 in						
Assessed By	JM	JM	JM	JM	JM	JM	JM						
Days After First/Last Applic.	8 8	8 8	15 15	15 15	22 22	22 22	28 28						
Trt-Eval Interval	8 DA-A	8 DA-A	15 DA-A	15 DA-A	22 DA-A	22 DA-A	28 DA-A						
Plant-Eval Interval													
Days After Emergence													
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	1	2	3	4	5	6	7
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	F9007-2 NIS	0.0437 lb ai/a 0.25 % v/v	2 oz/a 3.84 oz/a		A	POST	95.0	82.5	100.0	88.8	100.0	92.8	100.0
3	F9007-2 NIS	0.0328 lb ai/a 0.25 % v/v	1.5 oz/a 3.84 oz/a		A	POST	95.0	80.0	100.0	88.8	100.0	92.0	100.0
4	F9007-2 NIS	0.0219 lb ai/a 0.25 % v/v	1 oz/a 3.84 oz/a		A	POST	95.0	85.0	98.8	87.5	100.0	95.0	100.0
5	F9007-2 2,4-D ESTER NIS	0.0219 lb ai/a 0.25 lb ai/a 0.25 % v/v	1 oz/a 8 oz/a 3.84 oz/a		A	POST	95.0	86.3	100.0	90.0	100.0	96.0	100.0
6	F9007-2 2,4-D ESTER NIS	0.0328 lb ai/a 0.25 lb ai/a 0.25 % v/v	1.5 oz/a 8 oz/a 3.84 oz/a		A	POST	92.5	83.8	100.0	95.0	100.0	97.0	100.0
7	F9007-2 2,4-D ESTER NIS	0.0437 lb ai/a 8 oz/a 0.25 % v/v	2 oz/a 8 oz/a 3.84 oz/a		A	POST	95.8	87.5	100.0	97.0	100.0	97.3	100.0
8	ALLY 2,4-D ESTER BANVEL NIS	0.0094 lb ai/a 0.25 lb ai/a 0.125 lb ai/a 0.25 % v/v	0.25 oz/a 8 oz/a 4 oz/a 3.84 oz/a		A	POST	80.0	66.3	96.3	88.8	100.0	94.5	100.0
9	Rage D-Tech NIS	0.57 lb ai/a 0.25 % v/v	12 oz/a 3.84 oz/a		A	POST	93.8	88.8	98.8	92.5	100.0	76.3	100.0
10	WeedMaster NIS	0.605 lb ai/a 0.25 % v/v	20 oz/a 3.84 oz/a		A	POST	90.0	81.3	99.5	86.3	100.0	94.0	100.0
11	Aim COC	0.0156 lb ai/a 1 % v/v	1 oz/a 15.4 oz/a		A	POST	95.0	83.8	100.0	86.3	100.0	66.3	100.0
12	Yukon NIS	0.169 lb ai/a 0.25 % v/v	4 oz/a 3.84 oz/a		A	POST	72.5	62.5	65.0	76.3	87.5	70.0	88.3
13	Yukon 2,4-D ESTER NIS	0.169 lb ai/a 0.25 lb ai/a 0.25 % v/v	4 oz/a 8 oz/a 3.84 oz/a		A	POST	82.5	72.5	97.5	81.3	100.0	86.3	100.0
LSD (P=.05)							4.64	6.95	4.53	7.48	2.56	12.43	3.81
Standard Deviation							3.25	4.86	3.17	5.24	1.79	8.70	2.66
CV							3.9	6.58	3.57	6.43	1.96	10.7	2.91
Grand Mean							83.23	73.85	88.9	81.4	91.35	81.33	91.4

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Evaluation of F9007-2 in Pasture

Trial ID: HPS-80111
 Location: Monticello, AR

Investigator: Kenneth Smith

								W Weed POLLA Persicaria lap> pale smart weed	W Weed POLLA Persicaria lap> pale smart weed
Pest Type									
Pest Code									
Pest Scientific Name									
Pest Name									
Crop Code									
Crop Scientific Name									
Crop Name									
Part Assessed								PLAEME P	PLAEME P
Assessment Date								7/8/11	7/8/11
Assessment Type								CONTRO	REGROW
Assessment Unit								percent	percent
Number of Subsamples								1	1
Crop Stage Majority									
Pest Stage Majority								2-24 in	2-24 in
Assessed By								JM	JM
Days After First/Last Applic.								28 28	28 28
Trt-Eval Interval								28 DA-A	28 DA-A
Plant-Eval Interval									
Days After Emergence									
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	8	9
1	Untreated Check							0.0	100.0
2	F9007-2 NIS	0.0437 0.25	lb ai/a % v/v	2 3.84	oz/a oz/a	A A	POST POST	98.5	0.0
3	F9007-2 NIS	0.0328 0.25	lb ai/a % v/v	1.5 3.84	oz/a oz/a	A A	POST POST	97.8	0.0
4	F9007-2 NIS	0.0219 0.25	lb ai/a % v/v	1 3.84	oz/a oz/a	A A	POST POST	98.3	0.0
5	F9007-2 2,4-D ESTER NIS	0.0219 0.25 0.25	lb ai/a lb ai/a % v/v	1 8 3.84	oz/a oz/a oz/a	A A A	POST POST POST	98.3	0.0
6	F9007-2 2,4-D ESTER NIS	0.0328 0.25 0.25	lb ai/a lb ai/a % v/v	1.5 8 3.84	oz/a oz/a oz/a	A A A	POST POST POST	99.5	0.0
7	F9007-2 2,4-D ESTER NIS	0.0437 8 0.25	lb ai/a oz/a % v/v	2 8 3.84	oz/a oz/a oz/a	A A A	POST POST POST	99.5	0.0
8	ALLY 2,4-D ESTER BANVEL NIS	0.0094 0.25 0.125 0.25	lb ai/a lb ai/a lb ai/a % v/v	0.25 8 4 3.84	oz/a oz/a oz/a oz/a	A A A A	POST POST POST POST	98.3	0.0
9	Rage D-Tech NIS	0.57 0.25	lb ai/a % v/v	12 3.84	oz/a oz/a	A A	POST POST	83.8	16.3
10	WeedMaster NIS	0.605 0.25	lb ai/a % v/v	20 3.84	oz/a oz/a	A A	POST POST	90.8	5.0
11	Aim COC	0.0156 1	lb ai/a % v/v	1 15.4	oz/a oz/a	A A	POST POST	71.3	43.8
12	Yukon NIS	0.169 0.25	lb ai/a % v/v	4 3.84	oz/a oz/a	A A	POST POST	76.3	10.0
13	Yukon 2,4-D ESTER NIS	0.169 0.25 0.25	lb ai/a lb ai/a % v/v	4 8 3.84	oz/a oz/a oz/a	A A A	POST POST POST	95.8	0.0
LSD (P=.05)								12.75	11.99
Standard Deviation								8.92	8.39
CV								10.47	62.32
Grand Mean								85.21	13.46

University of Arkansas-Division of Agriculture

Selectivity and Efficacy of Alert Applied PRE in Rice

Trial ID: HRI-30111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop 1:		Crop Description	
ORYSA	Oryza sativa	Common rice	
Variety: CL142AR			
BBCH Scale: BRIC		Planting Date: 5/16/11	
Planting Method: DRILLE	drilled	Rate, Unit: 90	LB/A
Depth, Unit: 1	IN		
Row Spacing, Unit: 7.5	IN		
Seed Bed: MEDIUM	medium	Soil Temperature, Unit: 65.6	F
Soil Moisture: DRY	dry	Emergence Date: 5/26/11	
Harvest Date: 10/6/11		Harvest Equipment: Massey Ferguson 8	
Harvested Width, Unit: 5.625	FT	Harvested Length, Unit: 28	FT
% Standard Moisture: 12.0		Moisture Meter: Massey Ferguson 8	
Weighing Equipment: Massey Ferguson 8			

Pest 1 Type: W		Pest Description	
Code: ECHCG	Echinochloa crus-galli	Common Name: Common barnyardgrass	
Pest 2 Type: W Code: LEFPA Leptochloa panicoides			
Common Name: Tighthead sprangletop			

Plot Width, Unit: 6.33		Site and Design	
FT		Site Type: FIELD	field
Plot Length, Unit: 28	FT	Experimental Unit: 1	PLOT plot
Plot Area, Unit: 177.24	FT ²	Tillage Type: CONNIL	conventional-till
Replications: 4		Study Design: RACOB	Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block			

Maintenance							
No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/13/11	Aim		1	OZ/A	N	no
2.	6/20/11	Fertilized	Urea	326	LB/A	N	no

Description Name: Rohwer Clay Blocks				Soil Description			
% Sand: 3.5	% OM: 1	Texture: C	clay				
% Silt: 37.4	pH: 7.3	Soil Name: Sharkey Clay					
% Clay: 59.1	CEC: 38						

Application Description		
	A	B
Application Date:	5/17/11	5/24/11
Time of Day:	am	am
Application Method:	SPRAY	
Application Timing:	PREMCR	PREMLA
Application Placement:	BROSOI	BROSOI
Applied By:	JM	JM
Air Temperature, Unit:	60.4 F	77.3 F
% Relative Humidity:	65.9	74.1
Wind Velocity, Unit:	2.2 MPH	10.5 MPH
Wind Direction:	ESE	SW
Dew Presence (Y/N):	Y yes	N no
Soil Temperature, Unit:	65.6 F	74.8 F
Soil Moisture:	GOOD	GOOD
% Cloud Cover:	50	50
Next Rain Occurred On:	5/21/11	5/26/11

Crop Stage At Each Application		
	A	B
Crop 1 Code, BBCH Scale:	ORYSA BRIC	ORYSA BRIC

Pest Stage At Each Application		
	A	B
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W
Pest 2 Code, Type, Scale:	LEFPA W	LEFPA W

Application Equipment		
	A	B
Appl. Equipment:	Tractor	Hand Boom
Equipment Type:	SPTRMO	SPRBAC
Operation Pressure, Unit:	45 PSI	45 PSI
Nozzle Type:	AMFF	AMFF
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN
Propellant:	COMCO2	COMCO2

University of Arkansas-Division of Agriculture

Selectivity and Efficacy of Alert Applied PRE in Rice

Trial ID: HRI-30111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type Pest Code Pest Scientific Name Pest Name Crop Code Crop Scientific Name Crop Name Part Assessed Assessment Date Assessment Type Assessment Unit Number of Subsamples Crop Stage Majority Pest Stage Majority Assessed By Days After First/Last Applic. Trt-Eval Interval Plant-Eval Interval Days After Emergence	W Weed ECHCG Echinochloa cr>	W Weed LEFPA Leptochloa pan>	W Weed ECHCG Echinochloa cr>	W Weed LEFPA Leptochloa pan>	W Weed ECHCG Echinochloa cr>	W Weed LEFPA Leptochloa pan>	W Weed ECHCG Echinochloa cr>					
	Common barnyar>	Tightthead spra>	Common barnyar>	Tightthead spra>	Common barnyar>	Tightthead spra>	Common barnyar>					
	ORYSA Oryza sativa Common rice	ORYSA Oryza sativa Common rice	ORYSA Oryza sativa Common rice	ORYSA Oryza sativa Common rice	ORYSA Oryza sativa Common rice	ORYSA Oryza sativa Common rice	ORYSA Oryza sativa Common rice					
	PLAEME P 6/1/11 CONTRO percent	PLAEME P 6/1/11 CONTRO percent	PLAEME P 6/1/11 PHYGEN percent	PLAEME P 6/10/11 CONTRO percent	PLAEME P 6/10/11 CONTRO percent	PLAEME P 6/10/11 PHYGEN percent	PLAEME P 6/23/11 CONTRO percent					
	1 1 leaf 1 leaf JM 15 8 8 DA-B 16 DP-1 6 DE-1	1 1 leaf 1 leaf JM 15 8 8 DA-B 16 DP-1 6 DE-1	1 1 leaf 1 leaf JM 15 8 8 DA-B 16 DP-1 6 DE-1	1 2-3 LF 1-3 LF JM 24 17 17 DA-B 25 DP-1 15 DE-1	1 2-3 LF 1-3 LF JM 24 17 17 DA-B 25 DP-1 15 DE-1	1 2-3 LF 1-3 LF JM 24 17 17 DA-B 25 DP-1 15 DE-1	1 Preflood 2 tiller JM 37 30 30 DA-B 38 DP-1 28 DE-1					
Trt Treatment No. Name	Rate Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6	7
1 Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0	0.0
2 Alert	0.3 lb ai/a	12.8 oz/a		A	PRE	100.0	100.0	1.3	98.8	98.8	0.0	87.5
3 Alert	0.45 lb ai/a	19.2 oz/a		A	PRE	100.0	100.0	0.0	85.0	85.0	0.0	81.3
4 Alert	0.6 lb ai/a	25.6 oz/a		A	PRE	100.0	100.0	8.8	93.8	93.8	0.0	90.0
5 Alert	0.75 lb ai/a	32 oz/a		A	PRE	100.0	100.0	11.3	96.3	96.3	0.0	92.5
6 Alert	0.9 lb ai/a	38.4 oz/a		A	PRE	100.0	100.0	8.8	92.5	92.5	0.0	90.0
7 Alert	1.2 lb ai/a	51 oz/a		A	PRE	100.0	100.0	11.3	90.0	90.0	0.0	86.3
8 Command	0.3 lb ai/a	12.8 oz/a		A	PRE	100.0	100.0	1.3	86.3	86.3	0.0	86.3
9 Command	0.45 lb ai/a	19.2 oz/a		A	PRE	100.0	100.0	1.3	100.0	100.0	0.0	93.8
10 Command	0.6 lb ai/a	25.6 oz/a		A	PRE	100.0	100.0	6.3	100.0	100.0	0.0	95.0
11 Command	0.75 lb ai/a	32 oz/a		A	PRE	100.0	100.0	10.0	98.8	98.8	0.0	92.5
12 Command	0.9 lb ai/a	38.4 oz/a		A	PRE	100.0	100.0	15.0	97.5	97.5	0.0	95.0
13 Command	1.2 lb ai/a	51 oz/a		A	PRE	100.0	100.0	26.3	100.0	100.0	0.0	95.0
14 Alert Prowl H2O	0.4 lb ai/a 1 lb ai/a	17 oz/a 33.7 oz/a		B B	Delay PRE Delay PRE	100.0	100.0	3.8	97.5	97.5	0.0	86.3
15 Command Prowl H2O	0.4 lb ai/a 1 lb ai/a	17 oz/a 33.7 oz/a		B B	Delay PRE Delay PRE	100.0	100.0	1.3	85.0	85.0	0.0	81.3
LSD (P=.05)						0.00	0.00	7.09	13.46	13.46	0.00	10.71
Standard Deviation						0.00	0.00	4.96	9.42	9.42	0.00	7.49
CV						0.0	0.0	70.08	10.7	10.7	0.0	8.98
Grand Mean						93.33	93.33	7.08	88.08	88.08	0.0	83.5

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Selectivity and Efficacy of Alert Applied PRE in Rice

Trial ID: HRI-30111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type Pest Code Pest Scientific Name Pest Name Crop Code Crop Scientific Name Crop Name Part Assessed Assessment Date Assessment Type Assessment Unit Number of Subsamples Crop Stage Majority Pest Stage Majority Assessed By Days After First/Last Applic. Trt-Eval Interval Plant-Eval Interval Days After Emergence	W Weed LEFPA Leptochloa pan>	W Weed ECHCG Echinochloa cr>	W Weed LEFPA Leptochloa pan>	W Weed LEFPA Leptochloa pan>	W Weed LEFPA Leptochloa pan>	W Weed LEFPA Leptochloa pan>						
	ORRYSA Oryza sativa Common rice	ORRYSA Oryza sativa Common rice	ORRYSA Oryza sativa Common rice	ORRYSA Oryza sativa Common rice	ORRYSA Oryza sativa Common rice	ORRYSA Oryza sativa Common rice						
	PLAEME P 6/23/11 CONTR0 percent	PLAEME P 6/23/11 PHYGEN percent	PLAEME P 7/6/11 CONTR0 percent	PLAEME P 7/6/11 CONTR0 percent	YIELD C 10/6/11 WEIGHT lb/plot	YIELD C 10/6/11 YIELD BU						
	1 Preflood 2 tiller JM 37 30 30 DA-B 38 DP-1 28 DE-1	1 Preflood 2 tiller JM 37 30 30 DA-B 38 DP-1 28 DE-1	1 2 wk POF Heading JM 50 43 43 DA-B 51 DP-1 41 DE-1	1 2 wk POF Heading JM 50 43 43 DA-B 51 DP-1 41 DE-1	1 Harvest Harvest JM 142 135 135 DA-B 143 DP-1 133 DE-1	1 Harvest Harvest JM 142 135 135 DA-B 143 DP-1 133 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	8	9	10	11	12	13
1	Untreated Check						0.0	0.0	0.0	0.0	19.25	112.9
2	Alert	0.3 lb ai/a	12.8 oz/a		A	PRE	85.0	0.0	93.8	90.0	26.83	157.4
3	Alert	0.45 lb ai/a	19.2 oz/a		A	PRE	78.8	0.0	97.5	96.3	28.30	166.0
4	Alert	0.6 lb ai/a	25.6 oz/a		A	PRE	86.3	0.0	98.8	98.8	28.70	168.4
5	Alert	0.75 lb ai/a	32 oz/a		A	PRE	90.0	0.0	97.5	97.5	29.18	171.2
6	Alert	0.9 lb ai/a	38.4 oz/a		A	PRE	90.0	0.0	100.0	98.8	28.48	167.1
7	Alert	1.2 lb ai/a	51 oz/a		A	PRE	86.3	0.0	100.0	98.8	28.78	168.8
8	Command	0.3 lb ai/a	12.8 oz/a		A	PRE	83.8	0.0	97.5	96.3	26.55	155.8
9	Command	0.45 lb ai/a	19.2 oz/a		A	PRE	92.5	0.0	98.8	97.5	28.68	168.2
10	Command	0.6 lb ai/a	25.6 oz/a		A	PRE	93.8	0.0	97.5	97.5	28.15	165.1
11	Command	0.75 lb ai/a	32 oz/a		A	PRE	91.3	0.0	97.5	97.5	29.83	175.0
12	Command	0.9 lb ai/a	38.4 oz/a		A	PRE	95.0	0.0	100.0	100.0	27.40	160.7
13	Command	1.2 lb ai/a	51 oz/a		A	PRE	93.8	0.0	100.0	100.0	30.45	178.6
14	Alert Prowl H2O	0.4 lb ai/a 1 lb ai/a	17 oz/a 33.7 oz/a		B B	Delay PRE Delay PRE	83.8	0.0	97.5	96.3	29.20	171.3
15	Command Prowl H2O	0.4 lb ai/a 1 lb ai/a	17 oz/a 33.7 oz/a		B B	Delay PRE Delay PRE	77.5	0.0	97.5	97.5	27.43	160.9
LSD (P=.05)							11.66	0.00	4.85	5.97	2.521	14.79
Standard Deviation							8.16	0.00	3.39	4.18	1.764	10.35
CV							9.97	0.0	3.7	4.6	6.34	6.34
Grand Mean							81.83	0.0	91.58	90.83	27.81	163.16

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Selectivity and Efficacy of Alert Applied PRE in Rice

Trial ID: HRI-30111
Location: Rohwer, AR

Investigator: Kenneth Smith

ARM Action Codes
TY1 = 5.866667*[12]

University of Arkansas-Division of Agriculture

Evaluation of V-10142 in a Split-Application Program

Trial ID: HRI-30211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description	
Crop 1: ORYSA Oryza sativa Common rice Variety: CL142AR BBCH Scale: BRIC Planting Method: DRILLE drilled Depth, Unit: 1 IN Row Spacing, Unit: 7.5 IN Seed Bed: MEDIUM medium Soil Moisture: DRY dry	Planting Date: 5/16/11 Rate, Unit: 90 LB/A Soil Temperature, Unit: 65.6 F Emergence Date: 5/26/11

Pest Description	
Pest 1 Type: W Code: ECHCG Echinochloa crus-galli Common Name: Common barnyardgrass	
Pest 2 Type: W Code: LEFPA Leptochloa panicoides Common Name: Tighthead sprangletop	
Pest 3 Type: W Code: SEBEX Sesbania exaltata Common Name: Hemp sesbania	

Site and Design	
Plot Width, Unit: 6.33 FT Plot Length, Unit: 28 FT Plot Area, Unit: 177.24 FT ² Replications: 4	Site Type: FIELD field Experimental Unit: 1 PLOT plot Tillage Type: CONTIL conventional-till Study Design: RACOBL Randomized Complete Block (RCB) Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance							
No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/20/11	Fertilized	Urea	326	LB/A	N	no

Soil Description	
Description Name: Rohwer Clay Blocks % Sand: 3.5 % Silt: 37.4 % Clay: 59.1	% OM: 1 pH: 7.3 CEC: 38 Texture: C clay Soil Name: Sharkey Clay

Application Description				
	A	B	C	D
Application Date:	5/17/11	5/24/11	6/6/11	6/13/11
Time of Day:	am	am		
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PREMCR	PREMLA	EAPOCR	MIPOCR
Application Placement:	BROSOI	BROSOI	BROFOL	BROFOL
Applied By:	JM	JM	JM	JM
Air Temperature, Unit:	60.4 F	77.3 F	84.4 F	85.6 F
% Relative Humidity:	65.9	74.1	66.3	58.0
Wind Velocity, Unit:	2.2 MPH	10.5 MPH	0.5 MPH	5.1 MPH
Wind Direction:	ESE	SW	E	W
Dew Presence (Y/N):	Y yes	N no	N no	N no
Soil Temperature, Unit:	65.6 F	74.8 F	84.1 F	85.9 F
Soil Moisture:	GOOD	GOOD	GOOD	NORMAL
% Cloud Cover:	50	50	20	20
Next Rain Occurred On:	5/21/11	5/26/11	6/7/11	6/14/11

Crop Stage At Each Application				
	A	B	C	D
Crop 1 Code, BBCH Scale:	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC

Pest Stage At Each Application				
	A	B	C	D
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W	ECHCG W
Pest 2 Code, Type, Scale:	LEFPA W	LEFPA W	LEFPA W	LEFPA W
Pest 3 Code, Type, Scale:	SEBEX W	SEBEX W	SEBEX W	SEBEX W

Application Equipment				
	A	B	C	D
Appl. Equipment:	Tractor	Hand Boom	Tractor	Hand Boom
Equipment Type:	SPTRMO	SPRBAC	SPTRMO	SPRBAC
Operation Pressure, Unit:	45 PSI	45 PSI	45 PSI	45 PSI
Nozzle Type:	AMFF	AMFF	AMFF	AMFF
Nozzle Size:	110015	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN	19 IN
Propellant:	COMCO2	COMCO2	COMCO2	COMCO2

University of Arkansas-Division of Agriculture

Evaluation of V-10142 in a Split-Application Program

Trial ID: HRI-30211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed SEBEX		W Weed ECHCG	W Weed SEBEX	W Weed ECHCG	W Weed LEFPA							
Pest Code	Echinochloa cr>	Sesbania exalt>		Echinochloa cr>	Sesbania exalt>	Echinochloa cr>	Leptochloa pan>							
Pest Scientific Name														
Pest Name	Common barnyar>	Hemp sesbania		Common barnyar>	Hemp sesbania	Common barnyar>	Tightthead spra>							
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA							
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa							
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice							
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P							
Assessment Date	6/1/11	6/1/11	6/1/11	6/10/11	6/10/11	6/10/11	6/14/11							
Assessment Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	percent	percent	percent	percent	percent	percent	percent							
Number of Subsamples	1	1	1	1	1	1	1							
Crop Stage Majority	1 leaf	1-2 leaf	1 leaf	2-3 leaf	2-3 leaf	4 leaf	4 leaf							
Pest Stage Majority	1 leaf	1 leaf	1 leaf	2-3 leaf	1-6 inch	1-4 leaf	1-4 leaf							
Assessed By	JM	JM	JM	JM	JM	JM	JM							
Days After First/Last Applic.	15 8	15 8	15 8	24 4	24 4	28 1	28 1							
Trt-Eval Interval	8 DA-B	8 DA-B	8 DA-B	4 DA-C	4 DA-C	8 DA-C	8 DA-C							
Plant-Eval Interval	16 DP-1	16 DP-1	16 DP-1	25 DP-1	25 DP-1	29 DP-1	29 DP-1							
Days After Emergence	6 DE-1	6 DE-1	6 DE-1	15 DE-1	15 DE-1	19 DE-1	19 DE-1							
Trt No.	Treatment	Rate	Other Rate	Other Rate	Appl Unit	Appl Code	Description	1	2	3	4	5	6	7
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Command	0.5 lb ai/a	1.33 pt/a		A	PRE		100.0	0.0	0.0	92.5	46.3	90.0	91.3
3	V-10142 Command Stam M-4	0.152 lb ai/a 0.5 lb ai/a 4 lb ai/a	3.20 oz/a 1.33 pt/a 4 qt/a		A A C	PRE PRE E-POST		100.0	20.0	0.0	85.0	61.3	100.0	100.0
4	V-10142 Command V-10142 Regiment Dyne-A-Pak	0.152 lb ai/a 0.5 lb ai/a 0.152 lb ai/a 0.02 lb ai/a 1 % v/v	3.20 oz/a 1.33 pt/a 3.20 oz/a 0.400 oz/a 15.4 oz/a		A A C C C	PRE PRE E-POST E-POST E-POST		100.0	15.0	0.0	100.0	83.8	100.0	100.0
5	Command V-10142 Regiment Dyne-A-Pak	0.5 lb ai/a 0.152 lb ai/a 0.02 lb ai/a 1 % v/v	1.33 pt/a 3.20 oz/a 0.400 oz/a 15.4 oz/a		A C C C	PRE E-POST E-POST E-POST		100.0	7.5	0.0	97.5	86.3	100.0	100.0
6	V-10142 V-10142 Regiment Dyne-A-Pak	0.152 lb ai/a 0.152 lb ai/a 0.02 lb ai/a 1 % v/v	3.20 oz/a 3.20 oz/a 0.400 oz/a 15.4 oz/a		A C C C	PRE E-POST E-POST E-POST		100.0	17.5	0.0	95.0	86.3	98.8	95.0
7	V-10142 Command Regiment Dyne-A-Pak	0.152 lb ai/a 0.5 lb ai/a 0.02 lb ai/a 1 % v/v	3.20 oz/a 1.33 pt/a 0.400 oz/a 15.4 oz/a		A A C C	PRE PRE E-POST E-POST		100.0	13.8	0.0	100.0	56.3	100.0	100.0
8	Bolero Regiment Dyne-A-Pak	3 lb ai/a 0.025 lb ai/a 1 % v/v	48 oz/a 0.500 oz/a 15.4 oz/a		B C C	Delay PRE E-POST E-POST		100.0	30.0	0.0	98.8	85.0	100.0	97.5
9	Bolero V-10142 Regiment Dyne-A-Pak	3 lb ai/a 0.152 lb ai/a 0.025 lb ai/a 1 % v/v	48 oz/a 3.20 oz/a 0.500 oz/a 15.4 oz/a		B C C C	Delay PRE E-POST E-POST E-POST		100.0	25.0	0.0	100.0	71.3	100.0	100.0
10	Command V-10142 Dyne-A-Pak	0.5 lb ai/a 0.152 lb ai/a 1 % v/v	1.33 pt/a 3.20 oz/a 15.4 oz/a		A C C	PRE E-POST E-POST		100.0	0.0	0.0	95.0	58.8	95.0	95.0
11	V-10142 Regiment Dyne-A-Pak	0.152 lb ai/a 0.025 lb ai/a 1 % v/v	3.20 oz/a 0.500 oz/a 15.4 oz/a		C C C	E-POST E-POST E-POST		100.0	2.5	0.0	78.8	86.3	95.0	37.5
12	Command Regiment Dyne-A-Pak	0.5 lb ai/a 0.025 lb ai/a 1 % v/v	1.33 pt/a 0.500 oz/a 15.4 oz/a		A C C	PRE E-POST E-POST		100.0	0.0	0.0	100.0	66.3	100.0	100.0
13	Command RiceBeaux	0.5 lb ai/a 4 lb ai/a	1.33 pt/a 85 oz/a		A C	PRE E-POST		100.0	0.0	0.0	100.0	50.0	98.8	97.5
14	Command Broadhead	0.5 lb ai/a 0.35 lb ai/a	1.33 pt/a 8 oz/a		A D	PRE M-POST		100.0	7.5	0.0	100.0	17.5	91.3	92.5
LSD (P=.05)								0.00	13.68	0.00	14.37	42.23	5.39	13.19
Standard Deviation								0.00	9.57	0.00	10.05	29.55	3.77	9.23
CV								0.0	96.6	0.0	11.33	48.38	4.16	10.71
Grand Mean								92.86	9.91	0.0	88.75	61.07	90.63	86.16

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Evaluation of V-10142 in a Split-Application Program

Trial ID: HRI-30211
Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type	W Weed SEBEX	W Weed ECHCG	W Weed LEFPA	W Weed SEBEX	W Weed ECHCG	W Weed LEFPA	W Weed SEBEX						
Pest Code	Sesbania exalt>	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>						
Pest Scientific Name	Hemp sesbania	Common barnyar>	Tighththead spra>	Hemp sesbania	Common barnyar>	Tighththead spra>	Hemp sesbania						
Pest Name	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA						
Crop Code	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa						
Crop Scientific Name	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice						
Crop Name	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P						
Part Assessed	6/14/11	6/23/11	6/23/11	6/23/11	7/6/11	7/6/11	7/6/11						
Assessment Date	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Type	percent	percent	percent	percent	percent	percent	percent						
Assessment Unit	1	1	1	1	1	1	1						
Number of Subsamples	4 leaf	Preflood	Preflood	Preflood	2 wk POF	2 wk POF	2 wk POF						
Crop Stage Majority	1-8 inch	1-2 till	1-2 till	1-10 in	boot	boot	6-60 in						
Pest Stage Majority	JM	JM	JM	JM	JM	JM	JM						
Assessed By	28 1	37 10	37 10	37 10	50 23	50 23	50 23						
Days After First/Last Applic.	8 DA-C	10 DA-D	10 DA-D	10 DA-D	23 DA-D	23 DA-D	23 DA-D						
Trt-Eval Interval	29 DP-1	38 DP-1	38 DP-1	38 DP-1	51 DP-1	51 DP-1	51 DP-1						
Plant-Eval Interval	19 DE-1	28 DE-1	28 DE-1	28 DE-1	41 DE-1	41 DE-1	41 DE-1						
Days After Emergence													
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	8	9	10	11	12	13	14
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	0.0	91.3	86.3	0.0	92.5	92.5	0.0
3	V-10142	0.152 lb ai/a	3.20 oz/a		A	PRE	95.0	100.0	100.0	87.5	100.0	100.0	90.0
	Command	0.5 lb ai/a	1.33 pt/a		A	PRE							
	Stam M-4	4 lb ai/a	4 qt/a		C	E-POST							
4	V-10142	0.152 lb ai/a	3.20 oz/a		A	PRE	91.3	100.0	97.5	91.3	100.0	100.0	100.0
	Command	0.5 lb ai/a	1.33 pt/a		A	PRE							
	V-10142	0.152 lb ai/a	3.20 oz/a		C	E-POST							
	Regiment	0.02 lb ai/a	0.400 oz/a		C	E-POST							
	Dyne-A-Pak	1 % v/v	15.4 oz/a		C	E-POST							
5	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	95.0	98.8	97.5	92.5	100.0	100.0	97.5
	V-10142	0.152 lb ai/a	3.20 oz/a		C	E-POST							
	Regiment	0.02 lb ai/a	0.400 oz/a		C	E-POST							
	Dyne-A-Pak	1 % v/v	15.4 oz/a		C	E-POST							
6	V-10142	0.152 lb ai/a	3.20 oz/a		A	PRE	96.3	97.5	87.5	93.8	97.5	80.0	98.8
	V-10142	0.152 lb ai/a	3.20 oz/a		C	E-POST							
	Regiment	0.02 lb ai/a	0.400 oz/a		C	E-POST							
	Dyne-A-Pak	1 % v/v	15.4 oz/a		C	E-POST							
7	V-10142	0.152 lb ai/a	3.20 oz/a		A	PRE	88.8	98.8	98.8	87.5	100.0	100.0	90.0
	Command	0.5 lb ai/a	1.33 pt/a		A	PRE							
	Regiment	0.02 lb ai/a	0.400 oz/a		C	E-POST							
	Dyne-A-Pak	1 % v/v	15.4 oz/a		C	E-POST							
8	Bolero	3 lb ai/a	48 oz/a		B	Delay PRE	92.5	96.3	93.8	91.3	100.0	100.0	97.5
	Regiment	0.025 lb ai/a	0.500 oz/a		C	E-POST							
	Dyne-A-Pak	1 % v/v	15.4 oz/a		C	E-POST							
9	Bolero	3 lb ai/a	48 oz/a		B	Delay PRE	97.8	97.5	92.5	95.0	100.0	100.0	100.0
	V-10142	0.152 lb ai/a	3.20 oz/a		C	E-POST							
	Regiment	0.025 lb ai/a	0.500 oz/a		C	E-POST							
	Dyne-A-Pak	1 % v/v	15.4 oz/a		C	E-POST							
10	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	25.0	100.0	100.0	50.0	100.0	100.0	83.8
	V-10142	0.152 lb ai/a	3.20 oz/a		C	E-POST							
	Dyne-A-Pak	1 % v/v	15.4 oz/a		C	E-POST							
11	V-10142	0.152 lb ai/a	3.20 oz/a		C	E-POST	98.8	91.3	48.8	90.0	91.3	25.0	98.8
	Regiment	0.025 lb ai/a	0.500 oz/a		C	E-POST							
	Dyne-A-Pak	1 % v/v	15.4 oz/a		C	E-POST							
12	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	91.3	100.0	100.0	86.3	100.0	100.0	92.5
	Regiment	0.025 lb ai/a	0.500 oz/a		C	E-POST							
	Dyne-A-Pak	1 % v/v	15.4 oz/a		C	E-POST							
13	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	87.5	100.0	98.8	45.0	100.0	100.0	62.5
	RiceBeaux	4 lb ai/a	85 oz/a		C	E-POST							
14	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	0.0	100.0	93.8	30.0	100.0	100.0	30.0
	Broadhead	0.35 lb ai/a	8 oz/a		D	M-POST							
LSD (P=.05)							8.58	4.19	13.64	10.37	2.90	15.44	12.23
Standard Deviation							6.00	2.93	9.55	7.26	2.03	10.81	8.56
CV							8.76	3.23	11.19	10.81	2.22	12.64	11.5
Grand Mean							68.5	90.8	85.36	67.14	91.52	85.54	74.38

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

IR Combinations for Weed Control in Clearfield Rice

Trial ID: HRI-30311
Location: Rohwer, AR

Investigator: Kenneth Smith

Crop Description

Crop 1: ORYSA Oryza sativa Common rice
Variety: CL142AR
BBCH Scale: BRIC
Planting Method: DRILLE drilled
Depth, Unit: 1 IN
Row Spacing, Unit: 7.5 IN
Seed Bed: MEDIUM medium
Soil Moisture: DRY dry
Planting Date: 5/16/11
Rate, Unit: 90 LB/A
Soil Temperature, Unit: 65.6 F
Emergence Date: 5/26/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** LEFPA Leptochloa panicoides
Common Name: Tighthead sprangletop

Pest 3 Type: W **Code:** SEBEX Sesbania exaltata
Common Name: Hemp sesbania

Site and Design

Plot Width, Unit: 6.33 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 177.24 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB L Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/20/11	Fertilized	Urea	326	LB/A	N	no

Soil Description

Description Name: Rohwer Clay Blocks
% Sand: 3.5 **% OM:** 1 **Texture:** C clay
% Silt: 37.4 **pH:** 7.3 **Soil Name:** Sharkey Clay
% Clay: 59.1 **CEC:** 38

Application Description

	A	B
Application Date:	5/31/11	6/20/11
Time of Day:	am	am
Application Method:	SPRAY	SPRAY
Application Timing:	EAPOCR	RIPRFL
Application Placement:	BROSOL	BROFOL
Applied By:	JM	JM
Air Temperature, Unit:	80.9 F	82.5 F
% Relative Humidity:	69.2	74.6
Wind Velocity, Unit:	5.7 MPH	7.9 MPH
Wind Direction:	W	WSW
Dew Presence (Y/N):	N no	N no
Soil Temperature, Unit:	79.6 F	85.7 F
Soil Moisture:	GOOD	GOOD
% Cloud Cover:	20	50
Next Rain Occurred On:	6/1/11	6/22/11

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	ORYSA BRIC	ORYSA BRIC

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W
Pest 2 Code, Type, Scale:	LEFPA W	LEFPA W
Pest 3 Code, Type, Scale:	SEBEX W	SEBEX W

Application Equipment

	A	B
Appl. Equipment:	Tractor	Hand Boom
Equipment Type:	SPTRMO	SPRBAC
Operation Pressure, Unit:	45 PSI	45 PSI
Nozzle Type:	AMFF	AMFF
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN
Propellant:	COMCO2	COMCO2

University of Arkansas-Division of Agriculture

IR Combinations for Weed Control in Clearfield Rice

Trial ID: HRI-30311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed LEFPA	W Weed SEBEX	W Weed SEBEX	W Weed SEBEX						
Pest Code	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Sesbania exalt>	Sesbania exalt>						
Pest Scientific Name	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Sesbania exalt>	Sesbania exalt>						
Pest Name	Common barnyar>	Tighthead spra>	Hemp sesbania	Hemp sesbania	Hemp sesbania						
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA						
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa						
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice						
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P						
Assessment Date	7/6/11	7/6/11	7/6/11	7/12/11	8/1/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	percent	percent	percent	percent	percent						
Number of Subsamples	1	1	1	1	1						
Crop Stage Majority	2 wk POF	2 wk POF	2 wk POF	3 wk POF	6 wk POF						
Pest Stage Majority	boot	boot	6-60 in	8-72 in	24-96 in						
Assessed By	JM	JM	JM	JM	JM						
Days After First/Last Applic.	50 23	50 23	50 23	42 22	62 42						
Trt-Eval Interval	16 DA-B	16 DA-B	16 DA-B	22 DA-B	42 DA-B						
Plant-Eval Interval	51 DP-1	51 DP-1	51 DP-1	57 DP-1	77 DP-1						
Days After Emergence	41 DE-1	41 DE-1	41 DE-1	47 DE-1	67 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	1	2	3	4	5
1	Untreated Check						0.0	0.0	0.0	0.0	0.0
2	Treated Check						95.0	91.3	0.0	0.0	0.0
	Newpath	0.0625 lb ai/a	4 oz/a		A	1 Leaf Rice					
	Agri-Dex	1 % v/v	15.4 oz/a		A	1 Leaf Rice					
	Newpath	0.0625 lb ai/a	4 oz/a		B	Preflood					
	Agri-Dex	1 % v/v	15.4 oz/a		B	Preflood					
3	Newpath	0.0625 lb ai/a	4 oz/a		A	1 Leaf Rice	100.0	90.0	82.5	77.5	97.5
	Agri-Dex	1 % v/v	15.4 oz/a		A	1 Leaf Rice					
	IR5878	0.0625 lb ai/a	2 oz/a		B	Preflood					
	Newpath	0.0625 lb ai/a	4 oz/a		B	Preflood					
	Agri-Dex	1 % v/v	15.4 oz/a		B	Preflood					
4	Newpath	0.0625 lb ai/a	4 oz/a		A	1 Leaf Rice	100.0	95.0	81.3	67.5	56.3
	Agri-Dex	1 % v/v	15.4 oz/a		A	1 Leaf Rice					
	IR5880	0.28 lb ai/a	6 oz/a		B	Preflood					
	Newpath	0.0625 lb ai/a	4 oz/a		B	Preflood					
	Agri-Dex	1 % v/v	15.4 oz/a		B	Preflood					
5	Newpath	0.0625 lb ai/a	4 oz/a		A	1 Leaf Rice	97.5	85.0	100.0	100.0	100.0
	Agri-Dex	1 % v/v	15.4 oz/a		A	1 Leaf Rice					
	IR5890	0.047 lb ai/a	1 oz/a		B	Preflood					
	Newpath	0.0625 lb ai/a	4 oz/a		B	Preflood					
	Agri-Dex	1 % v/v	15.4 oz/a		B	Preflood					
6	Newpath	0.0625 lb ai/a	4 oz/a		A	1 Leaf Rice	100.0	77.5	82.5	73.8	91.3
	Agri-Dex	1 % v/v	15.4 oz/a		A	1 Leaf Rice					
	IR5880	0.21 lb ai/a	4.5 oz/a		B	Preflood					
	IR5878	0.0356 lb ai/a	1.14 oz/a		B	Preflood					
	Newpath	0.0625 lb ai/a	4 oz/a		B	Preflood					
	Agri-Dex	1 % v/v	15.4 oz/a		B	Preflood					
7	Newpath	0.0625 lb ai/a	4 oz/a		A	1 Leaf Rice	100.0	97.5	82.5	78.8	95.0
	Agri-Dex	1 % v/v	15.4 oz/a		A	1 Leaf Rice					
	IR5880	0.28 lb ai/a	6 oz/a		B	Preflood					
	IR5878	0.047 lb ai/a	1.5 oz/a		B	Preflood					
	Newpath	0.0625 lb ai/a	4 oz/a		B	Preflood					
	Agri-Dex	1 % v/v	15.4 oz/a		B	Preflood					
8	Newpath	0.0625 lb ai/a	4 oz/a		A	1 Leaf Rice	97.5	83.8	82.5	76.3	97.5
	Agri-Dex	1 % v/v	15.4 oz/a		A	1 Leaf Rice					
	IR5880	0.328 lb ai/a	7 oz/a		B	Preflood					
	IR5878	0.0547 lb ai/a	1.75 oz/a		B	Preflood					
	Newpath	0.0625 lb ai/a	4 oz/a		B	Preflood					
	Agri-Dex	1 % v/v	15.4 oz/a		B	Preflood					
9	Newpath	0.0625 lb ai/a	4 oz/a		A	1 Leaf Rice	100.0	93.8	83.8	76.3	100.0
	Agri-Dex	1 % v/v	15.4 oz/a		A	1 Leaf Rice					
	IR5880	0.375 lb ai/a	8 oz/a		B	Preflood					
	IR5878	0.0625 lb ai/a	2 oz/a		B	Preflood					
	Newpath	0.0625 lb ai/a	4 oz/a		B	Preflood					
	Agri-Dex	1 % v/v	15.4 oz/a		B	Preflood					
10	Newpath	0.0625 lb ai/a	4 oz/a		A	1 Leaf Rice	97.5	91.3	88.8	88.8	100.0
	Agri-Dex	1 % v/v	15.4 oz/a		A	1 Leaf Rice					
	IR5880	0.21 lb ai/a	4.5 oz/a		B	Preflood					
	IR5878	0.0356 lb ai/a	1.14 oz/a		B	Preflood					
	IR5890	0.0117 lb ai/a	0.25 oz/a		B	Preflood					
	Newpath	0.0625 lb ai/a	4 oz/a		B	Preflood					
	Agri-Dex	1 % v/v	15.4 oz/a		B	Preflood					
11	Newpath	0.0625 lb ai/a	4 oz/a		A	1 Leaf Rice	97.5	85.0	90.0	92.5	100.0
	Agri-Dex	1 % v/v	15.4 oz/a		A	1 Leaf Rice					
	IR5880	0.28 lb ai/a	6 oz/a		B	Preflood					
	IR5878	0.047 lb ai/a	1.5 oz/a		B	Preflood					
	IR5890	0.0155 lb ai/a	0.33 oz/a		B	Preflood					
	Newpath	0.0625 lb ai/a	4 oz/a		B	Preflood					
	Agri-Dex	1 % v/v	15.4 oz/a		B	Preflood					
12	Newpath	0.0625 lb ai/a	4 oz/a		A	1 Leaf Rice	97.5	96.3	95.0	100.0	100.0
	Agri-Dex	1 % v/v	15.4 oz/a		A	1 Leaf Rice					
	IR5880	0.328 lb ai/a	7 oz/a		B	Preflood					
	IR5878	0.0547 lb ai/a	1.75 oz/a		B	Preflood					
	IR5890	0.018 lb ai/a	0.385 oz/a		B	Preflood					
	Newpath	0.0625 lb ai/a	4 oz/a		B	Preflood					
	Agri-Dex	1 % v/v	15.4 oz/a		B	Preflood					

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

IR Combinations for Weed Control in Clearfield Rice

Trial ID: HRI-30311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed LEFPA	W Weed SEBEX	W Weed SEBEX	W Weed SEBEX						
Pest Code	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Sesbania exalt>	Sesbania exalt>						
Pest Scientific Name	Common barnyar>	Tighthead spra>	Hemp sesbania	Hemp sesbania	Hemp sesbania						
Pest Name	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA						
Crop Code	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa						
Crop Scientific Name	Common rice	Common rice	Common rice	Common rice	Common rice						
Crop Name	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P						
Part Assessed	7/6/11	7/6/11	7/6/11	7/12/11	8/1/11						
Assessment Date	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Type	percent	percent	percent	percent	percent						
Assessment Unit	1	1	1	1	1						
Number of Subsamples	2 wk POF	2 wk POF	2 wk POF	3 wk POF	6 wk POF						
Crop Stage Majority	boot	boot	6-60 in	8-72 in	24-96 in						
Pest Stage Majority	JM	JM	JM	JM	JM						
Assessed By	50 23	50 23	50 23	42 22	62 42						
Days After First/Last Applic.	16 DA-B	16 DA-B	16 DA-B	22 DA-B	42 DA-B						
Trt-Eval Interval	51 DP-1	51 DP-1	51 DP-1	57 DP-1	77 DP-1						
Plant-Eval Interval	41 DE-1	41 DE-1	41 DE-1	47 DE-1	67 DE-1						
Days After Emergence											
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3	4	5
13	Newpath	0.0625 lb ai/a	4 oz/a		A	1 Leaf Rice	98.8	95.0	93.8	95.0	100.0
	Agri-Dex	1 % v/v	15.4 oz/a		A	1 Leaf Rice					
	IR5880	0.375 lb ai/a	8 oz/a		B	Preflood					
	IR5878	0.0625 lb ai/a	2 oz/a		B	Preflood					
	IR5890	0.0206 lb ai/a	0.44 oz/a		B	Preflood					
	Newpath	0.0625 lb ai/a	4 oz/a		B	Preflood					
	Agri-Dex	1 % v/v	15.4 oz/a		B	Preflood					
14	Newpath	0.0625 lb ai/a	4 oz/a		A	1 Leaf Rice	100.0	86.3	96.3	96.3	100.0
	Agri-Dex	1 % v/v	15.4 oz/a		A	1 Leaf Rice					
	IR5878	0.0356 lb ai/a	1.14 oz/a		B	Preflood					
	IR5890	0.0117 lb ai/a	0.25 oz/a		B	Preflood					
	Newpath	0.0625 lb ai/a	4 oz/a		B	Preflood					
	Agri-Dex	1 % v/v	15.4 oz/a		B	Preflood					
15	Newpath	0.0625 lb ai/a	4 oz/a		A	1 Leaf Rice	100.0	90.0	100.0	100.0	100.0
	Agri-Dex	1 % v/v	15.4 oz/a		A	1 Leaf Rice					
	IR5878	0.047 lb ai/a	1.5 oz/a		B	Preflood					
	IR5890	0.0155 lb ai/a	0.33 oz/a		B	Preflood					
	Newpath	0.0625 lb ai/a	4 oz/a		B	Preflood					
	Agri-Dex	1 % v/v	15.4 oz/a		B	Preflood					
16	Newpath	0.0625 lb ai/a	4 oz/a		A	1 Leaf Rice	100.0	77.5	100.0	100.0	100.0
	Agri-Dex	1 % v/v	15.4 oz/a		A	1 Leaf Rice					
	IR5878	0.0547 lb ai/a	1.75 oz/a		B	Preflood					
	IR5890	0.018 lb ai/a	0.385 oz/a		B	Preflood					
	Newpath	0.0625 lb ai/a	4 oz/a		B	Preflood					
	Agri-Dex	1 % v/v	15.4 oz/a		B	Preflood					
17	Newpath	0.0625 lb ai/a	4 oz/a		A	1 Leaf Rice	97.5	90.0	100.0	100.0	100.0
	Agri-Dex	1 % v/v	15.4 oz/a		A	1 Leaf Rice					
	IR5878	0.0625 lb ai/a	2 oz/a		B	Preflood					
	IR5890	0.0206 lb ai/a	0.44 oz/a		B	Preflood					
	Newpath	0.0625 lb ai/a	4 oz/a		B	Preflood					
	Agri-Dex	1 % v/v	15.4 oz/a		B	Preflood					
18	Newpath	0.0625 lb ai/a	4 oz/a		A	1 Leaf Rice	97.5	87.5	100.0	100.0	100.0
	Agri-Dex	1 % v/v	15.4 oz/a		A	1 Leaf Rice					
	Regiment	0.025 lb ai/a	0.5 oz/a		B	Preflood					
	Newpath	0.0625 lb ai/a	4 oz/a		B	Preflood					
	Dyne-a-Pak	0.67 % v/v	10.3 oz/a		B	Preflood					
19	Newpath	0.0625 lb ai/a	4 oz/a		A	1 Leaf Rice	97.5	75.0	100.0	85.0	100.0
	Agri-Dex	1 % v/v	15.4 oz/a		A	1 Leaf Rice					
	Broadhead	0.525 lb ai/a	12 oz/a		B	Preflood					
	Newpath	0.0625 lb ai/a	4 oz/a		B	Preflood					
	Agri-Dex	1 % v/v	15.4 oz/a		B	Preflood					
LSD (P=.05)							4.14	16.48	4.81	9.82	11.13
Standard Deviation							2.93	11.65	3.40	6.94	7.87
CV							3.13	13.95	4.14	8.75	9.13
Grand Mean							93.36	83.55	82.04	79.34	86.18

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

IR5878 Combinations for Nutsedge and Broadleaf Control

Trial ID: HRI-30411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: ORYSA Oryza sativa Common rice
Variety: CL142AR
BBCH Scale: BRIC
Planting Method: DRILLE drilled
Depth, Unit: 1 IN
Row Spacing, Unit: 7.5 IN
Seed Bed: MEDIUM medium
Soil Moisture: DRY dry
Planting Date: 5/16/11
Rate, Unit: 90 LB/A
Soil Temperature, Unit: 65.6 F
Emergence Date: 5/26/11

Pest Description

Pest 1 Type: W **Code:** SEBEX Sesbania exaltata
Common Name: Hemp sesbania

Site and Design

Plot Width, Unit: 6.33 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 177.24 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/20/11	Fertilized	Urea	326	LB/A	N	no

Soil Description

Description Name: Rohwer Clay Blocks
% Sand: 3.5 **% OM:** 1 **Texture:** C clay
% Silt: 37.4 **pH:** 7.3 **Soil Name:** Sharkey Clay
% Clay: 59.1 **CEC:** 38

Application Description

	A	B	C
Application Date:	5/17/11	6/13/11	6/20/11
Time of Day:	am	am	am
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREMCR	MIPOWE	RIPRFL
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	JM	JM	JM
Air Temperature, Unit:	60.4 F	85.6 F	82.5 F
% Relative Humidity:	65.9	58.0	74.6
Wind Velocity, Unit:	2.2 MPH	5.1 MPH	7.9 MPH
Wind Direction:	ESE	W	WSW
Dew Presence (Y/N):	Y yes	N no	N no
Soil Temperature, Unit:	65.6 F	85.9 F	85.7 F
Soil Moisture:	GOOD	NORMAL	GOOD
% Cloud Cover:	50	20	50
Next Rain Occurred On:	5/21/11	6/14/11	6/22/11

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	SEBEX W	SEBEX W	SEBEX W

Application Equipment

	A	B	C
Appl. Equipment:	Tractor	Tractor	Hand Boom
Equipment Type:	SPTRMO	SPTRMO	SPRBAC
Operation Pressure, Unit:	45 PSI	45 PSI	45 PSI
Nozzle Type:	AMFF	AMFF	AMFF
Nozzle Size:	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Propellant:	COMCO2	COMCO2	COMCO2

University of Arkansas-Division of Agriculture

IR5878 Combinations for Nutsedge and Broadleaf Control

Trial ID: HRI-30411
Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type		W Weed	W Weed	W Weed					
Pest Code		SEBEX	SEBEX	SEBEX					
Pest Scientific Name		Sesbania exalt>	Sesbania exalt>	Sesbania exalt>					
Pest Name		Hemp sesbania	Hemp sesbania	Hemp sesbania					
Crop Code		ORYSA	ORYSA	ORYSA					
Crop Scientific Name		Oryza sativa	Oryza sativa	Oryza sativa					
Crop Name		Common rice	Common rice	Common rice					
Part Assessed		PLAEME P	PLAEME P	PLAEME P					
Assessment Date		7/6/11	7/12/11	8/1/11					
Assessment Type		CONTRO	CONTRO	CONTRO					
Assessment Unit		percent	percent	percent					
Number of Subsamples		1	1	1					
Crop Stage Majority		2 wk POF	3 wk POF	6 wk POF					
Pest Stage Majority		6-60 in	8-72 in	24-96 in					
Assessed By		JM	JM	JM					
Days After First/Last Applic.		50 23	42 22	62 42					
Trt-Eval Interval		16 DA-C	22 DA-C	42 DA-C					
Plant-Eval Interval		51 DP-1	57 DP-1	77 DP-1					
Days After Emergence		41 DE-1	47 DE-1	67 DE-1					
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3
1	Treated Check						0.0	0.0	0.0
	Command	0.5 lb ai/a	21.3 oz/a		A	PRE			
	Ricestar HT	0.107 lb ai/a	24 oz/a		B	M-POST			
	COC	1 % v/v	15.4 oz/a		B	M-POST			
2	Command	0.5 lb ai/a	21.3 oz/a		A	PRE	82.5	76.3	100.0
	Ricestar HT	0.107 lb ai/a	24 oz/a		B	M-POST			
	IR5878	0.0656 lb ai/a	2.1 oz/a		C	Preflood			
	COC	1 % v/v	15.4 oz/a		C	Preflood			
3	Command	0.5 lb ai/a	21.3 oz/a		A	PRE	30.0	0.0	0.0
	Ricestar HT	0.107 lb ai/a	24 oz/a		B	M-POST			
	Basagran	0.75 lb ai/a	1.5 pt/a		C	Preflood			
	COC	1 % v/v	0.96 pt/a		C	Preflood			
4	Command	0.5 lb ai/a	21.3 oz/a		A	PRE	80.0	65.0	67.5
	Ricestar HT	0.107 lb ai/a	24 oz/a		B	M-POST			
	IR5878	0.047 lb ai/a	1.5 oz/a		C	Preflood			
	Basagran	0.5 lb ai/a	1 pt/a		C	Preflood			
	COC	1 % v/v	15.4 oz/a		C	Preflood			
5	Command	0.5 lb ai/a	21.3 oz/a		A	PRE	78.8	65.0	57.5
	Ricestar HT	0.107 lb ai/a	24 oz/a		B	M-POST			
	IR5878	0.0547 lb ai/a	1.75 oz/a		C	Preflood			
	Basagran	0.5 lb ai/a	1 pt/a		C	Preflood			
	COC	1 % v/v	15.4 oz/a		C	Preflood			
6	Command	0.5 lb ai/a	21.3 oz/a		A	PRE	71.3	60.0	40.0
	Ricestar HT	0.107 lb ai/a	24 oz/a		B	M-POST			
	IR5878	0.047 lb ai/a	1.5 oz/a		C	Preflood			
	Basagran	0.75 lb ai/a	1.5 pt/a		C	Preflood			
	COC	1 % v/v	15.4 oz/a		C	Preflood			
7	Command	0.5 lb ai/a	21.3 oz/a		A	PRE	76.3	60.0	57.5
	Ricestar HT	0.107 lb ai/a	24 oz/a		B	M-POST			
	IR5878	0.0547 lb ai/a	1.75 oz/a		C	Preflood			
	Basagran	0.75 lb ai/a	1.5 pt/a		C	Preflood			
	COC	1 % v/v	15.4 oz/a		C	Preflood			
8	Command	0.5 lb ai/a	21.3 oz/a		A	PRE	80.0	75.0	92.5
	Ricestar HT	0.107 lb ai/a	24 oz/a		B	M-POST			
	IR5890	0.0117 lb ai/a	0.25 oz/a		C	Preflood			
	IR5878	0.0416 lb ai/a	1.33 oz/a		C	Preflood			
	Basagran	0.5 lb ai/a	1 pt/a		C	Preflood			
	COC	1 % v/v	15.4 oz/a		C	Preflood			
9	Command	0.5 lb ai/a	21.3 oz/a		A	PRE	100.0	100.0	100.0
	Ricestar HT	0.107 lb ai/a	24 oz/a		B	M-POST			
	IR5890	0.0155 lb ai/a	0.33 oz/a		C	Preflood			
	IR5878	0.0547 lb ai/a	1.75 oz/a		C	Preflood			
	COC	1 % v/v	15.4 oz/a		C	Preflood			
10	Command	0.5 lb ai/a	21.3 oz/a		A	PRE	82.5	82.5	100.0
	Ricestar HT	0.107 lb ai/a	24 oz/a		B	M-POST			
	IR5890	0.0155 lb ai/a	0.33 oz/a		C	Preflood			
	IR5878	0.0547 lb ai/a	1.75 oz/a		C	Preflood			
	Basagran	0.5 lb ai/a	1 pt/a		C	Preflood			
	COC	1 % v/v	15.4 oz/a		C	Preflood			
LSD (P=.05)			6.78				6.78	9.82	11.06
Standard Deviation			4.67				4.67	6.77	7.63
CV			6.86				6.86	11.59	12.4
Grand Mean			68.13				68.13	58.38	61.5

University of Arkansas-Division of Agriculture

IR Combinations for Preflood Weed Control in Conventional Rice

Trial ID: HRI-30511
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description	
Crop 1: ORYSA Oryza sativa Common rice Variety: CL142AR BBCH Scale: BRIC Planting Method: DRILLE drilled Depth, Unit: 1 IN Row Spacing, Unit: 7.5 IN Seed Bed: MEDIUM medium Soil Moisture: DRY dry	Planting Date: 5/16/11 Rate, Unit: 90 LB/A Soil Temperature, Unit: 65.6 F Emergence Date: 5/26/11

Pest Description	
Pest 1 Type: W Code: ECHCG Echinochloa crus-galli Common Name: Common barnyardgrass	
Pest 2 Type: W Code: LEFPA Leptochloa panicoides Common Name: Tighthead sprangletop	
Pest 3 Type: W Code: SEBEX Sesbania exaltata Common Name: Hemp sesbania	

Site and Design	
Plot Width, Unit: 6.33 FT Plot Length, Unit: 28 FT Plot Area, Unit: 177.24 FT ² Replications: 4	Site Type: FIELD field Experimental Unit: 1 PLOT plot Tillage Type: CONTIL conventional-till Study Design: RACOB L Randomized Complete Block (RCB) Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance							
No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/20/11	Fertilized	Urea	326	LB/A	N	no

Soil Description			
Description Name: Rohwer Clay Blocks % Sand: 3.5 % Silt: 37.4 % Clay: 59.1	% OM: 1 pH: 7.3 CEC: 38	Texture: C clay Soil Name: Sharkey Clay	

Application Description		
	A	B
Application Date:	5/17/11	6/20/11
Time of Day:	am	am
Application Method:	SPRAY	SPRAY
Application Timing:	PREMCR	RIPRFL
Application Placement:	BROSOL	BROFOL
Applied By:	JM	JM
Air Temperature, Unit:	60.4 F	82.5 F
% Relative Humidity:	65.9	74.6
Wind Velocity, Unit:	2.2 MPH	7.9 MPH
Wind Direction:	ESE	WSW
Dew Presence (Y/N):	Y yes	N no
Soil Temperature, Unit:	65.6 F	85.7 F
Soil Moisture:	GOOD	GOOD
% Cloud Cover:	50	50
Next Rain Occurred On:	5/21/11	6/22/11

Crop Stage At Each Application		
	A	B
Crop 1 Code, BBCH Scale:	ORYSA BRIC	ORYSA BRIC

Pest Stage At Each Application		
	A	B
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W
Pest 2 Code, Type, Scale:	LEFPA W	LEFPA W
Pest 3 Code, Type, Scale:	SEBEX W	SEBEX W

Application Equipment		
	A	B
Appl. Equipment:	Tractor	Hand Boom
Equipment Type:	SPTRMO	SPRBAC
Operation Pressure, Unit:	45 PSI	45 PSI
Nozzle Type:	AMFF	AMFF
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN
Propellant:	COMCO2	COMCO2

University of Arkansas-Division of Agriculture

IR Combinations for Preflood Weed Control in Conventional Rice

Trial ID: HRI-30511
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code		ECHCG	LEFPA	SEBEX	SEBEX	SEBEX					
Pest Scientific Name		Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Sesbania exalt>	Sesbania exalt>					
Pest Name		Common barnyar>	Tighththead spra>	Hemp sesbania	Hemp sesbania	Hemp sesbania					
Crop Code		ORYSA	ORYSA	ORYSA	ORYSA	ORYSA					
Crop Scientific Name		Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa					
Crop Name		Common rice	Common rice	Common rice	Common rice	Common rice					
Part Assessed		PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P					
Assessment Date		7/6/11	7/6/11	7/6/11	7/12/11	8/1/11					
Assessment Type		CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Assessment Unit		percent	percent	percent	percent	percent					
Number of Subsamples		1	1	1	1	1					
Crop Stage Majority		2 wk POF	2 wk POF	2 wk POF	3 wk POF	6 wk POF					
Pest Stage Majority		boot	boot	6-60 in	8-72 in	24-96 in					
Assessed By		JM	JM	JM	JM	JM					
Days After First/Last Applic.		50 23	50 23	50 23	42 22	62 42					
Trt-Eval Interval		16 DA-B	16 DA-B	16 DA-B	22 DA-B	42 DA-B					
Plant-Eval Interval		51 DP-1	51 DP-1	51 DP-1	57 DP-1	77 DP-1					
Days After Emergence		41 DE-1	41 DE-1	41 DE-1	47 DE-1	67 DE-1					
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	1	2	3	4	5
1	Treated Check Command	0.5 lb ai/a	21.3 oz/a		A	PRE	100.0	100.0	0.0	10.0	0.0
2	Command IR5878 Agri-Dex	0.5 lb ai/a 0.0625 lb ai/a 1 % v/v	21.3 oz/a 2 oz/a 15.4 oz/a		A B B	PRE Preflood Preflood	100.0	100.0	88.8	96.3	100.0
3	Command IR5880 Agri-Dex	0.4 lb ai/a 0.28 lb ai/a 1 % v/v	17 oz/a 6 oz/a 15.4 oz/a		A B B	PRE Preflood Preflood	100.0	100.0	60.0	40.0	2.5
4	Command IR5890 Agri-Dex	0.5 lb ai/a 0.047 lb ai/a 1 % v/v	21.3 oz/a 1 oz/a 15.4 oz/a		A B B	PRE Preflood Preflood	100.0	100.0	100.0	100.0	100.0
5	Command IR5880 IR5878 Agri-Dex	0.5 lb ai/a 0.21 lb ai/a 0.0356 lb ai/a 1 % v/v	21.3 oz/a 4.5 oz/a 1.14 oz/a 15.4 oz/a		A B B B	PRE Preflood Preflood Preflood	100.0	100.0	82.5	80.0	92.5
6	Command IR5880 IR5878 Agri-Dex	0.5 lb ai/a 0.28 lb ai/a 0.047 lb ai/a 1 % v/v	21.3 oz/a 6 oz/a 1.5 oz/a 15.4 oz/a		A B B B	PRE Preflood Preflood Preflood	100.0	100.0	82.5	77.5	92.5
7	Command IR5880 IR5878 Agri-Dex	0.4 lb ai/a 0.328 lb ai/a 0.0547 lb ai/a 1 % v/v	17 oz/a 7 oz/a 1.75 oz/a 15.4 oz/a		A B B B	PRE Preflood Preflood Preflood	100.0	100.0	86.3	87.5	97.5
8	Command IR5880 IR5878 Agri-Dex	0.5 lb ai/a 0.375 lb ai/a 0.0625 lb ai/a 1 % v/v	21.3 oz/a 8 oz/a 2 oz/a 15.4 oz/a		A B B B	PRE Preflood Preflood Preflood	100.0	100.0	83.8	88.8	100.0
9	Command IR5880 IR5878 IR5890 Agri-Dex	0.5 lb ai/a 0.21 lb ai/a 0.0356 lb ai/a 0.0117 lb ai/a 1 % v/v	21.3 oz/a 4.5 oz/a 1.14 oz/a 0.25 oz/a 15.4 oz/a		A B B B B	PRE Preflood Preflood Preflood Preflood	100.0	100.0	96.3	95.0	100.0
10	Command IR5880 IR5878 IR5890 Agri-Dex	0.5 lb ai/a 0.28 lb ai/a 0.047 lb ai/a 0.0155 lb ai/a 1 % v/v	21.3 oz/a 6 oz/a 1.5 oz/a 0.33 oz/a 15.4 oz/a		A B B B B	PRE Preflood Preflood Preflood Preflood	100.0	100.0	92.5	100.0	100.0
11	Command IR5880 IR5878 IR5890 Agri-Dex	0.5 lb ai/a 0.328 lb ai/a 0.0547 lb ai/a 0.018 lb ai/a 1 % v/v	21.3 oz/a 7 oz/a 1.75 oz/a 0.385 oz/a 15.4 oz/a		A B B B B	PRE Preflood Preflood Preflood Preflood	100.0	100.0	93.8	100.0	100.0
12	Command IR5880 IR5878 IR5890 Agri-Dex	0.5 lb ai/a 0.375 lb ai/a 0.0625 lb ai/a 0.0206 lb ai/a 1 % v/v	21.3 oz/a 8 oz/a 2 oz/a 0.44 oz/a 15.4 oz/a		A B B B B	PRE Preflood Preflood Preflood Preflood	100.0	100.0	95.0	100.0	100.0
13	Command IR5878 IR5890 Agri-Dex	0.5 lb ai/a 0.0356 lb ai/a 0.0117 lb ai/a 1 % v/v	21.3 oz/a 1.14 oz/a 0.25 oz/a 15.4 oz/a		A B B B	PRE Preflood Preflood Preflood	100.0	100.0	100.0	100.0	100.0
14	Command IR5878 IR5890 Agri-Dex	0.5 lb ai/a 0.047 lb ai/a 0.0155 lb ai/a 1 % v/v	21.3 oz/a 1.5 oz/a 0.33 oz/a 15.4 oz/a		A B B B	PRE Preflood Preflood Preflood	100.0	100.0	97.5	100.0	100.0
15	Command IR5878 IR5890 Agri-Dex	0.5 lb ai/a 0.0547 lb ai/a 0.018 lb ai/a 1 % v/v	21.3 oz/a 1.75 oz/a 0.385 oz/a 15.4 oz/a		A B B B	PRE Preflood Preflood Preflood	100.0	100.0	100.0	100.0	100.0
16	Command IR5878 IR5890 Agri-Dex	0.5 lb ai/a 0.0625 lb ai/a 0.0206 lb ai/a 1 % v/v	21.3 oz/a 2 oz/a 0.44 oz/a 15.4 oz/a		A B B B	PRE Preflood Preflood Preflood	100.0	100.0	100.0	100.0	100.0
17	Command Regiment Dyne-a-Pak	0.5 lb ai/a 0.025 lb ai/a 0.67 % v/v	21.3 oz/a 0.5 oz/a 10.3 oz/a		A B B	PRE Preflood Preflood	100.0	100.0	100.0	100.0	100.0

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

IR Combinations for Preflood Weed Control in Conventional Rice

Trial ID: HRI-30511
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed LEFPA	W Weed SEBEX	W Weed SEBEX	W Weed SEBEX
Pest Code	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Sesbania exalt>	Sesbania exalt>
Pest Scientific Name	Common barnyar>	Tighthouse spr>	Hemp sesbania	Hemp sesbania	Hemp sesbania
Pest Name	Common barnyar>	Tighthouse spr>	Hemp sesbania	Hemp sesbania	Hemp sesbania
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P
Assessment Date	7/6/11	7/6/11	7/6/11	7/12/11	8/1/11
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Assessment Unit	percent	percent	percent	percent	percent
Number of Subsamples	1	1	1	1	1
Crop Stage Majority	2 wk POF	2 wk POF	2 wk POF	3 wk POF	6 wk POF
Pest Stage Majority	boot	boot	6-60 in	8-72 in	24-96 in
Assessed By	JM	JM	JM	JM	JM
Days After First/Last Applic.	50 23	50 23	50 23	42 22	62 42
Trt-Eval Interval	16 DA-B	16 DA-B	16 DA-B	22 DA-B	42 DA-B
Plant-Eval Interval	51 DP-1	51 DP-1	51 DP-1	57 DP-1	77 DP-1
Days After Emergence	41 DE-1	41 DE-1	41 DE-1	47 DE-1	67 DE-1
Trt No.	1	2	3	4	5
Treatment Name	18 Command	Broadhead	Agri-Dex		
Rate	0.5 lb ai/a	21.3 oz/a			
Unit		12 oz/a			
Other Rate		15.4 oz/a			
Other Rate Unit					
Appl Code	A	B	B		
Appl Description	PRE Preflood	Preflood	Preflood		
Rate	100.0	100.0	95.0	77.5	92.5
LSD (P=.05)	0.00	0.00	5.45	10.59	4.64
Standard Deviation	0.00	0.00	3.85	7.49	3.28
CV	0.0	0.0	4.46	8.68	3.74
Grand Mean	100.0	100.0	86.32	86.25	87.64

University of Arkansas-Division of Agriculture

IR Combinations for Postflood Rice Weed Control

Trial ID: HRI-30611
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: ORYSA Oryza sativa Common rice
Variety: CL142AR
BBCH Scale: BRIC
Planting Method: DRILLE drilled
Depth, Unit: 1 IN
Row Spacing, Unit: 7.5 IN
Seed Bed: MEDIUM medium
Soil Moisture: DRY dry
Planting Date: 5/16/11
Rate, Unit: 90 LB/A
Soil Temperature, Unit: 65.6 F
Emergence Date: 5/26/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass
Pest 2 Type: W **Code:** LEFPA Leptochloa panicoides
Common Name: Tighthead sprangletop
Pest 3 Type: W **Code:** SEBEX Sesbania exaltata
Common Name: Hemp sesbania

Site and Design

Plot Width, Unit: 6.33 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 177.24 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB1 Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/20/11	Fertilized	Urea	326	LB/A	N	no

Soil Description

Description Name: Rohwer Clay Blocks
% Sand: 3.5 **% OM:** 1 **Texture:** C clay
% Silt: 37.4 **pH:** 7.3 **Soil Name:** Sharkey Clay
% Clay: 59.1 **CEC:** 38

Application Description

	A	B	C
Application Date:	5/17/11	6/13/11	6/24/11
Time of Day:	am	am	am
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREMCR	MIPOWE	3 D POFL
Application Placement:	BROS01	BROF0L	BROF0L
Applied By:	JM	JM	JM
Air Temperature, Unit:	60.4 F	85.6 F	80.9 F
% Relative Humidity:	65.9	58.0	81.8
Wind Velocity, Unit:	2.2 MPH	5.1 MPH	4.2 MPH
Wind Direction:	ESE	W	WNW
Dew Presence (Y/N):	Y yes	N no	N no
Soil Temperature, Unit:	65.6 F	85.9 F	81.7 F
Soil Moisture:	GOOD	NORMAL	GOOD
% Cloud Cover:	50	20	75
Next Rain Occurred On:	5/21/11	6/14/11	6/29/11

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W
Pest 2 Code, Type, Scale:	LEFPA W	LEFPA W	LEFPA W
Pest 3 Code, Type, Scale:	SEBEX W	SEBEX W	SEBEX W

Application Equipment

	A	B	C
Appl. Equipment:	Tractor	Tractor	Hand Boom
Equipment Type:	SPTRMO	SPTRMO	SPRBAC
Operation Pressure, Unit:	45 PSI	45 PSI	45 PSI
Nozzle Type:	AMFF	AMFF	AMFF
Nozzle Size:	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Propellant:	COMCO2	COMCO2	COMCO2

University of Arkansas-Division of Agriculture

IR Combinations for Postflood Rice Weed Control

Trial ID: HRI-30611
Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type	W Weed SEBEX	W Weed SEBEX	W Weed SEBEX							
Pest Code	Sesbania exalt>	Sesbania exalt>	Sesbania exalt>							
Pest Scientific Name	Hemp sesbania	Hemp sesbania	Hemp sesbania							
Pest Name	ORYSA	ORYSA	ORYSA							
Crop Code	Oryza sativa	Oryza sativa	Oryza sativa							
Crop Scientific Name	Common rice	Common rice	Common rice							
Crop Name	PLAEME P	PLAEME P	PLAEME P							
Part Assessed	7/6/11	7/12/11	8/1/11							
Assessment Date	CONTRO	CONTRO	CONTRO							
Assessment Type	percent	percent	percent							
Assessment Unit	1	1	1							
Number of Subsamples	2 wk POF	3 wk POF	6 wk POF							
Crop Stage Majority	6-60 in	8-72 in	24-96 in							
Pest Stage Majority	JM	JM	JM							
Assessed By	50 23	42 22	62 42							
Days After First/Last Applic.	12 DA-C	18 DA-C	38 DA-C							
Trt-Eval Interval	51 DP-1	57 DP-1	77 DP-1							
Plant-Eval Interval	41 DE-1	47 DE-1	67 DE-1							
Days After Emergence										
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3
1	Treated Check							0.0	0.0	0.0
	Command	0.5 lb ai/a		21.3 oz/a		A	PRE			
	Ricestar HT	0.109 lb ai/a		24 oz/a		B	4-5 Lf Grass			
	Agri-Dex	1 % v/v		15.4 oz/a		B	4-5 Lf Grass			
2	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	90.0	91.3	100.0
	Ricestar HT	0.109 lb ai/a		24 oz/a		B	4-5 Lf Grass			
	IR5878	0.0625 lb ai/a		2 oz/a		C	3-5 Days Postflood			
	Agri-Dex	1 % v/v		15.4 oz/a		C	3-5 Days Postflood			
3	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	86.3	77.5	95.0
	Ricestar HT	0.109 lb ai/a		24 oz/a		B	4-5 Lf Grass			
	IR5880	0.28 lb ai/a		6 oz/a		C	3-5 Days Postflood			
	Agri-Dex	1 % v/v		15.4 oz/a		C	3-5 Days Postflood			
4	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	98.8	97.5	100.0
	Ricestar HT	0.109 lb ai/a		24 oz/a		B	4-5 Lf Grass			
	IR5890	0.047 lb ai/a		1 oz/a		C	3-5 Days Postflood			
	Agri-Dex	1 % v/v		15.4 oz/a		C	3-5 Days Postflood			
5	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	86.3	91.3	97.5
	Ricestar HT	0.109 lb ai/a		24 oz/a		B	4-5 Lf Grass			
	IR5880	0.28 lb ai/a		6 oz/a		C	3-5 Days Postflood			
	IR5878	0.047 lb ai/a		1.5 oz/a		C	3-5 Days Postflood			
	Agri-Dex	1 % v/v		15.4 oz/a		C	3-5 Days Postflood			
6	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	92.5	95.0	97.5
	Ricestar HT	0.109 lb ai/a		24 oz/a		B	4-5 Lf Grass			
	IR5880	0.328 lb ai/a		7 oz/a		C	3-5 Days Postflood			
	IR5878	0.0547 lb ai/a		1.75 oz/a		C	3-5 Days Postflood			
	Agri-Dex	1 % v/v		15.4 oz/a		C	3-5 Days Postflood			
7	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	96.3	95.0	100.0
	Ricestar HT	0.109 lb ai/a		24 oz/a		B	4-5 Lf Grass			
	IR5880	0.375 lb ai/a		8 oz/a		C	3-5 Days Postflood			
	IR5878	0.0625 lb ai/a		2 oz/a		C	3-5 Days Postflood			
	Agri-Dex	1 % v/v		15.4 oz/a		C	3-5 Days Postflood			
8	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	93.8	100.0	100.0
	Ricestar HT	0.109 lb ai/a		24 oz/a		B	4-5 Lf Grass			
	IR5880	0.21 lb ai/a		4.5 oz/a		C	3-5 Days Postflood			
	IR5878	0.0356 lb ai/a		1.14 oz/a		C	3-5 Days Postflood			
	IR5890	0.0117 lb ai/a		0.25 oz/a		C	3-5 Days Postflood			
	Agri-Dex	1 % v/v		15.4 oz/a		C	3-5 Days Postflood			
9	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	100.0	100.0	100.0
	Ricestar HT	0.109 lb ai/a		24 oz/a		B	4-5 Lf Grass			
	IR5880	0.28 lb ai/a		6 oz/a		C	3-5 Days Postflood			
	IR5878	0.047 lb ai/a		1.5 oz/a		C	3-5 Days Postflood			
	IR5890	0.0155 lb ai/a		0.33 oz/a		C	3-5 Days Postflood			
	Agri-Dex	1 % v/v		15.4 oz/a		C	3-5 Days Postflood			
10	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	100.0	98.8	100.0
	Ricestar HT	0.109 lb ai/a		24 oz/a		B	4-5 Lf Grass			
	IR5880	0.328 lb ai/a		7 oz/a		C	3-5 Days Postflood			
	IR5878	0.0547 lb ai/a		1.75 oz/a		C	3-5 Days Postflood			
	IR5890	0.018 lb ai/a		0.385 oz/a		C	3-5 Days Postflood			
	Agri-Dex	1 % v/v		15.4 oz/a		C	3-5 Days Postflood			
11	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	97.5	100.0	100.0
	Ricestar HT	0.109 lb ai/a		24 oz/a		B	4-5 Lf Grass			
	IR5880	0.375 lb ai/a		8 oz/a		C	3-5 Days Postflood			
	IR5878	0.0625 lb ai/a		2 oz/a		C	3-5 Days Postflood			
	IR5890	0.0206 lb ai/a		0.44 oz/a		C	3-5 Days Postflood			
	Agri-Dex	1 % v/v		15.4 oz/a		C	3-5 Days Postflood			
12	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	98.8	100.0	100.0
	Ricestar HT	0.109 lb ai/a		24 oz/a		B	4-5 Lf Grass			
	IR5878	0.047 lb ai/a		1.5 oz/a		C	3-5 Days Postflood			
	IR5890	0.0155 lb ai/a		0.33 oz/a		C	3-5 Days Postflood			
	Agri-Dex	1 % v/v		15.4 oz/a		C	3-5 Days Postflood			
13	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	77.5	100.0	100.0
	Ricestar HT	0.109 lb ai/a		24 oz/a		B	4-5 Lf Grass			
	IR5878	0.0547 lb ai/a		1.75 oz/a		C	3-5 Days Postflood			
	IR5890	0.018 lb ai/a		0.385 oz/a		C	3-5 Days Postflood			
	Agri-Dex	1 % v/v		15.4 oz/a		C	3-5 Days Postflood			

University of Arkansas-Division of Agriculture

IR Combinations for Postflood Rice Weed Control

Trial ID: HRI-30611
Location: Rohwer, AR

Investigator: Kenneth Smith

							W Weed SEBEX Sesbania exalt>	W Weed SEBEX Sesbania exalt>	W Weed SEBEX Sesbania exalt>	
Pest Type							Hemp sesbania	Hemp sesbania	Hemp sesbania	
Pest Code							ORYSA	ORYSA	ORYSA	
Pest Scientific Name							Oryza sativa	Oryza sativa	Oryza sativa	
Pest Name							Common rice	Common rice	Common rice	
Crop Code							PLAEME P	PLAEME P	PLAEME P	
Crop Scientific Name							7/6/11	7/12/11	8/1/11	
Crop Name							CONTRO	CONTRO	CONTRO	
Part Assessed							percent	percent	percent	
Assessment Date							1	1	1	
Assessment Type							2 wk POF	3 wk POF	6 wk POF	
Assessment Unit							6-60 in	8-72 in	24-96 in	
Number of Subsamples							JM	JM	JM	
Crop Stage Majority							50 23	42 22	62 42	
Pest Stage Majority							12 DA-C	18 DA-C	38 DA-C	
Assessed By							51 DP-1	57 DP-1	77 DP-1	
Days After First/Last Applic.							41 DE-1	47 DE-1	67 DE-1	
Trt-Eval Interval										
Plant-Eval Interval										
Days After Emergence										
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3
14	Command	0.5	lb ai/a	21.3	oz/a	A	PRE	100.0	92.5	100.0
	Ricestar HT	0.109	lb ai/a	24	oz/a	B	4-5 Lf Grass			
	IR5878	0.0625	lb ai/a	2	oz/a	C	3-5 Days Postflood			
	IR5890	0.0206	lb ai/a	0.44	oz/a	C	3-5 Days Postflood			
	Agri-Dex	1	% v/v	15.4	oz/a	C	3-5 Days Postflood			
15	Command	0.5	lb ai/a	21.3	oz/a	A	PRE	100.0	100.0	95.0
	Ricestar HT	0.109	lb ai/a	24	oz/a	B	4-5 Lf Grass			
	Regiment	0.025	lb ai/a	0.5	oz/a	C	3-5 Days Postflood			
	Dyne-a-Pak	0.67	% v/v	10.3	oz/a	C	3-5 Days Postflood			
16	Command	0.5	lb ai/a	21.3	oz/a	A	PRE	100.0	100.0	100.0
	Ricestar HT	0.109	lb ai/a	24	oz/a	B	4-5 Lf Grass			
	Broadhead	0.525	lb ai/a	12	oz/a	C	3-5 Days Postflood			
	Agri-Dex	1	% v/v	15.4	oz/a	C	3-5 Days Postflood			
17	Command	0.5	lb ai/a	21.3	oz/a	A	PRE	100.0	100.0	100.0
	Ricestar HT	0.109	lb ai/a	24	oz/a	B	4-5 Lf Grass			
	Facet	0.33	lb ai/a	7.04	oz/a	C	3-5 Days Postflood			
	Propanil	4	lb ai/a	128	oz/a	C	3-5 Days Postflood			
LSD (P=.05)							16.68	7.86	3.69	
Standard Deviation							11.67	5.50	2.58	
CV							13.08	6.07	2.77	
Grand Mean							89.26	90.51	93.24	

University of Arkansas-Division of Agriculture

Aim Plus Quilt Applications in Rice

Trial ID: HRI-30711
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop 1:		Crop Description	
ORYSA	Oryza sativa	Common rice	
Variety: CL142AR			
BBCH Scale: BRIC		Planting Date: 5/16/11	
Planting Method: DRILLE	drilled	Rate, Unit: 90	LB/A
Depth, Unit: 1	IN		
Row Spacing, Unit: 7.5	IN		
Seed Bed: MEDIUM	medium	Soil Temperature, Unit: 65.6	F
Soil Moisture: DRY	dry	Emergence Date: 5/26/11	
Harvest Date: 10/7/11		Harvest Equipment: Massey Ferguson 8	
Harvested Width, Unit: 5.625	FT	Harvested Length, Unit: 28	FT
% Standard Moisture: 12.0		Moisture Meter: Massey Ferguson 8	
Weighing Equipment: Massey Ferguson 8			

Plot Width, Unit: 6.33 FT		Site and Design	
Plot Length, Unit: 28	FT	Site Type: FIELD	field
Plot Area, Unit: 177.24	FT ²	Experimental Unit: 1	PLOT plot
Replications: 4		Tillage Type: CONTIL	conventional-till
		Study Design: RACOB	Randomized Complete Block (RCB)
		Untreated Arrangement: INCLUDED	single control randomized in each block

Maintenance							
No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	5/17/11	Command		0.5	LB A/A	N	no
2.	6/20/11	Fertilized	Urea	326	LB/A	N	no
3.	7/7/11	Blazer		1	PT/A	N	no

Description Name: Rohwer Clay Blocks		Soil Description	
% Sand: 3.5	% OM: 1	Texture: C	clay
% Silt: 37.4	pH: 7.3	Soil Name: Sharkey Clay	
% Clay: 59.1	CEC: 38		

Application Description		
	A	B
Application Date:	8/4/11	8/10/11
Time of Day:	9:00 am	11:30
Application Method:	SPRAY	SPRAY
Application Timing:	earlypreboot	Preboot
Application Placement:	BROFOL	BROFOL
Applied By:	JM	JM
Air Temperature, Unit:	83.8 F	87.3 F
% Relative Humidity:	77.2	68
Wind Velocity, Unit:	3.6 MPH	2 MPH
Dew Presence (Y/N):	N no	N no
Soil Temperature, Unit:	84.1 F	83.3 F
Soil Moisture:	Flooded	Flooded
% Cloud Cover:	5	80

Crop Stage At Each Application		
	A	B
Crop 1 Code, BBCH Scale:	ORYSA BRIC	ORYSA BRIC

Application Equipment		
	A	B
Appl. Equipment:	Hand Boom	Hand Boom
Equipment Type:	SPRBAC	SPRBAC
Operation Pressure, Unit:	45 PSI	45 PSI
Nozzle Type:	AMFF	AMFF
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN
Propellant:	COMCO2	COMCO2

University of Arkansas-Division of Agriculture

Aim Plus Quilt Applications in Rice

Trial ID: HRI-30711
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Trt No.	Treatment	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3	4	5	6
1	Treated Check						0.0	0.0	0.0	0.0	28.80	169.0
2	Aim COC	0.0156 lb ai/a 1 % v/v	1 oz/a 15.4 oz/a		B	Early Boot	0.0	6.3	6.3	8.8	28.68	168.2
3	Aim COC	0.0313 lb ai/a 1 % v/v	2 oz/a 15.4 oz/a		B	Early Boot	0.0	17.5	15.0	10.0	28.38	166.5
4	Aim Quilt COC	0.0156 lb ai/a 0.233 lb ai/a 1 % v/v	1 oz/a 18 oz/a 15.4 oz/a		B	Early Boot	0.0	12.5	15.0	7.5	29.08	170.6
5	Aim Quilt COC	0.0313 lb ai/a 0.233 lb ai/a 1 % v/v	2 oz/a 18 oz/a 15.4 oz/a		B	Early Boot	0.0	15.0	15.0	11.3	28.78	168.8
6	Quilt COC	0.233 lb ai/a 1 % v/v	18 oz/a 15.4 oz/a		B	Early Boot	0.0	0.0	0.0	3.8	28.85	169.3
7	Ultra Blazer Quilt COC	0.25 lb ai/a 0.233 lb ai/a 1 % v/v	1 pt/a 18 oz/a 15.4 oz/a		B	Early Boot	0.0	41.3	33.8	28.8	28.45	166.9
8	Aim NIS	0.025 lb ai/a 0.25 % v/v	1.6 oz/a 3.84 oz/a		A	Early PreBoot	10.0	15.0	12.5	6.3	27.20	159.6
9	Aim NIS	0.0313 lb ai/a 0.25 % v/v	2 oz/a 3.84 oz/a		A	Early PreBoot	10.0	12.5	12.5	8.8	27.35	160.5
LSD (P=.05)							0.00	4.17	8.42	4.20	2.118	12.43
Standard Deviation							0.00	2.86	5.77	2.88	1.451	8.51
CV							0.0	21.42	47.2	30.46	5.11	5.11
Grand Mean							2.22	13.33	12.22	9.44	28.39	166.58

ARM Action Codes
 TY1 = 5.866667*5

University of Arkansas-Division of Agriculture

F7436-13/Broadhead Timing and Split-Shot Command in Clearfield Rice

Trial ID: HRI-30911
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop 1:		Crop Description	
ORYSA	Oryza sativa	Common rice	
Variety: CL142AR			
BBCH Scale: BRIC		Planting Date: 5/16/11	
Planting Method: DRILLE	drilled	Rate, Unit: 90	LB/A
Depth, Unit: 1	IN		
Row Spacing, Unit: 7.5	IN		
Seed Bed: MEDIUM	medium	Soil Temperature, Unit: 65.6	F
Soil Moisture: DRY	dry	Emergence Date: 5/26/11	
Harvest Date: 10/10/11		Harvest Equipment: Massey Ferguson 8	
Harvested Width, Unit: 5.625	FT	Harvested Length, Unit: 28	FT
% Standard Moisture: 12.0		Moisture Meter: Massey Ferguson 8	
Weighing Equipment: Massey Ferguson 8			

Pest 1 Type: W		Pest Description	
Code: ECHCG	Echinochloa crus-galli	Common Name: Common barnyardgrass	
Pest 2 Type: W	Code: LEFPA	Leptochloa panicoides	
Common Name: Tighthead sprangletop			
Pest 3 Type: W	Code: SEBEX	Sesbania exaltata	
Common Name: Hemp sesbania			

Site and Design	
Plot Width, Unit: 6.33	FT
Plot Length, Unit: 28	FT
Plot Area, Unit: 177.24	FT ²
Replications: 4	
Site Type: FIELD	field
Experimental Unit: 1	PLOT plot
Tillage Type: CONTIL	conventional-till
Study Design: RACOB	Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED	single control randomized in each block

Maintenance							
No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/20/11	Fertilized	Urea	326	LB/A	N	no

Soil Description			
Description Name: Rohwer Clay Blocks			
% Sand: 3.5	% OM: 1	Texture: C clay	
% Silt: 37.4	pH: 7.3	Soil Name: Sharkey Clay	
% Clay: 59.1	CEC: 38		

Application Description			
	A	B	C
Application Date:	5/17/11	5/31/11	6/20/11
Time of Day:	am	am	am
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREMCR	VEAPOCR	LAPOCR
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	JM	JM	JM
Air Temperature, Unit:	60.4 F	80.9 F	82.5 F
% Relative Humidity:	65.9	69.2	74.6
Wind Velocity, Unit:	2.2 MPH	5.7 MPH	7.9 MPH
Wind Direction:	ESE	W	WSW
Dew Presence (Y/N):	Y yes	N no	N no
Soil Temperature, Unit:	65.6 F	79.6 F	85.7 F
Soil Moisture:	GOOD	GOOD	GOOD
% Cloud Cover:	50	40	50
Next Rain Occurred On:	5/21/11	6/17/11	6/22/11

Crop Stage At Each Application			
	A	B	C
Crop 1 Code, BBCH Scale:	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC

Pest Stage At Each Application			
	A	B	C
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W
Pest 2 Code, Type, Scale:	LEFPA W	LEFPA W	LEFPA W
Pest 3 Code, Type, Scale:	SEBEX W	SEBEX W	SEBEX W

Application Equipment			
	A	B	C
Appl. Equipment:	Tractor	Tractor	Hand Boom
Equipment Type:	SPTRMO	SPTRMO	SPRBAC
Operation Pressure, Unit:	45 PSI	45 PSI	45 PSI
Nozzle Type:	AMFF	AMFF	AMFF
Nozzle Size:	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Propellant:	COMCO2	COMCO2	COMCO2

University of Arkansas-Division of Agriculture

F7436-13/Broadhead Timing and Split-Shot Command in Clearfield Rice

Trial ID: HRI-30911
Location: Rohwer, AR

Investigator: Kenneth Smith

University of Arkansas-Division of Agriculture

F7436-13/Broadhead Timing and Split-Shot Command in Clearfield Rice

Trial ID: HRI-30911
Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed							
Pest Code	ECHCG	LEFPA	SEBEX	ECHCG	LEFPA	SEBEX							
Pest Scientific Name	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>							
Pest Name	Common barnyar>	Tighthead spra>	Hemp sesbania	Common barnyar>	Tighthead spra>	Hemp sesbania							
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA							
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa							
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice							
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P							
Assessment Date	7/6/11	7/6/11	7/6/11	7/12/11	7/12/11	7/12/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	percent	percent	percent	percent	percent	percent							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	2 wk POF	2 wk POF	2 wk POF	3 wk POF	3 wk POF	3 wk POF							
Pest Stage Majority	boot	boot	6-60 in	heading	heading	6-60 in							
Assessed By	JM	JM	JM	JM	JM	JM							
Days After First/Last Applic.	50 23	50 23	50 23	56 22	56 22	56 22							
Trt-Eval Interval	16 DA-C	16 DA-C	16 DA-C	22 DA-C	22 DA-C	22 DA-C							
Plant-Eval Interval	51 DP-1	51 DP-1	51 DP-1	57 DP-1	57 DP-1	57 DP-1							
Days After Emergence	41 DE-1	41 DE-1	41 DE-1	47 DE-1	47 DE-1	47 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6
1	CL 142-AR Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	CL745 Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
3	CL 142-AR Command	0.4	lb ai/a	17	oz/a	A	Preemergence	100.0	100.0	83.8	100.0	100.0	95.0
	Newpath	0.094	lb ai/a	6	oz/a	B	1 Lf Rice						
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice						
	Newpath	0.094	lb ai/a	6	oz/a	C	4-5 Lf Rice						
	F7436-13	0.75	lb ai/a	40	oz/a	C	4-5 Lf Rice						
	COC	1	% v/v	15.4	oz/a	C	4-5 Lf Rice						
4	CL 745 Command	0.4	lb ai/a	17	oz/a	A	Preemergence	100.0	100.0	83.8	100.0	100.0	87.5
	Newpath	0.094	lb ai/a	6	oz/a	B	1 Lf Rice						
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice						
	Newpath	0.094	lb ai/a	6	oz/a	C	4-5 Lf Rice						
	F7436-13	0.75	lb ai/a	40	oz/a	C	4-5 Lf Rice						
	COC	1	% v/v	15.4	oz/a	C	4-5 Lf Rice						
5	CL 142-AR Command	0.4	lb ai/a	17	oz/a	A	Preemergence	100.0	100.0	90.0	100.0	100.0	95.0
	Newpath	0.094	lb ai/a	6	oz/a	B	1 Lf Rice						
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice						
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice						
	F7436-13	0.75	lb ai/a	40	oz/a	C	4-5 Lf Rice						
	COC	1	% v/v	15.4	oz/a	C	4-5 Lf Rice						
6	CL 745 Command	0.4	lb ai/a	17	oz/a	A	Preemergence	77.5	100.0	90.0	77.5	100.0	85.0
	Newpath	0.094	lb ai/a	6	oz/a	B	1 Lf Rice						
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice						
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice						
	F7436-13	0.75	lb ai/a	40	oz/a	C	4-5 Lf Rice						
	COC	1	% v/v	15.4	oz/a	C	4-5 Lf Rice						
7	CL 142-AR Command	0.4	lb ai/a	17	oz/a	A	Preemergence	100.0	100.0	87.5	100.0	96.3	95.0
	Newpath	0.0625	lb ai/a	4	oz/a	B	1 Lf Rice						
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice						
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice						
	F7436-13	0.75	lb ai/a	40	oz/a	C	4-5 Lf Rice						
	COC	1	% v/v	15.4	oz/a	C	4-5 Lf Rice						
8	CL 745 Command	0.4	lb ai/a	17	oz/a	A	Preemergence	100.0	100.0	87.5	100.0	100.0	85.0
	Newpath	0.0625	lb ai/a	4	oz/a	B	1 Lf Rice						
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice						
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice						
	F7436-13	0.75	lb ai/a	40	oz/a	C	4-5 Lf Rice						
	COC	1	% v/v	15.4	oz/a	C	4-5 Lf Rice						
9	CL 142-AR Command	0.4	lb ai/a	17	oz/a	A	Preemergence	100.0	100.0	86.3	100.0	100.0	97.5
	Newpath	0.0625	lb ai/a	4	oz/a	B	1 Lf Rice						
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice						
	Newpath	0.094	lb ai/a	6	oz/a	C	4-5 Lf Rice						
	F7436-13	0.75	lb ai/a	40	oz/a	C	4-5 Lf Rice						
	COC	1	% v/v	15.4	oz/a	C	4-5 Lf Rice						
10	CL 745 Command	0.4	lb ai/a	17	oz/a	A	Preemergence	100.0	100.0	86.3	100.0	100.0	91.3
	Newpath	0.0625	lb ai/a	4	oz/a	B	1 Lf Rice						
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice						
	Newpath	0.094	lb ai/a	6	oz/a	C	4-5 Lf Rice						
	F7436-13	0.75	lb ai/a	40	oz/a	C	4-5 Lf Rice						
	COC	1	% v/v	15.4	oz/a	C	4-5 Lf Rice						
11	CL 142-AR Command	0.4	lb ai/a	17	oz/a	A	Preemergence	100.0	100.0	100.0	100.0	100.0	96.3
	Newpath	0.0625	lb ai/a	4	oz/a	B	1 Lf Rice						
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice						
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice						
	Broadhead	0.39	lb ai/a	8.9	oz/a	C	4-5 Lf Rice						
	Command	0.4	lb ai/a	17	oz/a	C	4-5 Lf Rice						
	COC	1	% v/v	1	% w/w	C	4-5 Lf Rice						

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

F7436-13/Broadhead Timing and Split-Shot Command in Clearfield Rice

Trial ID: HRI-30911
Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type	W Weed ECHCG Echinochloa cr>	W Weed LEFPA Leptochloa pan>	W Weed SEBEX Sesbania exalt>	W Weed ECHCG Echinochloa cr>	W Weed LEFPA Leptochloa pan>	W Weed SEBEX Sesbania exalt>							
Pest Code													
Pest Scientific Name													
Pest Name	Common barnyar>	Tighththead spra>	Hemp sesbania	Common barnyar>	Tighththead spra>	Hemp sesbania							
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA							
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa							
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice							
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P							
Assessment Date	7/6/11	7/6/11	7/6/11	7/12/11	7/12/11	7/12/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	percent	percent	percent	percent	percent	percent							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	2 wk POF	2 wk POF	2 wk POF	3 wk POF	3 wk POF	3 wk POF							
Pest Stage Majority	boot	boot	6-60 in	heading	heading	6-60 in							
Assessed By	JM	JM	JM	JM	JM	JM							
Days After First/Last Applic.	50 23	50 23	50 23	56 22	56 22	56 22							
Trt-Eval Interval	16 DA-C	16 DA-C	16 DA-C	22 DA-C	22 DA-C	22 DA-C							
Plant-Eval Interval	51 DP-1	51 DP-1	51 DP-1	57 DP-1	57 DP-1	57 DP-1							
Days After Emergence	41 DE-1	41 DE-1	41 DE-1	47 DE-1	47 DE-1	47 DE-1							
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	1	2	3	4	5	6
12	CL 745							100.0	100.0	100.0	100.0	100.0	95.0
	Command	0.4 lb ai/a		17 oz/a		A	Preemergence						
	Newpath	0.0625 lb ai/a		4 oz/a		B	1 Lf Rice						
	COC	1 % v/v		15.4 oz/a		B	1 Lf Rice						
	Newpath	0.0625 lb ai/a		4 oz/a		C	4-5 Lf Rice						
	Broadhead	0.39 lb ai/a		8.9 oz/a		C	4-5 Lf Rice						
	Command	0.4 lb ai/a		17 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		1 % w/w		C	4-5 Lf Rice						
13	CL 142-AR							100.0	100.0	100.0	100.0	100.0	98.8
	Command	0.4 lb ai/a		17 oz/a		A	Preemergence						
	Newpath	0.094 lb ai/a		6 oz/a		B	1 Lf Rice						
	COC	1 % v/v		15.4 oz/a		B	1 Lf Rice						
	Newpath	0.0625 lb ai/a		4 oz/a		C	4-5 Lf Rice						
	Broadhead	0.39 lb ai/a		8.9 oz/a		C	4-5 Lf Rice						
	Command	0.4 lb ai/a		17 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		1 % w/w		C	4-5 Lf Rice						
14	CL 745							100.0	100.0	100.0	100.0	100.0	97.5
	Command	0.4 lb ai/a		17 oz/a		A	Preemergence						
	Newpath	0.094 lb ai/a		6 oz/a		B	1 Lf Rice						
	COC	1 % v/v		15.4 oz/a		B	1 Lf Rice						
	Newpath	0.0625 lb ai/a		4 oz/a		C	4-5 Lf Rice						
	Broadhead	0.39 lb ai/a		8.9 oz/a		C	4-5 Lf Rice						
	Command	0.4 lb ai/a		17 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		1 % w/w		C	4-5 Lf Rice						
15	CL 142-AR							100.0	100.0	100.0	100.0	100.0	96.3
	Command	0.4 lb ai/a		17 oz/a		A	Preemergence						
	Newpath	0.094 lb ai/a		6 oz/a		B	1 Lf Rice						
	COC	1 % v/v		15.4 oz/a		B	1 Lf Rice						
	Newpath	0.094 lb ai/a		6 oz/a		C	4-5 Lf Rice						
	Broadhead	0.39 lb ai/a		8.9 oz/a		C	4-5 Lf Rice						
	Command	0.4 lb ai/a		17 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		1 % w/w		C	4-5 Lf Rice						
16	CL 745							100.0	100.0	100.0	100.0	100.0	95.0
	Command	0.4 lb ai/a		17 oz/a		A	Preemergence						
	Newpath	0.094 lb ai/a		6 oz/a		B	1 Lf Rice						
	COC	1 % v/v		15.4 oz/a		B	1 Lf Rice						
	Newpath	0.094 lb ai/a		6 oz/a		C	4-5 Lf Rice						
	Broadhead	0.39 lb ai/a		8.9 oz/a		C	4-5 Lf Rice						
	Command	0.4 lb ai/a		17 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		1 % w/w		C	4-5 Lf Rice						
17	CL 142-AR							100.0	100.0	97.5	100.0	100.0	98.8
	Command	0.4 lb ai/a		17 oz/a		A	Preemergence						
	Newpath	0.0625 lb ai/a		4 oz/a		B	1 Lf Rice						
	COC	1 % v/v		15.4 oz/a		B	1 Lf Rice						
	Newpath	0.094 lb ai/a		6 oz/a		C	4-5 Lf Rice						
	Broadhead	0.39 lb ai/a		8.9 oz/a		C	4-5 Lf Rice						
	Command	0.4 lb ai/a		17 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		1 % w/w		C	4-5 Lf Rice						
18	CL 745							100.0	100.0	96.3	100.0	100.0	96.3
	Command	0.4 lb ai/a		17 oz/a		A	Preemergence						
	Newpath	0.0625 lb ai/a		4 oz/a		B	1 Lf Rice						
	COC	1 % v/v		15.4 oz/a		B	1 Lf Rice						
	Newpath	0.094 lb ai/a		6 oz/a		C	4-5 Lf Rice						
	Broadhead	0.39 lb ai/a		8.9 oz/a		C	4-5 Lf Rice						
	Command	0.4 lb ai/a		17 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		1 % w/w		C	4-5 Lf Rice						
19	CL 142-AR							100.0	100.0	85.0	100.0	65.0	86.3
	Command	0.4 lb ai/a		17 oz/a		A	Preemergence						
	F7436-13	0.75 lb ai/a		40 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		15.4 oz/a		C	4-5 Lf Rice						
20	CL 745							100.0	100.0	85.0	100.0	70.0	85.0
	Command	0.4 lb ai/a		17 oz/a		A	Preemergence						
	F7436-13	0.75 lb ai/a		40 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		15.4 oz/a		C	4-5 Lf Rice						
21	CL 142-AR							100.0	95.0	100.0	100.0	75.0	100.0
	Command	0.4 lb ai/a		17 oz/a		A	Preemergence						
	Broadhead	0.39 lb ai/a		8.9 oz/a		C	4-5 Lf Rice						
	Command	0.4 lb ai/a		17 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		1 % w/w		C	4-5 Lf Rice						

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

F7436-13/Broadhead Timing and Split-Shot Command in Clearfield Rice

Trial ID: HRI-30911
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	ECHCG	LEFPA	SEBEX	ECHCG	LEFPA	SEBEX
Pest Scientific Name	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>
Pest Name	Common barnyar>	Tighthead spra>	Hemp sesbania	Common barnyar>	Tighthead spra>	Hemp sesbania
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P
Assessment Date	7/6/11	7/6/11	7/6/11	7/12/11	7/12/11	7/12/11
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Assessment Unit	percent	percent	percent	percent	percent	percent
Number of Subsamples	1	1	1	1	1	1
Crop Stage Majority	2 wk POF	2 wk POF	2 wk POF	3 wk POF	3 wk POF	3 wk POF
Pest Stage Majority	boot	boot	6-60 in	heading	heading	6-60 in
Assessed By	JM	JM	JM	JM	JM	JM
Days After First/Last Applic.	50 23	50 23	50 23	56 22	56 22	56 22
Trt-Eval Interval	16 DA-C	16 DA-C	16 DA-C	22 DA-C	22 DA-C	22 DA-C
Plant-Eval Interval	51 DP-1	51 DP-1	51 DP-1	57 DP-1	57 DP-1	57 DP-1
Days After Emergence	41 DE-1	41 DE-1	41 DE-1	47 DE-1	47 DE-1	47 DE-1
Trt No.	1	2	3	4	5	6
Treatment Name	22 CL 745	22 CL 745	22 CL 745	22 CL 745	22 CL 745	22 CL 745
Rate	100.0	95.0	100.0	100.0	72.5	95.0
Rate Unit	0.4 lb ai/a	17 oz/a	A	Preemergence		
Other Rate	0.39 lb ai/a	8.9 oz/a	C	4-5 Lf Rice		
Other Rate Unit	0.4 lb ai/a	17 oz/a	C	4-5 Lf Rice		
Appl Code	1 % v/v	1 % w/w	C	4-5 Lf Rice		
Appl Description						
LSD (P=.05)	13.57	4.16	7.25	13.57	13.00	6.96
Standard Deviation	9.59	2.94	5.12	9.59	9.19	4.92
CV	10.67	3.25	6.07	10.67	10.77	5.79
Grand Mean	89.89	90.45	84.49	89.89	85.4	85.06

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

F7436-13/Broadhead Timing and Split-Shot Command in Clearfield Rice

Trial ID: HRI-30911
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	7	8
1	CL 142-AR Untreated Check							0.00	0.0
2	CL745 Untreated Check							0.00	0.0
3	CL 142-AR Command	0.4	lb ai/a	17	oz/a	A	Preemergence	22.15	133.0
	Newpath	0.094	lb ai/a	6	oz/a	B	1 Lf Rice		
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice		
	Newpath	0.094	lb ai/a	6	oz/a	C	4-5 Lf Rice		
	F7436-13	0.75	lb ai/a	40	oz/a	C	4-5 Lf Rice		
	COC	1	% v/v	15.4	oz/a	C	4-5 Lf Rice		
4	CL 745 Command	0.4	lb ai/a	17	oz/a	A	Preemergence	21.30	127.9
	Newpath	0.094	lb ai/a	6	oz/a	B	1 Lf Rice		
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice		
	Newpath	0.094	lb ai/a	6	oz/a	C	4-5 Lf Rice		
	F7436-13	0.75	lb ai/a	40	oz/a	C	4-5 Lf Rice		
	COC	1	% v/v	15.4	oz/a	C	4-5 Lf Rice		
5	CL 142-AR Command	0.4	lb ai/a	17	oz/a	A	Preemergence	23.83	143.1
	Newpath	0.094	lb ai/a	6	oz/a	B	1 Lf Rice		
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice		
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice		
	F7436-13	0.75	lb ai/a	40	oz/a	C	4-5 Lf Rice		
	COC	1	% v/v	15.4	oz/a	C	4-5 Lf Rice		
6	CL 745 Command	0.4	lb ai/a	17	oz/a	A	Preemergence	21.43	128.7
	Newpath	0.094	lb ai/a	6	oz/a	B	1 Lf Rice		
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice		
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice		
	F7436-13	0.75	lb ai/a	40	oz/a	C	4-5 Lf Rice		
	COC	1	% v/v	15.4	oz/a	C	4-5 Lf Rice		
7	CL 142-AR Command	0.4	lb ai/a	17	oz/a	A	Preemergence	23.33	140.1
	Newpath	0.0625	lb ai/a	4	oz/a	B	1 Lf Rice		
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice		
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice		
	F7436-13	0.75	lb ai/a	40	oz/a	C	4-5 Lf Rice		
	COC	1	% v/v	15.4	oz/a	C	4-5 Lf Rice		
8	CL 745 Command	0.4	lb ai/a	17	oz/a	A	Preemergence	20.38	122.4
	Newpath	0.0625	lb ai/a	4	oz/a	B	1 Lf Rice		
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice		
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice		
	F7436-13	0.75	lb ai/a	40	oz/a	C	4-5 Lf Rice		
	COC	1	% v/v	15.4	oz/a	C	4-5 Lf Rice		
9	CL 142-AR Command	0.4	lb ai/a	17	oz/a	A	Preemergence	24.03	144.3
	Newpath	0.0625	lb ai/a	4	oz/a	B	1 Lf Rice		
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice		
	Newpath	0.094	lb ai/a	6	oz/a	C	4-5 Lf Rice		
	F7436-13	0.75	lb ai/a	40	oz/a	C	4-5 Lf Rice		
	COC	1	% v/v	15.4	oz/a	C	4-5 Lf Rice		
10	CL 745 Command	0.4	lb ai/a	17	oz/a	A	Preemergence	21.47	128.9
	Newpath	0.0625	lb ai/a	4	oz/a	B	1 Lf Rice		
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice		
	Newpath	0.094	lb ai/a	6	oz/a	C	4-5 Lf Rice		
	F7436-13	0.75	lb ai/a	40	oz/a	C	4-5 Lf Rice		
	COC	1	% v/v	15.4	oz/a	C	4-5 Lf Rice		
11	CL 142-AR Command	0.4	lb ai/a	17	oz/a	A	Preemergence	24.63	147.9
	Newpath	0.0625	lb ai/a	4	oz/a	B	1 Lf Rice		
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice		
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice		
	Broadhead	0.39	lb ai/a	8.9	oz/a	C	4-5 Lf Rice		
	Command	0.4	lb ai/a	17	oz/a	C	4-5 Lf Rice		
	COC	1	% v/v	1	% w/w	C	4-5 Lf Rice		

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

F7436-13/Broadhead Timing and Split-Shot Command in Clearfield Rice

Trial ID: HRI-30911
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	7	8
Pest Type Pest Code Pest Scientific Name Pest Name Crop Code Crop Scientific Name Crop Name Part Assessed Assessment Date Assessment Type Assessment Unit Number of Subsamples Crop Stage Majority Pest Stage Majority Assessed By Days After First/Last Appl. Trt-Eval Interval Plant-Eval Interval Days After Emergence									
								ORYSA Oryza sativa Common rice	ORYSA Oryza sativa Common rice
								YIELD C 10/10/11 WEIGHT lb/plot 1 Harvest Harvest JM 146 112 112 DA-C 147 DP-1 137 DE-1	YIELD C 10/10/11 YIELD BU 1 Harvest Harvest JM 146 112 112 DA-C 147 DP-1 137 DE-1
12	CL 745							23.60	141.7
	Command	0.4	lb ai/a	17	oz/a	A	Preemergence		
	Newpath	0.0625	lb ai/a	4	oz/a	B	1 Lf Rice		
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice		
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice		
	Broadhead	0.39	lb ai/a	8.9	oz/a	C	4-5 Lf Rice		
	Command	0.4	lb ai/a	17	oz/a	C	4-5 Lf Rice		
	COC	1	% v/v	1	% w/w	C	4-5 Lf Rice		
13	CL 142-AR							25.03	150.3
	Command	0.4	lb ai/a	17	oz/a	A	Preemergence		
	Newpath	0.094	lb ai/a	6	oz/a	B	1 Lf Rice		
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice		
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice		
	Broadhead	0.39	lb ai/a	8.9	oz/a	C	4-5 Lf Rice		
	Command	0.4	lb ai/a	17	oz/a	C	4-5 Lf Rice		
	COC	1	% v/v	1	% w/w	C	4-5 Lf Rice		
14	CL 745							26.98	162.0
	Command	0.4	lb ai/a	17	oz/a	A	Preemergence		
	Newpath	0.094	lb ai/a	6	oz/a	B	1 Lf Rice		
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice		
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice		
	Broadhead	0.39	lb ai/a	8.9	oz/a	C	4-5 Lf Rice		
	Command	0.4	lb ai/a	17	oz/a	C	4-5 Lf Rice		
	COC	1	% v/v	1	% w/w	C	4-5 Lf Rice		
15	CL 142-AR							27.00	162.2
	Command	0.4	lb ai/a	17	oz/a	A	Preemergence		
	Newpath	0.094	lb ai/a	6	oz/a	B	1 Lf Rice		
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice		
	Newpath	0.094	lb ai/a	6	oz/a	C	4-5 Lf Rice		
	Broadhead	0.39	lb ai/a	8.9	oz/a	C	4-5 Lf Rice		
	Command	0.4	lb ai/a	17	oz/a	C	4-5 Lf Rice		
	COC	1	% v/v	1	% w/w	C	4-5 Lf Rice		
16	CL 745							28.28	169.8
	Command	0.4	lb ai/a	17	oz/a	A	Preemergence		
	Newpath	0.094	lb ai/a	6	oz/a	B	1 Lf Rice		
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice		
	Newpath	0.094	lb ai/a	6	oz/a	C	4-5 Lf Rice		
	Broadhead	0.39	lb ai/a	8.9	oz/a	C	4-5 Lf Rice		
	Command	0.4	lb ai/a	17	oz/a	C	4-5 Lf Rice		
	COC	1	% v/v	1	% w/w	C	4-5 Lf Rice		
17	CL 142-AR							28.60	171.8
	Command	0.4	lb ai/a	17	oz/a	A	Preemergence		
	Newpath	0.0625	lb ai/a	4	oz/a	B	1 Lf Rice		
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice		
	Newpath	0.094	lb ai/a	6	oz/a	C	4-5 Lf Rice		
	Broadhead	0.39	lb ai/a	8.9	oz/a	C	4-5 Lf Rice		
	Command	0.4	lb ai/a	17	oz/a	C	4-5 Lf Rice		
	COC	1	% v/v	1	% w/w	C	4-5 Lf Rice		
18	CL 745							27.43	164.7
	Command	0.4	lb ai/a	17	oz/a	A	Preemergence		
	Newpath	0.0625	lb ai/a	4	oz/a	B	1 Lf Rice		
	COC	1	% v/v	15.4	oz/a	B	1 Lf Rice		
	Newpath	0.094	lb ai/a	6	oz/a	C	4-5 Lf Rice		
	Broadhead	0.39	lb ai/a	8.9	oz/a	C	4-5 Lf Rice		
	Command	0.4	lb ai/a	17	oz/a	C	4-5 Lf Rice		
	COC	1	% v/v	1	% w/w	C	4-5 Lf Rice		
19	CL 142-AR							19.40	116.5
	Command	0.4	lb ai/a	17	oz/a	A	Preemergence		
	F7436-13	0.75	lb ai/a	40	oz/a	C	4-5 Lf Rice		
	COC	1	% v/v	15.4	oz/a	C	4-5 Lf Rice		
20	CL 745							20.58	123.6
	Command	0.4	lb ai/a	17	oz/a	A	Preemergence		
	F7436-13	0.75	lb ai/a	40	oz/a	C	4-5 Lf Rice		
	COC	1	% v/v	15.4	oz/a	C	4-5 Lf Rice		
21	CL 142-AR							23.95	143.9
	Command	0.4	lb ai/a	17	oz/a	A	Preemergence		
	Broadhead	0.39	lb ai/a	8.9	oz/a	C	4-5 Lf Rice		
	Command	0.4	lb ai/a	17	oz/a	C	4-5 Lf Rice		
	COC	1	% v/v	1	% w/w	C	4-5 Lf Rice		

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

F7436-13/Broadhead Timing and Split-Shot Command in Clearfield Rice

Trial ID: HRI-30911
Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type									
Pest Code									
Pest Scientific Name									
Pest Name									
Crop Code						ORYSA		ORYSA	
Crop Scientific Name						Oryza sativa		Oryza sativa	
Crop Name						Common rice		Common rice	
Part Assessed						YIELD C		YIELD C	
Assessment Date						10/10/11		10/10/11	
Assessment Type						WEIGHT		YIELD	
Assessment Unit						lb/plot		BU	
Number of Subsamples						1		1	
Crop Stage Majority						Harvest		Harvest	
Pest Stage Majority						Harvest		Harvest	
Assessed By						JM		JM	
Days After First/Last Applic.						146 112		146 112	
Trt-Eval Interval						112 DA-C		112 DA-C	
Plant-Eval Interval						147 DP-1		147 DP-1	
Days After Emergence						137 DE-1		137 DE-1	
Trt Treatment									
No. Name	Rate	Unit	Other Rate	Other Rate	Unit	Appl Code	Appl Description		
								7	8
22 CL 745								21.77	130.7
Command	0.4	lb ai/a	17	oz/a		A	Preemergence		
Broadhead	0.39	lb ai/a	8.9	oz/a		C	4-5 Lf Rice		
Command	0.4	lb ai/a	17	oz/a		C	4-5 Lf Rice		
COC	1	% v/v	1	% w/w		C	4-5 Lf Rice		
LSD (P=.05)								4.931	29.62
Standard Deviation								3.487	20.94
CV								16.15	16.15
Grand Mean								21.6	129.71

University of Arkansas-Division of Agriculture

F7436-13/Broadhead Timing and Split-Shot Command in Clearfield Rice

Trial ID: HRI-30911
Location: Rohwer, AR

Investigator: Kenneth Smith

ARM Action Codes
TY1 = 6.006349*[7]

University of Arkansas-Division of Agriculture

F7436-13 and Broadhead Application Timing with Split-Shot Command Applications

Trial ID: HRI-31011
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description	
Crop 1: ORYSA Oryza sativa Common rice Variety: CL142AR BBCH Scale: BRIC Planting Method: DRILLE drilled Depth, Unit: 1 IN Row Spacing, Unit: 7.5 IN Seed Bed: MEDIUM medium Soil Moisture: DRY dry	Planting Date: 5/16/11 Rate, Unit: 90 LB/A Soil Temperature, Unit: 65.6 F Emergence Date: 5/26/11

Pest Description	
Pest 1 Type: W Code: ECHCG Echinochloa crus-galli Common Name: Common barnyardgrass	
Pest 2 Type: W Code: LEFPA Leptochloa panicoides Common Name: Tighthead sprangletop	
Pest 3 Type: W Code: SEBEX Sesbania exaltata Common Name: Hemp sesbania	

Site and Design	
Plot Width, Unit: 6.33 FT Plot Length, Unit: 28 FT Plot Area, Unit: 177.24 FT ² Replications: 4	Site Type: FIELD field Experimental Unit: 1 PLOT plot Tillage Type: CONTIL conventional-till Study Design: RACOB1 Randomized Complete Block (RCB) Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance							
No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/20/11	Fertilized	Urea	326	LB/A	N	no

Soil Description	
Description Name: Rohwer Clay Blocks % Sand: 3.5 % Silt: 37.4 % Clay: 59.1	% OM: 1 pH: 7.3 CEC: 38 Texture: C clay Soil Name: Sharkey Clay

Application Description			
	A	B	C
Application Date:	5/17/11	6/6/11	6/20/11
Time of Day:	am	am	am
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREMCR	EAPOCR	LAPOCR
Application Placement:	BROS01	BROF0L	BROF0L
Applied By:	JM	JM	JM
Air Temperature, Unit:	60.4 F	84.4 F	82.5 F
% Relative Humidity:	65.9	66.3	74.6
Wind Velocity, Unit:	2.2 MPH	0.5 MPH	7.9 MPH
Wind Direction:	ESE	E	WSW
Dew Presence (Y/N):	Y yes	N no	N no
Soil Temperature, Unit:	65.6 F	84.1 F	85.7 F
Soil Moisture:	GOOD	GOOD	GOOD
% Cloud Cover:	50	20	50
Next Rain Occurred On:	5/21/11	6/7/11	6/22/11

Crop Stage At Each Application			
	A	B	C
Crop 1 Code, BBCH Scale:	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC

Pest Stage At Each Application			
	A	B	C
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W
Pest 2 Code, Type, Scale:	LEFPA W	LEFPA W	LEFPA W
Pest 3 Code, Type, Scale:	SEBEX W	SEBEX W	SEBEX W

Application Equipment			
	A	B	C
Appl. Equipment:	Tractor	Tractor	Hand Boom
Equipment Type:	SPTRMO	SPTRMO	SPRBAC
Operation Pressure, Unit:	45 PSI	45 PSI	45 PSI
Nozzle Type:	AMFF	AMFF	AMFF
Nozzle Size:	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Propellant:	COMCO2	COMCO2	COMCO2

University of Arkansas-Division of Agriculture

F7436-13 and Broadhead Application Timing with Split-Shot Command Applications

Trial ID: HRI-31011
Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed						
Pest Code	ECHCG	LEFPA	SEBEX	ECHCG	LEFPA	SEBEX						
Pest Scientific Name	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>						
Pest Name	Common barnyar>	Tighthouse spra>	Hemp sesbania	Common barnyar>	Tighthouse spra>	Hemp sesbania						
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA						
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa						
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice						
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P						
Assessment Date	6/14/11	6/14/11	6/14/11	6/23/11	6/23/11	6/23/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	percent	percent	percent	percent	percent	percent						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	4 leaf	4 leaf	4 leaf	Preflood	Preflood	Preflood						
Pest Stage Majority	1-4 leaf	1-4 leaf	1-8 inch	1-2 till	1-2 till	1-10 in						
Assessed By	JM	JM	JM	JM	JM	JM						
Days After First/Last Applic.	28 1	28 1	28 1	37 3	37 3	37 3						
Trt-Eval Interval	8 DA-B	8 DA-B	8 DA-B	17 DA-B	17 DA-B	17 DA-B						
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	38 DP-1	38 DP-1	38 DP-1						
Days After Emergence	19 DE-1	19 DE-1	19 DE-1	28 DE-1	28 DE-1	28 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3	4	5	6
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0
2	Command F7436-13	0.4 lb ai/a	17 oz/a		A	Preemergence	100.0	100.0	52.5	100.0	100.0	68.8
	COC	0.75 lb ai/a	40 oz/a		B	1-2 Lf Rice						
		1 % v/v	15.4 oz/a		B	1-2 Lf Rice						
3	Command F7436-13	0.4 lb ai/a	17 oz/a		A	Preemergence						
	COC	0.75 lb ai/a	40 oz/a		C	4-5 Lf Rice						
		1 % v/v	15.4 oz/a		C	4-5 Lf Rice						
4	Command Broadhead	0.4 lb ai/a	17 oz/a		A	Preemergence	100.0	100.0	92.5	100.0	100.0	95.8
	Command	0.39 lb ai/a	8.9 oz/a		B	1-2 Lf Rice						
	COC	0.4 lb ai/a	17 oz/a		B	1-2 Lf Rice						
		1 % v/v	15.4 oz/a		B	1-2 Lf Rice						
5	Command Broadhead	0.4 lb ai/a	17 oz/a		A	Preemergence						
	Command	0.39 lb ai/a	8.9 oz/a		C	4-5 Lf Rice						
	COC	0.4 lb ai/a	17 oz/a		C	4-5 Lf Rice						
		1 % v/v	15.4 oz/a		C	4-5 Lf Rice						
6	Command F7436-13	0.5 lb ai/a	21.3 oz/a		A	Preemergence	100.0	100.0	57.5	97.5	95.0	86.3
	COC	0.75 lb ai/a	40 oz/a		B	1-2 Lf Rice						
		1 % v/v	15.4 oz/a		B	1-2 Lf Rice						
7	Command F7436-13	0.5 lb ai/a	21.3 oz/a		A	Preemergence						
	COC	0.75 lb ai/a	40 oz/a		C	4-5 Lf Rice						
		1 % v/v	15.4 oz/a		C	4-5 Lf Rice						
8	Command Broadhead	0.5 lb ai/a	21.3 oz/a		A	Preemergence	100.0	100.0	99.5	100.0	100.0	96.3
	Command	0.39 lb ai/a	8.9 oz/a		B	1-2 Lf Rice						
	COC	0.4 lb ai/a	17 oz/a		B	1-2 Lf Rice						
		1 % v/v	15.4 oz/a		B	1-2 Lf Rice						
9	Command Broadhead	0.5 lb ai/a	21.3 oz/a		A	Preemergence						
	Command	0.39 lb ai/a	8.9 oz/a		C	4-5 Lf Rice						
	COC	0.4 lb ai/a	17 oz/a		C	4-5 Lf Rice						
		1 % v/v	15.4 oz/a		C	4-5 Lf Rice						
	LSD (P=.05)						0.00	0.00	6.98	3.45	3.98	7.92
	Standard Deviation						0.00	0.00	4.53	2.24	2.58	5.14
	CV						0.0	0.0	7.5	2.81	3.27	7.41
	Grand Mean						80.0	80.0	60.4	79.5	79.0	69.4

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

F7436-13 and Broadhead Application Timing with Split-Shot Command Applications

Trial ID: HRI-31011
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed						
Pest Code	ECHCG	LEFPA	SEBEX	ECHCG	LEFPA	SEBEX						
Pest Scientific Name	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>						
Pest Name	Common barnyar>	Tighthouse spr>	Hemp sesbania	Common barnyar>	Tighthouse spr>	Hemp sesbania						
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA						
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa						
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice						
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P						
Assessment Date	7/6/11	7/6/11	7/6/11	7/12/11	7/12/11	7/12/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	percent	percent	percent	percent	percent	percent						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	2 wk POF	2 wk POF	2 wk POF	3 wk POF	3 wk POF	3 wk POF						
Pest Stage Majority	boot	boot	6-60 in	heading	heading	6-70 in						
Assessed By	JM	JM	JM	JM	JM	JM						
Days After First/Last Applic.	50 23	50 23	50 23	56 22	56 22	56 22						
Trt-Eval Interval	16 DA-C	16 DA-C	16 DA-C	22 DA-C	22 DA-C	22 DA-C						
Plant-Eval Interval	51 DP-1	51 DP-1	51 DP-1	57 DP-1	57 DP-1	57 DP-1						
Days After Emergence	41 DE-1	41 DE-1	41 DE-1	47 DE-1	47 DE-1	47 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	7	8	9	10	11	12
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0
2	Command	0.4 lb ai/a	17 oz/a		A	Preemergence	100.0	96.3	52.5	100.0	95.0	48.8
	F7436-13	0.75 lb ai/a	40 oz/a		B	1-2 Lf Rice						
	COC	1 % v/v	15.4 oz/a		B	1-2 Lf Rice						
3	Command	0.4 lb ai/a	17 oz/a		A	Preemergence	100.0	95.0	81.3	100.0	57.5	83.8
	F7436-13	0.75 lb ai/a	40 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v	15.4 oz/a		C	4-5 Lf Rice						
4	Command	0.4 lb ai/a	17 oz/a		A	Preemergence	100.0	96.3	88.8	100.0	97.5	87.5
	Broadhead	0.39 lb ai/a	8.9 oz/a		B	1-2 Lf Rice						
	Command	0.4 lb ai/a	17 oz/a		B	1-2 Lf Rice						
	COC	1 % v/v	15.4 oz/a		B	1-2 Lf Rice						
5	Command	0.4 lb ai/a	17 oz/a		A	Preemergence	100.0	90.0	100.0	100.0	55.0	100.0
	Broadhead	0.39 lb ai/a	8.9 oz/a		C	4-5 Lf Rice						
	Command	0.4 lb ai/a	17 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v	15.4 oz/a		C	4-5 Lf Rice						
6	Command	0.5 lb ai/a	21.3 oz/a		A	Preemergence	100.0	95.0	75.0	100.0	81.3	73.8
	F7436-13	0.75 lb ai/a	40 oz/a		B	1-2 Lf Rice						
	COC	1 % v/v	15.4 oz/a		B	1-2 Lf Rice						
7	Command	0.5 lb ai/a	21.3 oz/a		A	Preemergence	100.0	90.0	80.0	97.5	76.3	85.0
	F7436-13	0.75 lb ai/a	40 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v	15.4 oz/a		C	4-5 Lf Rice						
8	Command	0.5 lb ai/a	21.3 oz/a		A	Preemergence	100.0	100.0	87.5	100.0	98.8	86.3
	Broadhead	0.39 lb ai/a	8.9 oz/a		B	1-2 Lf Rice						
	Command	0.4 lb ai/a	17 oz/a		B	1-2 Lf Rice						
	COC	1 % v/v	15.4 oz/a		B	1-2 Lf Rice						
9	Command	0.5 lb ai/a	21.3 oz/a		A	Preemergence	100.0	92.5	100.0	100.0	76.3	100.0
	Broadhead	0.39 lb ai/a	8.9 oz/a		C	4-5 Lf Rice						
	Command	0.4 lb ai/a	17 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v	15.4 oz/a		C	4-5 Lf Rice						
	LSD (P=.05)						0.00	6.48	12.63	2.43	13.81	14.22
	Standard Deviation						0.00	4.44	8.66	1.67	9.46	9.74
	CV						0.0	5.3	11.72	1.88	13.36	13.18
	Grand Mean						88.89	83.89	73.89	88.61	70.83	73.89

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Beyond and Newpath Residual and Weed Size Comparison.

Trial ID: HRI-31111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description			
Crop 1: ORYSA	Oryza sativa	Common rice	
Variety: CL142AR			
BBCH Scale: BRIC		Planting Date: 5/16/11	
Planting Method: DRILLE	drilled	Rate, Unit: 90	LB/A
Depth, Unit: 1	IN		
Row Spacing, Unit: 7.5	IN		
Seed Bed: MEDIUM	medium	Soil Temperature, Unit: 65.6	F
Soil Moisture: DRY	dry	Emergence Date: 5/26/11	
Harvest Date: 10/10/11		Harvest Equipment: Massey Ferguson 8	
Harvested Width, Unit: 5.625	FT	Harvested Length, Unit: 28	FT
% Standard Moisture: 12.0		Moisture Meter: Massey Ferguson 8	
Weighing Equipment: Massey Ferguson 8			

Pest Description	
Pest 1 Type: W	Code: ECHCG Echinochloa crus-galli Common Name: Common barnyardgrass
Pest 2 Type: W	Code: LEFPA Leptochloa panicoides Common Name: Tighthead sprangletop

Site and Design	
Plot Width, Unit: 6.33	FT
Plot Length, Unit: 28	FT
Plot Area, Unit: 177.24	FT ²
Replications: 4	
Site Type: FIELD	field
Experimental Unit: 1	PLOT plot
Tillage Type: CONTIL	conventional-till
Study Design: RACOB	Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block	

Maintenance							
No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/20/11	Fertilized	Urea	326	LB/A	N	no

Soil Description			
Description Name: Rohwer Clay Blocks			
% Sand: 3.5	% OM: 1	Texture: C clay	
% Silt: 37.4	pH: 7.3	Soil Name: Sharkey Clay	
% Clay: 59.1	CEC: 38		

Application Description			
	A	B	C
Application Date:	5/31/11	6/13/11	6/20/11
Time of Day:	am	am	am
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	EAPOCR	MIPOCR	LAPOCR
Application Placement:	BROFOL	BROFOL	BROFOL
Applied By:	JM	JM	JM
Air Temperature, Unit:	80.9 F	85.6 F	82.5 F
% Relative Humidity:	69.2	58.0	74.6
Wind Velocity, Unit:	5.7 MPH	5.1 MPH	7.9 MPH
Wind Direction:	W	W	WSW
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	79.6 F	85.9 F	85.7 F
Soil Moisture:	GOOD	NORMAL	GOOD
% Cloud Cover:	40	20	50
Next Rain Occurred On:	6/17/11	6/14/11	6/22/11

Crop Stage At Each Application			
	A	B	C
Crop 1 Code, BBCH Scale:	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC

Pest Stage At Each Application			
	A	B	C
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W
Pest 2 Code, Type, Scale:	LEFPA W	LEFPA W	LEFPA W

Application Equipment			
	A	B	C
Appl. Equipment:	Tractor	Tractor	Hand Boom
Equipment Type:	SPTRMO	SPTRMO	SPRBAC
Operation Pressure, Unit:	45 PSI	45 PSI	45 PSI
Nozzle Type:	AMFF	AMFF	AMFF
Nozzle Size:	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Propellant:	COMCO2	COMCO2	COMCO2

University of Arkansas-Division of Agriculture

Beyond and Newpath Residual and Weed Size Comparison.

Trial ID: HRI-31111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed LEFPA		W Weed ECHCG	W Weed LEFPA	W Weed ECHCG							
Pest Code	Echinochloa cr>	Leptochloa pan>		Echinochloa cr>	Leptochloa pan>	Echinochloa cr>							
Pest Scientific Name	Echinochloa cr>	Leptochloa pan>		Echinochloa cr>	Leptochloa pan>	Echinochloa cr>							
Pest Name	Common barnyar>	Tighthead spra>		Common barnyar>	Tighthead spra>	Common barnyar>							
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA							
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa							
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice							
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P							
Assessment Date	6/14/11	6/14/11	6/14/11	6/23/11	6/23/11	7/6/11							
Assessment Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO							
Assessment Unit	percent	percent	percent	percent	percent	percent							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	4 leaf	4 leaf	4 leaf	Preflood	Preflood	2 wk POF							
Pest Stage Majority	1-4 leaf	1-4 leaf	1-4 leaf	1-2 till	1-2 till	boot							
Assessed By	JM	JM	JM	JM	JM	JM							
Days After First/Last Applic.	28 1	28 1	28 1	23 3	23 3	50 23							
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	10 DA-B	10 DA-B	16 DA-C							
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	38 DP-1	38 DP-1	51 DP-1							
Days After Emergence	19 DE-1	19 DE-1	19 DE-1	28 DE-1	28 DE-1	41 DE-1							
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Code	Description	1	2	3	4	5	6
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	Newpath COC	0.0625 lb ai/a 2.08 % v/v	4 oz/a 1 qt/a		A	A	1-2 Lf Grass	97.5	90.0	0.0	90.0	77.5	93.8
3	Newpath COC	0.094 lb ai/a 2.08 % v/v	6 oz/a 1 qt/a		A	A	1-2 Lf Grass	100.0	96.3	0.0	93.8	91.3	93.8
4	Beyond COC	0.039 lb ai/a 2.08 % v/v	5 oz/a 1 qt/a		A	A	1-2 Lf Grass	98.8	96.3	0.0	92.5	88.8	93.8
5	Newpath COC	0.0625 lb ai/a 2.08 % v/v	4 oz/a 1 qt/a		B	B	3-4 Lf Grass				66.3	37.5	92.5
6	Newpath COC	0.094 lb ai/a 2.08 % v/v	6 oz/a 1 qt/a		B	B	3-4 Lf Grass				81.3	62.5	93.8
7	Beyond COC	0.039 lb ai/a 2.08 % v/v	5 oz/a 1 qt/a		B	B	3-4 Lf Grass				87.5	78.8	92.5
8	Newpath COC	0.0625 lb ai/a 2.08 % v/v	4 oz/a 1 qt/a		C	C	5-7 Lf Grass						87.5
9	Newpath COC	0.094 lb ai/a 2.08 % v/v	6 oz/a 1 qt/a		C	C	5-7 Lf Grass						91.3
10	Beyond COC	0.039 lb ai/a 2.08 % v/v	5 oz/a 1 qt/a		C	C	5-7 Lf Grass						93.8
LSD (P=.05)								4.67	8.94	0.00	5.65	8.63	4.23
Standard Deviation								2.92	5.59	0.00	3.81	5.81	2.92
CV								3.94	7.92	0.0	5.21	9.32	3.51
Grand Mean								74.06	70.63	0.0	73.04	62.32	83.25

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Beyond and Newpath Residual and Weed Size Comparison.

Trial ID: HRI-31111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed LEFPA	W Weed ECHCG	W Weed LEFPA									
Pest Code	Leptochloa pan>	Echinochloa cr>	Leptochloa pan>									
Pest Scientific Name												
Pest Name	Tighthead spr>	Common barnyar>	Tighthead spr>									
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA							
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa							
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice							
Part Assessed	PLAEME P	PLAEME P	PLAEME P	YIELD C	YIELD C							
Assessment Date	7/6/11	7/12/11	7/12/11	10/10/11	10/10/11							
Assessment Type	CONTRO	CONTRO	CONTRO	WEIGHT	YIELD							
Assessment Unit	percent	percent	percent	lb/plot	BU							
Number of Subsamples	1	1	1	1	1							
Crop Stage Majority	2 wk POF	3 wk POF	3 wk POF	Harvest	Harvest							
Pest Stage Majority	boot	heading	heading	Harvest	Harvest							
Assessed By	JM	JM	JM	JM	JM							
Days After First/Last Applic.	50 23	42 22	42 22	146 112	146 112							
Trt-Eval Interval	16 DA-C	22 DA-C	22 DA-C	112 DA-C	112 DA-C							
Plant-Eval Interval	51 DP-1	57 DP-1	57 DP-1	147 DP-1	147 DP-1							
Days After Emergence	41 DE-1	47 DE-1	47 DE-1	137 DE-1	137 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	7	8	9	10	11
1	Untreated Check							0.0	0.0	0.0	0.63	3.8
2	Newpath COC	0.0625 2.08	lb ai/a % v/v	4 1	oz/a qt/a	A A	1-2 Lf Grass 1-2 Lf Grass	81.3	100.0	66.3	24.23	145.5
3	Newpath COC	0.094 2.08	lb ai/a % v/v	6 1	oz/a qt/a	A A	1-2 Lf Grass 1-2 Lf Grass	87.5	100.0	90.0	24.80	149.0
4	Beyond COC	0.039 2.08	lb ai/a % v/v	5 1	oz/a qt/a	A A	1-2 Lf Grass 1-2 Lf Grass	92.5	100.0	96.3	27.28	163.8
5	Newpath COC	0.0625 2.08	lb ai/a % v/v	4 1	oz/a qt/a	B B	3-4 Lf Grass 3-4 Lf Grass	31.3	93.8	17.5	14.33	86.0
6	Newpath COC	0.094 2.08	lb ai/a % v/v	6 1	oz/a qt/a	B B	3-4 Lf Grass 3-4 Lf Grass	37.5	95.0	25.0	19.43	116.7
7	Beyond COC	0.039 2.08	lb ai/a % v/v	5 1	oz/a qt/a	B B	3-4 Lf Grass 3-4 Lf Grass	70.0	100.0	78.8	24.53	147.3
8	Newpath COC	0.0625 2.08	lb ai/a % v/v	4 1	oz/a qt/a	C C	5-7 Lf Grass 5-7 Lf Grass	15.0	96.3	10.0	12.63	75.8
9	Newpath COC	0.094 2.08	lb ai/a % v/v	6 1	oz/a qt/a	C C	5-7 Lf Grass 5-7 Lf Grass	45.0	93.8	46.3	19.78	118.8
10	Beyond COC	0.039 2.08	lb ai/a % v/v	5 1	oz/a qt/a	C C	5-7 Lf Grass 5-7 Lf Grass	61.3	98.8	78.8	22.65	136.0
LSD (P=.05)								29.27	5.60	21.41	3.665	22.02
Standard Deviation								20.17	3.86	14.75	2.526	15.17
CV								38.7	4.4	29.0	13.28	13.28
Grand Mean								52.13	87.75	50.88	19.02	114.27

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Beyond and Newpath Residual and Weed Size Comparison.

Trial ID: HRI-31111
Location: Rohwer, AR

Investigator: Kenneth Smith

ARM Action Codes
TY1 = 6.006349*[10]

University of Arkansas-Division of Agriculture

BAS800H Efficacy and Tankmixes in Clearfield Rice

Trial ID: HRI-31211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: ORYSA Oryza sativa Common rice
Variety: CL142AR
BBCH Scale: BRIC **Planting Date:** 5/16/11
Planting Method: DRILLE drilled **Rate, Unit:** 90 LB/A
Depth, Unit: 1 IN
Row Spacing, Unit: 7.5 IN
Seed Bed: MEDIUM medium **Soil Temperature, Unit:** 65.6 F
Soil Moisture: DRY dry **Emergence Date:** 5/26/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** LEFPA Leptochloa panicoides
Common Name: Tighthead sprangletop

Pest 3 Type: W **Code:** SEBEX Sesbania exaltata
Common Name: Hemp sesbania

Site and Design

Plot Width, Unit: 6.33 FT **Site Type:** FIELD field
Plot Length, Unit: 28 FT **Experimental Unit:** 1 PLOT plot
Plot Area, Unit: 177.24 FT² **Tillage Type:** CONTIL conventional-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/20/11	Fertilized	Urea	326	LB/A	N	no

Soil Description

Description Name: Rohwer Clay Blocks
% Sand: 3.5 **% OM:** 1 **Texture:** C clay
% Silt: 37.4 **pH:** 7.3 **Soil Name:** Sharkey Clay
% Clay: 59.1 **CEC:** 38

Application Description

	A	B
Application Date:	5/17/11	6/6/11
Time of Day:	am	4:00 pm
Application Method:	SPRAY	SPRAY
Application Timing:	PREMCR	MIPOWE
Application Placement:	BROSOI	BROFOL
Applied By:	JM	JM
Air Temperature, Unit:	60.4 F	84.4 F
% Relative Humidity:	65.9	66.3
Wind Velocity, Unit:	2.2 MPH	0.5 MPH
Wind Direction:	ESE	E
Dew Presence (Y/N):	Y yes	N no
Soil Temperature, Unit:	65.6 F	84.1 F
Soil Moisture:	GOOD	GOOD
% Cloud Cover:	50	20
Next Rain Occurred On:	5/21/11	6/7/11

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	ORYSA BRIC	ORYSA BRIC

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W
Pest 2 Code, Type, Scale:	LEFPA W	LEFPA W
Pest 3 Code, Type, Scale:	SEBEX W	SEBEX W

Application Equipment

	A	B
Appl. Equipment:	Tractor	Tractor
Equipment Type:	SPTRMO	SPTRMO
Operation Pressure, Unit:	45 PSI	45 PSI
Nozzle Type:	AMFF	AMFF
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN
Propellant:	COMCO2	COMCO2

University of Arkansas-Division of Agriculture

BAS800H Efficacy and Tankmixes in Clearfield Rice

Trial ID: HRI-31211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed LEFPA	W Weed SEBEX	W Weed ECHCG	W Weed LEFPA	W Weed SEBEX						
Pest Code	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>						
Pest Scientific Name	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>						
Pest Name	Common barnyar>	Tightthead spra>	Hemp sesbania	Common barnyar>	Tightthead spra>	Hemp sesbania						
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA						
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa						
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice						
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P						
Assessment Date	6/14/11	6/14/11	6/14/11	6/23/11	6/23/11	6/23/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	percent	percent	percent	percent	percent	percent						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	4 leaf	4 leaf	4 leaf	Preflood	Preflood	Preflood						
Pest Stage Majority	1-4 leaf	1-4 leaf	1-8 inch	1-2 till	1-2 till	1-10 in						
Assessed By	JM	JM	JM	JM	JM	JM						
Days After First/Last Applic.	28 8	28 8	28 8	37 17	37 17	37 17						
Trt-Eval Interval	8 DA-B	8 DA-B	8 DA-B	17 DA-B	17 DA-B	17 DA-B						
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	38 DP-1	38 DP-1	38 DP-1						
Days After Emergence	19 DE-1	19 DE-1	19 DE-1	28 DE-1	28 DE-1	28 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	1	2	3	4	5	6
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0
2	Sharpen MSO	0.0111 lb ai/a 1 % v/v	0.5 oz/a 15.4 oz/a		B	3 Lf Weeds	22.5	7.5	100.0	0.0	0.0	100.0
3	Sharpen MSO	0.0223 lb ai/a 1 % v/v	1 oz/a 15.4 oz/a		B	3 Lf Weeds	73.8	52.5	97.5	67.5	45.0	100.0
4	Aim MSO	0.0313 lb ai/a 1 % v/v	2 oz/a 15.4 oz/a		B	3 Lf Weeds	0.0	0.0	97.5	15.0	7.5	97.5
5	Sharpen Newpath MSO	0.0223 lb ai/a 0.0625 lb ai/a 1 % v/v	1 oz/a 4 oz/a 15.4 oz/a		B	3 Lf Weeds	96.3	92.5	100.0	91.3	77.5	100.0
6	Sharpen Drive XLR8 MSO	0.0223 lb ai/a 0.44 lb ai/a 1 % v/v	1 oz/a 37.5 oz/a 15.4 oz/a		B	3 Lf Weeds	100.0	100.0	100.0	96.3	91.3	100.0
7	Broadhead MSO	0.47 lb ai/a 1 % v/v	10.7 oz/a 15.4 oz/a		B	3 Lf Weeds	88.8	0.0	87.5	50.0	15.0	95.0
8	Sharpen Drive XLR8 Permit MSO	0.0223 lb ai/a 0.44 lb ai/a 0.047 lb ai/a 1 % v/v	1 oz/a 37.5 oz/a 1 oz/a 15.4 oz/a		B	3 Lf Weeds	93.8	78.8	98.8	88.8	70.0	100.0
9	Sharpen Permit Newpath MSO	0.0223 lb ai/a 0.047 lb ai/a 0.0625 lb ai/a 1 % v/v	1 oz/a 1 oz/a 4 oz/a 15.4 oz/a		B	3 Lf Weeds	98.8	90.0	100.0	91.3	82.5	100.0
10	Sharpen Grasp MSO	0.0223 lb ai/a 0.0336 lb ai/a 1 % v/v	1 oz/a 2.15 oz/a 15.4 oz/a		B	3 Lf Weeds	90.0	62.5	100.0	85.0	71.3	100.0
11	Sharpen Clincher MSO	0.0223 lb ai/a 0.28 lb ai/a 1 % v/v	1 oz/a 15 oz/a 15.4 oz/a		B	3 Lf Weeds	100.0	100.0	100.0	97.5	97.5	100.0
12	Command Sharpen MSO	0.5 lb ai/a 0.0111 lb ai/a 1 % v/v	21.3 oz/a 0.5 oz/a 15.4 oz/a		A	Preemergence	100.0	100.0	98.8	100.0	100.0	98.8
13	Command Sharpen MSO	0.5 lb ai/a 0.0223 lb ai/a 1 % v/v	21.3 oz/a 1 oz/a 15.4 oz/a		A	Preemergence	100.0	100.0	100.0	100.0	100.0	98.8
14	Command Aim MSO	0.5 lb ai/a 0.0313 lb ai/a 1 % v/v	21.3 oz/a 2 oz/a 15.4 oz/a		A	Preemergence	100.0	100.0	100.0	98.8	92.5	100.0
LSD (P=.05)							12.91	15.84	7.90	19.42	15.77	4.59
Standard Deviation							9.04	11.09	5.53	13.59	11.04	3.21
CV							11.89	17.56	6.04	19.39	18.18	3.48
Grand Mean							75.98	63.13	91.43	70.09	60.71	92.14

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

BAS800H Efficacy and Tankmixes in Clearfield Rice

Trial ID: HRI-31211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

W Weed ECHCG Echinochloa cr>	W Weed LEFPA Leptochloa pan>	W Weed SEBEX Sesbania exalt>								
Common barnyar>	Tightthead spra>	Hemp sesbania								
ORYSA Oryza sativa Common rice PLAEME P 7/6/11 CONTRO percent 1 2 wk POF boot JM 50 23 30 DA-B 51 DP-1 41 DE-1	ORYSA Oryza sativa Common rice PLAEME P 7/6/11 CONTRO percent 1 2 wk POF boot JM 50 23 30 DA-B 51 DP-1 41 DE-1	ORYSA Oryza sativa Common rice PLAEME P 7/6/11 CONTRO percent 1 2 wk POF 6-60 in JM 50 23 30 DA-B 51 DP-1 41 DE-1								
Trt Treatment No. Name	Rate Rate	Other Unit	Other Rate	Other Rate	Other Unit	Appl Code	Appl Description	7	8	9
1 Untreated Check								0.0	0.0	0.0
2 Sharpen MSO	0.0111 1 % v/v	lb ai/a 15.4 oz/a	0.5 15.4	oz/a oz/a	B	3 Lf Weeds		10.0	5.0	100.0
3 Sharpen MSO	0.0223 1 % v/v	lb ai/a 15.4 oz/a	1 15.4	oz/a oz/a	B	3 Lf Weeds		55.0	40.0	100.0
4 Aim MSO	0.0313 1 % v/v	lb ai/a 15.4 oz/a	2 15.4	oz/a oz/a	B	3 Lf Weeds		0.0	0.0	100.0
5 Sharpen Newpath MSO	0.0223 0.0625 1 % v/v	lb ai/a lb ai/a 15.4 oz/a	1 4 15.4	oz/a oz/a oz/a	B	3 Lf Weeds		93.8	70.0	100.0
6 Sharpen Drive XLR8 MSO	0.0223 0.44 1 % v/v	lb ai/a lb ai/a 15.4 oz/a	1 37.5 15.4	oz/a oz/a oz/a	B	3 Lf Weeds		95.0	80.0	100.0
7 Broadhead MSO	0.47 1 % v/v	lb ai/a 15.4 oz/a	10.7 15.4	oz/a oz/a	B	3 Lf Weeds		78.8	0.0	100.0
8 Sharpen Drive XLR8 Permit MSO	0.0223 0.44 0.047 1 % v/v	lb ai/a lb ai/a lb ai/a 15.4 oz/a	1 37.5 1 15.4	oz/a oz/a oz/a oz/a	B	3 Lf Weeds		91.3	71.3	100.0
9 Sharpen Permit Newpath MSO	0.0223 0.047 0.0625 1 % v/v	lb ai/a lb ai/a lb ai/a 15.4 oz/a	1 1 4 15.4	oz/a oz/a oz/a oz/a	B	3 Lf Weeds		91.3	60.0	100.0
10 Sharpen Grasp MSO	0.0223 0.0336 1 % v/v	lb ai/a lb ai/a 15.4 oz/a	1 2.15 15.4	oz/a oz/a oz/a	B	3 Lf Weeds		96.3	85.0	100.0
11 Sharpen Clincher MSO	0.0223 0.28 1 % v/v	lb ai/a lb ai/a 15.4 oz/a	1 15 15.4	oz/a oz/a oz/a	B	3 Lf Weeds		98.8	93.8	100.0
12 Command Sharpen MSO	0.5 0.0111 1 % v/v	lb ai/a lb ai/a 15.4 oz/a	21.3 0.5 15.4	oz/a oz/a oz/a	A	Preemergence		98.8	98.8	100.0
13 Command Sharpen MSO	0.5 0.0223 1 % v/v	lb ai/a lb ai/a 15.4 oz/a	21.3 1 15.4	oz/a oz/a oz/a	A	Preemergence		100.0	100.0	100.0
14 Command Aim MSO	0.5 0.0313 1 % v/v	lb ai/a lb ai/a 15.4 oz/a	21.3 2 15.4	oz/a oz/a oz/a	A	Preemergence		90.0	83.8	100.0
LSD (P=.05)								13.39	16.70	0.00
Standard Deviation								9.37	11.68	0.00
CV								13.14	20.77	0.0
Grand Mean								71.34	56.25	92.86

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Preflood Rice Programs with Rebel EX and Grasp Xtra

Trial ID: HRI-31311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: ORYSA Oryza sativa Common rice
Variety: CL142AR
BBCH Scale: BRIC **Planting Date:** 5/16/11
Planting Method: DRILLE drilled **Rate, Unit:** 90 LB/A
Depth, Unit: 1 IN
Row Spacing, Unit: 7.5 IN
Seed Bed: MEDIUM medium **Soil Temperature, Unit:** 65.6 F
Soil Moisture: DRY dry **Emergence Date:** 5/26/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** LEFPA Leptochloa panicoides
Common Name: Tighthead sprangletop

Pest 3 Type: W **Code:** SEBEX Sesbania exaltata
Common Name: Hemp sesbania

Site and Design

Plot Width, Unit: 6.33 FT **Site Type:** FIELD field
Plot Length, Unit: 28 FT **Experimental Unit:** 1 PLOT plot
Plot Area, Unit: 177.24 FT² **Tillage Type:** CONTIL conventional-till
Replications: 4 **Study Design:** RACOB1 Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/20/11	Fertilized	Urea	326	LB/A	N	no

Soil Description

Description Name: Rohwer Clay Blocks
% Sand: 3.5 **% OM:** 1 **Texture:** C clay
% Silt: 37.4 **pH:** 7.3 **Soil Name:** Sharkey Clay
% Clay: 59.1 **CEC:** 38

Application Description

	A	B	C
Application Date:	5/17/11	5/31/11	6/20/11
Time of Day:	am	am	am
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREMCR	VEAPOCR	LAPOCR
Application Placement:	BROS01	BROF01	BROF01
Applied By:	JM	JM	JM
Air Temperature, Unit:	60.4 F	80.9 F	82.5 F
% Relative Humidity:	65.9	69.2	74.6
Wind Velocity, Unit:	2.2 MPH	5.7 MPH	7.9 MPH
Wind Direction:	ESE	W	WSW
Dew Presence (Y/N):	Y yes	N no	N no
Soil Temperature, Unit:	65.6 F	79.6 F	85.7 F
Soil Moisture:	GOOD	GOOD	GOOD
% Cloud Cover:	50	40	50
Next Rain Occurred On:	5/21/11	6/17/11	6/22/11

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W
Pest 2 Code, Type, Scale:	LEFPA W	LEFPA W	LEFPA W
Pest 3 Code, Type, Scale:	SEBEX W	SEBEX W	SEBEX W

Application Equipment

	A	B	C
Appl. Equipment:	Tractor	Tractor	Hand Boom
Equipment Type:	SPTRMO	SPTRMO	SPRBAC
Operation Pressure, Unit:	45 PSI	45 PSI	45 PSI
Nozzle Type:	AMFF	AMFF	AMFF
Nozzle Size:	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Propellant:	COMCO2	COMCO2	COMCO2

University of Arkansas-Division of Agriculture

Preflood Rice Programs with Rebel EX and Grasp Xtra

Trial ID: HRI-31311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed LEFPA	W Weed SEBEX	W Weed ECHCG	W Weed LEFPA	W Weed SEBEX						
Pest Code	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>						
Pest Scientific Name	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>						
Pest Name	Common barnyar>	Tighthead spra>	Hemp sesbania	Common barnyar>	Tighthead spra>	Hemp sesbania						
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA						
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa						
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice						
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P						
Assessment Date	6/10/11	6/10/11	6/10/11	6/23/11	6/23/11	6/23/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	percent	percent	percent	percent	percent	percent						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	4 leaf	4 leaf	4 leaf	Preflood	Preflood	Preflood						
Pest Stage Majority	1-3 leaf	1-3 leaf	1-6 inch	1-2 till	1-2 till	1-10 in						
Assessed By	JM	JM	JM	JM	JM	JM						
Days After First/Last Applic.	24 10	24 10	24 10	37 3	37 3	37 3						
Trt-Eval Interval	10 DA-B	10 DA-B	10 DA-B	3 DA-C	3 DA-C	3 DA-C						
Plant-Eval Interval	25 DP-1	25 DP-1	25 DP-1	38 DP-1	38 DP-1	38 DP-1						
Days After Emergence	15 DE-1	15 DE-1	15 DE-1	28 DE-1	28 DE-1	28 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	1	2	3	4	5	6
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0
2	Command	0.5 lb ai/a	21.3 oz/a		A	Preemergence	92.5	92.5	0.0	100.0	97.5	0.0
3	Command Grasp Xtra MSO	0.5 lb ai/a 0.325 lb ai/a 2.08 % v/v	21.3 oz/a 18 oz/a 1 qt/a		A C C	Preemergence 4-5 Lf Rice 4-5 Lf Rice	90.0	90.0	0.0	97.5	97.5	0.0
4	Command Grasp Xtra Facet MSO	0.5 lb ai/a 0.325 lb ai/a 0.5 lb ai/a 2.08 % v/v	21.3 oz/a 18 oz/a 10.7 oz/a 1 qt/a		A C C C	Preemergence 4-5 Lf Rice 4-5 Lf Rice 4-5 Lf Rice	88.8	88.8	0.0	100.0	97.5	0.0
5	Prowl Rebel EX MSO	0.87 lb ai/a 0.285 lb ai/a 2.08 % v/v	2.1 pt/a 18 oz/a 1 qt/a		B B B	1 Lf Rice 1 Lf Rice 1 Lf Rice	93.8	93.8	90.0	97.5	95.0	91.3
6	Command Rebel EX MSO	0.5 lb ai/a 0.285 lb ai/a 2.08 % v/v	21.3 oz/a 18 oz/a 1 qt/a		A B B	Preemergence 1 Lf Rice 1 Lf Rice	98.8	97.5	92.5	100.0	100.0	85.0
7	Prowl Rebel EX MSO Grandstand Permit COC	0.87 lb ai/a 0.285 lb ai/a 2.08 % v/v 0.187 lb ai/a 0.0234 lb ai/a 1.04 % v/v	2.1 pt/a 18 oz/a 1 qt/a 0.5 pt/a 0.5 oz/a 1 pt/a		B B B C C C	1 Lf Rice 1 Lf Rice 1 Lf Rice 4-5 Lf Rice 4-5 Lf Rice 4-5 Lf Rice	97.5	96.3	90.0	97.5	93.8	92.5
8	Command Rebel EX MSO Grandstand Permit COC	0.5 lb ai/a 0.285 lb ai/a 2.08 % v/v 0.187 lb ai/a 0.0234 lb ai/a 1.04 % v/v	21.3 oz/a 18 oz/a 1 qt/a 0.5 pt/a 0.5 oz/a 1 pt/a		A B B C C C	Preemergence 1 Lf Rice 1 Lf Rice 4-5 Lf Rice 4-5 Lf Rice 4-5 Lf Rice	97.5	96.3	91.3	100.0	100.0	93.8
9	Prowl Clincher MSO Grasp Xtra MSO	0.87 lb ai/a 0.223 lb ai/a 2.08 % v/v 0.325 lb ai/a 2.08 % v/v	2.1 pt/a 12 oz/a 1 qt/a 18 oz/a 1 qt/a		B B B C C	1 Lf Rice 1 Lf Rice 1 Lf Rice 4-5 Lf Rice 4-5 Lf Rice	75.0	75.0	0.0	88.8	82.5	0.0
10	Command Clincher MSO Grasp Xtra MSO	0.5 lb ai/a 0.223 lb ai/a 2.08 % v/v 0.325 lb ai/a 2.08 % v/v	21.3 oz/a 12 oz/a 1 qt/a 18 oz/a 1 qt/a		A B B C C	Preemergence 1 Lf Rice 1 Lf Rice 4-5 Lf Rice 4-5 Lf Rice	88.8	88.8	0.0	96.3	92.5	0.0
LSD (P=.05)							8.91	9.16	4.93	6.61	10.93	6.18
Standard Deviation							6.14	6.32	3.40	4.55	7.53	4.26
CV							7.46	7.71	9.34	5.19	8.8	11.75
Grand Mean							82.25	81.88	36.38	87.75	85.63	36.25

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Preflood Rice Programs with Rebel EX and Grasp Xtra

Trial ID: HRI-31311
 Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed						
Pest Code	ECHCG	LEFPA	SEBEX	ECHCG	LEFPA	SEBEX						
Pest Scientific Name	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>						
Pest Name	Common barnyar>	Tighthead spra>	Hemp sesbania	Common barnyar>	Tighthead spra>	Hemp sesbania						
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA						
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa						
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice						
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P						
Assessment Date	7/6/11	7/6/11	7/6/11	7/12/11	7/12/11	7/12/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	percent	percent	percent	percent	percent	percent						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	2 wk POF	2 wk POF	2 wk POF	3 wk POF	3 wk POF	3 wk POF						
Pest Stage Majority	boot	boot	6-60 in	heading	heading	6-60 in						
Assessed By	JM	JM	JM	JM	JM	JM						
Days After First/Last Applic.	50 23	50 23	50 23	56 22	56 22	56 22						
Trt-Eval Interval	16 DA-C	16 DA-C	16 DA-C	22 DA-C	22 DA-C	22 DA-C						
Plant-Eval Interval	51 DP-1	51 DP-1	51 DP-1	57 DP-1	57 DP-1	57 DP-1						
Days After Emergence	41 DE-1	41 DE-1	41 DE-1	47 DE-1	47 DE-1	47 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	7	8	9	10	11	12
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0
2	Command	0.5 lb ai/a	21.3 oz/a		A	Preemergence	96.3	95.0	0.0	100.0	100.0	0.0
3	Command Grasp Xtra MSO	0.5 lb ai/a 0.325 lb ai/a 2.08 % v/v	21.3 oz/a 18 oz/a 1 qt/a		A C C	Preemergence 4-5 Lf Rice 4-5 Lf Rice	100.0	100.0	100.0	100.0	100.0	100.0
4	Command Grasp Xtra Facet MSO	0.5 lb ai/a 0.325 lb ai/a 0.5 lb ai/a 2.08 % v/v	21.3 oz/a 18 oz/a 10.7 oz/a 1 qt/a		A C C C	Preemergence 4-5 Lf Rice 4-5 Lf Rice 4-5 Lf Rice	100.0	100.0	100.0	100.0	100.0	100.0
5	Prowl Rebel EX MSO	0.87 lb ai/a 0.285 lb ai/a 2.08 % v/v	2.1 pt/a 18 oz/a 1 qt/a		B B B	1 Lf Rice 1 Lf Rice 1 Lf Rice	100.0	100.0	87.5	97.5	95.0	83.8
6	Command Rebel EX MSO	0.5 lb ai/a 0.285 lb ai/a 2.08 % v/v	21.3 oz/a 18 oz/a 1 qt/a		A B B	Preemergence 1 Lf Rice 1 Lf Rice	100.0	100.0	91.3	100.0	100.0	82.5
7	Prowl Rebel EX MSO Grandstand Permit COC	0.87 lb ai/a 0.285 lb ai/a 2.08 % v/v 0.187 lb ai/a 0.0234 lb ai/a 1.04 % v/v	2.1 pt/a 18 oz/a 1 qt/a 0.5 pt/a 0.5 oz/a 1 pt/a		B B B C C C	1 Lf Rice 1 Lf Rice 1 Lf Rice 4-5 Lf Rice 4-5 Lf Rice 4-5 Lf Rice	100.0	100.0	100.0	97.5	95.0	100.0
8	Command Rebel EX MSO Grandstand Permit COC	0.5 lb ai/a 0.285 lb ai/a 2.08 % v/v 0.187 lb ai/a 0.0234 lb ai/a 1.04 % v/v	21.3 oz/a 18 oz/a 1 qt/a 0.5 pt/a 0.5 oz/a 1 pt/a		A B B C C C	Preemergence 1 Lf Rice 1 Lf Rice 4-5 Lf Rice 4-5 Lf Rice 4-5 Lf Rice	100.0	100.0	100.0	100.0	100.0	100.0
9	Prowl Clincher MSO Grasp Xtra MSO	0.87 lb ai/a 0.223 lb ai/a 2.08 % v/v 0.325 lb ai/a 2.08 % v/v	2.1 pt/a 12 oz/a 1 qt/a 18 oz/a 1 qt/a		B B B C C	1 Lf Rice 1 Lf Rice 1 Lf Rice 4-5 Lf Rice 4-5 Lf Rice	97.5	97.5	100.0	97.5	97.5	100.0
10	Command Clincher MSO Grasp Xtra MSO	0.5 lb ai/a 0.223 lb ai/a 2.08 % v/v 0.325 lb ai/a 2.08 % v/v	21.3 oz/a 12 oz/a 1 qt/a 18 oz/a 1 qt/a		A B B C C	Preemergence 1 Lf Rice 1 Lf Rice 4-5 Lf Rice 4-5 Lf Rice	100.0	100.0	100.0	100.0	100.0	100.0
LSD (P=.05)							2.53	2.96	6.32	4.12	4.02	4.69
Standard Deviation							1.74	2.04	4.35	2.84	2.77	3.23
CV							1.95	2.29	5.59	3.18	3.12	4.22
Grand Mean							89.38	89.25	77.88	89.25	88.75	76.63

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Preflood Programs with Rebel EX and Grasp Xtra in Clearfield Rice

Trial ID: HRI-31411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description	
Crop 1: ORYSA Oryza sativa Common rice Variety: CL142AR BBCH Scale: BRIC Planting Method: DRILLE drilled Depth, Unit: 1 IN Row Spacing, Unit: 7.5 IN Seed Bed: MEDIUM medium Soil Moisture: DRY dry	Planting Date: 5/16/11 Rate, Unit: 90 LB/A Soil Temperature, Unit: 65.6 F Emergence Date: 5/26/11

Pest Description	
Pest 1 Type: W Code: ECHCG Echinochloa crus-galli Common Name: Common barnyardgrass	
Pest 2 Type: W Code: LEFPA Leptochloa panicoides Common Name: Tighthead sprangletop	
Pest 3 Type: W Code: SEBEX Sesbania exaltata Common Name: Hemp sesbania	

Site and Design	
Plot Width, Unit: 6.33 FT Plot Length, Unit: 28 FT Plot Area, Unit: 177.24 FT ² Replications: 4	Site Type: FIELD field Experimental Unit: 1 PLOT plot Tillage Type: CONTIL conventional-till Study Design: RACOB1 Randomized Complete Block (RCB) Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance							
No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/20/11	Fertilized	Urea	326	LB/A	N	no

Soil Description	
Description Name: Rohwer Clay Blocks % Sand: 3.5 % Silt: 37.4 % Clay: 59.1	% OM: 1 pH: 7.3 CEC: 38 Texture: C clay Soil Name: Sharkey Clay

Application Description				
	A	B	C	D
Application Date:	5/17/11	6/6/11	6/20/11	6/27/11
Time of Day:	am	am	am	am
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PREMCR	EAPOCR	LAPOCR	1 Wk POFL
Application Placement:	BROSOI	BROFOL	BROFOL	BROFOL
Applied By:	JM	JM	JM	JM
Air Temperature, Unit:	60.4 F	84.4 F	82.5 F	83.1 F
% Relative Humidity:	65.9	66.3	74.6	73.5
Wind Velocity, Unit:	2.2 MPH	0.5 MPH	7.9 MPH	4.5 MPH
Wind Direction:	ESE	E	WSW	W
Dew Presence (Y/N):	Y yes	N no	N no	N no
Soil Temperature, Unit:	65.6 F	84.1 F	85.7 F	85.9 F
Soil Moisture:	GOOD	GOOD	GOOD	GOOD
% Cloud Cover:	50	20	50	50
Next Rain Occurred On:	5/21/11	6/7/11	6/22/11	6/22/11

Crop Stage At Each Application				
	A	B	C	D
Crop 1 Code, BBCH Scale:	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC

Pest Stage At Each Application				
	A	B	C	D
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W	ECHCG W
Pest 2 Code, Type, Scale:	LEFPA W	LEFPA W	LEFPA W	LEFPA W
Pest 3 Code, Type, Scale:	SEBEX W	SEBEX W	SEBEX W	SEBEX W

Application Equipment				
	A	B	C	D
Appl. Equipment:	Tractor	Tractor	Hand Boom	Hand Boom
Equipment Type:	SPTRMO	SPTRMO	SPRBAC	SPRBAC
Operation Pressure, Unit:	45 PSI	45 PSI	45 PSI	45 PSI
Nozzle Type:	AMFF	AMFF	AMFF	AMFF
Nozzle Size:	110015	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN	19 IN
Propellant:	COMCO2	COMCO2	COMCO2	COMCO2

University of Arkansas-Division of Agriculture

Preflood Programs with Rebel EX and Grasp Xtra in Clearfield Rice

Trial ID: HRI-31411
Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type	W Weed ECHCG Echinochloa cr>	W Weed LEFPA Leptochloa pan>	W Weed SEBEX Sesbania exalt>		W Weed ECHCG Echinochloa cr>	W Weed LEFPA Leptochloa pan>							
Pest Code													
Pest Scientific Name	Common barnyar>	Tighthead spra>	Hemp sesbania		Common barnyar>	Tighthead spra>							
Pest Name													
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA							
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa							
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice							
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME C	PLAEME P	PLAEME P							
Assessment Date	7/6/11	7/6/11	7/6/11	7/6/11	7/12/11	7/12/11							
Assessment Type	CONTRO	CONTRO	CONTRO	PHYSTU	CONTRO	CONTRO							
Assessment Unit	percent	percent	percent	percent	percent	percent							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	2 wk POF	2 wk POF	2 wk POF	2 wk POF	3 wk POF	3 wk POF							
Pest Stage Majority	boot	boot	6-60 in		heading	heading							
Assessed By	JM	JM	JM	JM	JM	JM							
Days After First/Last Applic.	50 23	50 23	50 23	50 23	56 15	56 15							
Trt-Eval Interval	16 DA-B	16 DA-B	16 DA-B	16 DA-B	15 DA-D	15 DA-D							
Plant-Eval Interval	51 DP-1	51 DP-1	51 DP-1	51 DP-1	57 DP-1	57 DP-1							
Days After Emergence	41 DE-1	41 DE-1	41 DE-1	41 DE-1	47 DE-1	47 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	Newpath	0.0625	lb ai/a	4	oz/a	B	1-2 Lf Rice	97.5	97.5	7.5	0.0	100.0	100.0
	MSO	1.04	% v/v	1	pt/a	B	1-2 Lf Rice						
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice						
	MSO	1.04	% v/v	1	pt/a	C	4-5 Lf Rice						
3	Command	0.5	lb ai/a	21.3	oz/a	A	Preemergence	100.0	100.0	7.5	0.0	100.0	100.0
	Newpath	0.0625	lb ai/a	4	oz/a	B	1-2 Lf Rice						
	MSO	1.04	% v/v	1	pt/a	B	1-2 Lf Rice						
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice						
	MSO	1.04	% v/v	1	pt/a	C	4-5 Lf Rice						
4	Newpath	0.0625	lb ai/a	4	oz/a	B	1-2 Lf Rice	100.0	100.0	90.0	0.0	100.0	100.0
	Rebel EX	0.285	lb ai/a	18	oz/a	B	1-2 Lf Rice						
	MSO	2.08	% v/v	1	qt/a	B	1-2 Lf Rice						
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice						
	MSO	1.04	% v/v	1	pt/a	C	4-5 Lf Rice						
5	Newpath	0.0625	lb ai/a	4	oz/a	B	1-2 Lf Rice	100.0	100.0	100.0	0.0	100.0	97.5
	MSO	1.04	% v/v	1	pt/a	B	1-2 Lf Rice						
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice						
	Grasp Xtra	0.325	lb ai/a	18	oz/a	C	4-5 Lf Rice						
	MSO	2.08	% v/v	1	qt/a	C	4-5 Lf Rice						
6	Command	0.5	lb ai/a	21.3	oz/a	A	Preemergence	100.0	100.0	100.0	0.0	100.0	100.0
	Newpath	0.0625	lb ai/a	4	oz/a	B	1-2 Lf Rice						
	MSO	1.04	% v/v	1	pt/a	B	1-2 Lf Rice						
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice						
	Grasp Xtra	0.325	lb ai/a	18	oz/a	C	4-5 Lf Rice						
	MSO	2.08	% v/v	1	qt/a	C	4-5 Lf Rice						
7	Newpath	0.0625	lb ai/a	4	oz/a	B	1-2 Lf Rice	100.0	100.0	12.5	0.0	100.0	100.0
	MSO	1.04	% v/v	1	pt/a	B	1-2 Lf Rice						
	Beyond	0.039	lb ai/a	5	oz/a	C	4-5 Lf Rice						
	MSO	1.04	% v/v	1	pt/a	C	4-5 Lf Rice						
8	Command	0.5	lb ai/a	21.3	oz/a	A	Preemergence	100.0	100.0	22.5	0.0	100.0	100.0
	Newpath	0.0625	lb ai/a	4	oz/a	B	1-2 Lf Rice						
	MSO	1.04	% v/v	1	pt/a	B	1-2 Lf Rice						
	Beyond	0.039	lb ai/a	5	oz/a	C	4-5 Lf Rice						
	MSO	1.04	% v/v	1	pt/a	C	4-5 Lf Rice						
9	Newpath	0.0625	lb ai/a	4	oz/a	B	1-2 Lf Rice	100.0	100.0	100.0	0.0	100.0	100.0
	MSO	1.04	% v/v	1	pt/a	B	1-2 Lf Rice						
	Beyond	0.039	lb ai/a	5	oz/a	C	4-5 Lf Rice						
	Grasp Xtra	0.325	lb ai/a	18	oz/a	C	4-5 Lf Rice						
	MSO	2.08	% v/v	1	qt/a	C	4-5 Lf Rice						
10	Command	0.5	lb ai/a	21.3	oz/a	A	Preemergence	100.0	100.0	100.0	0.0	100.0	100.0
	Newpath	0.0625	lb ai/a	4	oz/a	B	1-2 Lf Rice						
	MSO	1.04	% v/v	1	pt/a	B	1-2 Lf Rice						
	Beyond	0.039	lb ai/a	5	oz/a	C	4-5 Lf Rice						
	Grasp Xtra	0.325	lb ai/a	18	oz/a	C	4-5 Lf Rice						
	MSO	2.08	% v/v	1	qt/a	C	4-5 Lf Rice						
11	Newpath	0.0625	lb ai/a	4	oz/a	B	1-2 Lf Rice	100.0	100.0	10.0	0.0	100.0	100.0
	MSO	1.04	% v/v	1	pt/a	B	1-2 Lf Rice						
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice						
	MSO	1.04	% v/v	1	pt/a	C	4-5 Lf Rice						
	Beyond	0.039	lb ai/a	5	oz/a	D	1 Wk Postflood						
	MSO	1.04	% v/v	1	pt/a	D	1 Wk Postflood						
12	Newpath	0.0625	lb ai/a	4	oz/a	B	1-2 Lf Rice	100.0	100.0	92.5	41.3	100.0	100.0
	MSO	1.04	% v/v	1	pt/a	B	1-2 Lf Rice						
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice						
	MSO	1.04	% v/v	1	pt/a	C	4-5 Lf Rice						
	Beyond	0.039	lb ai/a	5	oz/a	D	1 Wk Postflood						
	Grasp Xtra	0.325	lb ai/a	18	oz/a	D	1 Wk Postflood						
	MSO	2.08	% v/v	1	qt/a	D	1 Wk Postflood						
13	Newpath	0.0625	lb ai/a	4	oz/a	B	1-2 Lf Rice	100.0	100.0	100.0	0.0	100.0	100.0
	MSO	1.04	% v/v	1	pt/a	B	1-2 Lf Rice						
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice						
	MSO	1.04	% v/v	1	pt/a	C	4-5 Lf Rice						
	Beyond	0.039	lb ai/a	5	oz/a	D	1 Wk Postflood						
	Rebel EX	0.317	lb ai/a	20	oz/a	D	1 Wk Postflood						
	MSO	2.08	% v/v	1	qt/a	D	1 Wk Postflood						

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Preflood Programs with Rebel EX and Grasp Xtra in Clearfield Rice

Trial ID: HRI-31411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed LEFPA	W Weed SEBEX		W Weed ECHCG	W Weed LEFPA							
Pest Code	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>		Echinochloa cr>	Leptochloa pan>							
Pest Scientific Name	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>		Echinochloa cr>	Leptochloa pan>							
Pest Name	Common barnyar>	Tighthead spra>	Hemp sesbania		Common barnyar>	Tighthead spra>							
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA							
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa							
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice							
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME C	PLAEME P	PLAEME P							
Assessment Date	7/6/11	7/6/11	7/6/11	7/6/11	7/12/11	7/12/11							
Assessment Type	CONTRO	CONTRO	CONTRO	PHYSTU	CONTRO	CONTRO							
Assessment Unit	percent	percent	percent	percent	percent	percent							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	2 wk POF	2 wk POF	2 wk POF	2 wk POF	3 wk POF	3 wk POF							
Pest Stage Majority	boot	boot	6-60 in		heading	heading							
Assessed By	JM	JM	JM	JM	JM	JM							
Days After First/Last Applic.	50 23	50 23	50 23	50 23	56 15	56 15							
Trt-Eval Interval	16 DA-B	16 DA-B	16 DA-B	16 DA-B	15 DA-D	15 DA-D							
Plant-Eval Interval	51 DP-1	51 DP-1	51 DP-1	51 DP-1	57 DP-1	57 DP-1							
Days After Emergence	41 DE-1	41 DE-1	41 DE-1	41 DE-1	47 DE-1	47 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6
14	Newpath	0.0625	lb ai/a	4	oz/a	B	1-2 Lf Rice	100.0	100.0	0.0	0.0	100.0	100.0
	MSO	1.04	% v/v	1	pt/a	B	1-2 Lf Rice						
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice						
	MSO	1.04	% v/v	1	pt/a	C	4-5 Lf Rice						
	Beyond	0.039	lb ai/a	5	oz/a	D	1 Wk Postflood						
	Clincher	0.28	lb ai/a	15	oz/a	D	1 Wk Postflood						
	MSO	2.08	% v/v	1	qt/a	D	1 Wk Postflood						
15	Newpath	0.0625	lb ai/a	4	oz/a	B	1-2 Lf Rice	100.0	100.0	7.5	0.0	100.0	100.0
	MSO	1.04	% v/v	1	pt/a	B	1-2 Lf Rice						
	Newpath	0.0625	lb ai/a	4	oz/a	C	4-5 Lf Rice						
	MSO	1.04	% v/v	1	pt/a	C	4-5 Lf Rice						
	Clincher	0.28	lb ai/a	15	oz/a	D	1 Wk Postflood						
	MSO	2.08	% v/v	1	qt/a	D	1 Wk Postflood						
	LSD (P=.05)							1.84	1.84	16.26	0.92	0.00	1.07
	Standard Deviation							1.29	1.29	11.38	0.65	0.00	0.75
	CV							1.39	1.39	22.75	23.47	0.0	0.8
	Grand Mean							93.17	93.17	50.0	2.75	93.33	93.17

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Preflood Programs with Rebel EX and Grasp Xtra in Clearfield Rice

Trial ID: HRI-31411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Trt No.	Treatment Name	Rate	Other Rate	Other Unit	Appl Code	Appl Description	7	8
Pest Type Pest Code Pest Scientific Name Pest Name Crop Code Crop Scientific Name Crop Name Part Assessed Assessment Date Assessment Type Assessment Unit Number of Subsamples Crop Stage Majority Pest Stage Majority Assessed By Days After First/Last Applic. Trt-Eval Interval Plant-Eval Interval Days After Emergence							W Weed SEBEX Sesbania exalt>	
							Hemp sesbania ORYSA Oryza sativa Common rice	ORYSA Oryza sativa Common rice
							PLAEME P 7/12/11 CONTRO percent 1 3 wk POF 6-80 in JM 56 15 15 DA-D 57 DP-1 47 DE-1	PLAEME C 7/12/11 PHYSTU percent 1 3 wk POF 56 15 15 DA-D 57 DP-1 47 DE-1
1	Untreated Check						0.0	0.0
2	Newpath MSO Newpath MSO	0.0625 lb ai/a 1.04 % v/v 0.0625 lb ai/a 1.04 % v/v	4 oz/a 1 pt/a 4 oz/a 1 pt/a		B B C C	1-2 Lf Rice 1-2 Lf Rice 4-5 Lf Rice 4-5 Lf Rice	0.0 0.0	0.0 0.0
3	Command Newpath MSO Newpath MSO	0.5 lb ai/a 0.0625 lb ai/a 1.04 % v/v 0.0625 lb ai/a 1.04 % v/v	21.3 oz/a 4 oz/a 1 pt/a 4 oz/a 1 pt/a		A B B C C	Preemergence 1-2 Lf Rice 1-2 Lf Rice 4-5 Lf Rice 4-5 Lf Rice	0.0	0.0
4	Newpath Rebel EX MSO Newpath MSO	0.0625 lb ai/a 0.285 lb ai/a 2.08 % v/v 0.0625 lb ai/a 1.04 % v/v	4 oz/a 18 oz/a 1 qt/a 4 oz/a 1 pt/a		B B B C C	1-2 Lf Rice 1-2 Lf Rice 1-2 Lf Rice 4-5 Lf Rice 4-5 Lf Rice	75.0	0.0
5	Newpath MSO Newpath Grasp Xtra MSO	0.0625 lb ai/a 1.04 % v/v 0.0625 lb ai/a 0.325 lb ai/a 2.08 % v/v	4 oz/a 1 pt/a 4 oz/a 18 oz/a 1 qt/a		B B C C C	1-2 Lf Rice 1-2 Lf Rice 4-5 Lf Rice 4-5 Lf Rice 4-5 Lf Rice	100.0	0.0
6	Command Newpath MSO Newpath Grasp Xtra MSO	0.5 lb ai/a 0.0625 lb ai/a 1.04 % v/v 0.0625 lb ai/a 0.325 lb ai/a 2.08 % v/v	21.3 oz/a 4 oz/a 1 pt/a 4 oz/a 18 oz/a 1 qt/a		A B B C C C	Preemergence 1-2 Lf Rice 1-2 Lf Rice 4-5 Lf Rice 4-5 Lf Rice 4-5 Lf Rice	100.0	0.0
7	Newpath MSO Beyond MSO	0.0625 lb ai/a 1.04 % v/v 0.039 lb ai/a 1.04 % v/v	4 oz/a 1 pt/a 5 oz/a 1 pt/a		B B C C	1-2 Lf Rice 1-2 Lf Rice 4-5 Lf Rice 4-5 Lf Rice	0.0	0.0
8	Command Newpath MSO Beyond MSO	0.5 lb ai/a 0.0625 lb ai/a 1.04 % v/v 0.039 lb ai/a 1.04 % v/v	21.3 oz/a 4 oz/a 1 pt/a 5 oz/a 1 pt/a		A B B C C	Preemergence 1-2 Lf Rice 1-2 Lf Rice 4-5 Lf Rice 4-5 Lf Rice	0.0	0.0
9	Newpath MSO Beyond Grasp Xtra MSO	0.0625 lb ai/a 1.04 % v/v 0.039 lb ai/a 0.325 lb ai/a 2.08 % v/v	4 oz/a 1 pt/a 5 oz/a 18 oz/a 1 qt/a		B B C C C	1-2 Lf Rice 1-2 Lf Rice 4-5 Lf Rice 4-5 Lf Rice 4-5 Lf Rice	100.0	0.0
10	Command Newpath MSO Beyond Grasp Xtra MSO	0.5 lb ai/a 0.0625 lb ai/a 1.04 % v/v 0.039 lb ai/a 0.325 lb ai/a 2.08 % v/v	21.3 oz/a 4 oz/a 1 pt/a 5 oz/a 18 oz/a 1 qt/a		A B B C C C	Preemergence 1-2 Lf Rice 1-2 Lf Rice 4-5 Lf Rice 4-5 Lf Rice 4-5 Lf Rice	100.0	0.0
11	Newpath MSO Newpath MSO Beyond MSO	0.0625 lb ai/a 1.04 % v/v 0.0625 lb ai/a 1.04 % v/v 0.039 lb ai/a 1.04 % v/v	4 oz/a 1 pt/a 4 oz/a 1 pt/a 5 oz/a 1 pt/a		B B C C D D	1-2 Lf Rice 1-2 Lf Rice 4-5 Lf Rice 4-5 Lf Rice 1 Wk Postflood 1 Wk Postflood	10.0	0.0
12	Newpath MSO Newpath MSO Beyond Grasp Xtra MSO	0.0625 lb ai/a 1.04 % v/v 0.0625 lb ai/a 1.04 % v/v 0.039 lb ai/a 0.325 lb ai/a 2.08 % v/v	4 oz/a 1 pt/a 4 oz/a 1 pt/a 5 oz/a 18 oz/a 1 qt/a		B B C C D D D	1-2 Lf Rice 1-2 Lf Rice 4-5 Lf Rice 4-5 Lf Rice 1 Wk Postflood 1 Wk Postflood 1 Wk Postflood	100.0	30.0
13	Newpath MSO Newpath MSO Beyond Rebel EX MSO	0.0625 lb ai/a 1.04 % v/v 0.0625 lb ai/a 1.04 % v/v 0.039 lb ai/a 0.317 lb ai/a 2.08 % v/v	4 oz/a 1 pt/a 4 oz/a 1 pt/a 5 oz/a 20 oz/a 1 qt/a		B B C C D D D	1-2 Lf Rice 1-2 Lf Rice 4-5 Lf Rice 4-5 Lf Rice 1 Wk Postflood 1 Wk Postflood 1 Wk Postflood	100.0	0.0

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Preflood Programs with Rebel EX and Grasp Xtra in Clearfield Rice

Trial ID: HRI-31411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed		
Pest Code	SEBEX		
Pest Scientific Name	Sesbania exalt>		
Pest Name	Hemp sesbania		
Crop Code	ORYSA	ORYSA	
Crop Scientific Name	Oryza sativa	Oryza sativa	
Crop Name	Common rice	Common rice	
Part Assessed	PLAEME P	PLAEME C	
Assessment Date	7/12/11	7/12/11	
Assessment Type	CONTRO	PHYSTU	
Assessment Unit	percent	percent	
Number of Subsamples	1	1	
Crop Stage Majority	3 wk POF	3 wk POF	
Pest Stage Majority	6-80 in		
Assessed By	JM	JM	
Days After First/Last Applic.	56 15	56 15	
Trt-Eval Interval	15 DA-D	15 DA-D	
Plant-Eval Interval	57 DP-1	57 DP-1	
Days After Emergence	47 DE-1	47 DE-1	
Trt Treatment	Rate	Other Other	Appl Appl
No. Name	Rate Unit	Rate Rate Unit	Code Description
14 Newpath	0.0625 lb ai/a	4 oz/a	B 1-2 Lf Rice
MSO	1.04 % v/v	1 pt/a	B 1-2 Lf Rice
Newpath	0.0625 lb ai/a	4 oz/a	C 4-5 Lf Rice
MSO	1.04 % v/v	1 pt/a	C 4-5 Lf Rice
Beyond	0.039 lb ai/a	5 oz/a	D 1 Wk Postflood
Clincher	0.28 lb ai/a	15 oz/a	D 1 Wk Postflood
MSO	2.08 % v/v	1 qt/a	D 1 Wk Postflood
15 Newpath	0.0625 lb ai/a	4 oz/a	B 1-2 Lf Rice
MSO	1.04 % v/v	1 pt/a	B 1-2 Lf Rice
Newpath	0.0625 lb ai/a	4 oz/a	C 4-5 Lf Rice
MSO	1.04 % v/v	1 pt/a	C 4-5 Lf Rice
Clincher	0.28 lb ai/a	15 oz/a	D 1 Wk Postflood
MSO	2.08 % v/v	1 qt/a	D 1 Wk Postflood
LSD (P=.05)			10.65 0.00
Standard Deviation			7.45 0.00
CV			16.09 0.0
Grand Mean			46.33 2.0

University of Arkansas-Division of Agriculture

Command Preemergence Followed by RiceBeaux/Command

Trial ID: HRI-31511
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: ORYSA Oryza sativa Common rice
Variety: CL142AR
BBCH Scale: BRIC
Planting Method: DRILLE drilled
Depth, Unit: 1 IN
Row Spacing, Unit: 7.5 IN
Seed Bed: MEDIUM medium
Soil Moisture: DRY dry
Planting Date: 5/16/11
Rate, Unit: 90 LB/A
Soil Temperature, Unit: 65.6 F
Emergence Date: 5/26/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** LEFPA Leptochloa panicoides
Common Name: Tighthead sprangletop

Pest 3 Type: W **Code:** SEBEX Sesbania exaltata
Common Name: Hemp sesbania

Site and Design

Plot Width, Unit: 6.33 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 177.24 FT²
Replications: 4

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB1 Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/20/11	Fertilized	Urea	326	LB/A	N	no

Soil Description

Description Name: Rohwer Clay Blocks
% Sand: 3.5 **% OM:** 1 **Texture:** C clay
% Silt: 37.4 **pH:** 7.3 **Soil Name:** Sharkey Clay
% Clay: 59.1 **CEC:** 38

Application Description

	A	B	C	D	E
Application Date:	5/17/11	5/31/11	6/6/11	6/13/11	6/20/11
Time of Day:	am	am	am	am	am
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PREMCR	5 DAE	11 DAE	18 DAE	25 DAE
Application Placement:	BROSOI	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	JM	JM	JM	JM	JM
Air Temperature, Unit:	60.4 F	80.9 F	84.4 F	85.6 F	82.5 F
% Relative Humidity:	65.9	69.2	66.3	58.0	74.6
Wind Velocity, Unit:	2.2 MPH	5.7 MPH	0.5 MPH	5.1 MPH	7.9 MPH
Wind Direction:	ESE	W	E	W	WSW
Dew Presence (Y/N):	Y yes	N no	N no	N no	N no
Soil Temperature, Unit:	65.6 F	79.6 F	84.1 F	85.9 F	85.7 F
Soil Moisture:	GOOD	GOOD	GOOD	NORMAL	GOOD
% Cloud Cover:	50	40	20	20	50
Next Rain Occurred On:	5/21/11	6/17/11	6/7/11	6/14/11	6/22/11

Crop Stage At Each Application

	A	B	C	D	E
Crop 1 Code, BBCH Scale:	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC

Pest Stage At Each Application

	A	B	C	D	E
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W	ECHCG W	ECHCG W
Pest 2 Code, Type, Scale:	LEFPA W	LEFPA W	LEFPA W	LEFPA W	LEFPA W
Pest 3 Code, Type, Scale:	SEBEX W	SEBEX W	SEBEX W	SEBEX W	SEBEX W

Application Equipment

	A	B	C	D	E
Appl. Equipment:	Tractor	Tractor	Tractor	Hand Boom	Hand Boom
Equipment Type:	SPTRMO	SPTRMO	SPTRMO	SPRBAC	SPRBAC
Operation Pressure, Unit:	45 PSI	45 PSI	45 PSI	45 PSI	45 PSI
Nozzle Type:	AMFF	AMFF	AMFF	AMFF	AMFF
Nozzle Size:	110015	110015	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN	19 IN	19 IN
Propellant:	COMCO2	COMCO2	COMCO2	COMCO2	COMCO2

University of Arkansas-Division of Agriculture

Command Preemergence Followed by RiceBeaux/Command

Trial ID: HRI-31511
Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed SEBEX	W Weed ECHCG	W Weed LEFPA	W Weed SEBEX	W Weed ECHCG						
Pest Code	Echinochloa cr>	Sesbania exalt>	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Echinochloa cr>						
Pest Scientific Name	Echinochloa cr>	Sesbania exalt>	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Echinochloa cr>						
Pest Name	Common barnyar>	Hemp sesbania	Common barnyar>	Tighthead spra>	Hemp sesbania	Common barnyar>						
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA						
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa						
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice						
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P						
Assessment Date	6/10/11	6/10/11	6/14/11	6/14/11	6/14/11	6/23/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	percent	percent	percent	percent	percent	percent						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	2-3 leaf	2-3 leaf	4 leaf	4 leaf	4 leaf	Preflood						
Pest Stage Majority	2-3 leaf	1-6 inch	1-4 leaf	1-4 leaf	1-8 inch	1-2 till						
Assessed By	JM	JM	JM	JM	JM	JM						
Days After First/Last Applic.	24 4	24 4	28 1	28 1	28 1	37 3						
Trt-Eval Interval	10 DA-B	10 DA-B	8 DA-C	8 DA-C	8 DA-C	10 DA-D						
Plant-Eval Interval	25 DP-1	25 DP-1	29 DP-1	29 DP-1	29 DP-1	38 DP-1						
Days After Emergence	15 DE-1	15 DE-1	19 DE-1	19 DE-1	19 DE-1	28 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3	4	5	6
1	Untreated Check						20.0	0.0	0.0	0.0	0.0	0.0
2	Command	0.3 lb ai/a	12.8 oz/a		A	PRE	67.5	17.5				56.3
3	Command RiceBeaux NIS	0.3 lb ai/a 4.5 lb ai/a 0.25 % v/v	12.8 oz/a 3 qt/a 3.84 oz/a		A B B	PRE 5 DAE 5 DAE	96.7	77.5	97.5	95.0	70.0	97.5
4	Command RiceBeaux NIS	0.3 lb ai/a 4.5 lb ai/a 0.25 % v/v	12.8 oz/a 3 qt/a 3.84 oz/a		A C C	PRE 11 DAE 11 DAE			100.0	100.0	95.0	98.8
5	Command RiceBeaux NIS	0.3 lb ai/a 4.5 lb ai/a 0.25 % v/v	12.8 oz/a 3 qt/a 3.84 oz/a		A D D	PRE 18 DAE 18 DAE						85.0
6	Command RiceBeaux NIS	0.3 lb ai/a 4.5 lb ai/a 0.25 % v/v	12.8 oz/a 3 qt/a 3.84 oz/a		A E E	PRE 25 DAE 25 DAE						
7	Command Command RiceBeaux NIS	0.3 lb ai/a 0.3 lb ai/a 4.5 lb ai/a 0.25 % v/v	12.8 oz/a 12.8 oz/a 3 qt/a 3.84 oz/a		A B B B	PRE 5 DAE 5 DAE 5 DAE	87.5	62.5	95.0	95.0	60.0	85.0
8	Command Command RiceBeaux NIS	0.3 lb ai/a 0.3 lb ai/a 4.5 lb ai/a 0.25 % v/v	12.8 oz/a 12.8 oz/a 3 qt/a 3.84 oz/a		A C C C	PRE 11 DAE 11 DAE 11 DAE			100.0	100.0	97.5	100.0
9	Command Command RiceBeaux NIS	0.3 lb ai/a 0.3 lb ai/a 4.5 lb ai/a 0.25 % v/v	12.8 oz/a 12.8 oz/a 3 qt/a 3.84 oz/a		A D D C	PRE 18 DAE 18 DAE 18 DAE						91.3
10	Command Command RiceBeaux NIS	0.3 lb ai/a 0.3 lb ai/a 4.5 lb ai/a 0.25 % v/v	12.8 oz/a 12.8 oz/a 3 qt/a 3.84 oz/a		A E E E	PRE 25 DAE 25 DAE 25 DAE						
11	Command Command	0.3 lb ai/a 0.3 lb ai/a	12.8 oz/a 12.8 oz/a		A B	PRE 5 DAE	92.5	0.0	97.5	97.5	0.0	93.8
12	Command Command	0.3 lb ai/a 0.3 lb ai/a	12.8 oz/a 12.8 oz/a		A C	PRE 11 DAE			93.3	90.0	16.7	93.3
13	Command Command	0.3 lb ai/a 0.3 lb ai/a	12.8 oz/a 12.8 oz/a		A D	PRE 18 DAE						62.5
14	Command Command	0.3 lb ai/a 0.3 lb ai/a	12.8 oz/a 12.8 oz/a		A E	PRE 25 DAE	60.0					
15	Command Facet	0.3 lb ai/a 0.38 lb ai/a	12.8 oz/a 8.1 oz/a		A A	PRE PRE	65.0	70.0	53.3	53.3	0.0	53.3
LSD (P=.05)							33.38	30.19	14.66	16.85	29.83	18.73
Standard Deviation							21.67	19.77	9.87	11.34	20.08	12.97
CV							31.01	52.13	12.4	14.38	47.36	16.98
Grand Mean							69.88	37.92	79.58	78.85	42.4	76.39

University of Arkansas-Division of Agriculture

Command Preemergence Followed by RiceBeaux/Command

Trial ID: HRI-31511
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed LEFPA	W Weed SEBEX	W Weed ECHCG	W Weed LEFPA	W Weed SEBEX							
Pest Code	Leptochloa pan>	Sesbania exalt>	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>							
Pest Scientific Name	Tighthead spra>	Hemp sesbania	Common barnyar>	Tighthead spra>	Hemp sesbania							
Pest Name	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA							
Crop Code	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa							
Crop Scientific Name	Common rice	Common rice	Common rice	Common rice	Common rice							
Crop Name	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P							
Part Assessed	6/23/11	6/23/11	7/6/11	7/6/11	7/6/11							
Assessment Date	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Type	percent	percent	percent	percent	percent							
Assessment Unit	1	1	1	1	1							
Number of Subsamples	Preflood	Preflood	2 wk POF	2 wk POF	2 wk POF							
Crop Stage Majority	1-2 till	1-10 in	boot	boot	6-60 in							
Pest Stage Majority	JM	JM	JM	JM	JM							
Assessed By	37 3	37 3	50 23	50 23	50 23							
Days After First/Last Applic.	10 DA-D	10 DA-D	16 DA-E	16 DA-E	16 DA-E							
Trt-Eval Interval	38 DP-1	38 DP-1	51 DP-1	51 DP-1	51 DP-1							
Plant-Eval Interval	28 DE-1	28 DE-1	41 DE-1	41 DE-1	41 DE-1							
Days After Emergence	Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	7	8	9	10	11
1 Untreated Check								0.0	0.0	0.0	0.0	0.0
2 Command	0.3 lb ai/a	12.8 oz/a	A	PRE				55.0	0.0	90.0	92.5	12.5
3 Command	0.3 lb ai/a	12.8 oz/a	A	PRE				97.5	62.5	95.0	96.3	65.0
RiceBeaux	4.5 lb ai/a	3 qt/a	B	5 DAE								
NIS	0.25 % v/v	3.84 oz/a	B	5 DAE								
4 Command	0.3 lb ai/a	12.8 oz/a	A	PRE				96.3	96.3	97.5	97.5	95.0
RiceBeaux	4.5 lb ai/a	3 qt/a	C	11 DAE								
NIS	0.25 % v/v	3.84 oz/a	C	11 DAE								
5 Command	0.3 lb ai/a	12.8 oz/a	A	PRE				77.5	93.8	87.5	87.5	86.3
RiceBeaux	4.5 lb ai/a	3 qt/a	D	18 DAE								
NIS	0.25 % v/v	3.84 oz/a	D	18 DAE								
6 Command	0.3 lb ai/a	12.8 oz/a	A	PRE						85.0	87.5	100.0
RiceBeaux	4.5 lb ai/a	3 qt/a	E	25 DAE								
NIS	0.25 % v/v	3.84 oz/a	E	25 DAE								
7 Command	0.3 lb ai/a	12.8 oz/a	A	PRE				85.0	46.3	95.0	95.0	45.0
Command	0.3 lb ai/a	12.8 oz/a	B	5 DAE								
RiceBeaux	4.5 lb ai/a	3 qt/a	B	5 DAE								
NIS	0.25 % v/v	3.84 oz/a	B	5 DAE								
8 Command	0.3 lb ai/a	12.8 oz/a	A	PRE				93.8	100.0	98.8	100.0	95.0
Command	0.3 lb ai/a	12.8 oz/a	C	11 DAE								
RiceBeaux	4.5 lb ai/a	3 qt/a	C	11 DAE								
NIS	0.25 % v/v	3.84 oz/a	C	11 DAE								
9 Command	0.3 lb ai/a	12.8 oz/a	A	PRE				90.0	95.0	92.5	96.3	91.3
Command	0.3 lb ai/a	12.8 oz/a	D	18 DAE								
RiceBeaux	4.5 lb ai/a	3 qt/a	D	18 DAE								
NIS	0.25 % v/v	3.84 oz/a	C	18 DAE								
10 Command	0.3 lb ai/a	12.8 oz/a	A	PRE						97.5	98.8	100.0
Command	0.3 lb ai/a	12.8 oz/a	E	25 DAE								
RiceBeaux	4.5 lb ai/a	3 qt/a	E	25 DAE								
NIS	0.25 % v/v	3.84 oz/a	E	25 DAE								
11 Command	0.3 lb ai/a	12.8 oz/a	A	PRE				92.5	0.0	90.0	90.0	0.0
Command	0.3 lb ai/a	12.8 oz/a	B	5 DAE								
12 Command	0.3 lb ai/a	12.8 oz/a	A	PRE				86.7	20.0	100.0	100.0	16.7
Command	0.3 lb ai/a	12.8 oz/a	C	11 DAE								
13 Command	0.3 lb ai/a	12.8 oz/a	A	PRE				61.3	0.0	87.5	87.5	0.0
Command	0.3 lb ai/a	12.8 oz/a	D	18 DAE								
14 Command	0.3 lb ai/a	12.8 oz/a	A	PRE						95.0	95.0	5.0
Command	0.3 lb ai/a	12.8 oz/a	E	25 DAE								
15 Command	0.3 lb ai/a	12.8 oz/a	A	PRE				46.7	46.7	96.7	93.3	46.7
Facet	0.38 lb ai/a	8.1 oz/a	A	PRE								
LSD (P=.05)								19.57	19.95	10.19	10.74	18.53
Standard Deviation								13.55	13.82	7.13	7.51	12.96
CV								18.44	29.59	8.17	8.56	25.64
Grand Mean								73.51	46.7	87.19	87.81	50.56

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

RiceBeaux and RicePro Combinations with Newpath and Beyond

Trial ID: HRI-31611
Location: Rohwer, AR

Investigator: Kenneth Smith

Crop Description

Crop 1: ORYSA Oryza sativa Common rice
Variety: CL142AR
BBCH Scale: BRIC
Planting Method: DRILLE drilled
Depth, Unit: 1 IN
Row Spacing, Unit: 7.5 IN
Seed Bed: MEDIUM medium
Soil Moisture: DRY dry
Planting Date: 5/16/11
Rate, Unit: 90 LB/A
Soil Temperature, Unit: 65.6 F
Emergence Date: 5/26/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** LEFPA Leptochloa panicoides
Common Name: Tighthead sprangletop

Pest 3 Type: W **Code:** SEBEX Sesbania exaltata
Common Name: Hemp sesbania

Site and Design

Plot Width, Unit: 6.33 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 177.24 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/20/11	Fertilized	Urea	326	LB/A	N	no

Soil Description

Description Name: Rohwer Clay Blocks
% Sand: 3.5 **% OM:** 1 **Texture:** C clay
% Silt: 37.4 **pH:** 7.3 **Soil Name:** Sharkey Clay
% Clay: 59.1 **CEC:** 38

Application Description

	A	B
Application Date:	5/17/11	6/13/11
Time of Day:	am	am
Application Method:	SPRAY	SPRAY
Application Timing:	PREMCR	MIPOCR
Application Placement:	BROSOL	BROFOL
Applied By:	JM	JM
Air Temperature, Unit:	60.4 F	85.6 F
% Relative Humidity:	65.9	58.0
Wind Velocity, Unit:	2.2 MPH	5.1 MPH
Wind Direction:	ESE	W
Dew Presence (Y/N):	Y yes	N no
Soil Temperature, Unit:	65.6 F	85.9 F
Soil Moisture:	GOOD	NORMAL
% Cloud Cover:	50	20
Next Rain Occurred On:	5/21/11	6/14/11

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	ORYSA BRIC	ORYSA BRIC

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W
Pest 2 Code, Type, Scale:	LEFPA W	LEFPA W
Pest 3 Code, Type, Scale:	SEBEX W	SEBEX W

Application Equipment

	A	B
Appl. Equipment:	Tractor	Tractor
Equipment Type:	SPTRMO	SPTRMO
Operation Pressure, Unit:	45 PSI	45 PSI
Nozzle Type:	AMFF	AMFF
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN
Propellant:	COMCO2	COMCO2

University of Arkansas-Division of Agriculture

RiceBeaux and RicePro Combinations with Newpath and Beyond

Trial ID: HRI-31611
 Location: Rohwer, AR
 Investigator: Kenneth Smith

		W Weed ECHCG	W Weed LEFPA	W Weed SEBEX	W Weed ECHCG	W Weed LEFPA	W Weed SEBEX
		Echinochloa cr> Common barnyar>	Leptochloa pan> Tighthead spr>	Sesbania exalt> Hemp sesbania	Echinochloa cr> Common barnyar>	Leptochloa pan> Tighthead spr>	Sesbania exalt> Hemp sesbania
		ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA
		Oryza sativa Common rice	Oryza sativa Common rice	Oryza sativa Common rice	Oryza sativa Common rice	Oryza sativa Common rice	Oryza sativa Common rice
		PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P
		6/23/11	6/23/11	6/23/11	7/6/11	7/6/11	7/6/11
		CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
		percent	percent	percent	percent	percent	percent
		1	1	1	1	1	1
		Preflood	Preflood	Preflood	2 wk POF	2 wk POF	2 wk POF
		1-2 till	1-2 till	1-10 in	boot	boot	6-60 in
		JM	JM	JM	JM	JM	JM
		37 10	37 10	37 10	50 23	50 23	50 23
		10 DA-B	10 DA-B	10 DA-B	23 DA-B	23 DA-B	23 DA-B
		38 DP-1	38 DP-1	38 DP-1	51 DP-1	51 DP-1	51 DP-1
		28 DE-1	28 DE-1	28 DE-1	41 DE-1	41 DE-1	41 DE-1
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	
		Rate Unit	Rate Unit	Rate Unit			
1	Untreated Check						0.0
2	Command	0.5 lb ai/a	21.3 oz/a		A	PRE	96.3
3	Command Newpath NIS	0.5 lb ai/a 0.0625 lb ai/a 0.25 % v/v	21.3 oz/a 4 oz/a 3.84 oz/a		A B	PRE 3-4 leaf rice	97.5
4	Command Beyond NIS	0.5 lb ai/a 0.039 lb ai/a 0.25 % v/v	21.3 oz/a 5 oz/a 3.84 oz/a		A B	PRE 3-4 leaf rice	100.0
5	Command Newpath RiceBeaux NIS	0.5 lb ai/a 0.0625 lb ai/a 6 lb ai/a 0.25 % v/v	21.3 oz/a 4 oz/a 4 qt/a 3.84 oz/a		A B	PRE 3-4 leaf rice	100.0
6	Command Beyond RiceBeaux NIS	0.5 lb ai/a 0.039 lb ai/a 6 lb ai/a 0.25 % v/v	21.3 oz/a 5 oz/a 4 qt/a 3.84 oz/a		A B	PRE 3-4 leaf rice	100.0
7	Command Newpath RiceShot NIS	0.5 lb ai/a 0.0625 lb ai/a 3 lb ai/a 0.25 % v/v	21.3 oz/a 4 oz/a 3 qt/a 3.84 oz/a		A B	PRE 3-4 leaf rice	100.0
8	Command Beyond RiceShot NIS	0.5 lb ai/a 0.039 lb ai/a 3 lb ai/a 0.25 % v/v	21.3 oz/a 5 oz/a 3 qt/a 3.84 oz/a		A B	PRE 3-4 leaf rice	100.0
9	Command Newpath RicePro COC	0.5 lb ai/a 0.0625 lb ai/a 4.2 lb ai/a 1.0 % v/v	21.3 oz/a 4 oz/a 4 qt/a 15.4 oz/a		A B	PRE 3-4 leaf rice	100.0
10	Command Beyond RicePro COC	0.5 lb ai/a 0.039 lb ai/a 4.2 lb ai/a 1.0 % v/v	21.3 oz/a 5 oz/a 4 qt/a 15.4 oz/a		A B	PRE 3-4 leaf rice	100.0
11	Command Newpath RiceShot NIS	0.5 lb ai/a 0.0625 lb ai/a 4 lb ai/a 0.25 % v/v	21.3 oz/a 4 oz/a 4 qt/a 3.84 oz/a		A B	PRE 3-4 leaf rice	100.0
12	Command Beyond RiceShot NIS	0.5 lb ai/a 0.039 lb ai/a 3 lb ai/a 0.25 % v/v	21.3 oz/a 5 oz/a 3 qt/a 3.84 oz/a		A B	PRE 3-4 leaf rice	75.0
LSD (P=.05)							21.18
Standard Deviation							14.67
CV							16.47
Grand Mean							89.06

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

RiceBeaux Application Timings in Clearfield Rice

Trial ID: HRI-31711
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: ORYSA Oryza sativa Common rice
Variety: CL142AR
BBCH Scale: BRIC
Planting Method: DRILLE drilled
Depth, Unit: 1 IN
Row Spacing, Unit: 7.5 IN
Seed Bed: MEDIUM medium
Soil Moisture: DRY dry
Planting Date: 5/17/11
Rate, Unit: 90 LB/A
Soil Temperature, Unit: 65.6 F
Emergence Date: 5/26/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** ORYRU Oryza rufipogon
Common Name: Wild red rice

Pest 3 Type: W **Code:** SEBEX Sesbania exaltata
Common Name: Hemp sesbania

Site and Design

Plot Width, Unit: 6.33 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 177.24 FT²
Replications: 4

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB1 Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/20/11	Fertilized	Urea	326	LB/A	N	no

Soil Description

Description Name: Rohwer Clay Blocks
% Sand: 3.5 **% OM:** 1 **Texture:** C clay
% Silt: 37.4 **pH:** 7.3 **Soil Name:** Sharkey Clay
% Clay: 59.1 **CEC:** 38

Application Description

	A	B	C	D
Application Date:	5/17/11	6/1/11	6/6/11	6/20/11
Time of Day:	am	am	am	am
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PREMCR	VEAPOCR	EAPOCR	LAPOCR
Application Placement:	BROSOI	BROFOL	BROFOL	BROFOL
Applied By:	JM	JM	JM	JM
Air Temperature, Unit:	60.4 F	85.1 F	84.4 F	82.5 F
% Relative Humidity:	65.9	61.5	66.3	74.6
Wind Velocity, Unit:	2.2 MPH	0.4 MPH	0.5 MPH	7.9 MPH
Wind Direction:	ESE	SW	E	WSW
Dew Presence (Y/N):	Y yes	N no	N no	N no
Soil Temperature, Unit:	65.6 F	80.5 F	84.1 F	85.7 F
Soil Moisture:	GOOD	GOOD	GOOD	GOOD
% Cloud Cover:	50	40	20	50
Next Rain Occurred On:	5/21/11	6/17/11	6/7/11	6/22/11

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale:	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W	ECHCG W
Pest 2 Code, Type, Scale:	ORYRU W	ORYRU W	ORYRU W	ORYRU W
Pest 3 Code, Type, Scale:	SEBEX W	SEBEX W	SEBEX W	SEBEX W

Application Equipment

	A	B	C	D
Appl. Equipment:	Hand Boom	Hand Boom	Hand Boom	Hand Boom
Equipment Type:	SPRBAC	SPRBAC	SPRBAC	SPRBAC
Operation Pressure, Unit:	45 PSI	45 PSI	45 PSI	45 PSI
Nozzle Type:	AMFF	AMFF	AMFF	AMFF
Nozzle Size:	110015	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN	19 IN
Propellant:	COMCO2	COMCO2	COMCO2	COMCO2

University of Arkansas-Division of Agriculture

RiceBeaux Application Timings in Clearfield Rice

Trial ID: HRI-31711
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code		ECHCG	ORYRU	SEBEX	ECHCG	ORYRU	SEBEX					
Pest Scientific Name		Echinochloa cr>	Oryza rufipogon	Sesbania exalt>	Echinochloa cr>	Oryza rufipogon	Sesbania exalt>					
Pest Name		Common barnyar>	Wild red rice	Hemp sesbania	Common barnyar>	Wild red rice	Hemp sesbania					
Crop Code		ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA					
Crop Scientific Name		Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa					
Crop Name		Common rice	Common rice	Common rice	Common rice	Common rice	Common rice					
Part Assessed		PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P					
Assessment Date		6/14/11	6/14/11	6/14/11	6/23/11	6/23/11	6/23/11					
Assessment Type		CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Assessment Unit		percent	percent	percent	percent	percent	percent					
Number of Subsamples		1	1	1	1	1	1					
Crop Stage Majority		4 leaf	4 leaf	4 leaf	Preflood	Preflood	Preflood					
Pest Stage Majority		1-4 leaf	1-4 leaf	1-8 inch	1-2 till	1-2 till	1-10 in					
Assessed By		JM	JM	JM	JM	JM	JM					
Days After First/Last Applic.		28 1	28 1	28 1	37 3	37 3	37 3					
Trt-Eval Interval		8 DA-C	8 DA-C	8 DA-C	3 DA-D	3 DA-D	3 DA-D					
Plant-Eval Interval		29 DP-1	29 DP-1	29 DP-1	37 DP-1	37 DP-1	37 DP-1					
Days After Emergence		19 DE-1	19 DE-1	19 DE-1	28 DE-1	28 DE-1	28 DE-1					
Trt No.	Treatment Name	Rate	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0
2	Newpath	0.0625 lb ai/a	4 fl oz/a		B	VE-POST	93.8	90.0	0.0	96.3	91.3	0.0
	Agri-Dex	1 % v/v	15.4 fl oz/a		B	VE-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
3	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST	95.0	91.3	0.0	95.0	91.3	0.0
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
4	Newpath	0.0625 lb ai/a	4 fl oz/a		B	VE-POST	93.8	90.0	50.0	98.8	93.8	37.5
	Ricebeaux	4 lb ai/a	2.67 qt/a		B	VE-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		B	VE-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
5	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST	98.8	95.8	98.8	100.0	96.3	87.5
	Ricebeaux	4 lb ai/a	2.67 qt/a		C	E-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
6	Newpath	0.0625 lb ai/a	4 fl oz/a		B	VE-POST	95.0	92.5	0.0	96.3	91.3	62.5
	Agri-Dex	1 % v/v	15.4 fl oz/a		B	VE-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Ricebeaux	4 lb ai/a	2.67 qt/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
7	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST	96.3	92.5	0.0	96.3	90.0	65.0
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Ricebeaux	4 lb ai/a	2.67 qt/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
8	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	92.5	91.3	0.0	96.3	91.3	5.0
	Newpath	0.0625 lb ai/a	4 fl oz/a		B	VE-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		B	VE-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
9	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	96.3	91.3	0.0	96.3	91.3	7.5
	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
10	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	97.5	91.3	52.5	100.0	96.3	47.5
	Newpath	0.0625 lb ai/a	4 fl oz/a		B	VE-POST						
	Ricebeaux	4 lb ai/a	2.67 qt/a		B	VE-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		B	VE-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
11	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	100.0	93.3	95.3	100.0	97.5	90.0
	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST						
	Ricebeaux	4 lb ai/a	2.67 qt/a		C	E-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
12	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	93.8	90.0	0.0	96.3	91.3	57.5
	Newpath	0.0625 lb ai/a	4 fl oz/a		B	VE-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		B	VE-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Ricebeaux	4 lb ai/a	2.67 qt/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
13	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	93.8	91.3	0.0	96.3	92.5	72.5
	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Ricebeaux	4 lb ai/a	2.67 qt/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
14	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	93.8	90.0	0.0	95.0	90.0	81.3
	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Clearpath	0.5 lb ai/a	0.67 lb/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

RiceBeaux Application Timings in Clearfield Rice

Trial ID: HRI-31711
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed ORYRU	W Weed SEBEX	W Weed ECHCG	W Weed ORYRU	W Weed SEBEX						
Pest Code	Echinochloa cr>	Oryza rufipogon	Sesbania exalt>	Echinochloa cr>	Oryza rufipogon	Sesbania exalt>						
Pest Scientific Name	Echinochloa cr>	Oryza rufipogon	Sesbania exalt>	Echinochloa cr>	Oryza rufipogon	Sesbania exalt>						
Pest Name	Common barnyar>	Wild red rice	Hemp sesbania	Common barnyar>	Wild red rice	Hemp sesbania						
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA						
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa						
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice						
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P						
Assessment Date	6/14/11	6/14/11	6/14/11	6/23/11	6/23/11	6/23/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	percent	percent	percent	percent	percent	percent						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	4 leaf	4 leaf	4 leaf	Preflood	Preflood	Preflood						
Pest Stage Majority	1-4 leaf	1-4 leaf	1-8 inch	1-2 till	1-2 till	1-10 in						
Assessed By	JM	JM	JM	JM	JM	JM						
Days After First/Last Applic.	28 1	28 1	28 1	37 3	37 3	37 3						
Trt-Eval Interval	8 DA-C	8 DA-C	8 DA-C	3 DA-D	3 DA-D	3 DA-D						
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	37 DP-1	37 DP-1	37 DP-1						
Days After Emergence	19 DE-1	19 DE-1	19 DE-1	28 DE-1	28 DE-1	28 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3	4	5	6
15	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	96.3	91.3	63.8	100.0	95.0	50.0
	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST						
	Ultra Blazer	0.25 lb ai/a	1 pt/a		C	E-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
16	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	93.8	77.5	0.0	97.5	91.3	85.0
	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Ultra Blazer	0.25 lb ai/a	1 pt/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
17	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	97.5	91.3	75.0	100.0	95.0	67.5
	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST						
	Ultra Blazer	0.25 lb ai/a	1 pt/a		C	E-POST						
	Londax	0.0375 lb ai/a	1 oz/a		C	E-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
18	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	93.8	90.0	0.0	96.3	91.3	85.0
	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Ultra Blazer	0.25 lb ai/a	1 pt/a		D	L-POST						
	Londax	0.0375 lb ai/a	1 oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
	LSD (P=.05)						3.73	9.05	15.08	2.98	3.40	19.98
	Standard Deviation						2.64	6.40	10.66	2.11	2.40	14.13
	CV						2.93	7.48	44.09	2.29	2.74	28.21
	Grand Mean						90.07	85.57	24.18	92.01	87.57	50.07

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

RiceBeaux Application Timings in Clearfield Rice

Trial ID: HRI-31711
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code		ECHCG	ORYRU	SEBEX	ECHCG	ORYRU	SEBEX					
Pest Scientific Name		Echinochloa cr>	Oryza rufipogon	Sesbania exalt>	Echinochloa cr>	Oryza rufipogon	Sesbania exalt>					
Pest Name		Common barnyar>	Wild red rice	Hemp sesbania	Common barnyar>	Wild red rice	Hemp sesbania					
Crop Code		ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA					
Crop Scientific Name		Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa					
Crop Name		Common rice	Common rice	Common rice	Common rice	Common rice	Common rice					
Part Assessed		PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P					
Assessment Date		7/6/11	7/6/11	7/6/11	7/12/11	7/12/11	7/12/11					
Assessment Type		CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Assessment Unit		percent	percent	percent	percent	percent	percent					
Number of Subsamples		1	1	1	1	1	1					
Crop Stage Majority		2 wk POF	2 wk POF	2 wk POF	3 wk POF	3 wk POF	3 wk POF					
Pest Stage Majority		boot	1-2 till	6-50 in	heading	PI	6-72 in					
Assessed By		JM	JM	JM	JM	JM	JM					
Days After First/Last Applic.		50 16	50 16	50 16	56 22	56 22	56 22					
Trt-Eval Interval		16 DA-D	16 DA-D	16 DA-D	22 DA-D	22 DA-D	22 DA-D					
Plant-Eval Interval		50 DP-1	50 DP-1	50 DP-1	56 DP-1	56 DP-1	56 DP-1					
Days After Emergence		41 DE-1	41 DE-1	41 DE-1	47 DE-1	47 DE-1	47 DE-1					
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	7	8	9	10	11	12
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0
2	Newpath	0.0625 lb ai/a	4 fl oz/a		B	VE-POST	100.0	100.0	0.0	100.0	100.0	0.0
	Agri-Dex	1 % v/v	15.4 fl oz/a		B	VE-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
3	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST	100.0	100.0	0.0	100.0	98.8	0.0
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
4	Newpath	0.0625 lb ai/a	4 fl oz/a		B	VE-POST	100.0	100.0	25.0	100.0	100.0	15.0
	Ricebeaux	4 lb ai/a	2.67 qt/a		B	VE-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		B	VE-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
5	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST	100.0	100.0	83.8	100.0	100.0	77.5
	Ricebeaux	4 lb ai/a	2.67 qt/a		C	E-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
6	Newpath	0.0625 lb ai/a	4 fl oz/a		B	VE-POST	100.0	100.0	100.0	100.0	100.0	100.0
	Agri-Dex	1 % v/v	15.4 fl oz/a		B	VE-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Ricebeaux	4 lb ai/a	2.67 qt/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
7	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST	100.0	100.0	75.0	100.0	100.0	100.0
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Ricebeaux	4 lb ai/a	2.67 qt/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
8	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	100.0	100.0	0.0	100.0	100.0	0.0
	Newpath	0.0625 lb ai/a	4 fl oz/a		B	VE-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		B	VE-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
9	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	100.0	100.0	0.0	100.0	100.0	0.0
	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
10	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	100.0	100.0	37.5	100.0	100.0	25.0
	Newpath	0.0625 lb ai/a	4 fl oz/a		B	VE-POST						
	Ricebeaux	4 lb ai/a	2.67 qt/a		B	VE-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		B	VE-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
11	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	100.0	100.0	90.0	100.0	100.0	83.8
	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST						
	Ricebeaux	4 lb ai/a	2.67 qt/a		C	E-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
12	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	100.0	95.0	75.0	100.0	98.8	75.0
	Newpath	0.0625 lb ai/a	4 fl oz/a		B	VE-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		B	VE-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Ricebeaux	4 lb ai/a	2.67 qt/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
13	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	100.0	100.0	100.0	100.0	100.0	75.0
	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Ricebeaux	4 lb ai/a	2.67 qt/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
14	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	100.0	95.0	65.0	100.0	100.0	40.0
	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Clearpath	0.5 lb ai/a	0.67 lb/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

RiceBeaux Application Timings in Clearfield Rice

Trial ID: HRI-31711
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed ORYRU	W Weed SEBEX	W Weed ECHCG	W Weed ORYRU	W Weed SEBEX						
Pest Code	Echinochloa cr>	Oryza rufipogon	Sesbania exalt>	Echinochloa cr>	Oryza rufipogon	Sesbania exalt>						
Pest Scientific Name												
Pest Name	Common barnyar>	Wild red rice	Hemp sesbania	Common barnyar>	Wild red rice	Hemp sesbania						
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA						
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa						
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice						
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P						
Assessment Date	7/6/11	7/6/11	7/6/11	7/12/11	7/12/11	7/12/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	percent	percent	percent	percent	percent	percent						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	2 wk POF	2 wk POF	2 wk POF	3 wk POF	3 wk POF	3 wk POF						
Pest Stage Majority	boot	1-2 till	6-50 in	heading	PI	6-72 in						
Assessed By	JM	JM	JM	JM	JM	JM						
Days After First/Last Applic.	50 16	50 16	50 16	56 22	56 22	56 22						
Trt-Eval Interval	16 DA-D	16 DA-D	16 DA-D	22 DA-D	22 DA-D	22 DA-D						
Plant-Eval Interval	50 DP-1	50 DP-1	50 DP-1	56 DP-1	56 DP-1	56 DP-1						
Days After Emergence	41 DE-1	41 DE-1	41 DE-1	47 DE-1	47 DE-1	47 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	7	8	9	10	11	12
15	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	100.0	100.0	42.5	100.0	100.0	30.0
	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST						
	Ultra Blazer	0.25 lb ai/a	1 pt/a		C	E-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
16	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	100.0	100.0	100.0	100.0	100.0	100.0
	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Ultra Blazer	0.25 lb ai/a	1 pt/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
17	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	100.0	100.0	56.3	100.0	100.0	37.5
	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST						
	Ultra Blazer	0.25 lb ai/a	1 pt/a		C	E-POST						
	Londax	0.0375 lb ai/a	1 oz/a		C	E-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
18	Command	0.5 lb ai/a	1.33 pt/a		A	PRE	100.0	97.5	100.0	100.0	100.0	100.0
	Newpath	0.0625 lb ai/a	4 fl oz/a		C	E-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		C	E-POST						
	Newpath	0.0625 lb ai/a	4 fl oz/a		D	L-POST						
	Ultra Blazer	0.25 lb ai/a	1 pt/a		D	L-POST						
	Londax	0.0375 lb ai/a	1 oz/a		D	L-POST						
	Agri-Dex	1 % v/v	15.4 fl oz/a		D	L-POST						
	LSD (P=.05)						0.00	4.14	28.59	0.00	1.19	30.15
	Standard Deviation						0.00	2.93	20.22	0.00	0.84	21.32
	CV						0.0	3.12	38.31	0.0	0.89	44.68
	Grand Mean						94.44	93.75	52.78	94.44	94.31	47.71

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Blazer, Storm, and Londax Combinations with Newpath and Beyond

Trial ID: HRI-31811
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description	
Crop 1: ORYSA Oryza sativa Common rice Variety: CL142AR BBCH Scale: BRIC Planting Method: DRILLE drilled Depth, Unit: 1 IN Row Spacing, Unit: 7.5 IN Seed Bed: MEDIUM medium Soil Moisture: DRY dry	Planting Date: 5/17/11 Rate, Unit: 90 LB/A Soil Temperature, Unit: 65.6 F Emergence Date: 5/26/11

Pest Description	
Pest 1 Type: W Code: ECHCG Echinochloa crus-galli Common Name: Common barnyardgrass	
Pest 2 Type: W Code: ORYRU Oryza rufipogon Common Name: Wild red rice	
Pest 3 Type: W Code: SEBEX Sesbania exaltata Common Name: Hemp sesbania	

Site and Design	
Plot Width, Unit: 6.33 FT Plot Length, Unit: 28 FT Plot Area, Unit: 177.24 FT ² Replications: 4	Site Type: FIELD field Experimental Unit: 1 PLOT plot Tillage Type: CONTIL conventional-till Study Design: RACOB� Randomized Complete Block (RCB) Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance							
No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/20/11	Fertilized	Urea	326	LB/A	N	no

Soil Description	
Description Name: Rohwer Clay Blocks % Sand: 3.5 % Silt: 37.4 % Clay: 59.1	% OM: 1 pH: 7.3 CEC: 38 Texture: C clay Soil Name: Sharkey Clay

Application Description			
	A	B	C
Application Date:	5/17/11	6/1/11	6/20/11
Time of Day:	am	am	am
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREMCR	EAPOWE	LAPOWE
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	JM	JM	JM
Air Temperature, Unit:	60.4 F	85.1 F	82.5 F
% Relative Humidity:	65.9	61.5	74.6
Wind Velocity, Unit:	2.2 MPH	0.4 MPH	7.9 MPH
Wind Direction:	ESE	SW	WSW
Dew Presence (Y/N):	Y yes	N no	N no
Soil Temperature, Unit:	65.6 F	80.5 F	85.7 F
Soil Moisture:	GOOD	GOOD	GOOD
% Cloud Cover:	50	40	50
Next Rain Occurred On:	5/21/11	6/3/11	6/22/11

Crop Stage At Each Application			
	A	B	C
Crop 1 Code, BBCH Scale:	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC

Pest Stage At Each Application			
	A	B	C
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W
Pest 2 Code, Type, Scale:	ORYRU W	ORYRU W	ORYRU W
Pest 3 Code, Type, Scale:	SEBEX W	SEBEX W	SEBEX W

Application Equipment			
	A	B	C
Appl. Equipment:	Hand Boom	Hand Boom	Hand Boom
Equipment Type:	SPRBAC	SPRBAC	SPRBAC
Operation Pressure, Unit:	45 PSI	45 PSI	45 PSI
Nozzle Type:	AMFF	AMFF	AMFF
Nozzle Size:	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Propellant:	COMCO2	COMCO2	COMCO2

University of Arkansas-Division of Agriculture

Blazer, Storm, and Londax Combinations with Newpath and Beyond

Trial ID: HRI-31811
 Location: Rohwer, AR
 Investigator: Kenneth Smith

							W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	
							ECHCG	ORYRU	SEBEX	ECHCG	ORYRU	SEBEX	
							Echinochloa cr>	Oryza rufipogon	Sesbania exalt>	Echinochloa cr>	Oryza rufipogon	Sesbania exalt>	
							Common barnyar>	Wild red rice	Hemp sesbania	Common barnyar>	Wild red rice	Hemp sesbania	
							ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	
							Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	
							Common rice	Common rice	Common rice	Common rice	Common rice	Common rice	
							PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	
							7/6/11	7/6/11	7/6/11	7/12/11	7/12/11	7/12/11	
							CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	
							percent	percent	percent	percent	percent	percent	
							1	1	1	1	1	1	
							2 wk POF	2 wk POF	2 wk POF	3 wk POF	3 wk POF	3 wk POF	
							boot	1-2 till	6-50 in	heading	PI	6-72 in	
							JM	JM	JM	JM	JM	JM	
							50 16	50 16	50 16	56 22	56 22	56 22	
							16 DA-C	16 DA-C	16 DA-C	22 DA-D	22 DA-D	22 DA-D	
							50 DP-1	50 DP-1	50 DP-1	56 DP-1	56 DP-1	56 DP-1	
							41 DE-1	41 DE-1	41 DE-1	47 DE-1	47 DE-1	47 DE-1	
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	1	2	3	4	5	6
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	100.0	100.0	37.5	100.0	100.0	5.0
	Newpath	0.0625 lb ai/a		4 oz/a		B	1-2 Lf Rice						
	COC	1 % v/v		15.4 oz/a		B	1-2 Lf Rice						
	Newpath	0.0625 lb ai/a		4 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		15.4 oz/a		C	4-5 Lf Rice						
3	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	100.0
	Newpath	0.0625 lb ai/a		4 oz/a		B	1-2 Lf Rice						
	COC	1 % v/v		15.4 oz/a		B	1-2 Lf Rice						
	Newpath	0.0625 lb ai/a		4 oz/a		C	4-5 Lf Rice						
	Ultra Blazer	0.25 lb ai/a		16 oz/a		C	4-5 Lf Rice						
	Londax	0.00625 lb ai/a		1 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		15.4 oz/a		C	4-5 Lf Rice						
4	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	100.0	100.0	85.0	100.0	100.0	75.0
	Newpath	0.0625 lb ai/a		4 oz/a		B	1-2 Lf Rice						
	COC	1 % v/v		15.4 oz/a		B	1-2 Lf Rice						
	Newpath	0.0625 lb ai/a		4 oz/a		C	4-5 Lf Rice						
	Storm	0.25 lb ai/a		16 oz/a		C	4-5 Lf Rice						
	Londax	0.00625 lb ai/a		1 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		15.4 oz/a		C	4-5 Lf Rice						
5	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	100.0	100.0	10.0	100.0	100.0	0.0
	Newpath	0.0625 lb ai/a		4 oz/a		B	1-2 Lf Rice						
	COC	1 % v/v		15.4 oz/a		B	1-2 Lf Rice						
	Beyond	0.039 lb ai/a		5 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		15.4 oz/a		C	4-5 Lf Rice						
6	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	98.8
	Newpath	0.0625 lb ai/a		4 oz/a		B	1-2 Lf Rice						
	COC	1 % v/v		15.4 oz/a		B	1-2 Lf Rice						
	Beyond	0.039 lb ai/a		5 oz/a		C	4-5 Lf Rice						
	Ultra Blazer	0.25 lb ai/a		16 oz/a		C	4-5 Lf Rice						
	Londax	0.00625 lb ai/a		1 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		15.4 oz/a		C	4-5 Lf Rice						
7	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	100.0	100.0	85.0	100.0	100.0	78.8
	Newpath	0.0625 lb ai/a		4 oz/a		B	1-2 Lf Rice						
	COC	1 % v/v		15.4 oz/a		B	1-2 Lf Rice						
	Beyond	0.039 lb ai/a		5 oz/a		C	4-5 Lf Rice						
	Storm	0.25 lb ai/a		16 oz/a		C	4-5 Lf Rice						
	Londax	0.00625 lb ai/a		1 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		15.4 oz/a		C	4-5 Lf Rice						
8	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	100.0	100.0	60.0	100.0	100.0	81.3
	Newpath	0.0625 lb ai/a		4 oz/a		B	1-2 Lf Rice						
	COC	1 % v/v		15.4 oz/a		B	1-2 Lf Rice						
	Newpath	0.0625 lb ai/a		4 oz/a		C	4-5 Lf Rice						
	Strada	0.0656 lb ai/a		2.1 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		15.4 oz/a		C	4-5 Lf Rice						
9	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	100.0	100.0	65.0	100.0	100.0	86.3
	Newpath	0.0625 lb ai/a		4 oz/a		B	1-2 Lf Rice						
	COC	1 % v/v		15.4 oz/a		B	1-2 Lf Rice						
	Beyond	0.039 lb ai/a		5 oz/a		C	4-5 Lf Rice						
	Strada	0.0656 lb ai/a		2.1 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		15.4 oz/a		C	4-5 Lf Rice						
10	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	98.8
	Newpath	0.0625 lb ai/a		4 oz/a		B	1-2 Lf Rice						
	COC	1 % v/v		15.4 oz/a		B	1-2 Lf Rice						
	Newpath	0.0625 lb ai/a		4 oz/a		C	4-5 Lf Rice						
	RiceBeaux	4 lb ai/a		85 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		15.4 oz/a		C	4-5 Lf Rice						
11	Command	0.5 lb ai/a		21.3 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	100.0
	Newpath	0.0625 lb ai/a		4 oz/a		B	1-2 Lf Rice						
	COC	1 % v/v		15.4 oz/a		B	1-2 Lf Rice						
	Beyond	0.039 lb ai/a		5 oz/a		C	4-5 Lf Rice						
	RiceBeaux	4 lb ai/a		85 oz/a		C	4-5 Lf Rice						
	COC	1 % v/v		15.4 oz/a		C	4-5 Lf Rice						
LSD (P=.05)							0.00	0.00	11.42	0.00	0.00	11.77	
Standard Deviation							0.00	0.00	7.91	0.00	0.00	8.15	
CV							0.0	0.0	11.72	0.0	0.0	12.38	
Grand Mean							90.91	90.91	67.5	90.91	90.91	65.8	

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Resistance Management Programs for Barnyardgrass in Rice

Trial ID: HRI-31911
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop 1:		Crop Description	
ORYSA	Oryza sativa	Common rice	
Variety: CL142AR			
BBCH Scale: BRIC		Planting Date: 5/16/11	
Planting Method: DRILLE	drilled	Rate, Unit: 90	LB/A
Depth, Unit: 1	IN		
Row Spacing, Unit: 7.5	IN		
Seed Bed: MEDIUM	medium	Soil Temperature, Unit: 65.6	F
Soil Moisture: DRY	dry	Emergence Date: 5/26/11	
Harvest Date: 10/7/11		Harvest Equipment: Massey Ferguson 8	
Harvested Width, Unit: 5.625	FT	Harvested Length, Unit: 28	FT
% Standard Moisture: 12.0		Moisture Meter: Massey Ferguson 8	
Weighing Equipment: Massey Ferguson 8			

Pest 1 Type: W		Pest Description	
Code: ECHCG	Echinochloa crus-galli	Common Name: Common barnyardgrass	
Pest 2 Type: W	Code: LEFPA	Leptochloa panicoides	
Common Name: Tighthead sprangletop			
Pest 3 Type: W	Code: SEBEX	Sesbania exaltata	
Common Name: Hemp sesbania			

Plot Width, Unit: 6.33		Site and Design	
FT		Site Type: FIELD	field
Plot Length, Unit: 28	FT	Experimental Unit: 1	PLOT plot
Plot Area, Unit: 177.24	FT ²	Tillage Type: CONTIL	conventional-till
Replications: 4		Study Design: RACOB	Randomized Complete Block (RCB)
		Untreated Arrangement: INCLUDED	single control randomized in each block

Maintenance							
No.	Date	Maintenance Treatment Name	Description	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/20/11	Fertilized	Urea	326	LB/A	N	no

Description Name: Rohwer Clay Blocks				Soil Description			
% Sand: 3.5	% OM: 1	Texture: C	clay				
% Silt: 37.4	pH: 7.3	Soil Name: Sharkey Clay					
% Clay: 59.1	CEC: 38						

Application Description					
	A	B	C	D	E
Application Date:	5/17/11	5/24/11	6/6/11	6/13/11	6/20/11
Time of Day:	am	am	am	am	am
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PREMCR	DelayPRE	EAPOCR	MIPOCR	LAPOCR
Application Placement:	BROSOI	BROSOI	BROFOL	BROFOL	BROFOL
Applied By:	JM	JM	JM	JM	JM
Air Temperature, Unit:	60.4 F	77.3 F	84.4 F	85.6 F	82.5 F
% Relative Humidity:	65.9	74.1	66.3	58.0	74.6
Wind Velocity, Unit:	2.2 MPH	10.5 MPH	0.5 MPH	5.1 MPH	7.9 MPH
Wind Direction:	ESE	SW	E	W	WSW
Dew Presence (Y/N):	Y yes	N no	N no	N no	N no
Soil Temperature, Unit:	65.6 F	74.8 F	84.1 F	85.9 F	85.7 F
Soil Moisture:	GOOD	GOOD	GOOD	NORMAL	GOOD
% Cloud Cover:	50	50	20	20	50
Next Rain Occurred On:	5/21/11	5/26/11	6/7/11	6/14/11	6/22/11

Crop Stage At Each Application					
	A	B	C	D	E
Crop 1 Code, BBCH Scale:	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC

Pest Stage At Each Application					
	A	B	C	D	E
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W	ECHCG W	ECHCG W
Pest 2 Code, Type, Scale:	LEFPA W	LEFPA W	LEFPA W	LEFPA W	LEFPA W
Pest 3 Code, Type, Scale:	SEBEX W	SEBEX W	SEBEX W	SEBEX W	SEBEX W

Application Equipment					
	A	B	C	D	E
Appl. Equipment:	Tractor	Tractor	Tractor	Tractor	Hand Boom
Equipment Type:	SPTRMO	SPTRMO	SPTRMO	SPTRMO	SPRBAC
Operation Pressure, Unit:	45 PSI	45 PSI	45 PSI	45 PSI	45 PSI
Nozzle Type:	AMFF	AMFF	AMFF	AMFF	AMFF
Nozzle Size:	110015	110015	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN	19 IN	19 IN
Propellant:	COMCO2	COMCO2	COMCO2	COMCO2	COMCO2

University of Arkansas-Division of Agriculture

Resistance Management Programs for Barnyardgrass in Rice

Trial ID: HRI-31911
Location: Rohwer, AR

Investigator: Kenneth Smith

University of Arkansas-Division of Agriculture

Resistance Management Programs for Barnyardgrass in Rice

Trial ID: HRI-31911
Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed LEFPA	W Weed SEBEX	W Weed ECHCG	W Weed LEFPA	W Weed SEBEX							
Pest Code	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>							
Pest Scientific Name	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>							
Pest Name	Common barnyar>	Tighthead spra>	Hemp sesbania	Common barnyar>	Tighthead spra>	Hemp sesbania							
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA							
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa							
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice							
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P							
Assessment Date	6/14/11	6/14/11	6/14/11	6/23/11	6/23/11	6/23/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	percent	percent	percent	percent	percent	percent							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	4 leaf	4 leaf	4 leaf	Preflood	Preflood	Preflood							
Pest Stage Majority	1-4 leaf	1-4 leaf	1-8 inch	1-2 till	1-2 till	1-10 in							
Assessed By	JM	JM	JM	JM	JM	JM							
Days After First/Last Applic.	28 1	28 1	28 1	37 10	37 10	37 10							
Trt-Eval Interval	8 DA-C	8 DA-C	8 DA-C	10 DA-D	10 DA-D	10 DA-D							
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	38 DP-1	38 DP-1	38 DP-1							
Days After Emergence	19 DE-1	19 DE-1	19 DE-1	28 DE-1	28 DE-1	28 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	Command Grasp	0.5 lb ai/a	ai/a	21.3 oz/a	oz/a	A	PRE	81.3	77.5	0.0	98.8	97.5	96.3
	COC	0.036 lb ai/a	ai/a	2.3 oz/a	oz/a	D	M-POST						
		1 % v/v	v/v	15.4 oz/a	oz/a	D	M-POST						
3	Prowl Grasp	1 lb ai/a	ai/a	38.8 oz/a	oz/a	B	Delay PRE	72.5	72.5	40.0	91.3	87.5	100.0
	COC	0.036 lb ai/a	ai/a	2.3 oz/a	oz/a	D	M-POST						
		1 % v/v	v/v	15.4 oz/a	oz/a	D	M-POST						
4	Command Facet	0.5 lb ai/a	ai/a	21.3 oz/a	oz/a	A	PRE	91.3	90.0	47.5	95.0	95.0	75.0
	Ricestar HT	0.109 lb ai/a	ai/a	10.7 oz/a	oz/a	A	PRE						
	Aim	0.0156 lb ai/a	ai/a	24 oz/a	oz/a	E	L-POST						
	COC	0.0156 lb ai/a	ai/a	1 oz/a	oz/a	E	L-POST						
		1 % v/v	v/v	15.4 oz/a	oz/a	E	L-POST						
5	Prowl Facet	1 lb ai/a	ai/a	38.8 oz/a	oz/a	B	Delay PRE	90.0	90.0	77.5	87.5	83.8	97.5
	Ricestar HT	0.5 lb ai/a	ai/a	10.7 oz/a	oz/a	B	Delay PRE						
	Aim	0.109 lb ai/a	ai/a	24 oz/a	oz/a	E	L-POST						
	COC	0.0156 lb ai/a	ai/a	1 oz/a	oz/a	E	L-POST						
		1 % v/v	v/v	15.4 oz/a	oz/a	E	L-POST						
6	Command Facet	0.5 lb ai/a	ai/a	21.3 oz/a	oz/a	A	PRE	97.5	95.0	68.8	100.0	100.0	100.0
	RiceBeaux	0.5 lb ai/a	ai/a	10.7 oz/a	oz/a	A	PRE						
		6 lb ai/a	ai/a	4 qt/a	qt/a	D	M-POST						
7	Prowl Facet	1 lb ai/a	ai/a	38.8 oz/a	oz/a	B	Delay PRE	90.0	87.5	68.8	98.8	98.8	100.0
	RiceBeaux	0.5 lb ai/a	ai/a	10.7 oz/a	oz/a	B	Delay PRE						
		6 lb ai/a	ai/a	4 qt/a	qt/a	D	M-POST						
8	Facet RiceBeaux	0.5 lb ai/a	ai/a	10.7 oz/a	oz/a	A	PRE	82.5	65.0	75.0	92.5	87.5	100.0
		6 lb ai/a	ai/a	4 qt/a	qt/a	D	M-POST						
9	Command RiceBeaux	0.5 lb ai/a	ai/a	21.3 oz/a	oz/a	A	PRE	80.0	75.0	7.5	98.8	96.3	93.8
		6 lb ai/a	ai/a	4 qt/a	qt/a	D	M-POST						
10	Prowl RiceBeaux	1 lb ai/a	ai/a	38.8 oz/a	oz/a	B	Delay PRE	55.0	50.0	55.0	85.0	75.0	100.0
		6 lb ai/a	ai/a	4 qt/a	qt/a	D	M-POST						
11	Command Prowl	0.5 lb ai/a	ai/a	21.3 oz/a	oz/a	A	PRE	91.3	90.0	0.0	100.0	100.0	70.0
	Facet	1 lb ai/a	ai/a	38.8 oz/a	oz/a	C	E-POST						
	Stam M-4	0.5 lb ai/a	ai/a	10.7 oz/a	oz/a	C	E-POST						
		4 lb ai/a	ai/a	4 qt/a	qt/a	E	L-POST						
12	Command Prowl	0.5 lb ai/a	ai/a	21.3 oz/a	oz/a	A	PRE	100.0	100.0	91.3	100.0	100.0	96.3
	Grasp	1 lb ai/a	ai/a	38.8 oz/a	oz/a	C	E-POST						
	COC	0.036 lb ai/a	ai/a	2.3 oz/a	oz/a	C	E-POST						
	Stam M-4	1 % v/v	v/v	15.4 oz/a	oz/a	C	E-POST						
		4 lb ai/a	ai/a	4 qt/a	qt/a	E	L-POST						
13	Command Prowl	0.5 lb ai/a	ai/a	21.3 oz/a	oz/a	A	PRE	86.3	85.0	0.0	93.8	92.5	72.5
	Stam M-4	1 lb ai/a	ai/a	38.8 oz/a	oz/a	C	E-POST						
		4 lb ai/a	ai/a	4 qt/a	qt/a	E	L-POST						
14	Stam M-4 Facet	4 lb ai/a	ai/a	4 qt/a	qt/a	C	E-POST	86.3	70.0	91.3	77.5	70.0	100.0
	Ricestar HT	0.5 lb ai/a	ai/a	10.7 oz/a	oz/a	C	E-POST						
	Aim	0.109 lb ai/a	ai/a	24 oz/a	oz/a	E	L-POST						
		0.0156 lb ai/a	ai/a	1 oz/a	oz/a	E	L-POST						
15	Stam M-4 Grasp	4 lb ai/a	ai/a	4 qt/a	qt/a	C	E-POST	77.5	67.5	90.0	80.0	67.5	100.0
	Ricestar HT	0.036 lb ai/a	ai/a	2.3 oz/a	oz/a	C	E-POST						
	Aim	0.109 lb ai/a	ai/a	24 oz/a	oz/a	E	L-POST						
		0.0156 lb ai/a	ai/a	1 oz/a	oz/a	E	L-POST						
16	Command Prowl	0.5 lb ai/a	ai/a	21.3 oz/a	oz/a	A	PRE	90.0	85.0	0.0	98.8	97.5	97.0
	Broadhead	1 lb ai/a	ai/a	38.8 oz/a	oz/a	C	E-POST						
		0.438 lb ai/a	ai/a	10 oz/a	oz/a	D	M-POST						
17	Command Broadhead	0.5 lb ai/a	ai/a	21.3 oz/a	oz/a	A	PRE	93.8	90.0	0.0	98.8	93.8	100.0
		0.438 lb ai/a	ai/a	10 oz/a	oz/a	D	M-POST						
18	Prowl Broadhead	1 lb ai/a	ai/a	38.8 oz/a	oz/a	B	Delay PRE	62.5	60.0	45.0	85.0	80.0	100.0
		0.438 lb ai/a	ai/a	10 oz/a	oz/a	D	M-POST						
19	Command Facet	0.5 lb ai/a	ai/a	21.3 oz/a	oz/a	A	PRE	87.5	87.5	77.5	100.0	100.0	100.0
	Grasp Xtra	0.5 lb ai/a	ai/a	10.7 oz/a	oz/a	A	PRE						
	MSO	0.325 lb ai/a	ai/a	18 oz/a	oz/a	D	M-POST						
		2.08 % v/v	v/v	1 qt/a	qt/a	D	M-POST						

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Resistance Management Programs for Barnyardgrass in Rice

Trial ID: HRI-31911
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed LEFPA	W Weed SEBEX	W Weed ECHCG	W Weed LEFPA	W Weed SEBEX
Pest Code	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>
Pest Scientific Name	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>
Pest Name	Common barnyar>	Tighthead spra>	Hemp sesbania	Common barnyar>	Tighthead spra>	Hemp sesbania
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice	Common rice
Part Assessed	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P	PLAEME P
Assessment Date	6/14/11	6/14/11	6/14/11	6/23/11	6/23/11	6/23/11
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Assessment Unit	percent	percent	percent	percent	percent	percent
Number of Subsamples	1	1	1	1	1	1
Crop Stage Majority	4 leaf	4 leaf	4 leaf	Preflood	Preflood	Preflood
Pest Stage Majority	1-4 leaf	1-4 leaf	1-8 inch	1-2 till	1-2 till	1-10 in
Assessed By	JM	JM	JM	JM	JM	JM
Days After First/Last Applic.	28 1	28 1	28 1	37 10	37 10	37 10
Trt-Eval Interval	8 DA-C	8 DA-C	8 DA-C	10 DA-D	10 DA-D	10 DA-D
Plant-Eval Interval	29 DP-1	29 DP-1	29 DP-1	38 DP-1	38 DP-1	38 DP-1
Days After Emergence	19 DE-1	19 DE-1	19 DE-1	28 DE-1	28 DE-1	28 DE-1
Trt No.	1	2	3	4	5	6
Treatment Name	20 Command	Facet	Rebel EX	MSO		
Rate	0.5 lb ai/a	0.5 lb ai/a	0.285 lb ai/a	2.08 % v/v		
Unit						
Other Rate	21.3 oz/a	10.7 oz/a	18 oz/a	1 qt/a		
Other Rate						
Unit						
Appl Code	A	A	D	D		
Appl Description	PRE	PRE	M-POST	M-POST		
LSD (P=.05)	14.55	14.13	19.54	7.57	7.58	9.86
Standard Deviation	10.29	9.99	13.81	5.35	5.36	6.97
CV	12.82	13.09	30.36	6.01	6.22	7.76
Grand Mean	80.25	76.31	45.5	89.06	86.13	89.91

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Resistance Management Programs for Barnyardgrass in Rice

Trial ID: HRI-31911
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed	W Weed	W Weed							
Pest Code		ECHCG	LEFPA	SEBEX							
Pest Scientific Name		Echinochloa cr>	Leptochloa pan>	Sesbania exalt>							
Pest Name		Common barnyar>	Tighthead spra>	Hemp sesbania							
Crop Code		ORYSA	ORYSA	ORYSA	ORYSA	ORYSA					
Crop Scientific Name		Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa					
Crop Name		Common rice	Common rice	Common rice	Common rice	Common rice					
Part Assessed		PLAEME P	PLAEME P	PLAEME P	YIELD C	YIELD C					
Assessment Date		7/6/11	7/6/11	7/6/11	10/7/11	10/7/11					
Assessment Type		CONTRO	CONTRO	CONTRO	WEIGHT	YIELD					
Assessment Unit		percent	percent	percent	lb/plot	BU					
Number of Subsamples		1	1	1	1	1					
Crop Stage Majority		2 wk POF	2 wk POF	2 wk POF	Harvest	Harvest					
Pest Stage Majority		boot	boot	6-60 in	Harvest	Harvest					
Assessed By		JM	JM	JM	JM	JM					
Days After First/Last Applic.		50 23	50 23	50 23	143 109	143 109					
Trt-Eval Interval		16 DA-E	16 DA-E	16 DA-E	109 DA-E	109 DA-E					
Plant-Eval Interval		51 DP-1	51 DP-1	51 DP-1	144 DP-1	144 DP-1					
Days After Emergence		41 DE-1	41 DE-1	41 DE-1	134 DE-1	134 DE-1					
Trt No.	Treatment Name	Rate	Other Unit	Other Rate	Appl Unit	Appl Description	7	8	9	10	11
1	Untreated Check						0.0	0.0	0.0	5.28	30.9
2	Command Grasp	0.5 lb ai/a		21.3 oz/a	A	PRE	100.0	100.0	93.8	27.30	160.2
	COC	0.036 lb ai/a		2.3 oz/a	D	M-POST					
		1 % v/v		15.4 oz/a	D	M-POST					
3	Prowl Grasp	1 lb ai/a		38.8 oz/a	B	Delay PRE	95.0	90.0	97.5	23.80	139.6
	COC	0.036 lb ai/a		2.3 oz/a	D	M-POST					
		1 % v/v		15.4 oz/a	D	M-POST					
4	Command Facet	0.5 lb ai/a		21.3 oz/a	A	PRE	100.0	100.0	90.0	20.35	119.4
	Ricestar HT	0.109 lb ai/a		10.7 oz/a	A	PRE					
	Aim	0.0156 lb ai/a		24 oz/a	E	L-POST					
	COC	0.0156 lb ai/a		1 oz/a	E	L-POST					
		1 % v/v		15.4 oz/a	E	L-POST					
5	Prowl Facet	1 lb ai/a		38.8 oz/a	B	Delay PRE	100.0	100.0	100.0	29.40	172.5
	Ricestar HT	0.5 lb ai/a		10.7 oz/a	B	Delay PRE					
	Aim	0.109 lb ai/a		24 oz/a	E	L-POST					
	COC	0.0156 lb ai/a		1 oz/a	E	L-POST					
		1 % v/v		15.4 oz/a	E	L-POST					
6	Command Facet	0.5 lb ai/a		21.3 oz/a	A	PRE	100.0	100.0	100.0	30.73	180.3
	RiceBeaux	0.5 lb ai/a		10.7 oz/a	A	PRE					
		6 lb ai/a		4 qt/a	D	M-POST					
7	Prowl Facet	1 lb ai/a		38.8 oz/a	B	Delay PRE	100.0	100.0	100.0	30.87	181.1
	RiceBeaux	0.5 lb ai/a		10.7 oz/a	B	Delay PRE					
		6 lb ai/a		4 qt/a	D	M-POST					
8	Facet RiceBeaux	0.5 lb ai/a		10.7 oz/a	A	PRE	95.0	83.8	96.3	27.45	161.0
		6 lb ai/a		4 qt/a	D	M-POST					
9	Command RiceBeaux	0.5 lb ai/a		21.3 oz/a	A	PRE	97.5	95.0	97.5	19.45	114.1
		6 lb ai/a		4 qt/a	D	M-POST					
10	Prowl RiceBeaux	1 lb ai/a		38.8 oz/a	B	Delay PRE	90.0	87.5	100.0	27.13	159.1
		6 lb ai/a		4 qt/a	D	M-POST					
11	Command Prowl	0.5 lb ai/a		21.3 oz/a	A	PRE	100.0	100.0	90.0	22.60	132.6
	Facet	1 lb ai/a		38.8 oz/a	C	E-POST					
	Stam M-4	0.5 lb ai/a		10.7 oz/a	C	E-POST					
		4 lb ai/a		4 qt/a	E	L-POST					
12	Command Prowl	0.5 lb ai/a		21.3 oz/a	A	PRE	100.0	98.8	100.0	30.13	176.8
	Grasp	1 lb ai/a		38.8 oz/a	C	E-POST					
	COC	0.036 lb ai/a		2.3 oz/a	C	E-POST					
	Stam M-4	1 % v/v		15.4 oz/a	C	E-POST					
		4 lb ai/a		4 qt/a	E	L-POST					
13	Command Prowl	0.5 lb ai/a		21.3 oz/a	A	PRE	100.0	100.0	100.0	27.10	159.0
	Stam M-4	1 lb ai/a		38.8 oz/a	C	E-POST					
		4 lb ai/a		4 qt/a	E	L-POST					
14	Stam M-4 Facet	4 lb ai/a		4 qt/a	C	E-POST	100.0	100.0	100.0	29.35	172.2
	Ricestar HT	0.5 lb ai/a		10.7 oz/a	C	E-POST					
	Aim	0.109 lb ai/a		24 oz/a	E	L-POST					
		0.0156 lb ai/a		1 oz/a	E	L-POST					
15	Stam M-4 Grasp	4 lb ai/a		4 qt/a	C	E-POST	100.0	100.0	100.0	30.38	178.2
	Ricestar HT	0.036 lb ai/a		2.3 oz/a	C	E-POST					
	Aim	0.109 lb ai/a		24 oz/a	E	L-POST					
		0.0156 lb ai/a		1 oz/a	E	L-POST					
16	Command Prowl	0.5 lb ai/a		21.3 oz/a	A	PRE	100.0	97.5	98.8	28.13	165.0
	Broadhead	1 lb ai/a		38.8 oz/a	C	E-POST					
		0.438 lb ai/a		10 oz/a	D	M-POST					
17	Command Broadhead	0.5 lb ai/a		21.3 oz/a	A	PRE	100.0	100.0	100.0	28.25	165.7
		0.438 lb ai/a		10 oz/a	D	M-POST					
18	Prowl Broadhead	1 lb ai/a		38.8 oz/a	B	Delay PRE	97.5	85.0	100.0	27.98	164.1
		0.438 lb ai/a		10 oz/a	D	M-POST					
19	Command Facet	0.5 lb ai/a		21.3 oz/a	A	PRE	100.0	96.3	100.0	29.88	175.3
	Grasp Xtra	0.5 lb ai/a		10.7 oz/a	A	PRE					
	MSO	0.325 lb ai/a		18 oz/a	D	M-POST					
		2.08 % v/v		1 qt/a	D	M-POST					

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Resistance Management Programs for Barnyardgrass in Rice

Trial ID: HRI-31911
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed		
Pest Code	ECHCG	LEFPA	SEBEX		
Pest Scientific Name	Echinochloa cr>	Leptochloa pan>	Sesbania exalt>		
Pest Name	Common barnyar>	Tightthead spra>	Hemp sesbania		
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA
Crop Scientific Name	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa	Oryza sativa
Crop Name	Common rice	Common rice	Common rice	Common rice	Common rice
Part Assessed	PLAEME P	PLAEME P	PLAEME P	YIELD C	YIELD C
Assessment Date	7/6/11	7/6/11	7/6/11	10/7/11	10/7/11
Assessment Type	CONTRO	CONTRO	CONTRO	WEIGHT	YIELD
Assessment Unit	percent	percent	percent	lb/plot	BU
Number of Subsamples	1	1	1	1	1
Crop Stage Majority	2 wk POF	2 wk POF	2 wk POF	Harvest	Harvest
Pest Stage Majority	boot	boot	6-60 in	Harvest	Harvest
Assessed By	JM	JM	JM	JM	JM
Days After First/Last Applic.	50 23	50 23	50 23	143 109	143 109
Trt-Eval Interval	16 DA-E	16 DA-E	16 DA-E	109 DA-E	109 DA-E
Plant-Eval Interval	51 DP-1	51 DP-1	51 DP-1	144 DP-1	144 DP-1
Days After Emergence	41 DE-1	41 DE-1	41 DE-1	134 DE-1	134 DE-1
Trt No.	7	8	9	10	11
Treatment Name	20 Command	Facet	Rebel EX	MSO	
Rate	0.5 lb ai/a	0.5 lb ai/a	0.285 lb ai/a	2.08 % v/v	
Unit					
Other Rate	21.3 oz/a	10.7 oz/a	18 oz/a	1 qt/a	
Other Rate					
Appl Code	A	A	D	D	
Appl Description	PRE	PRE	M-POST	M-POST	
	100.0	100.0	100.0	31.63	185.5
LSD (P=.05)	7.65	11.12	9.89	9.239	54.20
Standard Deviation	5.41	7.86	7.00	6.533	38.33
CV	5.77	8.58	7.51	24.78	24.78
Grand Mean	93.75	91.69	93.19	26.36	154.63

University of Arkansas-Division of Agriculture

Resistance Management Programs for Barnyardgrass in Rice

Trial ID: HRI-31911
Location: Rohwer, AR

Investigator: Kenneth Smith

ARM Action Codes
TY1 = 5.866667*[10]

University of Arkansas-Division of Agriculture

Efficacy of Sharpen in a Soybean Burndown Program

Trial ID: HSB-50111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 5606
BBCH Scale: BSOY
Planting Method: PLANTD planted
Depth, Unit: 0.75 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: FAIR fair
Description: Roundup Ready
Planting Date: 5/31/11
Rate, Unit: 130000 P/A
Spacing Within Row, Unit: 2 IN
Soil Temperature, Unit: 79.6 F
Emergence Date: 6/6/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass
Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth
Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Bifenthrin	6.4	OZ

Soil Description

Description Name: 2011 Soybean
% Sand: 16 **% OM:** 2.2 **Texture:** SIL silt loam
% Silt: 65 **pH:** 6.7 **Soil Name:** Sharkey & Desha Silt Loam
% Clay: 19 **CEC:** 13 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B
Application Date:	5/11/11	6/27/11
Time of Day:	AM	AM
Application Method:	SPRAY	SPRAY
Application Timing:	PREPLA	POSPOS
Application Placement:	BROSOL	BROFOL
Applied By:	BM	JB
Air Temperature, Unit:	76.0 F	83.1 F
% Relative Humidity:	71.5	73.5
Wind Velocity, Unit:	6.6 MPH	4.5 MPH
Wind Direction:	WSW	W
Dew Presence (Y/N):	N no	N no
Soil Temperature, Unit:	73.8 F	85.9 F
Soil Moisture:	GOOD	GOOD
% Cloud Cover:	10	60
Next Rain Occurred On:	5/21/11	6/29/11

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
Height, Unit:	0 IN	10 IN

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W
Height, Unit:	0 IN	5 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W
Height, Unit:	0 IN	6 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W
Height, Unit:	0 IN	3 IN

University of Arkansas-Division of Agriculture

Efficacy of Sharpen in a Soybean Burndown Program

Trial ID: HSB-50111
 Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B
Appl. Equipment:	Hand Boom	Multi Boom
Equipment Type:	SPRBAC	SPTRMO
Operation Pressure, Unit:	45 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN
Nozzles/Row:	2	2
% Coverage:	100	100
Boom Length, Unit:	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN
Carrier:	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes

University of Arkansas-Division of Agriculture

Efficacy of Sharpen in a Soybean Burndown Program

Trial ID: HSB-50111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA							
Pest Code	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>							
Pest Scientific Name	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth							
Pest Name												
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT C	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	6/20/11	5/30/11	5/30/11	6/13/11	6/13/11							
Assessment Type	COUPLA	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	MROW	%	%	%	%							
Number of Subsamples	2	1	1	1	1							
Crop Stage Majority				V1 1-3*	V1 1-3*							
Pest Stage Majority		0.5*	0.25*	0.5*	0.25*							
Assessed By												
Days After First/Last Applic.	40 40	19 19	19 19	33 33	33 33							
Trt-Eval Interval	40 DA-A	19 DA-A	19 DA-A	33 DA-A	33 DA-A							
Plant-Eval Interval	20 DP-1	-1 DP-1	-1 DP-1	13 DP-1	13 DP-1							
Days After Emergence	14 DE-1	-7 DE-1	-7 DE-1	7 DE-1	7 DE-1							
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3	4	5	6
1	Untreated Check						31.25	0.0	0.0	0.0	0.0	0.0
2	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	A	Burndown	30.50	100.0	100.0	100.0	77.5	77.5
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	A	Burndown						
	NIS	0.25 % v/v	3.84 oz/a	3.84 oz/a	A	Burndown						
	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	B	42 - 56 DAA						
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	B	42 - 56 DAA						
3	2,4-D Ester	0.5 lb ai/a	16 oz/a	38.4 oz/a	A	Burndown	31.75	100.0	100.0	100.0	82.5	75.0
	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	A	Burndown						
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	A	Burndown						
	MSO	1.0 % v/v	15.4 oz/a	15.4 oz/a	A	Burndown						
	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	B	42 - 56 DAA						
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	B	42 - 56 DAA						
4	Sharpen	0.0223 lb ai/a	1.0 oz/a	38.4 oz/a	A	Burndown	31.00	100.0	100.0	100.0	77.5	80.0
	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	A	Burndown						
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	A	Burndown						
	MSO	1.0 % v/v	15.4 oz/a	15.4 oz/a	A	Burndown						
	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	B	42 - 56 DAA						
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	B	42 - 56 DAA						
5	Sharpen	0.0223 lb ai/a	1.0 oz/a	38.4 oz/a	A	Burndown	31.25	100.0	100.0	100.0	100.0	97.5
	Scepter	0.123 lb ai/a	2.8 oz/a	38.4 oz/a	A	Burndown						
	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	A	Burndown						
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	A	Burndown						
	MSO	1.0 % v/v	15.4 oz/a	15.4 oz/a	A	Burndown						
	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	B	42 - 56 DAA						
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	B	42 - 56 DAA						
6	Verdict	0.218 lb ai/a	5 oz/a	38.4 oz/a	A	Burndown	32.13	100.0	100.0	100.0	91.3	86.3
	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	A	Burndown						
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	A	Burndown						
	MSO	1.0 % v/v	15.4 oz/a	15.4 oz/a	A	Burndown						
	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	B	42 - 56 DAA						
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	B	42 - 56 DAA						
7	Sharpen	0.0223 lb ai/a	1.0 oz/a	38.4 oz/a	A	Burndown	31.00	100.0	100.0	100.0	95.0	97.5
	Prowl H20	1.23 lb ai/a	2.6 pt/a	38.4 oz/a	A	Burndown						
	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	A	Burndown						
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	A	Burndown						
	MSO	1.0 % v/v	15.4 oz/a	15.4 oz/a	A	Burndown						
	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	B	42 - 56 DAA						
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	B	42 - 56 DAA						
8	Sharpen	0.0223 lb ai/a	1.0 oz/a	38.4 oz/a	A	Burndown	30.88	100.0	100.0	100.0	88.8	95.0
	Sencor	0.375 lb ai/a	8 oz/a	38.4 oz/a	A	Burndown						
	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	B	42 - 56 DAA						
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	B	42 - 56 DAA						
9	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	A	Burndown	32.00	100.0	100.0	100.0	82.5	93.8
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	A	Burndown						
	MSO	1.0 % v/v	15.4 oz/a	15.4 oz/a	A	Burndown						
	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	B	42 - 56 DAA						
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	B	42 - 56 DAA						
10	Sharpen	0.0223 lb ai/a	1.0 oz/a	38.4 oz/a	A	Burndown	30.75	100.0	100.0	100.0	93.8	97.5
	Dual II Magnum	0.0597 lb ai/a	1 oz/a	38.4 oz/a	A	Burndown						
	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	A	Burndown						
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	A	Burndown						
	MSO	1.0 % v/v	15.4 oz/a	15.4 oz/a	A	Burndown						
	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	B	42 - 56 DAA						
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	B	42 - 56 DAA						
11	Sencor	0.375 lb ai/a	8 oz/a	38.4 oz/a	A	Burndown	31.25	100.0	100.0	100.0	95.0	95.0
	Dual II Magnum	0.0597 lb ai/a	1 oz/a	38.4 oz/a	A	Burndown						
	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	A	Burndown						
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	A	Burndown						
	MSO	1.0 % v/v	15.4 oz/a	15.4 oz/a	A	Burndown						
	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	B	42 - 56 DAA						
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	B	42 - 56 DAA						
12	Valor SX	0.064 lb ai/a	2 oz/a	38.4 oz/a	A	Burndown	32.25	100.0	100.0	100.0	92.5	95.0
	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	A	Burndown						
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	A	Burndown						
	MSO	1.0 % v/v	15.4 oz/a	15.4 oz/a	A	Burndown						
	Roundup WeatherMax AMS	0.77 lb ae/a	22 oz/a	38.4 oz/a	B	42 - 56 DAA						
	AMS	2.5 gal/100 gal	38.4 oz/a	3.84 oz/a	B	42 - 56 DAA						

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of Sharpen in a Soybean Burndown Program

Trial ID: HSB-50111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed							
Pest Code	ECHCG	AMAPA	IPOSS	ECHCG	AMAPA							
Pest Scientific Name	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>							
Pest Name	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth							
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT C	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	6/20/11	5/30/11	5/30/11	5/30/11	6/13/11							
Assessment Type	COUPLA	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	MROW	%	%	%	%							
Number of Subsamples	2	1	1	1	1							
Crop Stage Majority				V1 1-3*	V1 1-3*							
Pest Stage Majority		0.5"	0.25"	0.25"	0.25"							
Assessed By												
Days After First/Last Applic.	40 40	19 19	19 19	19 19	33 33							
Trt-Eval Interval	40 DA-A	19 DA-A	19 DA-A	19 DA-A	33 DA-A							
Plant-Eval Interval	20 DP-1	-1 DP-1	-1 DP-1	-1 DP-1	13 DP-1							
Days After Emergence	14 DE-1	-7 DE-1	-7 DE-1	-7 DE-1	7 DE-1							
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3	4	5	6
13	Fierce	0.143 lb ai/a	3 oz/a		A	Burndown	30.13	100.0	100.0	100.0	95.0	100.0
	2,4-D Ester	0.5 lb ai/a	16 oz/a		A	Burndown						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		A	Burndown						
	AMS	2.5 gal/100 gal	38.4 oz/a		A	Burndown						
	MISO	1.0 % v/v	15.4 oz/a		A	Burndown						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	42 - 56 DAA						
	AMS	2.5 gal/100 gal	38.4 oz/a		B	42 - 56 DAA						
	LSD (P=.05)						2.475	0.00	0.00	0.00	9.43	10.43
	Standard Deviation						1.732	0.00	0.00	0.00	6.60	7.30
	CV						5.54	0.0	0.0	0.0	8.01	8.71
	Grand Mean						31.24	92.31	92.31	92.31	82.4	83.85

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of Sharpen in a Soybean Burndown Program

Trial ID: HSB-50111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

							W Weed IPOSS Ipomoea sp. Morning glory		W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory
							GLXMA Glycine max	GLXMA Glycine max	GLXMA Glycine max	GLXMA Glycine max	GLXMA Glycine max
							Soybean PLANT P 6/13/11 CONTRO %	Soybean PLANT P 6/13/11 PHYGEN %	Soybean PLANT P 6/23/11 CONTRO %	Soybean PLANT P 6/23/11 CONTRO %	Soybean PLANT P 6/23/11 CONTRO %
							1 V1 1-3" 0.25"	1 V1 1-3"	1 V4 3-6" 1-8"	1 V4 3-6" 2-10"	1 V4 3-6" 1-4"
							33 33 33 DA-A 13 DP-1 7 DE-1	33 33 33 DA-A 13 DP-1 7 DE-1	43 43 43 DA-A 23 DP-1 17 DE-1	43 43 43 DA-A 23 DP-1 17 DE-1	43 43 43 DA-A 23 DP-1 17 DE-1
Trt No.	Treatment Name	Rate	Other Rate	Other Rate Unit	Appl Code	Appl Description	7	8	9	10	11
1	Untreated Check						0.0	0.0	0.0	0.0	0.0
2	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	A	Burndown	85.0	0.0	57.5	55.0	60.0
	NIS	0.25 % v/v		3.84 oz/a	A	Burndown					
	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	B	42 - 56 DAA					
3	2,4-D Ester	0.5 lb ai/a		16 oz/a	A	Burndown	87.5	0.0	65.0	55.0	67.5
	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	A	Burndown					
	MSO	1.0 % v/v		15.4 oz/a	A	Burndown					
	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	B	42 - 56 DAA					
4	Sharpen	0.0223 lb ai/a		1.0 oz/a	A	Burndown	85.0	0.0	57.5	62.5	65.0
	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	A	Burndown					
	MSO	1.0 % v/v		15.4 oz/a	A	Burndown					
	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	B	42 - 56 DAA					
5	Sharpen	0.0223 lb ai/a		1.0 oz/a	A	Burndown	100.0	0.0	90.0	92.5	92.5
	Scepter	0.123 lb ai/a		2.8 oz/a	A	Burndown					
	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	A	Burndown					
	MSO	1.0 % v/v		15.4 oz/a	A	Burndown					
	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	B	42 - 56 DAA					
6	Verdict	0.218 lb ai/a		5 oz/a	A	Burndown	100.0	0.0	77.3	72.5	80.0
	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	A	Burndown					
	MSO	1.0 % v/v		15.4 oz/a	A	Burndown					
	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	B	42 - 56 DAA					
7	Sharpen	0.0223 lb ai/a		1.0 oz/a	A	Burndown	100.0	0.0	85.0	87.5	92.5
	Prowl H20	1.23 lb ai/a		2.6 pt/a	A	Burndown					
	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	A	Burndown					
	MSO	1.0 % v/v		15.4 oz/a	A	Burndown					
	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	B	42 - 56 DAA					
8	Sharpen	0.0223 lb ai/a		1.0 oz/a	A	Burndown	97.5	0.0	78.8	76.3	83.8
	Sencor	0.375 lb ai/a		8 oz/a	A	Burndown					
	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	B	42 - 56 DAA					
9	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	A	Burndown	85.0	0.0	64.3	57.5	63.5
	MSO	1.0 % v/v		15.4 oz/a	A	Burndown					
	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	B	42 - 56 DAA					
10	Sharpen	0.0223 lb ai/a		1.0 oz/a	A	Burndown	95.0	0.0	73.0	80.0	82.5
	Dual II Magnum	0.0597 lb ai/a		1 oz/a	A	Burndown					
	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	A	Burndown					
	MSO	1.0 % v/v		15.4 oz/a	A	Burndown					
	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	B	42 - 56 DAA					
11	Sencor	0.375 lb ai/a		8 oz/a	A	Burndown	90.0	0.0	77.5	80.5	81.3
	Dual II Magnum	0.0597 lb ai/a		1 oz/a	A	Burndown					
	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	A	Burndown					
	MSO	1.0 % v/v		15.4 oz/a	A	Burndown					
	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	B	42 - 56 DAA					
12	Valor SX	0.064 lb ai/a		2 oz/a	A	Burndown	95.0	0.0	78.3	82.5	82.5
	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	A	Burndown					
	MSO	1.0 % v/v		15.4 oz/a	A	Burndown					
	Roundup WeatherMax AMS	0.77 lb ae/a	2.5 gal/100 gal	22 oz/a	B	42 - 56 DAA					

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of Sharpen in a Soybean Burndown Program

Trial ID: HSB-50111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

		W Weed IPOSS Ipomoea sp. Morning glory		W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory					
		GLXMA Glycine max	GLXMA Glycine max	GLXMA Glycine max	GLXMA Glycine max	GLXMA Glycine max					
		Soybean PLANT P 6/13/11 CONTRO %	Soybean PLANT P 6/13/11 PHYGEN %	Soybean PLANT P 6/23/11 CONTRO %	Soybean PLANT P 6/23/11 CONTRO %	Soybean PLANT P 6/23/11 CONTRO %					
		1 V1 1-3" 0.25"	1 V1 1-3"	1 V4 3-6" 1-8"	1 V4 3-6" 2-10"	1 V4 3-6" 1-4"					
		33 33 33 DA-A 13 DP-1 7 DE-1	33 33 33 DA-A 13 DP-1 7 DE-1	43 43 43 DA-A 23 DP-1 17 DE-1	43 43 43 DA-A 23 DP-1 17 DE-1	43 43 43 DA-A 23 DP-1 17 DE-1					
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	7	8	9	10	11
13	Fierce	0.143 lb ai/a	3 oz/a		A	Burndown	100.0	0.0	91.3	93.8	93.8
	2,4-D Ester	0.5 lb ai/a	16 oz/a		A	Burndown					
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		A	Burndown					
	AMS	2.5 gal/100 gal	38.4 oz/a		A	Burndown					
	MISO	1.0 % v/v	15.4 oz/a		A	Burndown					
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	42 - 56 DAA					
	AMS	2.5 gal/100 gal	38.4 oz/a		B	42 - 56 DAA					
LSD (P=.05)							9.33	0.00	12.11	14.04	16.13
Standard Deviation							6.53	0.00	8.47	9.82	11.29
CV							7.58	0.0	12.31	14.26	15.53
Grand Mean							86.15	0.0	68.87	68.88	72.67

University of Arkansas-Division of Agriculture

Efficacy of Dawn Applied EPP & PRE; Alone and with Alert

Trial ID: HSB-50211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 5606
BBCH Scale: BSOY
Planting Method: PLANTD planted
Depth, Unit: 0.75 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: FAIR fair
Description: Roundup Ready
Planting Date: 5/31/11
Rate, Unit: 130000 P/A
Spacing Within Row, Unit: 2 IN
Soil Temperature, Unit: 79.6 F
Emergence Date: 6/6/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass
Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth
Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Bifenthrin	6.4	OZ

Soil Description

Description Name: 2011 Soybean
% Sand: 16 **% OM:** 2.2 **Texture:** SIL silt loam
% Silt: 65 **pH:** 6.7 **Soil Name:** Sharkey & Desha Silt Loam
% Clay: 19 **CEC:** 13 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B
Application Date:	5/11/11	6/1/11
Time of Day:	AM	AM
Application Method:	SPRAY	SPRAY
Application Timing:	PREPLA	PREPRE
Application Placement:	BROSOL	BROSOL
Applied By:	BM	JB
Air Temperature, Unit:	76.0 F	85.1 F
% Relative Humidity:	71.5	61.5
Wind Velocity, Unit:	6.6 MPH	0.4 MPH
Wind Direction:	WSW	SW
Dew Presence (Y/N):	N no	N no
Soil Temperature, Unit:	73.8 F	80.5 F
Soil Moisture:	GOOD	GOOD
% Cloud Cover:	10	30
Next Rain Occurred On:	5/21/11	6/3/11

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
Height, Unit:	0 IN	0 IN

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W
Height, Unit:	0 IN	0 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W
Height, Unit:	0 IN	0 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W
Height, Unit:	0 IN	0 IN

University of Arkansas-Division of Agriculture

Efficacy of Dawn Applied EPP & PRE; Alone and with Alert

Trial ID: HSB-50211
 Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B
Appl. Equipment:	Hand Boom	Hand Boom
Equipment Type:	SPRBAC	SPRBAC
Operation Pressure, Unit:	45 PSI	45 PSI
Nozzle Type:	Air-Mix	Air-Mix
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN
Nozzles/Row:	2	2
% Coverage:	100	100
Boom Length, Unit:	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN
Carrier:	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes

University of Arkansas-Division of Agriculture

Efficacy of Dawn Applied EPP & PRE; Alone and with Alert

Trial ID: HSB-50211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS							
Pest Code	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Scientific Name	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory							
Pest Name													
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT C	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	6/20/11	6/16/11	6/16/11	6/23/11	6/23/11	6/23/11							
Assessment Type	COUPLA	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	MROW	%	%	%	%	%							
Number of Subsamples	2	1	1	1	1	1							
Crop Stage Majority		V3 2-4"	V3 2-4"	V3 2-4"	V4 3-6"	V4 3-6"							
Pest Stage Majority		1-4"	1-8"	1-2"	2-12"	1-4"							
Assessed By	JB	JB	JB	JB	JB	JB							
Days After First/Last Applic.	40 19	36 15	36 15	36 15	43 22	43 22							
Trt-Eval Interval	19 DA-B	15 DA-B	15 DA-B	15 DA-B	22 DA-B	22 DA-B							
Plant-Eval Interval	20 DP-1	16 DP-1	16 DP-1	16 DP-1	23 DP-1	23 DP-1							
Days After Emergence	14 DE-1	10 DE-1	10 DE-1	10 DE-1	17 DE-1	17 DE-1							
Trt No.	Treatment Name	Rate	Other Rate	Other Unit	Appl Code	Appl Description	1	2	3	4	5	6	7
1	Untreated Check						28.50	0.0	0.0	0.0	0.0	0.0	0.0
2	Dawn Glyfos X-Tra	0.188 lb ai/a	12 oz/a	32 oz/a	A	21 DPP	27.75	100.0	97.5	100.0	94.3	92.5	97.5
3	Dawn Glyfos X-Tra	0.25 lb ai/a	16 oz/a	32 oz/a	A	21 DPP	26.25	96.3	100.0	100.0	88.0	92.5	100.0
4	Dawn Glyfos X-Tra	0.375 lb ai/a	24 oz/a	32 oz/a	A	21 DPP	30.75	100.0	97.5	100.0	93.3	92.5	100.0
5	Dawn Glyfos X-Tra	0.5 lb ai/a	32 oz/a	32 oz/a	A	21 DPP	31.88	100.0	100.0	100.0	98.3	98.3	100.0
6	Dawn Alert Glyfos X-Tra	0.188 lb ai/a	12 oz/a	32 oz/a	B	Pre	26.38	100.0	90.0	100.0	98.8	81.3	100.0
7	Dawn Alert Glyfos X-Tra	0.25 lb ai/a	16 oz/a	32 oz/a	B	Pre	31.38	100.0	93.8	100.0	99.5	85.5	100.0
8	Dawn Alert Glyfos X-Tra	0.375 lb ai/a	24 oz/a	32 oz/a	B	Pre	27.33	100.0	95.0	100.0	100.0	82.5	100.0
9	Dawn Alert Glyfos X-Tra	0.5 lb ai/a	32 oz/a	32 oz/a	B	Pre	29.25	100.0	97.5	100.0	98.3	92.5	100.0
10	Reflex Glyfos X-Tra	0.25 lb ai/a	16 oz/a	32 oz/a	A	21 DPP	26.63	100.0	100.0	100.0	94.0	97.5	100.0
11	Command Reflex Glyfos X-Tra	0.5 lb ai/a	21.3 oz/a	32 oz/a	B	Pre	27.75	100.0	92.5	100.0	96.3	78.8	100.0
12	Prefix Glyfos X-Tra	1.32 lb ai/a	32 oz/a	32 oz/a	B	Pre	30.13	100.0	90.0	100.0	100.0	80.0	100.0
LSD (P=.05)							3.986	2.03	8.45	0.00	4.70	15.01	2.12
Standard Deviation							2.760	1.40	5.85	0.00	3.26	10.39	1.47
CV							9.63	1.54	6.67	0.0	3.69	12.81	1.6
Grand Mean							28.66	91.35	87.81	91.67	88.38	81.15	91.46

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of Dawn Applied EPP & PRE; Alone and with Alert

Trial ID: HSB-50211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code		ECHCG	AMAPA	IPOSS	ECHCG	AMAPA	IPOSS
Pest Scientific Name		Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.
Pest Name		Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory
Crop Code		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Crop Scientific Name		Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name		Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Part Assessed		PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P
Assessment Date		7/14/11	7/14/11	7/14/11	8/1/11	8/1/11	8/1/11
Assessment Type		CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Assessment Unit		%	%	%	%	%	%
Number of Subsamples		1	1	1	1	1	1
Crop Stage Majority		V8 21"	V8 21"	V8 21"	R1/2 38"	R1/2 38"	R1/2 38"
Pest Stage Majority		5-35"	10-60"	5-40"	20-40"	20-60"	10-30"
Assessed By		JB	JB	JB	JB	JB	JB
Days After First/Last Applic.		64 43	64 43	64 43	82 61	82 61	82 61
Trt-Eval Interval		43 DA-B	43 DA-B	43 DA-B	61 DA-B	61 DA-B	61 DA-B
Plant-Eval Interval		44 DP-1	44 DP-1	44 DP-1	62 DP-1	62 DP-1	62 DP-1
Days After Emergence		38 DE-1	38 DE-1	38 DE-1	56 DE-1	56 DE-1	56 DE-1
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	
							8
1	Untreated Check						0.0
2	Dawn	0.188 lb ai/a	12 oz/a		A	21 DPP	62.5
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	21 DPP	78.8
3	Dawn	0.25 lb ai/a	16 oz/a		A	21 DPP	57.5
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	21 DPP	81.3
4	Dawn	0.375 lb ai/a	24 oz/a		A	21 DPP	70.0
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	21 DPP	85.0
5	Dawn	0.5 lb ai/a	32 oz/a		A	21 DPP	88.3
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	21 DPP	100.0
6	Dawn	0.188 lb ai/a	12 oz/a		B	Pre	92.5
	Alert	0.50 lb ai/a	21.3 oz/a		B	Pre	75.0
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		B	Pre	92.5
7	Dawn	0.25 lb ai/a	16 oz/a		B	Pre	95.0
	Alert	0.50 lb ai/a	21.3 oz/a		B	Pre	70.0
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		B	Pre	97.5
8	Dawn	0.375 lb ai/a	24 oz/a		B	Pre	92.5
	Alert	0.50 lb ai/a	21.3 oz/a		B	Pre	72.5
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		B	Pre	92.5
9	Dawn	0.5 lb ai/a	32 oz/a		B	Pre	87.5
	Alert	0.50 lb ai/a	21.3 oz/a		B	Pre	77.5
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		B	Pre	90.0
10	Reflex	0.25 lb ai/a	16 oz/a		A	21 DPP	60.0
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	21 DPP	85.0
11	Command	0.5 lb ai/a	21.3 oz/a		B	Pre	82.5
	Reflex	0.25 lb ai/a	16 oz/a		B	Pre	55.0
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		B	Pre	82.5
12	Prefix	1.32 lb ai/a	32 oz/a		B	Pre	87.5
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		B	Pre	75.0
LSD (P=.05)			13.29	18.84	12.03	20.05	23.32
Standard Deviation			9.21	13.05	8.33	13.88	16.15
CV			12.61	18.31	10.14	19.26	23.86
Grand Mean			72.99	71.25	82.19	72.08	67.71

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of Alert + Dawn PRE in Soybean

Trial ID: HSB-50311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 5606
BBCH Scale: BSOY
Planting Method: PLANTD planted
Depth, Unit: 0.75 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: FAIR fair
Description: Roundup Ready
Planting Date: 5/31/11
Rate, Unit: 130000 P/A
Spacing Within Row, Unit: 2 IN
Soil Temperature, Unit: 79.6 F
Emergence Date: 6/6/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass
Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth
Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Bifenthrin	6.4	OZ

Soil Description

Description Name: 2011 Soybean
% Sand: 16 **% OM:** 2.2 **Texture:** SIL silt loam
% Silt: 65 **pH:** 6.7 **Soil Name:** Sharkey & Desha Silt Loam
% Clay: 19 **CEC:** 13 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A
Application Date:	6/1/11
Time of Day:	PM
Application Method:	SPRAY
Application Timing:	PREPRE
Application Placement:	BROSOL
Applied By:	JB
Air Temperature, Unit:	85.1 F
% Relative Humidity:	61.5
Wind Velocity, Unit:	0.4 MPH
Wind Direction:	SW
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	80.5 F
Soil Moisture:	GOOD
% Cloud Cover:	40
Next Rain Occurred On:	6/17/11

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	GLXMA BSOY
Height, Unit:	0 IN

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	ECHCG W
Height, Unit:	0 IN
Pest 2 Code, Type, Scale:	AMAPA W
Height, Unit:	0 IN
Pest 3 Code, Type, Scale:	IPOSS W
Height, Unit:	0 IN

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of Alert + Dawn PRE in Soybean

Trial ID: HSB-50311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Application Equipment

	A
Appl. Equipment:	Multi Boom
Equipment Type:	SPTRMO
Operation Pressure, Unit:	50 PSI
Nozzle Type:	Air-Mix
Nozzle Size:	110015
Nozzle Spacing, Unit:	19 IN
Nozzles/Row:	2
% Coverage:	100
Boom Length, Unit:	12.6 FT
Boom Height, Unit:	18 IN
Carrier:	WATER
Spray Volume, Unit:	12 gal/ac
Mix Size, Unit:	3 Liters
Propellant:	COMCO2
Tank Mix (Y/N):	Y yes

No. Date	By	Deviations
1.6/1/11	JB	Check Plots 414, 415, & 315 for application errors

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of Alert + Dawn PRE in Soybean

Trial ID: HSB-50311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS							
Pest Code	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Scientific Name	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory							
Pest Name													
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT C	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	6/20/11	6/16/11	6/16/11	6/23/11	6/23/11	6/23/11							
Assessment Type	COUPLA	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	MROW	%	%	%	%	%							
Number of Subsamples	2	1	1	1	1	1							
Crop Stage Majority		V3 2-4"	V3 2-4"	V3 2-4"	V4 3-6"	V4 3-6"							
Pest Stage Majority		1-4"	1-5"	1-3"	1-4"	2-6"							
Assessed By	JB	JB	JB	JB	JB	JB							
Days After First/Last Applic.	19 19	15 15	15 15	15 15	22 22	22 22							
Trt-Eval Interval	19 DA-A	15 DA-A	15 DA-A	15 DA-A	22 DA-A	22 DA-A							
Plant-Eval Interval	20 DP-1	16 DP-1	16 DP-1	16 DP-1	23 DP-1	23 DP-1							
Days After Emergence	14 DE-1	10 DE-1	10 DE-1	10 DE-1	17 DE-1	17 DE-1							
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3	4	5	6	7
1	Untreated Check						27.00	0.0	0.0	0.0	0.0	0.0	0.0
2	Alert	0.50 lb ai/a	21.3 oz/a		A	Pre	26.50	98.8	93.8	100.0	96.3	82.3	94.3
3	Alert	0.75 lb ai/a	32 oz/a		A	Pre	28.75	100.0	97.5	100.0	100.0	89.0	97.5
4	Alert	1.0 lb ai/a	42.7 oz/a		A	Pre	27.13	100.0	97.5	100.0	100.0	89.5	97.5
5	Alert Dawn	0.50 lb ai/a 0.25 lb ai/a	21.3 oz/a 16 oz/a		A A	Pre Pre	26.75	100.0	100.0	100.0	98.8	100.0	97.5
6	Alert Dawn	0.50 lb ai/a 0.375 lb ai/a	21.3 oz/a 24 oz/a		A A	Pre Pre	27.50	100.0	100.0	100.0	100.0	100.0	100.0
7	Alert Dawn	0.75 lb ai/a 0.25 lb ai/a	32 oz/a 16 oz/a		A A	Pre Pre	26.63	100.0	97.5	100.0	99.5	88.0	96.5
8	Alert Dawn	0.75 lb ai/a 0.375 lb ai/a	32 oz/a 24 oz/a		A A	Pre Pre	26.75	100.0	100.0	100.0	100.0	99.5	99.5
9	Dawn	0.375 lb ai/a	24 oz/a		A	Pre	27.13	100.0	100.0	100.0	95.8	100.0	99.5
10	Dual II Magnum	1.0 lb ai/a	16.8 oz/a		A	Pre	27.50	98.8	97.5	100.0	95.0	88.8	95.8
11	Warrant	1.13 lb ai/a	48 oz/a		A	Pre	27.38	100.0	93.8	100.0	96.3	93.0	94.5
12	Prefix	1.68 lb ai/a	40 oz/a		A	Pre	26.75	100.0	100.0	100.0	99.5	98.5	98.5
13	Alert Reflex	0.50 lb ai/a 0.25 lb ai/a	21.3 oz/a 16 oz/a		A A	Pre Pre	27.50	100.0	100.0	100.0	99.5	98.8	97.3
14	Command Dawn	0.50 lb ai/a 0.25 lb ai/a	21.3 oz/a 16 oz/a		A A	Pre Pre	28.38	100.0	100.0	100.0	100.0	100.0	96.8
15	Command Reflex	0.50 lb ai/a 0.25 lb ai/a	21.3 oz/a 16 oz/a		A A	Pre Pre	27.25	100.0	100.0	100.0	100.0	99.0	99.0
LSD (P=.05)							2.642	1.32	4.00	0.00	4.82	8.02	3.70
Standard Deviation							1.848	0.92	2.80	0.00	3.38	5.61	2.59
CV							6.78	0.99	3.05	0.0	3.67	6.35	2.85
Grand Mean							27.26	93.17	91.83	93.33	92.03	88.42	90.93

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of Alert + Dawn PRE in Soybean

Trial ID: HSB-50311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

		W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory	W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory					
Crop Code		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA					
Crop Scientific Name		Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max					
Crop Name		Soybean	Soybean	Soybean	Soybean	Soybean	Soybean					
Part Assessed		PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P					
Assessment Date		7/14/11	7/14/11	7/14/11	8/1/11	8/1/11	8/1/11					
Assessment Type		CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Assessment Unit		%	%	%	%	%	%					
Number of Subsamples		1	1	1	1	1	1					
Crop Stage Majority		V8 21"	V8 21"	V8 21"	R1/2 38"	R1/2 38"	R1/2 38"					
Pest Stage Majority		5-35"	10-60"	5-40"	20-40"	20-80"	10-40"					
Assessed By		JB	JB	JB	JB	JB	JB					
Days After First/Last Applic.		43 43	43 43	43 43	61 61	61 61	61 61					
Trt-Eval Interval		43 DA-A	43 DA-A	43 DA-A	61 DA-A	61 DA-A	61 DA-A					
Plant-Eval Interval		44 DP-1	44 DP-1	44 DP-1	62 DP-1	62 DP-1	62 DP-1					
Days After Emergence		38 DE-1	38 DE-1	38 DE-1	56 DE-1	56 DE-1	56 DE-1					
Trt No.	Treatment Name	Rate	Other Rate	Other Unit	Appl Code	Appl Description	8	9	10	11	12	13
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0
2	Alert	0.50 lb ai/a	21.3 oz/a		A	Pre	87.5	40.0	80.0	35.0	37.5	40.0
3	Alert	0.75 lb ai/a	32 oz/a		A	Pre	91.3	32.5	78.8	85.0	70.0	77.5
4	Alert	1.0 lb ai/a	42.7 oz/a		A	Pre	88.8	36.7	77.5	80.0	47.5	82.5
5	Alert Dawn	0.50 lb ai/a 0.25 lb ai/a	21.3 oz/a 16 oz/a		A A	Pre Pre	95.0	88.8	85.0	100.0	95.0	100.0
6	Alert Dawn	0.50 lb ai/a 0.375 lb ai/a	21.3 oz/a 24 oz/a		A A	Pre Pre	97.5	91.3	86.3	100.0	100.0	100.0
7	Alert Dawn	0.75 lb ai/a 0.25 lb ai/a	32 oz/a 16 oz/a		A A	Pre Pre	87.5	87.5	70.0	85.0	97.5	92.5
8	Alert Dawn	0.75 lb ai/a 0.375 lb ai/a	32 oz/a 24 oz/a		A A	Pre Pre	95.0	93.8	90.0	100.0	100.0	100.0
9	Dawn	0.375 lb ai/a	24 oz/a		A	Pre	82.5	88.8	88.8	95.0	97.5	100.0
10	Dual II Magnum	1.0 lb ai/a	16.8 oz/a		A	Pre	77.5	76.3	73.3	96.7	76.7	96.7
11	Warrant	1.13 lb ai/a	48 oz/a		A	Pre	72.5	75.0	63.8	80.0	66.7	86.7
12	Prefix	1.68 lb ai/a	40 oz/a		A	Pre	90.0	92.5	76.3	100.0	100.0	100.0
13	Alert Reflex	0.50 lb ai/a 0.25 lb ai/a	21.3 oz/a 16 oz/a		A A	Pre Pre	93.8	92.5	80.0	100.0	100.0	95.0
14	Command Dawn	0.50 lb ai/a 0.25 lb ai/a	21.3 oz/a 16 oz/a		A A	Pre Pre	97.5	96.3	97.5	97.5	97.5	92.5
15	Command Reflex	0.50 lb ai/a 0.25 lb ai/a	21.3 oz/a 16 oz/a		A A	Pre Pre	96.3	88.8	82.5	100.0	92.5	100.0
LSD (P=.05)							9.10	11.93	17.56	9.28	11.28	8.52
Standard Deviation							6.37	8.35	12.29	6.50	7.89	5.96
CV							7.62	11.59	16.32	7.77	10.05	7.08
Grand Mean							83.5	72.03	75.31	83.61	78.56	84.22

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix PRE in Soybean

Trial ID: HSB-50411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 5606
BBCH Scale: BSOY
Planting Method: PLANTD planted
Depth, Unit: 0.75 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: FAIR fair
Description: Roundup Ready
Planting Date: 5/31/11
Rate, Unit: 130000 P/A
Spacing Within Row, Unit: 2 IN
Soil Temperature, Unit: 79.6 F
Emergence Date: 6/6/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass
Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth
Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Bifenthrin	6.4	OZ

Soil Description

Description Name: 2011 Soybean
% Sand: 16 **% OM:** 2.2 **Texture:** SIL silt loam
% Silt: 65 **pH:** 6.7 **Soil Name:** Sharkey & Desha Silt Loam
% Clay: 19 **CEC:** 13 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A
Application Date:	6/1/11
Time of Day:	PM
Application Method:	SPRAY
Application Timing:	PREPRE
Application Placement:	BROSOL
Applied By:	JM
Air Temperature, Unit:	85.1 F
% Relative Humidity:	61.5
Wind Velocity, Unit:	0.4 MPH
Wind Direction:	SW
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	80.5 F
Soil Moisture:	GOOD
% Cloud Cover:	40
Next Rain Occurred On:	6/17/11

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	GLXMA BSOY
Height, Unit:	0 IN

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	ECHCG W
Height, Unit:	0 IN
Pest 2 Code, Type, Scale:	AMAPA W
Height, Unit:	0 IN
Pest 3 Code, Type, Scale:	IPOSS W
Height, Unit:	0 IN

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix PRE in Soybean

Trial ID: HSB-50411
Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A
Appl. Equipment:	Multi Boom
Equipment Type:	SPTRMO
Operation Pressure, Unit:	50 PSI
Nozzle Type:	Air-Mix
Nozzle Size:	110015
Nozzle Spacing, Unit:	19 IN
Nozzles/Row:	2
% Coverage:	100
Boom Length, Unit:	12.6 FT
Boom Height, Unit:	18 IN
Carrier:	WATER
Spray Volume, Unit:	12 gal/ac
Mix Size, Unit:	3 Liters
Propellant:	COMCO2
Tank Mix (Y/N):	Y yes

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix PRE in Soybean

Trial ID: HSB-50411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed							
Pest Code	ECHCG	AMAPA	IPOSS	ECHCG	AMAPA	IPOSS							
Pest Scientific Name	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Name	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory							
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT C	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	6/20/11	6/23/11	6/23/11	6/23/11	7/14/11	7/14/11							
Assessment Type	COUPLA	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	MROW	%	%	%	%	%							
Number of Subsamples	2	1	1	1	1	1							
Crop Stage Majority		V4 3-6"	V4 3-6"	V4 3-6"	V9 25"	V9 25"							
Pest Stage Majority		1-4"	2-6"	1-3"	5-45"	10-60"							
Assessed By	JB	JB	JB	JB	JB	JB							
Days After First/Last Applic.	19 19	22 22	22 22	22 22	43 43	43 43							
Trt-Eval Interval	19 DA-A	22 DA-A	22 DA-A	22 DA-A	43 DA-A	43 DA-A							
Plant-Eval Interval	20 DP-1	23 DP-1	23 DP-1	23 DP-1	44 DP-1	44 DP-1							
Days After Emergence	14 DE-1	17 DE-1	17 DE-1	17 DE-1	38 DE-1	38 DE-1							
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3	4	5	6	7
1	Untreated Check						29.00	0.0	0.0	0.0	0.0	0.0	0.0
2	CHA-044	0.99 lb ai/a	24 oz/a		A	Pre	28.13	100.0	100.0	95.0	95.0	93.8	97.5
3	CHA-044	1.33 lb ai/a	32 oz/a		A	Pre	29.38	100.0	100.0	96.5	100.0	97.5	97.5
4	CHA-044	1.66 lb ai/a	40 oz/a		A	Pre	30.13	100.0	98.8	99.5	97.5	97.5	100.0
5	CHA-044	1.99 lb ai/a	48 oz/a		A	Pre	27.13	99.5	98.8	97.3	96.3	100.0	100.0
6	CHA-044	3.98 lb ai/a	96 oz/a		A	Pre	24.75	99.5	100.0	99.0	97.5	98.8	100.0
7	Dawn	0.313 lb ai/a	20 oz/a		A	Pre	29.63	100.0	100.0	95.8	100.0	100.0	95.0
	Stalwart	1.0 lb ai/a	16 oz/a		A	Pre							
8	Dawn	0.375 lb ai/a	24 oz/a		A	Pre	28.75	100.0	98.8	99.0	97.5	95.0	97.5
	Stalwart	1.25 lb ai/a	20 oz/a		A	Pre							
9	Prefix	0.99 lb ai/a	24 oz/a		A	Pre	29.88	100.0	97.0	92.3	95.0	92.5	82.5
10	Prefix	1.32 lb ai/a	32 oz/a		A	Pre	28.25	100.0	100.0	95.5	97.5	97.5	87.5
11	Prefix	1.65 lb ai/a	40 oz/a		A	Pre	29.00	100.0	100.0	95.0	98.8	98.8	96.3
12	Prefix	1.98 lb ai/a	48 oz/a		A	Pre	29.50	98.5	99.0	97.5	100.0	100.0	97.5
13	Prefix	3.97 lb ai/a	96 oz/a		A	Pre	28.00	100.0	100.0	96.0	97.5	100.0	97.5
	LSD (P=.05)						3.373	0.94	2.63	4.64	5.30	6.32	7.47
	Standard Deviation						2.360	0.66	1.84	3.25	3.71	4.42	5.23
	CV						8.26	0.71	2.01	3.65	4.11	4.91	5.92
	Grand Mean						28.58	92.12	91.71	89.1	90.19	90.1	88.37

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix PRE in Soybean

Trial ID: HSB-50411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

							W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory	W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory	
							GLXMA Glycine max Soybean PLANT P	GLXMA Glycine max Soybean PLANT P	GLXMA Glycine max Soybean PLANT P	GLXMA Glycine max Soybean PLANT P	GLXMA Glycine max Soybean PLANT P		
							8/1/11 CONTRO	8/1/11 CONTRO	8/1/11 CONTRO	10/5/11 CONTRO	10/5/11 CONTRO		
							% 1	% 1	% 1	% 1	% 1		
							R1/2 38" 20-40"	R1/2 38" 20-40"	R1/2 38" 10-30"	R8 36" 10-40"	R8 36" 20-80"	R8 36" 10-90"	
							JB 61 61	JB 61 61	JB 61 61	JB 126 126	JB 126 126	JB 126 126	
							61 DA-A 62 DP-1	61 DA-A 62 DP-1	61 DA-A 62 DP-1	61 DA-A 127 DP-1	61 DA-A 127 DP-1	61 DA-A 127 DP-1	
							56 DE-1	56 DE-1	56 DE-1	121 DE-1	121 DE-1	121 DE-1	
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	8	9	10	11	12	13
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	CHA-044	0.99 lb ai/a	24 oz/a	A	Pre			97.5	92.5	97.5	100.0	92.5	52.5
3	CHA-044	1.33 lb ai/a	32 oz/a	A	Pre			100.0	97.5	100.0	100.0	100.0	50.0
4	CHA-044	1.66 lb ai/a	40 oz/a	A	Pre			100.0	97.5	100.0	100.0	100.0	70.0
5	CHA-044	1.99 lb ai/a	48 oz/a	A	Pre			100.0	100.0	95.0	100.0	100.0	62.5
6	CHA-044	3.98 lb ai/a	96 oz/a	A	Pre			100.0	97.5	100.0	97.5	95.0	57.5
7	Dawn Stalwart	0.313 lb ai/a 1.0 lb ai/a	20 oz/a 16 oz/a	A A	Pre Pre			97.5	97.5	90.0	100.0	100.0	52.5
8	Dawn Stalwart	0.375 lb ai/a 1.25 lb ai/a	24 oz/a 20 oz/a	A A	Pre Pre			97.5	90.0	97.5	100.0	95.0	55.0
9	Prefix	0.99 lb ai/a	24 oz/a	A	Pre			90.0	85.0	67.5	97.5	97.5	47.5
10	Prefix	1.32 lb ai/a	32 oz/a	A	Pre			97.5	95.0	90.0	100.0	95.0	57.5
11	Prefix	1.65 lb ai/a	40 oz/a	A	Pre			97.5	97.5	92.5	100.0	100.0	67.5
12	Prefix	1.98 lb ai/a	48 oz/a	A	Pre			100.0	95.0	100.0	100.0	97.5	47.5
13	Prefix	3.97 lb ai/a	96 oz/a	A	Pre			100.0	100.0	100.0	100.0	100.0	60.0
LSD (P=.05)								5.37	9.31	15.88	2.84	8.90	22.14
Standard Deviation								3.76	6.51	11.11	1.99	6.23	15.49
CV								4.15	7.39	12.79	2.16	6.9	29.61
Grand Mean								90.58	88.08	86.92	91.92	90.19	52.31

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of Rhythm & Dawn POST in Soybean

Trial ID: HSB-50511
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 5606
BBCH Scale: BSOY
Planting Method: PLANTD planted
Depth, Unit: 0.75 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: FAIR fair
Description: Roundup Ready
Planting Date: 5/31/11
Rate, Unit: 130000 P/A
Spacing Within Row, Unit: 2 IN
Soil Temperature, Unit: 79.6 F
Emergence Date: 6/6/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass
Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth
Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Bifenthrin	6.4	OZ

Soil Description

Description Name: 2011 Soybean
% Sand: 16 **% OM:** 2.2 **Texture:** SIL silt loam
% Silt: 65 **pH:** 6.7 **Soil Name:** Sharkey & Desha Silt Loam
% Clay: 19 **CEC:** 13 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B
Application Date:	6/13/11	6/15/11
Time of Day:	PM	AM
Application Method:	SPRAY	SPRAY
Application Timing:	POSPOS	POSPOS
Application Placement:	BROFOL	BROFOL
Applied By:	JB	JB
Air Temperature, Unit:	85.6 F	83.4 F
% Relative Humidity:	58.0	62.7
Wind Velocity, Unit:	5.1 MPH	5.9 MPH
Wind Direction:	W	WNW
Dew Presence (Y/N):	N no	N no
Soil Temperature, Unit:	85.9 F	86.1 F
Soil Moisture:	GOOD	GOOD
% Cloud Cover:	60	70
Next Rain Occurred On:	6/14/11	6/17/11

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	V1	V1
Height, Unit:	3 IN	4 IN

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W
Height, Unit:	1 IN	1 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W
Height, Unit:	2 IN	2 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W
Height, Unit:	1 IN	1 IN

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of Rhythm & Dawn POST in Soybean

Trial ID: HSB-50511
 Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B
Appl. Equipment:	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN
Nozzles/Row:	2	2
% Coverage:	100	100
Boom Length, Unit:	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN
Carrier:	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of Rhythm & Dawn POST in Soybean

Trial ID: HSB-50511
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG							
Pest Code	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>							
Pest Scientific Name	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>							
Pest Name														
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	6/23/11	6/23/11	6/23/11	7/14/11	7/14/11	7/14/11	7/29/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1	1							
Crop Stage Majority	V4 3-6"	V4 3-6"	V4 3-6"	V9 25"	V9 25"	V9 25"	R1/2 38"							
Pest Stage Majority	1-4"	2-6"	1-3"	5-45"	10-60"	5-40"	10-50"							
Assessed By	JB	JB	JB	JB	JB	JB	JB							
Days After First/Last Applic.	10 8	10 8	10 8	31 29	31 29	31 29	46 44							
Trt-Eval Interval	8 DA-B	8 DA-B	8 DA-B	29 DA-B	29 DA-B	29 DA-B	44 DA-B							
Plant-Eval Interval	23 DP-1	23 DP-1	23 DP-1	44 DP-1	44 DP-1	44 DP-1	59 DP-1							
Days After Emergence	17 DE-1	17 DE-1	17 DE-1	38 DE-1	38 DE-1	38 DE-1	53 DE-1							
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Code	Appl Description	1	2	3	4	5	6	7
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Rhythm	0.294 lb ai/a	20 oz/a		A		1 - 2" Wds	100.0	96.3	97.8	96.3	87.0	100.0	97.5
	AMS	2.50 % v/v	38.4 oz/a		A		1 - 2" Wds							
	Select	0.125 lb ai/a	8 oz/a		B		1 - 3 DAA							
	COC	1 % v/v	15.4 oz/a		B		1 - 3 DAA							
3	Rhythm	0.147 lb ai/a	10 oz/a		A		1 - 2" Wds	99.0	99.0	97.5	93.8	85.0	93.8	100.0
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A		1 - 2" Wds							
4	Rhythm	0.294 lb ai/a	20 oz/a		A		1 - 2" Wds	100.0	99.0	98.5	96.3	92.5	97.5	100.0
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A		1 - 2" Wds							
5	Dawn	0.375 lb ai/a	24 oz/a		A		1 - 2" Wds	100.0	97.5	97.5	97.5	88.8	98.8	97.5
	NIS	0.25 % v/v	3.84 oz/a		A		1 - 2" Wds							
	Select	0.125 lb ai/a	8 oz/a		B		1 - 3 DAA							
	COC	1 % v/v	15.4 oz/a		B		1 - 3 DAA							
6	Flexstar	0.294 lb ai/a	20 oz/a		A		1 - 2" Wds	100.0	98.8	99.0	98.8	92.5	96.3	100.0
	Select	0.125 lb ai/a	8 oz/a		B		1 - 3 DAA							
	COC	1 % v/v	15.4 oz/a		B		1 - 3 DAA							
7	Flexstar	0.147 lb ai/a	10 oz/a		A		1 - 2" Wds	100.0	97.3	97.8	83.8	82.5	93.8	95.0
	Touchdown Total	0.78 lb ae/a	24 oz/a		A		1 - 2" Wds							
8	Flexstar	0.294 lb ai/a	20 oz/a		A		1 - 2" Wds	100.0	100.0	99.5	92.5	96.3	100.0	100.0
	Touchdown Total	0.78 lb ae/a	24 oz/a		A		1 - 2" Wds							
9	Reflex	0.375 lb ai/a	24 oz/a		A		1 - 2" Wds	100.0	98.3	99.5	100.0	91.3	95.0	92.5
	NIS	0.25 % v/v	3.84 oz/a		A		1 - 2" Wds							
	Select	0.125 lb ai/a	8 oz/a		B		1 - 3 DAA							
	COC	1 % v/v	15.4 oz/a		B		1 - 3 DAA							
	LSD (P=.05)							0.56	3.54	2.55	8.17	9.83	7.85	9.65
	Standard Deviation							0.38	2.43	1.75	5.60	6.74	5.38	6.61
	CV							0.43	2.78	2.0	6.64	8.47	6.25	7.61
	Grand Mean							88.78	87.33	87.44	84.31	79.53	86.11	86.94

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of Rhythm & Dawn POST in Soybean

Trial ID: HSB-50511
Location: Rohwer, AR

Investigator: Kenneth Smith

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	8	9
1	Untreated Check							0.0	0.0
2	Rhythm	0.294	lb ai/a	20	oz/a	A	1 - 2" Wds	77.5	97.5
	AMS	2.50	% v/v	38.4	oz/a	A	1 - 2" Wds		
	Select	0.125	lb ai/a	8	oz/a	B	1 - 3 DAA		
	COC	1	% v/v	15.4	oz/a	B	1 - 3 DAA		
3	Rhythm	0.147	lb ai/a	10	oz/a	A	1 - 2" Wds	82.5	100.0
	Glyfos X-Tra	0.75	lb ae/a	32	oz/a	A	1 - 2" Wds		
4	Rhythm	0.294	lb ai/a	20	oz/a	A	1 - 2" Wds	90.0	100.0
	Glyfos X-Tra	0.75	lb ae/a	32	oz/a	A	1 - 2" Wds		
5	Dawn	0.375	lb ai/a	24	oz/a	A	1 - 2" Wds	82.5	100.0
	NIS	0.25	% v/v	3.84	oz/a	A	1 - 2" Wds		
	Select	0.125	lb ai/a	8	oz/a	B	1 - 3 DAA		
	COC	1	% v/v	15.4	oz/a	B	1 - 3 DAA		
6	Flexstar	0.294	lb ai/a	20	oz/a	A	1 - 2" Wds	92.5	100.0
	Select	0.125	lb ai/a	8	oz/a	B	1 - 3 DAA		
	COC	1	% v/v	15.4	oz/a	B	1 - 3 DAA		
7	Flexstar	0.147	lb ai/a	10	oz/a	A	1 - 2" Wds	80.0	95.0
	Touchdown Total	0.78	lb ae/a	24	oz/a	A	1 - 2" Wds		
8	Flexstar	0.294	lb ai/a	20	oz/a	A	1 - 2" Wds	92.5	100.0
	Touchdown Total	0.78	lb ae/a	24	oz/a	A	1 - 2" Wds		
9	Reflex	0.375	lb ai/a	24	oz/a	A	1 - 2" Wds	80.0	95.0
	NIS	0.25	% v/v	3.84	oz/a	A	1 - 2" Wds		
	Select	0.125	lb ai/a	8	oz/a	B	1 - 3 DAA		
	COC	1	% v/v	15.4	oz/a	B	1 - 3 DAA		
	LSD (P=.05)							10.56	7.56
	Standard Deviation							7.23	5.18
	CV							9.61	5.92
	Grand Mean							75.28	87.5

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix POST @ 2 - 3" Weeds in Soybean

Trial ID: HSB-50611
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 5606
Description: Roundup Ready
BBCH Scale: BSOY
Planting Date: 5/31/11
Planting Method: PLANTD planted
Rate, Unit: 130000 P/A
Depth, Unit: 0.75 IN
Spacing Within Row, Unit: 2 IN
Row Spacing, Unit: 38 IN
Soil Temperature, Unit: 79.6 F
Seed Bed: MEDIUM medium
Soil Moisture: FAIR fair
Emergence Date: 6/6/11
Harvest Date: 10/17/11
Harvest Equipment: Massey Ferguson 8
Harvested Width, Unit: 6.33 FT
Harvested Length, Unit: 28 FT
% Standard Moisture: 13.0
Moisture Meter: Massey Ferguson 8
Weighing Equipment: Massey Ferguson 8

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Bifenthrin	6.4	OZ

Soil Description

Description Name: 2011 Soybean
% Sand: 16 **% OM:** 2.2 **Texture:** SIL silt loam
% Silt: 65 **pH:** 6.7 **Soil Name:** Sharkey & Desha Silt Loam
% Clay: 19 **CEC:** 13 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A
Application Date:	6/15/11
Time of Day:	AM
Application Method:	SPRAY
Application Timing:	PREPOS
Application Placement:	BROFOL
Applied By:	JB
Air Temperature, Unit:	83.4 F
% Relative Humidity:	62.7
Wind Velocity, Unit:	5.9 MPH
Wind Direction:	WNNW
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	86.1 F
Soil Moisture:	GOOD
% Cloud Cover:	70
Next Rain Occurred On:	6/17/11

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	GLXMA BSOY
Stage Scale Used:	DESC
Stage Majority, Percent:	V2
Height, Unit:	6 IN

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	ECHCG W
Height, Unit:	2 IN
Pest 2 Code, Type, Scale:	AMAPA W
Height, Unit:	3 IN
Pest 3 Code, Type, Scale:	IPOSS W
Height, Unit:	1 IN

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix POST @ 2 - 3" Weeds in Soybean

Trial ID: HSB-50611
Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A
Appl. Equipment:	Multi Boom
Equipment Type:	SPTRMO
Operation Pressure, Unit:	50 PSI
Nozzle Type:	Air-Mix
Nozzle Size:	110015
Nozzle Spacing, Unit:	19 IN
Nozzles/Row:	2
% Coverage:	100
Boom Length, Unit:	12.6 FT
Boom Height, Unit:	18 IN
Carrier:	WATER
Spray Volume, Unit:	12 gal/ac
Mix Size, Unit:	3 Liters
Propellant:	COMCO2
Tank Mix (Y/N):	Y yes

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix POST @ 2 - 3" Weeds in Soybean

Trial ID: HSB-50611
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS			W Weed ECHCG	W Weed AMAPA						
Pest Code	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.			Echinochloa cr>	Amaranthus pal>						
Pest Scientific Name	Common barnyar>	Palmer amaranth	Morning glory			Common barnyar>	Palmer amaranth						
Pest Name													
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT C	PLANT C	PLANT P	PLANT P						
Assessment Date	6/23/11	6/23/11	6/23/11	6/23/11	6/23/11	7/14/11	7/14/11						
Assessment Type	CONTRO	CONTRO	CONTRO	PHYNEC	PHYSTU	CONTRO	CONTRO						
Assessment Unit	%	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1	1						
Crop Stage Majority	V4 3-6"	V4 3-6"	V4 3-6"	V4 3-6"	V4 3-6"	V9 25"	V9 25"						
Pest Stage Majority	1-4"	2-8"	1-4"			5-40"	10-60"						
Assessed By	JB	JB	JB	JB	JB	JB	JB						
Days After First/Last Applic.	8 8	8 8	8 8	8 8	8 8	29 29	29 29						
Trt-Eval Interval	8 DA-A	8 DA-A	8 DA-A	8 DA-A	8 DA-A	29 DA-A	29 DA-A						
Plant-Eval Interval	23 DP-1	23 DP-1	23 DP-1	23 DP-1	23 DP-1	44 DP-1	44 DP-1						
Days After Emergence	17 DE-1	17 DE-1	17 DE-1	17 DE-1	17 DE-1	38 DE-1	38 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Unit	Appl Code	Appl Description	1	2	3	4	5	6	7
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	CHA-044	0.99 lb ai/a	24 oz/a		A	2 - 3" Weeds	100.0	96.5	99.0	26.3	26.3	96.3	90.0
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	2 - 3" Weeds							
3	CHA-044	1.33 lb ai/a	32 oz/a		A	2 - 3" Weeds	100.0	100.0	100.0	26.3	26.3	100.0	100.0
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	2 - 3" Weeds							
4	CHA-044	1.66 lb ai/a	40 oz/a		A	2 - 3" Weeds	100.0	100.0	99.5	28.8	36.3	96.3	96.3
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	2 - 3" Weeds							
5	CHA-044	3.3 lb ai/a	80 oz/a		A	2 - 3" Weeds	100.0	98.8	100.0	41.3	35.0	97.5	98.8
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	2 - 3" Weeds							
6	Dawn	0.375 lb ai/a	24 oz/a		A	2 - 3" Weeds	100.0	100.0	100.0	31.3	32.5	95.0	100.0
	Stalwart	1 lb ai/a	16 oz/a		A	2 - 3" Weeds							
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	2 - 3" Weeds							
7	Prefix	0.99 lb ai/a	24 oz/a		A	2 - 3" Weeds	100.0	100.0	99.3	25.0	27.5	98.8	90.5
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	2 - 3" Weeds							
8	Prefix	1.32 lb ai/a	32 oz/a		A	2 - 3" Weeds	100.0	99.5	100.0	32.5	28.8	100.0	97.5
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	2 - 3" Weeds							
9	Prefix	1.65 lb ai/a	40 oz/a		A	2 - 3" Weeds	100.0	100.0	100.0	31.3	25.0	100.0	98.8
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	2 - 3" Weeds							
10	Prefix	3.3 lb ai/a	80 oz/a		A	2 - 3" Weeds	100.0	100.0	100.0	45.0	43.8	97.5	100.0
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	2 - 3" Weeds							
LSD (P=.05)							0.00	2.12	1.11	9.09	9.80	5.29	5.35
Standard Deviation							0.00	1.46	0.76	6.27	6.75	3.65	3.68
CV							0.0	1.63	0.85	21.79	24.02	4.14	4.23
Grand Mean							90.0	89.48	89.78	28.75	28.13	88.13	87.18

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix POST @ 2 - 3" Weeds in Soybean

Trial ID: HSB-50611
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed			W Weed	W Weed	W Weed	W Weed					
Pest Code		IPOSS			ECHCG	AMAPA	IPOSS	ECHCG					
Pest Scientific Name		Ipomoea sp.			Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>					
Pest Name		Morning glory			Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>					
Crop Code		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA					
Crop Scientific Name		Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max					
Crop Name		Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean					
Part Assessed		PLANT P	PLANT C	PLANT C	PLANT P	PLANT P	PLANT P	PLANT P					
Assessment Date		7/14/11	7/14/11	7/14/11	7/29/11	7/29/11	7/29/11	10/5/11					
Assessment Type		CONTRO	PHYNEC	PHYSTU	CONTRO	CONTRO	CONTRO	CONTRO					
Assessment Unit		%	%	%	%	%	%	%					
Number of Subsamples		1	1	1	1	1	1	1					
Crop Stage Majority		V9 25"	V9 25"	V9 25"	R1/2 38"	R1/2 38"	R1/2 38"	R8 36"					
Pest Stage Majority		5-45"			10-50"	20-80"	10-40"	10-35"					
Assessed By		JB	JB	JB	JB	JB	JB	JB					
Days After First/Last Applic.		29 29	29 29	29 29	44 44	44 44	44 44	126 126					
Trt-Eval Interval		29 DA-A	29 DA-A	29 DA-A	44 DA-A	44 DA-A	44 DA-A	61 DA-A					
Plant-Eval Interval		44 DP-1	44 DP-1	44 DP-1	59 DP-1	59 DP-1	59 DP-1	127 DP-1					
Days After Emergence		38 DE-1	38 DE-1	38 DE-1	53 DE-1	53 DE-1	53 DE-1	121 DE-1					
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	8	9	10	11	12	13	14
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	CHA-044	0.99 lb ai/a	24 oz/a		A	2 - 3" Weeds	92.5	0.0	0.0	100.0	77.5	100.0	96.7
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	2 - 3" Weeds							
3	CHA-044	1.33 lb ai/a	32 oz/a		A	2 - 3" Weeds	100.0	0.0	0.0	97.5	97.5	100.0	90.0
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	2 - 3" Weeds							
4	CHA-044	1.66 lb ai/a	40 oz/a		A	2 - 3" Weeds	100.0	0.0	0.0	100.0	93.8	100.0	95.0
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	2 - 3" Weeds							
5	CHA-044	3.3 lb ai/a	80 oz/a		A	2 - 3" Weeds	100.0	0.0	0.0	97.5	97.5	100.0	97.5
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	2 - 3" Weeds							
6	Dawn	0.375 lb ai/a	24 oz/a		A	2 - 3" Weeds	100.0	0.0	0.0	93.8	96.3	100.0	90.0
	Stalwart	1 lb ai/a	16 oz/a		A	2 - 3" Weeds							
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	2 - 3" Weeds							
7	Prefix	0.99 lb ai/a	24 oz/a		A	2 - 3" Weeds	98.8	0.0	0.0	100.0	93.3	100.0	92.5
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	2 - 3" Weeds							
8	Prefix	1.32 lb ai/a	32 oz/a		A	2 - 3" Weeds	100.0	0.0	0.0	100.0	95.0	100.0	97.5
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	2 - 3" Weeds							
9	Prefix	1.65 lb ai/a	40 oz/a		A	2 - 3" Weeds	100.0	0.0	0.0	96.3	100.0	100.0	97.5
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	2 - 3" Weeds							
10	Prefix	3.3 lb ai/a	80 oz/a		A	2 - 3" Weeds	100.0	0.0	0.0	100.0	97.5	100.0	100.0
	Glyfos X-Tra	0.75 lb ae/a	32 oz/a		A	2 - 3" Weeds							
LSD (P=.05)							4.43	0.00	0.00	4.53	8.28	0.00	11.66
Standard Deviation							3.05	0.00	0.00	3.12	5.69	0.00	8.02
CV							3.43	0.0	0.0	3.52	6.71	0.0	9.36
Grand Mean							89.13	0.0	0.0	88.5	84.83	90.0	85.67

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix POST @ 2 - 3" Weeds in Soybean

Trial ID: HSB-50611
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	15	16	17	18
1	Untreated Check							0.0	0.0	0.00	0.0
2	CHA-044	0.99 lb ai/a		24 oz/a		A	2 - 3" Weeds	83.3	86.7	9.97	40.6
	Glyphos X-Tra	0.75 lb ae/a		32 oz/a		A	2 - 3" Weeds				
3	CHA-044	1.33 lb ai/a		32 oz/a		A	2 - 3" Weeds	92.5	90.0	10.15	41.3
	Glyphos X-Tra	0.75 lb ae/a		32 oz/a		A	2 - 3" Weeds				
4	CHA-044	1.66 lb ai/a		40 oz/a		A	2 - 3" Weeds	90.0	92.5	9.90	40.3
	Glyphos X-Tra	0.75 lb ae/a		32 oz/a		A	2 - 3" Weeds				
5	CHA-044	3.3 lb ai/a		80 oz/a		A	2 - 3" Weeds	97.5	95.0	9.98	40.6
	Glyphos X-Tra	0.75 lb ae/a		32 oz/a		A	2 - 3" Weeds				
6	Dawn	0.375 lb ai/a		24 oz/a		A	2 - 3" Weeds	97.5	97.5	10.28	41.8
	Stalwart	1 lb ai/a		16 oz/a		A	2 - 3" Weeds				
	Glyphos X-Tra	0.75 lb ae/a		32 oz/a		A	2 - 3" Weeds				
7	Prefix	0.99 lb ai/a		24 oz/a		A	2 - 3" Weeds	80.0	85.0	8.68	35.3
	Glyphos X-Tra	0.75 lb ae/a		32 oz/a		A	2 - 3" Weeds				
8	Prefix	1.32 lb ai/a		32 oz/a		A	2 - 3" Weeds	92.5	95.0	10.98	44.7
	Glyphos X-Tra	0.75 lb ae/a		32 oz/a		A	2 - 3" Weeds				
9	Prefix	1.65 lb ai/a		40 oz/a		A	2 - 3" Weeds	95.0	95.0	10.45	42.6
	Glyphos X-Tra	0.75 lb ae/a		32 oz/a		A	2 - 3" Weeds				
10	Prefix	3.3 lb ai/a		80 oz/a		A	2 - 3" Weeds	100.0	100.0	10.08	41.0
	Glyphos X-Tra	0.75 lb ae/a		32 oz/a		A	2 - 3" Weeds				
LSD (P=.05)								12.95	17.44	2.082	8.48
Standard Deviation								8.91	12.00	1.432	5.83
CV								10.75	14.34	15.84	15.84
Grand Mean								82.83	83.67	9.04	36.83

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix POST @ 2 - 3" Weeds in Soybean

Trial ID: HSB-50611
Location: Rohwer, AR

Investigator: Kenneth Smith

ARM Action Codes
TY1 = 4.0726*[17]

University of Arkansas-Division of Agriculture

Using ET in the Southern Soybean Programs

Trial ID: HSB-50711
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 5606
Description: Roundup Ready
BBCH Scale: BSOY
Planting Date: 5/31/11
Planting Method: PLANTD planted
Rate, Unit: 130000 P/A
Depth, Unit: 0.75 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Spacing Within Row, Unit: 2 IN
Soil Moisture: FAIR fair
Soil Temperature, Unit: 79.6 F
Harvest Date: 10/17/11
Emergence Date: 6/6/11
Harvested Width, Unit: 6.33 FT
Harvest Equipment: Massey Ferguson 8
Harvested Length, Unit: 28 FT
% Standard Moisture: 13.0
Moisture Meter: Massey Ferguson 8
Weighing Equipment: Massey Ferguson 8

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass
Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth
Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Bifenthrin	6.4	OZ

Soil Description

Description Name: Silt Loam
% Sand: 16
% Silt: 67
% Clay: 17
% OM: 2.2
pH: 7.1
CEC: 14
Texture: SIL silt loam
Soil Name: Herbert Silt Loam
Fert. Level: G good
Soil Drainage: G good

Application Description

	A	B
Application Date:	6/13/11	7/1/11
Time of Day:	PM	AM
Application Method:	SPRAY	SPRAY
Application Timing:	POSPOS	POSPOS
Application Placement:	BROFOL	BROFOL
Applied By:	JB	JB
Air Temperature, Unit:	85.6 F	83.2 F
% Relative Humidity:	58.0	66.1
Wind Velocity, Unit:	5.1 MPH	0.6 MPH
Wind Direction:	W	S
Dew Presence (Y/N):	N no	N no
Soil Temperature, Unit:	85.9 F	82.7 F
Soil Moisture:	GOOD	GOOD
% Cloud Cover:	40	20
Next Rain Occurred On:	6/14/11	7/5/11

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	V1	V5
Height, Unit:	2 IN	10 IN

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W
Height, Unit:	0.5 IN	4 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W
Height, Unit:	1 IN	5 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W
Height, Unit:	0.5 IN	3 IN

University of Arkansas-Division of Agriculture

Using ET in the Southern Soybean Programs

Trial ID: HSB-50711
Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B
Appl. Equipment:	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN
Nozzles/Row:	2	2
% Coverage:	100	100
Boom Length, Unit:	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN
Carrier:	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes

No.	Date	By	Deviations
1.6	13/11	JB	1/2 of Plot 114 recieved treatment 11 from plot 214

University of Arkansas-Division of Agriculture

Using ET in the Southern Soybean Programs

Trial ID: HSB-50711
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed						
Pest Code	ECHCG	AMAPA	IPOSS		ECHCG	AMAPA	IPOSS						
Pest Scientific Name	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.		Echinochloa cr>	Amaranthus pal>	Ipomoea sp.						
Pest Name	Common barnyar>	Palmer amaranth	Morning glory		Common barnyar>	Palmer amaranth	Morning glory						
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT C	PLANT P	PLANT P	PLANT P						
Assessment Date	6/23/11	6/23/11	6/23/11	6/23/11	7/1/11	7/1/11	7/1/11						
Assessment Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO						
Assessment Unit	%	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1	1						
Crop Stage Majority	V4 3-6"	V4 3-6"	V4 3-6"	V4 3-6"	V6 15"	V6 15"	V6 15"						
Pest Stage Majority	2-6"	2-8"	1-4"		2-8"	2-10"	1-6"						
Assessed By	JB	JB	JB	JB	JB	JB	JB						
Days After First/Last Applic.	10 10	10 10	10 10	10 10	18 18	18 18	18 18						
Trt-Eval Interval	10 DA-A	10 DA-A	10 DA-A	10 DA-A	0 DA-B	0 DA-B	0 DA-B						
Plant-Eval Interval	23 DP-1	23 DP-1	23 DP-1	23 DP-1	31 DP-1	31 DP-1	31 DP-1						
Days After Emergence				17 DE-1	25 DE-1	25 DE-1	25 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	1	2	3	4	5	6	7
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Roundup PowerMax	0.84 lb ae/a	24 oz/a		A	VE - V2	93.8	89.0	91.5	0.0	88.8	82.5	90.0
3	Roundup PowerMax ET	0.84 lb ae/a 0.00122 lb ai/a	24 oz/a 0.75 oz/a		A	VE - V2	97.5	98.8	100.0	3.8	90.0	92.5	92.5
4	Roundup PowerMax Reflex	0.84 lb ae/a 0.25 lb ai/a	24 oz/a 16 oz/a		A	VE - V2	100.0	95.0	95.0	0.0	95.0	95.0	97.5
5	Roundup PowerMax Reflex ET	0.84 lb ae/a 0.25 lb ai/a 0.00122 lb ai/a	24 oz/a 16 oz/a 0.75 oz/a		A	VE - V2	97.5	100.0	100.0	10.0	92.5	97.5	97.5
6	Roundup PowerMax Dual Magnum	0.84 lb ae/a 0.95 lb ai/a	24 oz/a 16 oz/a		A	VE - V2	100.0	92.5	97.5	7.5	100.0	90.0	100.0
7	Roundup PowerMax Dual Magnum ET	0.84 lb ae/a 0.95 lb ai/a 0.00122 lb ai/a	24 oz/a 16 oz/a 0.75 oz/a		A	VE - V2	100.0	98.8	100.0	16.3	100.0	92.5	100.0
8	Roundup PowerMax Warrant	0.84 lb ae/a 1.13 lb ai/a	24 oz/a 48 oz/a		A	VE - V2	100.0	92.5	92.5	5.0	93.8	85.0	95.0
9	Roundup PowerMax Warrant ET	0.84 lb ae/a 1.13 lb ai/a 0.00122 lb ai/a	24 oz/a 48 oz/a 0.75 oz/a		A	VE - V2	100.0	93.8	93.8	5.0	93.8	88.8	92.5
10	Roundup PowerMax Dual Magnum Reflex ET	0.84 lb ae/a 0.95 lb ai/a 0.25 lb ai/a 0.00122 lb ai/a	24 oz/a 16 oz/a 16 oz/a 0.75 oz/a		A	VE - V2	100.0	95.0	90.0	7.5	100.0	97.5	97.5
11	Roundup PowerMax Warrant Reflex ET	0.84 lb ae/a 1.13 lb ai/a 0.25 lb ai/a 0.00122 lb ai/a	24 oz/a 48 oz/a 16 oz/a 0.75 oz/a		A	VE - V2	100.0	92.5	97.5	2.5	100.0	92.5	100.0
12	Roundup PowerMax Roundup PowerMax NAI-1295	0.84 lb ae/a 0.84 lb ae/a 0.75 oz/a	24 oz/a 24 oz/a 0.75 oz/a		A	VE - V2	96.5	94.0	94.5	6.3	97.5	92.5	98.8
13	Roundup PowerMax Roundup PowerMax NAI-1300-2	0.84 lb ae/a 0.84 lb ae/a 0.75 oz/a	24 oz/a 24 oz/a 0.75 oz/a		A	VE - V2	95.0	90.0	95.0	7.5	96.3	90.0	97.5
14	Roundup PowerMax Reflex ET	0.84 lb ae/a 0.25 lb ai/a 0.00122 lb ai/a	24 oz/a 16 oz/a 0.75 oz/a		B	V5 - V6							
LSD (P=.05)							4.34	6.97	6.64	13.07	5.68	7.76	5.56
Standard Deviation							3.04	4.88	4.65	9.15	3.98	5.43	3.89
CV							3.34	5.6	5.26	166.91	4.5	6.44	4.36
Grand Mean							90.79	87.06	88.25	5.48	88.27	84.33	89.13

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Using ET in the Southern Soybean Programs

Trial ID: HSB-50711
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory			W Weed ECHCG Echinochloa cr> Common barnyar>							
Pest Code														
Pest Scientific Name														
Pest Name														
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT C	PLANT P	PLANT P	PLANT P	PLANT C	PLANT C	PLANT P							
Assessment Date	7/1/11	7/14/11	7/14/11	7/14/11	7/14/11	7/14/11	7/29/11							
Assessment Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYSTU	PHYNEC	CONTRO							
Assessment Unit	%	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1	1							
Crop Stage Majority	V6 15"	V9 23"	V9 23"	V9 23"	V9 23"	V9 23"	R1/2 38"							
Pest Stage Majority		5-45"	10-60"	5-40"			10-50"							
Assessed By	JB	JB	JB	JB	JB	JB	JB							
Days After First/Last Applic.	18 18	31 13	31 13	31 13	31 13	31 13	46 28							
Trt-Eval Interval	0 DA-B	13 DA-B	13 DA-B	13 DA-B	13 DA-B	13 DA-B	28 DA-B							
Plant-Eval Interval	31 DP-1	44 DP-1	44 DP-1	44 DP-1	44 DP-1	44 DP-1	59 DP-1							
Days After Emergence	25 DE-1				38 DE-1	38 DE-1								
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Unit	Appl Code	Appl Description	8	9	10	11	12	13	14
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Roundup PowerMax	0.84 lb ae/a	24 oz/a			A	VE - V2	0.0	80.0	70.0	82.5	0.0	0.0	87.5
3	Roundup PowerMax ET	0.84 lb ae/a 0.00122 lb ai/a	24 oz/a 0.75 oz/a			A	VE - V2	1.3	75.0	80.0	85.0	0.0	0.0	87.5
4	Roundup PowerMax Reflex	0.84 lb ae/a 0.25 lb ai/a	24 oz/a 16 oz/a			A	VE - V2	0.0	82.5	96.3	96.3	0.0	0.0	91.8
5	Roundup PowerMax Reflex ET	0.84 lb ae/a 0.25 lb ai/a 0.00122 lb ai/a	24 oz/a 16 oz/a 0.75 oz/a			A	VE - V2	2.5	81.3	95.0	95.0	0.0	0.0	87.5
6	Roundup PowerMax Dual Magnum	0.84 lb ae/a 0.95 lb ai/a	24 oz/a 16 oz/a			A	VE - V2	2.5	100.0	87.5	100.0	0.0	0.0	100.0
7	Roundup PowerMax Dual Magnum ET	0.84 lb ae/a 0.95 lb ai/a 0.00122 lb ai/a	24 oz/a 16 oz/a 0.75 oz/a			A	VE - V2	2.5	98.8	85.8	98.8	0.0	0.0	100.0
8	Roundup PowerMax Warrant	0.84 lb ae/a 1.13 lb ai/a	24 oz/a 48 oz/a			A	VE - V2	1.3	86.3	76.3	91.3	0.0	3.8	100.0
9	Roundup PowerMax Warrant ET	0.84 lb ae/a 1.13 lb ai/a 0.00122 lb ai/a	24 oz/a 48 oz/a 0.75 oz/a			A	VE - V2	1.3	88.8	84.5	91.3	0.0	0.0	100.0
10	Roundup PowerMax Dual Magnum Reflex ET	0.84 lb ae/a 0.95 lb ai/a 0.25 lb ai/a 0.00122 lb ai/a	24 oz/a 16 oz/a 16 oz/a 0.75 oz/a			A B B	VE - V2 VE - V2 V5 - V6 V5 - V6	1.3	100.0	97.5	100.0	6.3	11.3	100.0
11	Roundup PowerMax Warrant Reflex ET	0.84 lb ae/a 1.13 lb ai/a 0.25 lb ai/a 0.00122 lb ai/a	24 oz/a 48 oz/a 16 oz/a 0.75 oz/a			A A B B	VE - V2 VE - V2 V5 - V6 V5 - V6	0.0	96.3	93.8	97.5	3.8	23.8	100.0
12	Roundup PowerMax Roundup PowerMax NAI-1295	0.84 lb ae/a 0.84 lb ae/a 0.75 oz/a	24 oz/a 24 oz/a 0.75 oz/a			A B B	VE - V2 V5 - V6 V5 - V6	1.3	97.5	85.0	97.5	10.0	17.5	92.5
13	Roundup PowerMax Roundup PowerMax NAI-1300-2	0.84 lb ae/a 0.84 lb ae/a 0.75 oz/a	24 oz/a 24 oz/a 0.75 oz/a			A B B	VE - V2 V5 - V6 V5 - V6	2.5	100.0	86.5	100.0	11.3	25.0	100.0
14	Roundup PowerMax Reflex ET	0.84 lb ae/a 0.25 lb ai/a 0.00122 lb ai/a	24 oz/a 16 oz/a 0.75 oz/a			B B B	V5 - V6 V5 - V6 V5 - V6		97.5	85.0	97.5	12.5	22.5	100.0
LSD (P=.05)								3.94	6.77	10.09	5.41	8.18	10.65	10.18
Standard Deviation								2.75	4.74	7.06	3.79	5.72	7.45	7.12
CV								220.33	5.6	8.8	4.3	183.06	100.55	8.0
Grand Mean								1.25	84.55	80.21	88.04	3.13	7.41	89.05

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Using ET in the Southern Soybean Programs

Trial ID: HSB-50711
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS								
Pest Code	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.								
Pest Scientific Name	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory								
Pest Name													
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT P	PLANT P	PLANT C	PLANT P	PLANT P	GRAMAT C							
Assessment Date	7/29/11	7/29/11	7/29/11	10/5/11	10/5/11	10/17/11							
Assessment Type	CONTRO	CONTRO	PHYSTU	CONTRO	CONTRO	WEIDRY							
Assessment Unit	%	%	%	%	%	lb/plot							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	R1/2 38"	R1/2 38"	R1/2 38"	R8 36"	R8 36"	R8 36"							
Pest Stage Majority	20-80"	10-40"		10-35"	20-80"	10-30"							
Assessed By	JB	JB	JB	JB	JB	JM							
Days After First/Last Applic.	46 28	46 28	46 28	126 126	126 126	126 108							
Trt-Eval Interval	28 DA-B	28 DA-B	28 DA-B	61 DA-A	61 DA-A	61 DA-A							
Plant-Eval Interval	59 DP-1	59 DP-1	59 DP-1	127 DP-1	127 DP-1	139 DP-1							
Days After Emergence			53 DE-1	121 DE-1	121 DE-1	133 DE-1							
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	15	16	17	18	19	20	21
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0	0.00
2	Roundup PowerMax	0.84 lb ae/a	24 oz/a		A	VE - V2	65.0	95.0	0.0	67.5	65.0	62.5	9.20
	ET	0.00122 lb ai/a	0.75 oz/a		A	VE - V2							
3	Roundup PowerMax	0.84 lb ae/a	24 oz/a		A	VE - V2	75.0	100.0	0.0	67.5	62.5	70.0	8.00
	ET	0.00122 lb ai/a	0.75 oz/a		A	VE - V2							
4	Roundup PowerMax	0.84 lb ae/a	24 oz/a		A	VE - V2	95.0	100.0	0.0	100.0	97.5	97.5	9.33
	Reflex	0.25 lb ai/a	16 oz/a		A	VE - V2							
5	Roundup PowerMax	0.84 lb ae/a	24 oz/a		A	VE - V2	92.5	100.0	0.0	90.0	98.8	100.0	9.68
	Reflex	0.25 lb ai/a	16 oz/a		A	VE - V2							
	ET	0.00122 lb ai/a	0.75 oz/a		A	VE - V2							
6	Roundup PowerMax	0.84 lb ae/a	24 oz/a		A	VE - V2	80.0	100.0	0.0	95.0	81.3	100.0	7.65
	Dual Magnum	0.95 lb ai/a	16 oz/a		A	VE - V2							
7	Roundup PowerMax	0.84 lb ae/a	24 oz/a		A	VE - V2	77.5	100.0	0.0	97.5	75.0	97.5	9.43
	Dual Magnum	0.95 lb ai/a	16 oz/a		A	VE - V2							
	ET	0.00122 lb ai/a	0.75 oz/a		A	VE - V2							
8	Roundup PowerMax	0.84 lb ae/a	24 oz/a		A	VE - V2	72.5	100.0	0.0	80.0	65.0	70.0	10.50
	Warrant	1.13 lb ai/a	48 oz/a		A	VE - V2							
9	Roundup PowerMax	0.84 lb ae/a	24 oz/a		A	VE - V2	72.5	100.0	0.0	85.0	75.0	87.5	7.75
	Warrant	1.13 lb ai/a	48 oz/a		A	VE - V2							
	ET	0.00122 lb ai/a	0.75 oz/a		A	VE - V2							
10	Roundup PowerMax	0.84 lb ae/a	24 oz/a		A	VE - V2	90.0	100.0	0.0	100.0	90.0	100.0	8.05
	Dual Magnum	0.95 lb ai/a	16 oz/a		A	VE - V2							
	Reflex	0.25 lb ai/a	16 oz/a		B	V5 - V6							
	ET	0.00122 lb ai/a	0.75 oz/a		B	V5 - V6							
11	Roundup PowerMax	0.84 lb ae/a	24 oz/a		A	VE - V2	91.3	100.0	0.0	100.0	92.5	100.0	7.65
	Warrant	1.13 lb ai/a	48 oz/a		A	VE - V2							
	Reflex	0.25 lb ai/a	16 oz/a		B	V5 - V6							
	ET	0.00122 lb ai/a	0.75 oz/a		B	V5 - V6							
12	Roundup PowerMax	0.84 lb ae/a	24 oz/a		A	VE - V2	77.5	97.5	1.3	93.8	67.5	90.0	7.73
	Roundup PowerMax	0.84 lb ae/a	24 oz/a		B	V5 - V6							
	NAI-1295	0.75 oz/a	0.75 oz/a		B	V5 - V6							
13	Roundup PowerMax	0.84 lb ae/a	24 oz/a		A	VE - V2	80.0	100.0	5.0	97.5	75.0	95.0	7.57
	Roundup PowerMax	0.84 lb ae/a	24 oz/a		B	V5 - V6							
	NAI-1300-2	0.75 oz/a	0.75 oz/a		B	V5 - V6							
14	Roundup PowerMax	0.84 lb ae/a	24 oz/a		B	V5 - V6	82.5	100.0	7.5	95.0	77.5	92.5	8.48
	Reflex	0.25 lb ai/a	16 oz/a		B	V5 - V6							
	ET	0.00122 lb ai/a	0.75 oz/a		B	V5 - V6							
LSD (P=.05)							14.94	4.31	5.45	14.43	18.05	13.03	2.073
Standard Deviation							10.45	3.02	3.81	10.10	12.63	9.12	1.436
CV							13.92	3.27	388.37	12.09	17.29	10.98	18.11
Grand Mean							75.09	92.32	0.98	83.48	73.04	83.04	7.93

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Using ET in the Southern Soybean Programs

Trial ID: HSB-50711
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type										
Pest Code										
Pest Scientific Name										
Pest Name										
Crop Code										GLXMA
Crop Scientific Name										Glycine max
Crop Name										Soybean
Part Assessed										GRAMAT C
Assessment Date										10/17/11
Assessment Type										YIELD
Assessment Unit										BU
Number of Subsamples										1
Crop Stage Majority										
Pest Stage Majority										
Assessed By										JB
Days After First/Last Applic.										126 108
Trt-Eval Interval										
Plant-Eval Interval										139 DP-1
Days After Emergence										133 DE-1
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description			
1	Untreated Check							0.0		
2	Roundup PowerMax	0.84	lb ae/a	24	oz/a	A	VE - V2	37.5		
3	Roundup PowerMax ET	0.84 0.00122	lb ae/a lb ai/a	24 0.75	oz/a oz/a	A A	VE - V2 VE - V2	32.6		
4	Roundup PowerMax Reflex	0.84 0.25	lb ae/a lb ai/a	24 16	oz/a oz/a	A A	VE - V2 VE - V2	38.0		
5	Roundup PowerMax Reflex ET	0.84 0.25 0.00122	lb ae/a lb ai/a lb ai/a	24 16 0.75	oz/a oz/a oz/a	A A A	VE - V2 VE - V2 VE - V2	39.4		
6	Roundup PowerMax Dual Magnum	0.84 0.95	lb ae/a lb ai/a	24 16	oz/a oz/a	A A	VE - V2 VE - V2	31.2		
7	Roundup PowerMax Dual Magnum ET	0.84 0.95 0.00122	lb ae/a lb ai/a lb ai/a	24 16 0.75	oz/a oz/a oz/a	A A A	VE - V2 VE - V2 VE - V2	38.4		
8	Roundup PowerMax Warrant	0.84 1.13	lb ae/a lb ai/a	24 48	oz/a oz/a	A A	VE - V2 VE - V2	42.8		
9	Roundup PowerMax Warrant ET	0.84 1.13 0.00122	lb ae/a lb ai/a lb ai/a	24 48 0.75	oz/a oz/a oz/a	A A A	VE - V2 VE - V2 VE - V2	31.6		
10	Roundup PowerMax Dual Magnum Reflex ET	0.84 0.95 0.25 0.00122	lb ae/a lb ai/a lb ai/a lb ai/a	24 16 16 0.75	oz/a oz/a oz/a oz/a	A A B B	VE - V2 VE - V2 V5 - V6 V5 - V6	32.8		
11	Roundup PowerMax Warrant Reflex ET	0.84 1.13 0.25 0.00122	lb ae/a lb ai/a lb ai/a lb ai/a	24 48 16 0.75	oz/a oz/a oz/a oz/a	A A B B	VE - V2 VE - V2 V5 - V6 V5 - V6	31.2		
12	Roundup PowerMax Roundup PowerMax NAI-1295	0.84 0.84 0.75	lb ae/a lb ae/a oz/a	24 24 0.75	oz/a oz/a oz/a	A B B	VE - V2 V5 - V6 V5 - V6	31.5		
13	Roundup PowerMax Roundup PowerMax NAI-1300-2	0.84 0.84 0.75	lb ae/a lb ae/a oz/a	24 24 0.75	oz/a oz/a oz/a	A B B	VE - V2 V5 - V6 V5 - V6	30.8		
14	Roundup PowerMax Reflex ET	0.84 0.25 0.00122	lb ae/a lb ai/a lb ai/a	24 16 0.75	oz/a oz/a oz/a	B B B	V5 - V6 V5 - V6 V5 - V6	34.5		
LSD (P=.05)									8.44	
Standard Deviation									5.85	
CV									18.11	
Grand Mean									32.29	

University of Arkansas-Division of Agriculture

Using ET in the Southern Soybean Programs

Trial ID: HSB-50711
Location: Rohwer, AR

Investigator: Kenneth Smith

ARM Action Codes
TY1 = 4.0726*[C21]

University of Arkansas-Division of Agriculture

Soybean Weed Control Programs with Zidua PRE

Trial ID: HSB-50811
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 5606
Description: Roundup Ready
BBCH Scale: BSOY
Planting Date: 5/31/11
Planting Method: PLANTD planted
Rate, Unit: 130000 P/A
Depth, Unit: 0.75 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Spacing Within Row, Unit: 2 IN
Soil Temperature, Unit: 79.6 F
Soil Moisture: FAIR fair
Emergence Date: 6/6/11
Harvest Date: 10/10/11
Harvest Equipment: Massey Ferguson 8
Harvested Width, Unit: 6.33 FT
Harvested Length, Unit: 28 FT
% Standard Moisture: 13.0
Moisture Meter: Massey Ferguson 8
Weighing Equipment: Massey Ferguson 8

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Bifenthrin	6.4	OZ

Soil Description

Description Name: 2011 Soybean
% Sand: 16 **% OM:** 2.2 **Texture:** SIL silt loam
% Silt: 65 **pH:** 6.7 **Soil Name:** Sharkey & Desha Silt Loam
% Clay: 19 **CEC:** 13 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A
Application Date:	6/2/11
Time of Day:	AM
Application Method:	SPRAY
Application Timing:	PREPRE
Application Placement:	BROSOI
Applied By:	RD
Air Temperature, Unit:	85.1 F
% Relative Humidity:	62.5
Wind Velocity, Unit:	2.0 MPH
Wind Direction:	SE
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	82.5 F
Soil Moisture:	FAIR
% Cloud Cover:	20
Next Rain Occurred On:	6/3/11

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	GLXMA BSOY
Height, Unit:	0 IN

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	ECHCG W
Height, Unit:	0 IN
Pest 2 Code, Type, Scale:	AMAPA W
Height, Unit:	0 IN
Pest 3 Code, Type, Scale:	IPOSS W
Height, Unit:	0 IN

Soybean Weed Control Programs with Zidua PRE

Trial ID: HSB-50811
Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A
Appl. Equipment:	Multi Boom
Equipment Type:	SPTRMO
Operation Pressure, Unit:	50 PSI
Nozzle Type:	Air-Mix
Nozzle Size:	110015
Nozzle Spacing, Unit:	19 IN
Nozzles/Row:	2
% Coverage:	100
Boom Length, Unit:	12.6 FT
Boom Height, Unit:	18 IN
Carrier:	WATER
Spray Volume, Unit:	12 gal/ac
Mix Size, Unit:	3 Liters
Propellant:	COMCO2
Tank Mix (Y/N):	Y yes

University of Arkansas-Division of Agriculture

Soybean Weed Control Programs with Zidua PRE

Trial ID: HSB-50811
 Location: Rohwer, AR
 Investigator: Kenneth Smith

		W Weed ECHCG Echinochloa c> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory		W Weed ECHCG Echinochloa c> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth							
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT C	PLANT P	PLANT P	PLANT P	PLANT C	PLANT P	PLANT P							
Assessment Date	6/20/11	6/23/11	6/23/11	6/23/11	6/23/11	7/14/11	7/14/11							
Assessment Type	COUPLA	CONTRO	CONTRO	CONTRO	PHYSTU	CONTRO	CONTRO							
Assessment Unit	MROW	%	%	%	%	%	%							
Number of Subsamples	2	1	1	1	1	1	1							
Crop Stage Majority		V4 3-6"	V4 3-6"	V4 3-6"	V4 3-6"	V9 23"	V9 23"							
Pest Stage Majority		2-6"	2-8"	1-4"		5-25"	10-40"							
Assessed By		JB	JB	JB	JB	JB	JB							
Days After First/Last Applic.	40 40				21 21	64 64	64 64							
Trt-Eval Interval	18 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A	42 DA-A	42 DA-A							
Plant-Eval Interval					23 DP-1									
Days After Emergence					17 DE-1									
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Code	Description	1	2	3	4	5	6	7
1	Untreated Check							27.13	0.0	0.0	0.0	0.0	0.0	0.0
2	Zidua	0.106 lb ai/a	2.0 oz/a		A	Pre		25.75	100.0	100.0	100.0	0.0	100.0	100.0
3	Zidua	0.213 lb ai/a	4.0 oz/a		A	Pre		26.50	100.0	100.0	100.0	3.8	100.0	100.0
4	Zidua	0.133 lb ai/a	2.5 oz/a		A	Pre		28.25	100.0	100.0	98.5	1.3	100.0	100.0
5	Zidua	0.266 lb ai/a	5 oz/a		A	Pre		26.25	100.0	100.0	100.0	6.3	100.0	100.0
6	Zidua Sharpen	0.133 lb ai/a 0.0223 lb ai/a	2.5 oz/a 1 oz/a		A	Pre	Pre	26.25	99.8	100.0	100.0	2.5	100.0	100.0
7	Zidua Sharpen	0.266 lb ai/a 0.0223 lb ai/a	5 oz/a 1 oz/a		A	Pre	Pre	27.50	100.0	100.0	100.0	7.5	100.0	100.0
8	Zidua Verdict	0.106 lb ai/a 0.218 lb ai/a	2.0 oz/a 5 oz/a		A	Pre	Pre	26.13	100.0	100.0	100.0	12.5	100.0	100.0
9	Zidua Verdict	0.213 lb ai/a 0.218 lb ai/a	4.0 oz/a 5 oz/a		A	Pre	Pre	28.00	100.0	100.0	100.0	11.3	100.0	100.0
10	Dual II Magnum	0.955 lb ai/a	16 oz/a		A	Pre		28.38	100.0	100.0	99.0	2.5	100.0	100.0
11	Valor SX	0.064 lb ai/a	2 oz/a		A	Pre		27.25	99.0	99.5	98.5	2.5	93.8	100.0
12	Prefix	1.32 lb ai/a	32 oz/a		A	Pre		28.13	100.0	100.0	100.0	0.0	100.0	100.0
13	Zidua Valor SX	0.08 lb ai/a 0.064 lb ai/a	1.5 oz/a 2 oz/a		A	Pre	Pre	29.13	100.0	100.0	100.0	0.0	100.0	100.0
14	Fierce	0.143 lb ai/a	3 oz/a		A	Pre		26.38	100.0	100.0	98.3	0.0	100.0	100.0
15	Authority First	0.131 lb ai/a	3 oz/a		A	Pre		27.75	99.5	100.0	99.5	0.0	96.3	100.0
16	Authority MTZ	0.338 lb ai/a	12 oz/a		A	Pre		27.75	100.0	100.0	99.5	1.3	98.8	100.0
17	Boundary	1.83 lb ai/a	36 oz/a		A	Pre		27.63	100.0	100.0	100.0	2.5	100.0	100.0
LSD (P=.05)		2.596	0.56							0.35	1.61	8.41	2.47	0.00
Standard Deviation		1.817	0.39							0.24	1.13	5.89	1.73	0.00
CV		6.65	0.42							0.26	1.21	186.18	1.85	0.0
Grand Mean		27.3	94.01							94.09	93.72	3.16	93.46	94.12

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

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Trial ID: HSB-50811
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed						
Pest Code	IPOSS	ECHCG	AMAPA	IPOSS	ECHCG	AMAPA	IPOSS						
Pest Scientific Name	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.						
Pest Name	Morning glory	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory						
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed	PLANT P	PLANT C	PLANT P	PLANT P	PLANT C	PLANT C	PLANT P						
Assessment Date	7/14/11	7/14/11	7/27/11	7/27/11	7/27/11	7/27/11	10/6/11						
Assessment Type	CONTRO	PHYSTU	CONTRO	CONTRO	CONTRO	PHYSTU	CONTRO						
Assessment Unit	%	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1	1						
Crop Stage Majority	V9 23"	V9 23"	R1/2 36"	R1/2 36"	R1/2 36"	R1/2 36"	R8 37.5"						
Pest Stage Majority	3-23"	10-50"	20-80"	10-30"	10-30"	10-30"	10-30"						
Assessed By	JB	JB	JB	JB	JB	JB	JB						
Days After First/Last Applic.	64 64	31 31	55 55	55 55	55 55	55 55	126 126						
Trt-Eval Interval	42 DA-A	42 DA-A	55 DA-A	55 DA-A	55 DA-A	55 DA-A	61 DA-A						
Plant-Eval Interval	44 DP-1	44 DP-1	57 DP-1	57 DP-1	57 DP-1	57 DP-1	128 DP-1						
Days After Emergence	38 DE-1	38 DE-1	51 DE-1	51 DE-1	51 DE-1	51 DE-1	122 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	8	9	10	11	12	13	14
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Zidua	0.106 lb ai/a	2.0 oz/a		A	Pre	100.0	1.3	100.0	100.0	100.0	0.0	100.0
3	Zidua	0.213 lb ai/a	4.0 oz/a		A	Pre	100.0	0.0	100.0	100.0	100.0	0.0	100.0
4	Zidua	0.133 lb ai/a	2.5 oz/a		A	Pre	97.5	0.0	100.0	100.0	100.0	0.0	100.0
5	Zidua	0.266 lb ai/a	5 oz/a		A	Pre	100.0	7.5	100.0	100.0	100.0	8.8	100.0
6	Zidua Sharpen	0.133 lb ai/a 0.0223 lb ai/a	2.5 oz/a 1 oz/a		A	Pre	100.0	0.0	100.0	100.0	100.0	0.0	100.0
7	Zidua Sharpen	0.266 lb ai/a 0.0223 lb ai/a	5 oz/a 1 oz/a		A	Pre	100.0	5.0	100.0	100.0	100.0	0.0	100.0
8	Zidua Verdict	0.106 lb ai/a 0.218 lb ai/a	2.0 oz/a 5 oz/a		A	Pre	100.0	2.5	100.0	100.0	100.0	0.0	100.0
9	Zidua Verdict	0.213 lb ai/a 0.218 lb ai/a	4.0 oz/a 5 oz/a		A	Pre	100.0	7.5	100.0	100.0	100.0	8.8	100.0
10	Dual II Magnum	0.955 lb ai/a	16 oz/a		A	Pre	96.3	0.0	100.0	100.0	100.0	5.0	100.0
11	Valor SX	0.064 lb ai/a	2 oz/a		A	Pre	97.5	0.0	100.0	100.0	100.0	0.0	92.5
12	Prefix	1.32 lb ai/a	32 oz/a		A	Pre	97.5	0.0	100.0	100.0	100.0	0.0	100.0
13	Zidua Valor SX	0.08 lb ai/a 0.064 lb ai/a	1.5 oz/a 2 oz/a		A	Pre	100.0	0.0	100.0	100.0	100.0	0.0	100.0
14	Fierce	0.143 lb ai/a	3 oz/a		A	Pre	98.8	0.0	100.0	100.0	100.0	0.0	100.0
15	Authority First	0.131 lb ai/a	3 oz/a		A	Pre	100.0	0.0	100.0	100.0	100.0	0.0	100.0
16	Authority MTZ	0.338 lb ai/a	12 oz/a		A	Pre	100.0	0.0	100.0	100.0	100.0	0.0	100.0
17	Boundary	1.83 lb ai/a	36 oz/a		A	Pre	100.0	0.0	100.0	100.0	100.0	0.0	100.0
	LSD (P=.05)						3.62	8.50	0.00	0.00	0.00	8.72	1.73
	Standard Deviation						2.53	5.95	0.00	0.00	0.00	6.10	1.21
	CV						2.71	425.8	0.0	0.0	0.0	460.88	1.29
	Grand Mean						93.38	1.4	94.12	94.12	94.12	1.32	93.68

University of Arkansas-Division of Agriculture

Soybean Weed Control Programs with Zidua PRE

Trial ID: HSB-50811
 Location: Rohwer, AR
 Investigator: Kenneth Smith

W Weed AMAPA Amaranthus pal- Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory										
GLXMA Glycine max	GLXMA Glycine max	GLXMA Glycine max	GLXMA Glycine max	GLXMA Glycine max							
Soybean PLANT P 10/6/11 CONTRO %	Soybean PLANT P 10/6/11 CONTRO %	Soybean GRAMAT C 10/10/11 MOICON %	Soybean GRAMAT C 10/10/11 WEIDRY lb/plot	Soybean GRAMAT C 10/10/11 YIELD BU							
1	1	1	1	1							
R8 37.5" 10-60"	R8 37.5" 10-40"										
JB	JB	JM	JM	JB							
126 126 61 DA-A	126 126 61 DA-A	130 130 137 DA-A	130 130 137 DA-A	130 130 137 DA-A							
128 DP-1 122 DE-1	128 DP-1 122 DE-1	132 DP-1 126 DE-1	132 DP-1 126 DE-1	132 DP-1 126 DE-1							
Trt No.	Treatment Name	Rate	Other Rate	Other Unit	Appl Code	Appl Description	15	16	17	18	19
1	Untreated Check						0.0	0.0			
2	Zidua	0.106 lb ai/a	2.0 oz/a	A	Pre		100.0	85.0	16.48	7.238	28.4
3	Zidua	0.213 lb ai/a	4.0 oz/a	A	Pre		100.0	100.0	14.40	7.463	30.0
4	Zidua	0.133 lb ai/a	2.5 oz/a	A	Pre		100.0	85.0	14.45	6.985	28.1
5	Zidua	0.266 lb ai/a	5 oz/a	A	Pre		100.0	100.0	14.63	7.443	29.9
6	Zidua Sharpen	0.133 lb ai/a 0.0223 lb ai/a	2.5 oz/a 1 oz/a	A A	Pre Pre		100.0	97.5	15.05	7.558	30.2
7	Zidua Sharpen	0.266 lb ai/a 0.0223 lb ai/a	5 oz/a 1 oz/a	A A	Pre Pre		100.0	100.0	14.78	8.513	34.2
8	Zidua Verdict	0.106 lb ai/a 0.218 lb ai/a	2.0 oz/a 5 oz/a	A A	Pre Pre		100.0	97.5	14.08	8.213	33.2
9	Zidua Verdict	0.213 lb ai/a 0.218 lb ai/a	4.0 oz/a 5 oz/a	A A	Pre Pre		100.0	100.0	14.95	7.883	31.6
10	Dual II Magnum	0.955 lb ai/a	16 oz/a	A	Pre		100.0	72.5	15.98	7.185	28.4
11	Valor SX	0.064 lb ai/a	2 oz/a	A	Pre		95.0	80.0	16.48	7.665	30.1
12	Prefix	1.32 lb ai/a	32 oz/a	A	Pre		100.0	92.5	13.88	6.823	27.6
13	Zidua Valor SX	0.08 lb ai/a 0.064 lb ai/a	1.5 oz/a 2 oz/a	A A	Pre Pre		100.0	90.0	15.08	7.753	31.0
14	Fierce	0.143 lb ai/a	3 oz/a	A	Pre		100.0	97.5	14.20	8.448	34.1
15	Authority First	0.131 lb ai/a	3 oz/a	A	Pre		100.0	97.5	14.28	7.788	31.4
16	Authority MTZ	0.338 lb ai/a	12 oz/a	A	Pre		100.0	100.0	14.43	8.180	33.0
17	Boundary	1.83 lb ai/a	36 oz/a	A	Pre		100.0	82.5	14.35	7.505	30.3
LSD (P=.05)							3.47	10.90	1.588	1.7381	6.99
Standard Deviation							2.43	7.63	1.111	1.2162	4.89
CV							2.59	8.77	7.49	15.87	15.93
Grand Mean							93.82	86.91	14.84	7.66	30.72

University of Arkansas-Division of Agriculture

Soybean Weed Control Programs with Zidua PRE

Trial ID: HSB-50811
Location: Rohwer, AR

Investigator: Kenneth Smith

ARM Action Codes

TY1 = 4.096141*[18]*(100-@MVAVGREP([17]))/87

University of Arkansas-Division of Agriculture

Soybean Roundup Ready Programs with Envive, Canopy, Cinch, Flexstar GT 3.5, Boundary, & Prefix

Trial ID: HSB-50911
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 5606
BBCH Scale: BSOY
Planting Method: PLANTD planted
Depth, Unit: 0.5 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: GOOD good
Harvest Date: 10/17/11
Harvested Width, Unit: 6.33 FT
% Standard Moisture: 13.0
Weighing Equipment: Massey Ferguson 8

Description: Roundup Ready
Planting Date: 6/1/11
Rate, Unit: 130000 P/A
Spacing Within Row, Unit: 1 IN
Soil Temperature, Unit: 79.6 F
Emergence Date: 6/8/11
Harvest Equipment: Massey Ferguson 8
Harvested Length, Unit: 28 FT
Moisture Meter: Massey Ferguson 8

Pest Description

Pest 1 Type: W **Code:** ECHCG **Echinochloa crus-galli**
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** AMAPA **Amaranthus palmeri**
Common Name: Palmer amaranth

Pest 3 Type: W **Code:** IPOSS **Ipomoea sp.**
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB L Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	6/3/11	Roundup WeatherMax	4.5	LBA/GAL	AS	24	OZ/A
2.	7/19/11	Bifenthrin				6.4	OZ

Soil Description

Description Name: 2011 Soybean
% Sand: 16 **% OM:** 2.2 **Texture:** SIL silt loam
% Silt: 65 **pH:** 6.7 **Soil Name:** Sharkey & Desha Silt Loam
% Clay: 19 **CEC:** 13 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B	C
Application Date:	6/2/11	7/11/11	6/27/11
Time of Day:	PM	PM	AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREPRE	POSPOS	POSPOS
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	RD	JB	JB
Air Temperature, Unit:	85.1 F	85.2 F	83.1 F
% Relative Humidity:	62.5	70.5	73.5
Wind Velocity, Unit:	2.0 MPH	2.5 MPH	4.5 MPH
Wind Direction:	SE	W	W
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	82.5 F	87.6 F	85.9 F
Soil Moisture:	GOOD	GOOD	GOOD
% Cloud Cover:	20	10	20
Next Rain Occurred On:	6/3/11	7/12/11	6/29/11

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	DESC	DESC	DESC
Stage Majority, Percent:	V0	V8	V4
Height, Unit:	0 IN	24 IN	6 IN

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W
Height, Unit:	0 IN	6 IN	4 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W
Height, Unit:	0 IN	4 IN	3 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W
Height, Unit:	0 IN	4 IN	3 IN

University of Arkansas-Division of Agriculture

Soybean Roundup Ready Programs with Envive, Canopy, Cinch, Flexstar GT 3.5, Boundary, & Prefix

Trial ID: HSB-50911
 Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B	C
Appl. Equipment:	Multi Boom	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix
Nozzle Size:	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Nozzles/Row:	2	2	2
% Coverage:	100	100	100
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes	Y yes

University of Arkansas-Division of Agriculture

Soybean Roundup Ready Programs with Envive, Canopy, Cinch, Flexstar GT 3.5, Boundary, & Prefix

Trial ID: HSB-50911
Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type		W Weed	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code		ECHCG	AMAPA	IPOSS	ECHCG	AMAPA	IPOSS					
Pest Scientific Name		Echinochloa c>	Amaranthus pal>	Ipomoea sp.	Echinochloa c>	Amaranthus pal>	Ipomoea sp.					
Pest Name		Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory					
Crop Code		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA					
Crop Scientific Name		Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max					
Crop Name		Soybean	Soybean	Soybean	Soybean	Soybean	Soybean					
Part Assessed		PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P					
Assessment Date		6/23/11	6/23/11	6/23/11	7/1/11	7/1/11	7/1/11					
Assessment Type		CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Assessment Unit		%	%	%	%	%	%					
Number of Subsamples		1	1	1	1	1	1					
Crop Stage Majority		V4 3-6"	V4 3-6"	V4 3-6"	V6 5-10"	V6 5-10"	V6 5-10"					
Pest Stage Majority		2-6"	2-8"	1-4"	1-15"	5-25"	2-12"					
Assessed By		JB	JB	JB	JB	JB	JB					
Days After First/Last Applic.		21 21	21 21	21 21	29 4	29 4	29 4					
Trt-Eval Interval		21 DA-A	21 DA-A	21 DA-A	4 DA-C	4 DA-C	4 DA-C					
Plant-Eval Interval		22 DP-1	22 DP-1	22 DP-1	30 DP-1	30 DP-1	30 DP-1					
Days After Emergence		15 DE-1	15 DE-1	15 DE-1	23 DE-1	23 DE-1	23 DE-1					
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3	4	5	6
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0
2	Prefix	1.32 lb ai/a	32 oz/a		A	Pre	99.5	100.0	97.5	100.0	100.0	100.0
	Sequence	1.64 lb ai/a	40 oz/a		B	2 - 3" AMAPA						
	MSO	1 % v/v	15.4 oz/a		B	2 - 3" AMAPA						
3	Boundary	1.22 lb ai/a	24 oz/a		A	Pre	99.3	100.0	99.0	100.0	100.0	100.0
	Flexstar GT 3.5	1.56 lb ai/a	57 oz/a		B	2 - 3" AMAPA						
	MSO	1 % v/v	15.4 oz/a		B	2 - 3" AMAPA						
4	Boundary	1.22 lb ai/a	24 oz/a		A	Pre	100.0	100.0	97.8	98.8	97.5	97.5
	Prefix	1.32 lb ai/a	32 oz/a		B	2 - 3" AMAPA						
	Touchdown Total	0.78 lb ae/a	24 oz/a		B	2 - 3" AMAPA						
	MSO	1 % v/v	15.4 oz/a		B	2 - 3" AMAPA						
5	Valor SX	0.064 lb ai/a	2 oz/a		A	Pre	94.8	99.5	98.5	93.8	100.0	100.0
	Flexstar GT 3.5	1.56 lb ai/a	57 oz/a		B	2 - 3" AMAPA						
	MSO	1 % v/v	15.4 oz/a		B	2 - 3" AMAPA						
6	Valor SX	0.064 lb ai/a	2 oz/a		A	Pre	94.8	100.0	97.0	92.5	97.5	100.0
	Prefix	1.32 lb ai/a	32 oz/a		B	2 - 3" AMAPA						
	Touchdown Total	0.78 lb ae/a	24 oz/a		B	2 - 3" AMAPA						
	MSO	1 % v/v	15.4 oz/a		B	2 - 3" AMAPA						
7	Authority MTZ	0.28 lb ai/a	10 oz/a		A	Pre	99.5	100.0	99.5	97.5	100.0	100.0
	Flexstar GT 3.5	1.56 lb ai/a	57 oz/a		B	2 - 3" AMAPA						
	MSO	1 % v/v	15.4 oz/a		B	2 - 3" AMAPA						
8	Authority MTZ	0.28 lb ai/a	10 oz/a		A	Pre	99.8	100.0	98.5	100.0	100.0	100.0
	Prefix	1.32 lb ai/a	32 oz/a		B	2 - 3" AMAPA						
	Touchdown Total	0.78 lb ae/a	24 oz/a		B	2 - 3" AMAPA						
	MSO	1 % v/v	15.4 oz/a		B	2 - 3" AMAPA						
9	Prowl H20	0.95 lb ai/a	32 oz/a		A	Pre	96.3	94.5	97.0	95.0	98.8	100.0
	Flexstar GT 3.5	1.56 lb ai/a	57 oz/a		B	2 - 3" AMAPA						
	MSO	1 % v/v	15.4 oz/a		B	2 - 3" AMAPA						
10	Prowl H20	0.95 lb ai/a	32 oz/a		A	Pre	98.5	98.0	98.0	96.3	91.3	97.5
	Prefix	1.32 lb ai/a	32 oz/a		B	2 - 3" AMAPA						
	Touchdown Total	0.78 lb ae/a	24 oz/a		B	2 - 3" AMAPA						
	MSO	1 % v/v	15.4 oz/a		B	2 - 3" AMAPA						
11	Spartan	0.313 lb ai/a	10 oz/a		A	Pre	100.0	100.0	100.0	100.0	100.0	100.0
	Flexstar GT 3.5	1.56 lb ai/a	57 oz/a		B	2 - 3" AMAPA						
	MSO	1 % v/v	15.4 oz/a		B	2 - 3" AMAPA						
12	Spartan	0.313 lb ai/a	10 oz/a		A	Pre	100.0	100.0	100.0	100.0	100.0	100.0
	Prefix	1.32 lb ai/a	32 oz/a		B	2 - 3" AMAPA						
	Touchdown Total	0.78 lb ae/a	24 oz/a		B	2 - 3" AMAPA						
	MSO	1 % v/v	15.4 oz/a		B	2 - 3" AMAPA						
13	Fierce	0.143 lb ai/a	3 oz/a		A	Pre	100.0	100.0	100.0	100.0	100.0	100.0
	Flexstar GT 3.5	1.56 lb ai/a	57 oz/a		B	2 - 3" AMAPA						
	MSO	1 % v/v	15.4 oz/a		B	2 - 3" AMAPA						
14	Fierce	0.143 lb ai/a	3 oz/a		A	Pre	99.5	100.0	99.0	100.0	100.0	100.0
	Prefix	1.32 lb ai/a	32 oz/a		B	2 - 3" AMAPA						
	Touchdown Total	0.78 lb ae/a	24 oz/a		B	2 - 3" AMAPA						
	MSO	1 % v/v	15.4 oz/a		B	2 - 3" AMAPA						
15	Envive		3.45 oz/a		A	Pre	95.3	100.0	100.0	100.0	100.0	100.0
	>Flumioxazin (Valor SX)	0.0625 lb ai/a	1.96 oz/a		A	Pre						
	>Chlorimuron (Classic WDG)	0.0201 lb ai/a	1.29 oz/a		A	Pre						
	>Thifensulfuron (Harmony SG)	0.00625 lb ai/a	0.2 oz/a		A	Pre						
	NIS	1 % v/v	15.4 oz/a		A	Pre						
	Flexstar GT 3.5	1.56 lb ai/a	57 oz/a		C	21 - 28 DAA						
	MSO	1 % v/v	15.4 oz/a		C	21 - 28 DAA						
16	Envive		3.45 oz/a		A	Pre	97.5	100.0	100.0	100.0	100.0	100.0
	>Flumioxazin (Valor SX)	0.0625 lb ai/a	1.96 oz/a		A	Pre						
	>Chlorimuron (Classic WDG)	0.0201 lb ai/a	1.29 oz/a		A	Pre						
	>Thifensulfuron (Harmony SG)	0.00625 lb ai/a	0.2 oz/a		A	Pre						
	NIS	1 % v/v	15.4 oz/a		A	Pre						
	Prefix	1.32 lb ai/a	32 oz/a		C	21 - 28 DAA						
	Touchdown Total	0.78 lb ae/a	24 oz/a		C	21 - 28 DAA						
	MSO	1 % v/v	15.4 oz/a		C	21 - 28 DAA						
17	Canopy	0.28 lb ai/a	6 oz/a		A	Pre	97.0	98.5	99.0	100.0	100.0	98.8
	NIS	1 % v/v	15.4 oz/a		A	Pre						
	Flexstar GT 3.5	1.56 lb ai/a	57 oz/a		C	21 - 28 DAA						
	MSO	1 % v/v	15.4 oz/a		C	21 - 28 DAA						

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Soybean Roundup Ready Programs with Envive, Canopy, Cinch, Flexstar GT 3.5, Boundary, & Prefix

Trial ID: HSB-50911
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS							
Pest Code	ECHCG	AMAPA	IPOSS	ECHCG	AMAPA	IPOSS							
Pest Scientific Name	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Name	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory							
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	6/23/11	6/23/11	6/23/11	7/1/11	7/1/11	7/1/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	V4 3-6"	V4 3-6"	V4 3-6"	V6 5-10"	V6 5-10"	V6 5-10"							
Pest Stage Majority	2-6"	2-8"	1-4"	1-15"	5-25"	2-12"							
Assessed By	JB	JB	JB	JB	JB	JB							
Days After First/Last Applic.	21 21	21 21	21 21	29 4	29 4	29 4							
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	4 DA-C	4 DA-C	4 DA-C							
Plant-Eval Interval	22 DP-1	22 DP-1	22 DP-1	30 DP-1	30 DP-1	30 DP-1							
Days After Emergence	15 DE-1	15 DE-1	15 DE-1	23 DE-1	23 DE-1	23 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6
18	Canopy	0.28	lb ai/a	6	oz/a	A	Pre	96.5	100.0	98.0	100.0	100.0	100.0
	NIS	1	% v/v	15.4	oz/a	A	Pre						
	Prefix	1.32	lb ai/a	32	oz/a	C	21 - 28 DAA						
	Touchdown Total	0.78	lb ae/a	24	oz/a	C	21 - 28 DAA						
	MSO	1	% v/v	15.4	oz/a	C	21 - 28 DAA						
19	Canopy	0.188	lb ai/a	4	oz/a	A	Pre	100.0	100.0	100.0	100.0	100.0	100.0
	Cinch	0.875	lb ai/a	16	oz/a	A	Pre						
	NIS	1	% v/v	15.4	oz/a	A	Pre						
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	C	21 - 28 DAA						
	MSO	1	% v/v	15.4	oz/a	C	21 - 28 DAA						
20	Canopy	0.188	lb ai/a	4	oz/a	A	Pre	100.0	100.0	99.5	100.0	100.0	100.0
	Cinch	0.875	lb ai/a	16	oz/a	A	Pre						
	NIS	1	% v/v	15.4	oz/a	A	Pre						
	Prefix	1.32	lb ai/a	32	oz/a	C	21 - 28 DAA						
	Touchdown Total	0.78	lb ae/a	24	oz/a	C	21 - 28 DAA						
	MSO	1	% v/v	15.4	oz/a	C	21 - 28 DAA						
	LSD (P=.05)							2.78	2.20	3.27	2.68	2.51	2.37
	Standard Deviation							1.96	1.56	2.31	1.90	1.78	1.68
	CV							2.1	1.65	2.46	2.03	1.89	1.77
	Grand Mean							93.4	94.53	93.91	93.69	94.25	94.69

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Soybean Roundup Ready Programs with Envive, Canopy, Cinch, Flexstar GT 3.5, Boundary, & Prefix

Trial ID: HSB-50911
Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS		W Weed ECHCG	W Weed AMAPA							
Pest Code	Echinochloa c>	Amaranthus pal>	Ipomoea sp.		Echinochloa c>	Amaranthus pal>							
Pest Scientific Name	Common barnyar>	Palmer amaranth	Morning glory		Common barnyar>	Palmer amaranth							
Pest Name													
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT C	PLANT P	PLANT P							
Assessment Date	7/14/11	7/14/11	7/14/11	7/14/11	7/29/11	7/29/11							
Assessment Type	CONTRO	CONTRO	CONTRO	PHYCHL	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	V8 23"	V8 23"	V8 23"	V8 23"	R1/2 36"	R1/2 36"							
Pest Stage Majority	5-25"	10-40"	3-20"		10-70"	20-80"							
Assessed By	JB	JB	JB	JB	JB	JB							
Days After First/Last Applic.	42 3	42 3	42 3	42 3	57 18	57 18							
Trt-Eval Interval	3 DA-B	3 DA-B	3 DA-B	3 DA-B	18 DA-B	18 DA-B							
Plant-Eval Interval	43 DP-1	43 DP-1	43 DP-1	44 DP-1	58 DP-1	58 DP-1							
Days After Emergence													
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	7	8	9	10	11	12
1	Untreated Check							7	8	9	10	11	12
2	Prefix	1.32	lb ai/a	32	oz/a	A	Pre	100.0	100.0	100.0	3.8	100.0	100.0
	Sequence	1.64	lb ai/a	40	oz/a	B	2 - 3" AMAPA						
	MSO	1	% v/v	15.4	oz/a	B	2 - 3" AMAPA						
3	Boundary	1.22	lb ai/a	24	oz/a	A	Pre	100.0	100.0	100.0	2.5	100.0	100.0
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	B	2 - 3" AMAPA						
	MSO	1	% v/v	15.4	oz/a	B	2 - 3" AMAPA						
4	Boundary	1.22	lb ai/a	24	oz/a	A	Pre	97.5	95.0	97.5	0.0	100.0	100.0
	Prefix	1.32	lb ai/a	32	oz/a	B	2 - 3" AMAPA						
	Touchdown Total	0.78	lb ae/a	24	oz/a	B	2 - 3" AMAPA						
	MSO	1	% v/v	15.4	oz/a	B	2 - 3" AMAPA						
5	Valor SX	0.064	lb ai/a	2	oz/a	A	Pre	87.5	100.0	100.0	2.5	100.0	100.0
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	B	2 - 3" AMAPA						
	MSO	1	% v/v	15.4	oz/a	B	2 - 3" AMAPA						
6	Valor SX	0.064	lb ai/a	2	oz/a	A	Pre	88.8	97.5	100.0	2.5	100.0	100.0
	Prefix	1.32	lb ai/a	32	oz/a	B	2 - 3" AMAPA						
	Touchdown Total	0.78	lb ae/a	24	oz/a	B	2 - 3" AMAPA						
	MSO	1	% v/v	15.4	oz/a	B	2 - 3" AMAPA						
7	Authority MTZ	0.28	lb ai/a	10	oz/a	A	Pre	95.0	100.0	100.0	1.3	100.0	100.0
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	B	2 - 3" AMAPA						
	MSO	1	% v/v	15.4	oz/a	B	2 - 3" AMAPA						
8	Authority MTZ	0.28	lb ai/a	10	oz/a	A	Pre	97.5	100.0	100.0	0.0	100.0	100.0
	Prefix	1.32	lb ai/a	32	oz/a	B	2 - 3" AMAPA						
	Touchdown Total	0.78	lb ae/a	24	oz/a	B	2 - 3" AMAPA						
	MSO	1	% v/v	15.4	oz/a	B	2 - 3" AMAPA						
9	Prowl H20	0.95	lb ai/a	32	oz/a	A	Pre	96.3	95.0	100.0	1.3	100.0	96.3
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	B	2 - 3" AMAPA						
	MSO	1	% v/v	15.4	oz/a	B	2 - 3" AMAPA						
10	Prowl H20	0.95	lb ai/a	32	oz/a	A	Pre	92.5	85.0	97.5	5.0	100.0	97.5
	Prefix	1.32	lb ai/a	32	oz/a	B	2 - 3" AMAPA						
	Touchdown Total	0.78	lb ae/a	24	oz/a	B	2 - 3" AMAPA						
	MSO	1	% v/v	15.4	oz/a	B	2 - 3" AMAPA						
11	Spartan	0.313	lb ai/a	10	oz/a	A	Pre	100.0	100.0	100.0	3.8	100.0	100.0
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	B	2 - 3" AMAPA						
	MSO	1	% v/v	15.4	oz/a	B	2 - 3" AMAPA						
12	Spartan	0.313	lb ai/a	10	oz/a	A	Pre	96.3	97.5	100.0	0.0	100.0	100.0
	Prefix	1.32	lb ai/a	32	oz/a	B	2 - 3" AMAPA						
	Touchdown Total	0.78	lb ae/a	24	oz/a	B	2 - 3" AMAPA						
	MSO	1	% v/v	15.4	oz/a	B	2 - 3" AMAPA						
13	Fierce	0.143	lb ai/a	3	oz/a	A	Pre	100.0	100.0	100.0	2.5	100.0	100.0
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	B	2 - 3" AMAPA						
	MSO	1	% v/v	15.4	oz/a	B	2 - 3" AMAPA						
14	Fierce	0.143	lb ai/a	3	oz/a	A	Pre	100.0	100.0	100.0	17.5	100.0	100.0
	Prefix	1.32	lb ai/a	32	oz/a	B	2 - 3" AMAPA						
	Touchdown Total	0.78	lb ae/a	24	oz/a	B	2 - 3" AMAPA						
	MSO	1	% v/v	15.4	oz/a	B	2 - 3" AMAPA						
15	Envive			3.45	oz/a	A	Pre	100.0	100.0	100.0	0.0	100.0	100.0
	>Flumioxazin (Valor SX)	0.0625	lb ai/a	1.96	oz/a	A	Pre						
	>Chlorimuron (Classic WDG)	0.0201	lb ai/a	1.29	oz/a	A	Pre						
	>Thifensulfuron (Harmony SG)	0.00625	lb ai/a	0.2	oz/a	A	Pre						
	NIS	1	% v/v	15.4	oz/a	A	Pre						
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	C	21 - 28 DAA						
	MSO	1	% v/v	15.4	oz/a	C	21 - 28 DAA						
16	Envive			3.45	oz/a	A	Pre	100.0	100.0	100.0	0.0	100.0	100.0
	>Flumioxazin (Valor SX)	0.0625	lb ai/a	1.96	oz/a	A	Pre						
	>Chlorimuron (Classic WDG)	0.0201	lb ai/a	1.29	oz/a	A	Pre						
	>Thifensulfuron (Harmony SG)	0.00625	lb ai/a	0.2	oz/a	A	Pre						
	NIS	1	% v/v	15.4	oz/a	A	Pre						
	Prefix	1.32	lb ai/a	32	oz/a	C	21 - 28 DAA						
	Touchdown Total	0.78	lb ae/a	24	oz/a	C	21 - 28 DAA						
	MSO	1	% v/v	15.4	oz/a	C	21 - 28 DAA						
17	Canopy	0.28	lb ai/a	6	oz/a	A	Pre	100.0	100.0	97.5	0.0	100.0	100.0
	NIS	1	% v/v	15.4	oz/a	A	Pre						
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	C	21 - 28 DAA						
	MSO	1	% v/v	15.4	oz/a	C	21 - 28 DAA						

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Soybean Roundup Ready Programs with Envive, Canopy, Cinch, Flexstar GT 3.5, Boundary, & Prefix

Trial ID: HSB-50911
 Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS		W Weed ECHCG	W Weed AMAPA
Pest Code	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.		Echinochloa cr>	Amaranthus pal>
Pest Scientific Name	Common barnyar>	Palmer amaranth	Morning glory		Common barnyar>	Palmer amaranth
Pest Name						
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT C	PLANT P	PLANT P
Assessment Date	7/14/11	7/14/11	7/14/11	7/14/11	7/29/11	7/29/11
Assessment Type	CONTRO	CONTRO	CONTRO	PHYCHL	CONTRO	CONTRO
Assessment Unit	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1
Crop Stage Majority	V8 23"	V8 23"	V8 23"	V8 23"	R1/2 36"	R1/2 36"
Pest Stage Majority	5-25"	10-40"	3-20"		10-70"	20-80"
Assessed By	JB	JB	JB	JB	JB	JB
Days After First/Last Applic.	42 3	42 3	42 3	42 3	57 18	57 18
Trt-Eval Interval	3 DA-B	3 DA-B	3 DA-B	3 DA-B	18 DA-B	18 DA-B
Plant-Eval Interval	43 DP-1	43 DP-1	43 DP-1	44 DP-1	58 DP-1	58 DP-1
Days After Emergence				38 DE-1		
Trt Treatment						
No. Name						
Rate						
Rate Unit						
Other Rate						
Other Rate Unit						
Appl Code						
Appl Description						
18 Canopy	0.28 lb ai/a	6 oz/a	A	Pre		
NIS	1 % v/v	15.4 oz/a	A	Pre		
Prefix	1.32 lb ai/a	32 oz/a	C	21 - 28 DAA		
Touchdown Total	0.78 lb ae/a	24 oz/a	C	21 - 28 DAA		
MSO	1 % v/v	15.4 oz/a	C	21 - 28 DAA		
19 Canopy	0.188 lb ai/a	4 oz/a	A	Pre		
Cinch	0.875 lb ai/a	16 oz/a	A	Pre		
NIS	1 % v/v	15.4 oz/a	A	Pre		
Flexstar GT 3.5	1.56 lb ai/a	57 oz/a	C	21 - 28 DAA		
MSO	1 % v/v	15.4 oz/a	C	21 - 28 DAA		
20 Canopy	0.188 lb ai/a	4 oz/a	A	Pre		
Cinch	0.875 lb ai/a	16 oz/a	A	Pre		
NIS	1 % v/v	15.4 oz/a	A	Pre		
Prefix	1.32 lb ai/a	32 oz/a	C	21 - 28 DAA		
Touchdown Total	0.78 lb ae/a	24 oz/a	C	21 - 28 DAA		
MSO	1 % v/v	15.4 oz/a	C	21 - 28 DAA		
LSD (P=.05)		5.43	4.66	2.72	7.71	0.00
Standard Deviation		3.84	3.30	1.93	5.45	0.00
CV		4.15	3.53	2.03	256.52	0.0
Grand Mean		92.56	93.5	94.63	2.13	95.0

University of Arkansas-Division of Agriculture

Soybean Roundup Ready Programs with Envive, Canopy, Cinch, Flexstar GT 3.5, Boundary, & Prefix

Trial ID: HSB-50911
Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS									
Pest Code	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.									
Pest Scientific Name	Morning glory	Common barnyar>	Palmer amaranth	Morning glory									
Pest Name													
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	GRAMAT C	GRAMAT C							
Assessment Date	7/29/11	10/6/11	10/6/11	10/6/11	10/17/11	10/17/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	MOICON	WEIDRY							
Assessment Unit	%	%	%	%	%	lb/plot							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	R1/2 36"	R8 37.5"	R8 37.5"	R8 37.5"									
Pest Stage Majority	10-30"	10-30"	10-60"	10-40"									
Assessed By	JB	JB	JB	JB	JM	JM							
Days After First/Last Applic.	57 18	126 87	126 87	126 87	137 98	137 98							
Trt-Eval Interval	32 DA-C	61 DA-A	61 DA-A	61 DA-A									
Plant-Eval Interval	58 DP-1	127 DP-1	127 DP-1	127 DP-1	138 DP-1	138 DP-1							
Days After Emergence		120 DE-1	120 DE-1	120 DE-1	131 DE-1	131 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	13	14	15	16	17	18
1	Untreated Check							0.0	0.0	0.0	0.0		
2	Prefix	1.32	lb ai/a	32	oz/a	A	Pre	100.0	100.0	100.0	97.5	13.85	7.850
	Sequence	1.64	lb ai/a	40	oz/a	B	2 - 3" AMAPA						
	MSO	1 %	v/v	15.4	oz/a	B	2 - 3" AMAPA						
3	Boundary	1.22	lb ai/a	24	oz/a	A	Pre	100.0	100.0	100.0	100.0	13.93	8.008
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	B	2 - 3" AMAPA						
	MSO	1 %	v/v	15.4	oz/a	B	2 - 3" AMAPA						
4	Boundary	1.22	lb ai/a	24	oz/a	A	Pre	100.0	100.0	100.0	100.0	13.90	8.245
	Prefix	1.32	lb ai/a	32	oz/a	B	2 - 3" AMAPA						
	Touchdown Total	0.78	lb ae/a	24	oz/a	B	2 - 3" AMAPA						
	MSO	1 %	v/v	15.4	oz/a	B	2 - 3" AMAPA						
5	Valor SX	0.064	lb ai/a	2	oz/a	A	Pre	100.0	100.0	100.0	97.5	13.75	8.138
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	B	2 - 3" AMAPA						
	MSO	1 %	v/v	15.4	oz/a	B	2 - 3" AMAPA						
6	Valor SX	0.064	lb ai/a	2	oz/a	A	Pre	100.0	100.0	100.0	100.0	13.97	7.677
	Prefix	1.32	lb ai/a	32	oz/a	B	2 - 3" AMAPA						
	Touchdown Total	0.78	lb ae/a	24	oz/a	B	2 - 3" AMAPA						
	MSO	1 %	v/v	15.4	oz/a	B	2 - 3" AMAPA						
7	Authority MTZ	0.28	lb ai/a	10	oz/a	A	Pre	100.0	100.0	100.0	100.0	15.90	9.733
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	B	2 - 3" AMAPA						
	MSO	1 %	v/v	15.4	oz/a	B	2 - 3" AMAPA						
8	Authority MTZ	0.28	lb ai/a	10	oz/a	A	Pre	100.0	100.0	100.0	100.0	14.05	8.130
	Prefix	1.32	lb ai/a	32	oz/a	B	2 - 3" AMAPA						
	Touchdown Total	0.78	lb ae/a	24	oz/a	B	2 - 3" AMAPA						
	MSO	1 %	v/v	15.4	oz/a	B	2 - 3" AMAPA						
9	Prowl H20	0.95	lb ai/a	32	oz/a	A	Pre	100.0	100.0	100.0	97.5	13.93	8.200
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	B	2 - 3" AMAPA						
	MSO	1 %	v/v	15.4	oz/a	B	2 - 3" AMAPA						
10	Prowl H20	0.95	lb ai/a	32	oz/a	A	Pre	100.0	100.0	97.5	95.0	13.98	8.413
	Prefix	1.32	lb ai/a	32	oz/a	B	2 - 3" AMAPA						
	Touchdown Total	0.78	lb ae/a	24	oz/a	B	2 - 3" AMAPA						
	MSO	1 %	v/v	15.4	oz/a	B	2 - 3" AMAPA						
11	Spartan	0.313	lb ai/a	10	oz/a	A	Pre	100.0	100.0	100.0	100.0	13.65	8.130
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	B	2 - 3" AMAPA						
	MSO	1 %	v/v	15.4	oz/a	B	2 - 3" AMAPA						
12	Spartan	0.313	lb ai/a	10	oz/a	A	Pre	100.0	100.0	100.0	100.0	13.88	8.513
	Prefix	1.32	lb ai/a	32	oz/a	B	2 - 3" AMAPA						
	Touchdown Total	0.78	lb ae/a	24	oz/a	B	2 - 3" AMAPA						
	MSO	1 %	v/v	15.4	oz/a	B	2 - 3" AMAPA						
13	Fierce	0.143	lb ai/a	3	oz/a	A	Pre	100.0	100.0	100.0	100.0	13.90	8.793
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	B	2 - 3" AMAPA						
	MSO	1 %	v/v	15.4	oz/a	B	2 - 3" AMAPA						
14	Fierce	0.143	lb ai/a	3	oz/a	A	Pre	100.0	100.0	100.0	100.0	13.70	7.613
	Prefix	1.32	lb ai/a	32	oz/a	B	2 - 3" AMAPA						
	Touchdown Total	0.78	lb ae/a	24	oz/a	B	2 - 3" AMAPA						
	MSO	1 %	v/v	15.4	oz/a	B	2 - 3" AMAPA						
15	Envive			3.45	oz/a	A	Pre	100.0	100.0	100.0	100.0	13.73	8.060
	>Flumioxazin (Valor SX)	0.0625	lb ai/a	1.96	oz/a	A	Pre						
	>Chlorimuron (Classic WDG)	0.0201	lb ai/a	1.29	oz/a	A	Pre						
	>Thifensulfuron (Harmony SG)	0.00625	lb ai/a	0.2	oz/a	A	Pre						
	NIS	1 %	v/v	15.4	oz/a	A	Pre						
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	C	21 - 28 DAA						
	MSO	1 %	v/v	15.4	oz/a	C	21 - 28 DAA						
16	Envive			3.45	oz/a	A	Pre	100.0	100.0	100.0	100.0	13.90	8.403
	>Flumioxazin (Valor SX)	0.0625	lb ai/a	1.96	oz/a	A	Pre						
	>Chlorimuron (Classic WDG)	0.0201	lb ai/a	1.29	oz/a	A	Pre						
	>Thifensulfuron (Harmony SG)	0.00625	lb ai/a	0.2	oz/a	A	Pre						
	NIS	1 %	v/v	15.4	oz/a	A	Pre						
	Prefix	1.32	lb ai/a	32	oz/a	C	21 - 28 DAA						
	Touchdown Total	0.78	lb ae/a	24	oz/a	C	21 - 28 DAA						
	MSO	1 %	v/v	15.4	oz/a	C	21 - 28 DAA						
17	Canopy	0.28	lb ai/a	6	oz/a	A	Pre	100.0	100.0	100.0	100.0	13.73	8.735
	NIS	1 %	v/v	15.4	oz/a	A	Pre						
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	C	21 - 28 DAA						
	MSO	1 %	v/v	15.4	oz/a	C	21 - 28 DAA						

University of Arkansas-Division of Agriculture

Soybean Roundup Ready Programs with Envive, Canopy, Cinch, Flexstar GT 3.5, Boundary, & Prefix

Trial ID: HSB-50911
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS		
Pest Code	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.		
Pest Scientific Name	Morning glory	Common barnyar>	Palmer amaranth	Morning glory		
Pest Name						
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	GRAMAT C	GRAMAT C
Assessment Date	7/29/11	10/6/11	10/6/11	10/6/11	10/17/11	10/17/11
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	MOICON	WEIDRY
Assessment Unit	%	%	%	%	%	lb/plot
Number of Subsamples	1	1	1	1	1	1
Crop Stage Majority	R1/2 36"	R8 37.5"	R8 37.5"	R8 37.5"		
Pest Stage Majority	10-30"	10-30"	10-60"	10-40"		
Assessed By	JB	JB	JB	JB	JM	JM
Days After First/Last Applic.	57 18	126 87	126 87	126 87	137 98	137 98
Trt-Eval Interval	32 DA-C	61 DA-A	61 DA-A	61 DA-A		
Plant-Eval Interval	58 DP-1	127 DP-1	127 DP-1	127 DP-1	138 DP-1	138 DP-1
Days After Emergence		120 DE-1	120 DE-1	120 DE-1	131 DE-1	131 DE-1
Trt Treatment No. Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description
13						
14						
15						
16						
17						
18						
18 Canopy	0.28 lb ai/a	6 oz/a			A	Pre
NIS	1 % v/v	15.4 oz/a			A	Pre
Prefix	1.32 lb ai/a	32 oz/a			C	21 - 28 DAA
Touchdown Total	0.78 lb ae/a	24 oz/a			C	21 - 28 DAA
MSO	1 % v/v	15.4 oz/a			C	21 - 28 DAA
19 Canopy	0.188 lb ai/a	4 oz/a			A	Pre
Cinch	0.875 lb ai/a	16 oz/a			A	Pre
NIS	1 % v/v	15.4 oz/a			A	Pre
Flexstar GT 3.5	1.56 lb ai/a	57 oz/a			C	21 - 28 DAA
MSO	1 % v/v	15.4 oz/a			C	21 - 28 DAA
20 Canopy	0.188 lb ai/a	4 oz/a			A	Pre
Cinch	0.875 lb ai/a	16 oz/a			A	Pre
NIS	1 % v/v	15.4 oz/a			A	Pre
Prefix	1.32 lb ai/a	32 oz/a			C	21 - 28 DAA
Touchdown Total	0.78 lb ae/a	24 oz/a			C	21 - 28 DAA
MSO	1 % v/v	15.4 oz/a			C	21 - 28 DAA
LSD (P=.05)			0.00	0.00		1.58
Standard Deviation			0.00	0.00		1.12
CV			0.0	0.0		1.18
Grand Mean			95.0	95.0		94.88
						3.48
						2.46
						2.61
						94.25
						1.424
						1.007
						7.21
						13.96
						2.0334
						1.4379
						17.37
						8.28

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Soybean Roundup Ready Programs with Envive, Canopy, Cinch, Flexstar GT 3.5, Boundary, & Prefix

Trial ID: HSB-50911
Location: Rohwer, AR

Investigator: Kenneth Smith

Tri	Treatment No. Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	
	Pest Type Pest Code Pest Scientific Name Pest Name Crop Code Crop Scientific Name							GLXMA Glycine max
	Crop Name Part Assessed Assessment Date Assessment Type Assessment Unit Number of Subsamples Crop Stage Majority Pest Stage Majority Assessed By Days After First/Last Applic. Tri-Eval Interval Plant-Eval Interval Days After Emergence							Soybean GRAMAT C 10/17/11 YIELD BU 1 JB 137 98 138 DP-1 131 DE-1
1	Untreated Check							19
2	Prefix Sequence MSO	1.32 1.64 1 %	lb ai/a lb ai/a v/v	32 40 15.4	oz/a oz/a oz/a	A B B	Pre 2 - 3" AMAPA 2 - 3" AMAPA	31.8
3	Boundary Flexstar GT 3.5 MSO	1.22 1.56 1 %	lb ai/a lb ai/a v/v	24 57 15.4	oz/a oz/a oz/a	A B B	Pre 2 - 3" AMAPA 2 - 3" AMAPA	32.4
4	Boundary Prefix Touchdown Total MSO	1.22 1.32 0.78 1 %	lb ai/a lb ai/a lb ae/a v/v	24 32 24 15.4	oz/a oz/a oz/a oz/a	A B B B	Pre 2 - 3" AMAPA 2 - 3" AMAPA 2 - 3" AMAPA	33.4
5	Valor SX Flexstar GT 3.5 MSO	0.064 1.56 1 %	lb ai/a lb ai/a v/v	2 57 15.4	oz/a oz/a oz/a	A B B	Pre 2 - 3" AMAPA 2 - 3" AMAPA	33.0
6	Valor SX Prefix Touchdown Total MSO	0.064 1.32 0.78 1 %	lb ai/a lb ai/a lb ae/a v/v	2 32 24 15.4	oz/a oz/a oz/a oz/a	A B B B	Pre 2 - 3" AMAPA 2 - 3" AMAPA 2 - 3" AMAPA	31.1
7	Authority MTZ Flexstar GT 3.5 MSO	0.28 1.56 1 %	lb ai/a lb ai/a v/v	10 57 15.4	oz/a oz/a oz/a	A B B	Pre 2 - 3" AMAPA 2 - 3" AMAPA	37.8
8	Authority MTZ Prefix Touchdown Total MSO	0.28 1.32 0.78 1 %	lb ai/a lb ai/a lb ae/a v/v	10 32 24 15.4	oz/a oz/a oz/a oz/a	A B B B	Pre 2 - 3" AMAPA 2 - 3" AMAPA 2 - 3" AMAPA	32.9
9	Prowl H20 Flexstar GT 3.5 MSO	0.95 1.56 1 %	lb ai/a lb ai/a v/v	32 57 15.4	oz/a oz/a oz/a	A B B	Pre 2 - 3" AMAPA 2 - 3" AMAPA	33.2
10	Prowl H20 Prefix Touchdown Total MSO	0.95 1.32 0.78 1 %	lb ai/a lb ai/a lb ae/a v/v	32 32 24 15.4	oz/a oz/a oz/a oz/a	A B B B	Pre 2 - 3" AMAPA 2 - 3" AMAPA 2 - 3" AMAPA	34.0
11	Spartan Flexstar GT 3.5 MSO	0.313 1.56 1 %	lb ai/a lb ai/a v/v	10 57 15.4	oz/a oz/a oz/a	A B B	Pre 2 - 3" AMAPA 2 - 3" AMAPA	33.0
12	Spartan Prefix Touchdown Total MSO	0.313 1.32 0.78 1 %	lb ai/a lb ai/a lb ae/a v/v	10 32 24 15.4	oz/a oz/a oz/a oz/a	A B B B	Pre 2 - 3" AMAPA 2 - 3" AMAPA 2 - 3" AMAPA	34.5
13	Fierce Flexstar GT 3.5 MSO	0.143 1.56 1 %	lb ai/a lb ai/a v/v	3 57 15.4	oz/a oz/a oz/a	A B B	Pre 2 - 3" AMAPA 2 - 3" AMAPA	35.6
14	Fierce Prefix Touchdown Total MSO	0.143 1.32 0.78 1 %	lb ai/a lb ai/a lb ae/a v/v	3 32 24 15.4	oz/a oz/a oz/a oz/a	A B B B	Pre 2 - 3" AMAPA 2 - 3" AMAPA 2 - 3" AMAPA	30.9
15	Envive >Flumioxazin (Valor SX) >Chlorimuron (Classic WDG) >Thifensulfuron (Harmony SG) NIS Flexstar GT 3.5 MSO	0.0625 0.0201 0.00625 1 % 1.56 1 %	lb ai/a lb ai/a lb ai/a v/v lb ai/a v/v	3.45 1.96 1.29 0.2 57 15.4	oz/a oz/a oz/a oz/a oz/a oz/a	A A A A C C	Pre Pre Pre Pre 21 - 28 DAA 21 - 28 DAA	32.7
16	Envive >Flumioxazin (Valor SX) >Chlorimuron (Classic WDG) >Thifensulfuron (Harmony SG) NIS Prefix Touchdown Total MSO	0.0625 0.0201 0.00625 1 % 1.32 0.78 1 %	lb ai/a lb ai/a lb ai/a v/v lb ai/a lb ae/a v/v	3.45 1.96 1.29 0.2 32 24 15.4	oz/a oz/a oz/a oz/a oz/a oz/a oz/a	A A A A C C C	Pre Pre Pre Pre 21 - 28 DAA 21 - 28 DAA 21 - 28 DAA	34.1
17	Canopy NIS Flexstar GT 3.5 MSO	0.28 1 % 1.56 1 %	lb ai/a v/v lb ai/a v/v	6 15.4 57 15.4	oz/a oz/a oz/a oz/a	A A C C	Pre Pre 21 - 28 DAA 21 - 28 DAA	35.5

University of Arkansas-Division of Agriculture

Soybean Roundup Ready Programs with Envive, Canopy, Cinch, Flexstar GT 3.5, Boundary, & Prefix

Trial ID: HSB-50911
Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type										
Pest Code										
Pest Scientific Name										
Pest Name										
Crop Code										GLXMA
Crop Scientific Name										Glycine max
Crop Name										Soybean
Part Assessed										GRAMAT C
Assessment Date										10/17/11
Assessment Type										YIELD
Assessment Unit										BU
Number of Subsamples										1
Crop Stage Majority										
Pest Stage Majority										
Assessed By										JB
Days After First/Last Applic.										137 98
Trt-Eval Interval										
Plant-Eval Interval										138 DP-1
Days After Emergence										131 DE-1
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description			19
18	Canopy	0.28	lb ai/a	6	oz/a	A	Pre			34.5
	NIS	1	% v/v	15.4	oz/a	A	Pre			
	Prefix	1.32	lb ai/a	32	oz/a	C	21 - 28 DAA			
	Touchdown Total	0.78	lb ae/a	24	oz/a	C	21 - 28 DAA			
	MSO	1	% v/v	15.4	oz/a	C	21 - 28 DAA			
19	Canopy	0.188	lb ai/a	4	oz/a	A	Pre			33.5
	Cinch	0.875	lb ai/a	16	oz/a	A	Pre			
	NIS	1	% v/v	15.4	oz/a	A	Pre			
	Flexstar GT 3.5	1.56	lb ai/a	57	oz/a	C	21 - 28 DAA			
	MSO	1	% v/v	15.4	oz/a	C	21 - 28 DAA			
20	Canopy	0.188	lb ai/a	4	oz/a	A	Pre			31.9
	Cinch	0.875	lb ai/a	16	oz/a	A	Pre			
	NIS	1	% v/v	15.4	oz/a	A	Pre			
	Prefix	1.32	lb ai/a	32	oz/a	C	21 - 28 DAA			
	Touchdown Total	0.78	lb ae/a	24	oz/a	C	21 - 28 DAA			
	MSO	1	% v/v	15.4	oz/a	C	21 - 28 DAA			
	LSD (P=.05)									7.46
	Standard Deviation									5.28
	CV									15.76
	Grand Mean									33.48

University of Arkansas-Division of Agriculture

Soybean Roundup Ready Programs with Envive, Canopy, Cinch, Flexstar GT 3.5, Boundary, & Prefix

Trial ID: HSB-50911
Location: Rohwer, AR

Investigator: Kenneth Smith

ARM Action Codes

TY1 = 4.096141*[C18]*(100-@MVAVGREP([C17]))/87

University of Arkansas-Division of Agriculture

Efficacy of Anthem, Authority XL, Authority MTZ, Prefix, & Valor in Soybean Program

Trial ID: HSB-51011
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 5606
Description: Roundup Ready
BBCH Scale: BSOY
Planting Date: 5/31/11
Planting Method: PLANTD planted
Rate, Unit: 130000 P/A
Depth, Unit: 0.75 IN
Row Spacing, Unit: 38 IN
Spacing Within Row, Unit: 2 IN
Seed Bed: MEDIUM medium
Soil Temperature, Unit: 79.6 F
Soil Moisture: FAIR fair
Emergence Date: 6/6/11
Harvest Date: 10/17/11
Harvest Equipment: Almaco
Harvested Width, Unit: 6.33 FT
Harvested Length, Unit: 28 FT
% Standard Moisture: 13.0
Moisture Meter: Almaco
Weighing Equipment: Almaco

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Bifenthrin	6.4	OZ

Soil Description

Description Name: 2011 Soybean
% Sand: 16 **% OM:** 2.2 **Texture:** SIL silt loam
% Silt: 65 **pH:** 6.7 **Soil Name:** Sharkey & Desha Silt Loam
% Clay: 19 **CEC:** 13 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B	C	D
Application Date:	6/3/11	6/15/11	6/22/11	7/11/11
Time of Day:	AM	AM	AM	AM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PREPRE	POSPOS	POSPOS	POSPOS
Application Placement:	BROSOI	BROFOL	BROFOL	BROFOL
Applied By:	JB	JB	JB	JB
Air Temperature, Unit:	86.2 F	83.4 F	77.7 F	85.2 F
% Relative Humidity:	59.9	62.7	88.0	70.5
Wind Velocity, Unit:	4.5 MPH	5.9 MPH	4.3 MPH	2.5 MPH
Wind Direction:	W	WNV	W	W
Dew Presence (Y/N):	N no	N no	N no	N no
Soil Temperature, Unit:	84.1 F	86.1 F	79.4 F	87.6 F
Soil Moisture:	NORMAL	GOOD	GOOD	NORMAL
% Cloud Cover:	20	70	30	50
Next Rain Occurred On:	6/3/11	6/17/11	6/29/11	7/12/11

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	DESC	DESC	DESC	DESC
Stage Majority, Percent:	V0	V2	V3	V7
Height, Unit:	0 IN	3 IN	5 IN	30 IN

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W	ECHCG W
Height, Unit:	0 IN	2 IN	3 IN	10 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W	AMAPA W
Height, Unit:	0 IN	3 IN	4 IN	12 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W	IPOSS W
Height, Unit:	0 IN	2 IN	4 IN	6 IN

University of Arkansas-Division of Agriculture

Efficacy of Anthem, Authority XL, Authority MTZ, Prefix, & Valor in Soybean Program

Trial ID: HSB-51011
 Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B	C	D
Appl. Equipment:	Multi Boom	Multi Boom	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix	Air-Mix
Nozzle Size:	110015	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN	19 IN
Nozzles/Row:	2	2	2	2
% Coverage:	100	100	100	100
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN	18 IN
Carrier:	WATER	WATER	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes	Y yes	Y yes

University of Arkansas-Division of Agriculture

Efficacy of Anthem, Authority XL, Authority MTZ, Prefix, & Valor in Soybean Program

Trial ID: HSB-51011
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory	W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth						
Pest Code		GLXMA Glycine max	GLXMA Glycine max	GLXMA Glycine max	GLXMA Glycine max	GLXMA Glycine max						
Pest Scientific Name		Soybean PLANT C	Soybean PLANT P	Soybean PLANT P	Soybean PLANT P	Soybean PLANT P						
Pest Name		6/20/11	6/15/11	6/15/11	6/23/11	6/23/11						
Crop Code		COUPLA	CONTRO	CONTRO	CONTRO	CONTRO						
Crop Scientific Name		MROW	%	%	%	%						
Crop Name		2	1	1	1	1						
Part Assessed			V1 1-6"	V1 1-6"	V4 3-6"	V4 3-6"						
Assessment Date			1-4"	1-4"	2-6"	2-8"						
Assessment Type			JB	JB	JB	JB						
Assessment Unit			17 5	12 12	20 1	20 1						
Number of Subsamples			5 DA-B	12 DA-A	12 DA-A	1 DA-C						
Crop Stage Majority				15 DP-1	15 DP-1	9 DE-1						
Pest Stage Majority				9 DE-1	9 DE-1							
Assessed By												
Days After First/Last Applic.												
Trt-Eval Interval												
Plant-Eval Interval												
Days After Emergence												
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3	4	5	6
1	Untreated Check						22.75	0.0	0.0	0.0	0.0	0.0
2	Anthem	0.134 lb ai/a	8 oz/a		A	Pre	21.63	100.0	100.0	100.0	100.0	100.0
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		D	V5 - V7						
	AMS	5 gal/100 gal	77 oz/a		D	V5 - V7						
3	Anthem	0.101 lb ai/a	6 oz/a		A	Pre	19.88	100.0	100.0	100.0	100.0	100.0
	Authority XL	0.175 lb ai/a	4 oz/a		A	Pre						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		D	V5 - V7						
	AMS	5 gal/100 gal	77 oz/a		D	V5 - V7						
4	Authority XL	0.175 lb ai/a	4 oz/a		A	Pre	24.75	96.3	97.5	97.5	93.0	92.5
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		D	V5 - V7						
	AMS	5 gal/100 gal	77 oz/a		D	V5 - V7						
5	Authority MTZ	0.338 lb ai/a	12 oz/a		A	Pre	23.13	100.0	100.0	100.0	96.8	100.0
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		D	V5 - V7						
	AMS	5 gal/100 gal	77 oz/a		D	V5 - V7						
6	Authority First	0.14 lb ai/a	3.2 oz/a		A	Pre	19.63	97.5	97.5	97.5	93.3	93.8
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		D	V5 - V7						
	AMS	5 gal/100 gal	77 oz/a		D	V5 - V7						
7	Valor XLT	0.101 lb ai/a	4 oz/a		A	Pre	21.75	98.8	100.0	100.0	97.5	100.0
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		D	V5 - V7						
	AMS	5 gal/100 gal	77 oz/a		D	V5 - V7						
8	Fierce	0.143 lb ai/a	3 oz/a		A	Pre	23.75	100.0	100.0	100.0	100.0	100.0
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		D	V5 - V7						
	AMS	5 gal/100 gal	77 oz/a		D	V5 - V7						
9	Prefix	1.32 lb ai/a	32 oz/a		A	Pre	24.13	100.0	100.0	100.0	100.0	98.8
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		D	V5 - V7						
	AMS	5 gal/100 gal	77 oz/a		D	V5 - V7						
10	Authority XL	0.175 lb ai/a	4 oz/a		A	Pre	22.75	98.8	100.0	100.0	96.3	100.0
	Anthem	0.101 lb ai/a	6 oz/a		D	V5 - V7						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		D	V5 - V7						
	AMS	5 gal/100 gal	77 oz/a		D	V5 - V7						
11	Anthem	0.101 lb ai/a	6 oz/a		B	V1 - V2	24.25	100.0	96.3	100.0	100.0	95.0
	AMS	5 gal/100 gal	77 oz/a		B	V1 - V2						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		D	V5 - V7						
	AMS	5 gal/100 gal	77 oz/a		D	V5 - V7						
12	Prefix	1.32 lb ai/a	32 oz/a		B	V1 - V2	21.50	98.8	100.0	97.5	96.5	100.0
	AMS	5 gal/100 gal	77 oz/a		B	V1 - V2						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		D	V5 - V7						
	AMS	5 gal/100 gal	77 oz/a		D	V5 - V7						
13	Flexstar GT 3.5	1.56 lb ai/a	57 oz/a		C	V2 - V3	23.63	100.0	100.0	100.0	100.0	100.0
	AMS	5 gal/100 gal	77 oz/a		C	V2 - V3						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		D	V5 - V7						
	AMS	5 gal/100 gal	77 oz/a		D	V5 - V7						
14	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	V2 - V3	26.63	100.0	100.0	100.0	100.0	100.0
	AMS	5 gal/100 gal	77 oz/a		C	V2 - V3						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		D	V5 - V7						
	AMS	5 gal/100 gal	77 oz/a		D	V5 - V7						
15	Anthem	0.134 lb ai/a	8 oz/a		A	Pre	21.75	100.0	100.0	100.0	98.8	98.0
16	Anthem	0.101 lb ai/a	6 oz/a		A	Pre	24.75	100.0	100.0	100.0	98.5	100.0
	Authority XL	0.175 lb ai/a	4 oz/a		A	Pre						
17	Valor XLT	0.101 lb ai/a	4 oz/a		A	Pre	22.75	100.0	100.0	100.0	100.0	100.0
18	Fierce	0.143 lb ai/a	3 oz/a		A	Pre	26.50	100.0	98.8	98.8	98.5	98.0
19	Prefix	1.32 lb ai/a	32 oz/a		A	Pre	24.88	100.0	100.0	98.8	97.3	100.0
LSD (P=.05)			4.458	1.74				2.15	1.97		4.20	5.07
Standard Deviation			3.152	1.23				1.52	1.39		2.97	3.59
CV			13.59	1.3				1.61	1.48		3.19	3.84
Grand Mean			23.2	94.21				94.21	94.21		92.96	93.47

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of Anthem, Authority XL, Authority MTZ, Prefix, & Valor in Soybean Program

Trial ID: HSB-51011
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed		W Weed		W Weed		W Weed						
Pest Code		IPOSS		ECHCG		AMAPA		IPOSS						
Pest Scientific Name		Ipomoea sp.		Echinochloa cr>		Amaranthus pal>		Ipomoea sp.						
Pest Name		Morning glory		Common barnyar>		Palmer amaranth		Morning glory						
Crop Code		GLXMA		GLXMA		GLXMA		GLXMA						
Crop Scientific Name		Glycine max		Glycine max		Glycine max		Glycine max						
Crop Name		Soybean		Soybean		Soybean		Soybean						
Part Assessed		PLANT P		PLANT C		PLANT P		PLANT P						
Assessment Date		6/23/11		6/23/11		7/12/11		7/12/11						
Assessment Type		CONTRO		PHYNEC		CONTRO		CONTRO						
Assessment Unit		%		%		%		%						
Number of Subsamples		1		1		1		1						
Crop Stage Majority		V4 3-6"		V4 3-6"		V8 20"		V8 20"						
Pest Stage Majority		1-4"		1-4"		5-35"		5-25"						
Assessed By		JB		JB		JB		JB						
Days After First/Last Applic.		20 1		20 1		39 1		39 1						
Trt-Eval Interval		1 DA-C		1 DA-C		1 DA-D		1 DA-D						
Plant-Eval Interval		23 DP-1		23 DP-1		42 DP-1		42 DP-1						
Days After Emergence		17 DE-1		17 DE-1		36 DE-1		36 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Unit	Appl Code	Appl Description	7	8	9	10	11	12	13
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Anthem	0.134 lb ai/a	8 oz/a			A	Pre	100.0	0.0	1.3	96.3	100.0	100.0	100.0
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a			D	V5 - V7 V5 - V7							
3	Anthem	0.101 lb ai/a	6 oz/a			A	Pre	100.0	0.0	1.3	100.0	100.0	98.8	100.0
	Authority XL	0.175 lb ai/a	4 oz/a			A	Pre							
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a			D	V5 - V7 V5 - V7							
4	Authority XL	0.175 lb ai/a	4 oz/a			A	Pre	95.0	0.0	0.0	83.8	87.5	95.0	100.0
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a			D	V5 - V7 V5 - V7							
5	Authority MTZ	0.338 lb ai/a	12 oz/a			A	Pre	99.5	0.0	0.0	92.5	100.0	100.0	100.0
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a			D	V5 - V7 V5 - V7							
6	Authority First	0.14 lb ai/a	3.2 oz/a			A	Pre	96.3	2.5	0.0	80.0	92.5	95.0	100.0
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a			D	V5 - V7 V5 - V7							
7	Valor XLT	0.101 lb ai/a	4 oz/a			A	Pre	100.0	0.0	1.3	92.5	100.0	100.0	100.0
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a			D	V5 - V7 V5 - V7							
8	Fierce	0.143 lb ai/a	3 oz/a			A	Pre	98.5	0.0	0.0	100.0	100.0	97.5	100.0
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a			D	V5 - V7 V5 - V7							
9	Prefix	1.32 lb ai/a	32 oz/a			A	Pre	97.5	0.0	0.0	100.0	100.0	96.3	100.0
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a			D	V5 - V7 V5 - V7							
10	Authority XL	0.175 lb ai/a	4 oz/a			A	Pre	100.0	0.0	0.0	92.5	97.5	98.8	100.0
	Anthem	0.101 lb ai/a	6 oz/a			D	V5 - V7							
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a			D	V5 - V7 V5 - V7							
11	Anthem	0.101 lb ai/a	6 oz/a			B	V1 - V2	97.0	10.0	3.8	88.8	82.5	90.0	100.0
	AMS	5 gal/100 gal	77 oz/a			B	V1 - V2							
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a			D	V5 - V7 V5 - V7							
12	Prefix	1.32 lb ai/a	32 oz/a			B	V1 - V2	94.5	18.8	3.8	81.3	83.8	90.0	100.0
	AMS	5 gal/100 gal	77 oz/a			B	V1 - V2							
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a			D	V5 - V7 V5 - V7							
13	Flexstar GT 3.5	1.56 lb ai/a	57 oz/a			C	V2 - V3	100.0	23.8	7.5	96.3	97.5	97.5	100.0
	AMS	5 gal/100 gal	77 oz/a			C	V2 - V3							
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a			D	V5 - V7 V5 - V7							
14	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a			C	V2 - V3	100.0	13.8	5.0	85.0	91.3	95.0	100.0
	AMS	5 gal/100 gal	77 oz/a			C	V2 - V3							
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a			D	V5 - V7 V5 - V7							
15	Anthem	0.134 lb ai/a	8 oz/a			A	Pre	100.0	0.0	3.8	98.8	98.8	100.0	100.0
16	Anthem	0.101 lb ai/a	6 oz/a			A	Pre	100.0	6.3	1.3	97.5	100.0	100.0	100.0
	Authority XL	0.175 lb ai/a	4 oz/a			A	Pre							
17	Valor XLT	0.101 lb ai/a	4 oz/a			A	Pre	100.0	2.5	2.5	90.0	100.0	100.0	95.0
18	Fierce	0.143 lb ai/a	3 oz/a			A	Pre	98.0	0.0	0.0	100.0	100.0	100.0	100.0
19	Prefix	1.32 lb ai/a	32 oz/a			A	Pre	94.8	0.0	0.0	96.3	95.0	92.5	92.5
LSD (P=.05)								3.81	9.15	3.58	8.29	8.56	7.81	5.70
Standard Deviation								2.70	6.47	2.53	5.86	6.06	5.53	4.03
CV								2.89	158.62	153.91	6.67	6.67	6.01	4.28
Grand Mean								93.21	4.08	1.64	87.96	90.86	91.91	94.08

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of Anthem, Authority XL, Authority MTZ, Prefix, & Valor in Soybean Program

Trial ID: HSB-51011
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS								
Pest Code	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.								
Pest Scientific Name	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory								
Pest Name													
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	GRAMAT C	GRAMAT C						
Assessment Date	7/29/11	7/29/11	10/6/11	10/6/11	10/6/11	10/17/11	10/17/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	WEIDRY	YIELD						
Assessment Unit	%	%	%	%	%	lb/plot	BU						
Number of Subsamples	1	1	1	1	1	1	1						
Crop Stage Majority	R1/2 36"	R1/2 36"	R8 37.5"	R8 37.5"	R8 37.5"								
Pest Stage Majority	20-80"	10-30"	10-30"	10-60"	10-40"								
Assessed By	JB	JB	JB	JB	JB	JM	JB						
Days After First/Last Applic.	56 18	56 18	126 87	126 87	126 87	136 98	136 98						
Trt-Eval Interval	18 DA-D	18 DA-D	61 DA-A	61 DA-A	61 DA-A								
Plant-Eval Interval			127 DP-1	127 DP-1	127 DP-1	139 DP-1	139 DP-1						
Days After Emergence			120 DE-1	120 DE-1	120 DE-1	133 DE-1	133 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	14	15	16	17	18	19	20
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.00	0.0
2	Anthem	0.134 lb ai/a	8 oz/a		A	Pre	100.0	100.0	100.0	100.0	97.5	11.48	46.7
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a		D	V5 - V7 D V5 - V7							
3	Anthem	0.101 lb ai/a	6 oz/a		A	Pre	100.0	100.0	100.0	100.0	100.0	10.73	43.7
	Authority XL	0.175 lb ai/a	4 oz/a		A	Pre							
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a		D	V5 - V7 D V5 - V7							
4	Authority XL	0.175 lb ai/a	4 oz/a		A	Pre	92.5	100.0	100.0	100.0	97.5	10.63	43.3
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a		D	V5 - V7 D V5 - V7							
5	Authority MTZ	0.338 lb ai/a	12 oz/a		A	Pre	97.5	100.0	100.0	100.0	97.5	10.13	41.2
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a		D	V5 - V7 D V5 - V7							
6	Authority First	0.14 lb ai/a	3.2 oz/a		A	Pre	95.0	100.0	100.0	100.0	95.0	10.85	44.2
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a		D	V5 - V7 D V5 - V7							
7	Valor XLT	0.101 lb ai/a	4 oz/a		A	Pre	100.0	100.0	100.0	100.0	97.5	10.15	41.3
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a		D	V5 - V7 D V5 - V7							
8	Fierce	0.143 lb ai/a	3 oz/a		A	Pre	100.0	100.0	100.0	95.0	100.0	10.18	41.4
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a		D	V5 - V7 D V5 - V7							
9	Prefix	1.32 lb ai/a	32 oz/a		A	Pre	100.0	100.0	100.0	100.0	95.0	10.23	41.6
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a		D	V5 - V7 D V5 - V7							
10	Authority XL	0.175 lb ai/a	4 oz/a		A	Pre	97.5	100.0	100.0	97.5	97.5	10.18	41.4
	Anthem	0.101 lb ai/a	6 oz/a		D	V5 - V7							
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a		D	V5 - V7 D V5 - V7							
11	Anthem	0.101 lb ai/a	6 oz/a		B	V1 - V2	92.5	100.0	100.0	100.0	97.5	10.63	43.3
	AMS	5 gal/100 gal	77 oz/a		B	V1 - V2							
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a		D	V5 - V7 D V5 - V7							
12	Prefix	1.32 lb ai/a	32 oz/a		B	V1 - V2	97.5	100.0	100.0	95.0	92.5	10.75	43.8
	AMS	5 gal/100 gal	77 oz/a		B	V1 - V2							
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a		D	V5 - V7 D V5 - V7							
13	Flexstar GT 3.5	1.56 lb ai/a	57 oz/a		C	V2 - V3	97.5	100.0	100.0	100.0	100.0	11.08	45.1
	AMS	5 gal/100 gal	77 oz/a		C	V2 - V3							
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a		D	V5 - V7 D V5 - V7							
14	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a		C	V2 - V3	90.0	100.0	100.0	90.0	97.5	10.63	43.3
	AMS	5 gal/100 gal	77 oz/a		C	V2 - V3							
	Roundup WeatherMax AMS	0.77 lb ae/a 5 gal/100 gal	22 oz/a 77 oz/a		D	V5 - V7 D V5 - V7							
15	Anthem	0.134 lb ai/a	8 oz/a		A	Pre	95.0	100.0	97.5	97.5	97.5	10.60	43.2
16	Anthem	0.101 lb ai/a	6 oz/a		A	Pre	100.0	100.0	100.0	100.0	90.0	10.58	43.1
	Authority XL	0.175 lb ai/a	4 oz/a		A	Pre							
17	Valor XLT	0.101 lb ai/a	4 oz/a		A	Pre	90.0	100.0	95.0	97.5	90.0	10.55	43.0
18	Fierce	0.143 lb ai/a	3 oz/a		A	Pre	100.0	100.0	100.0	100.0	85.0	10.05	40.9
19	Prefix	1.32 lb ai/a	32 oz/a		A	Pre	82.5	100.0	100.0	100.0	62.5	9.45	38.5
LSD (P=.05)							9.08	0.00	2.52	6.55	8.60	1.307	5.33
Standard Deviation							6.42	0.00	1.78	4.63	6.08	0.924	3.77
CV							7.06	0.0	1.89	4.96	6.84	9.3	9.3
Grand Mean							90.92	94.74	94.34	93.29	88.95	9.94	40.47

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of Anthem, Authority XL, Authority MTZ, Prefix, & Valor in Soybean Program

Trial ID: HSB-51011
Location: Rohwer, AR

Investigator: Kenneth Smith

ARM Action Codes
TY1 = 4.0726*[C19]

University of Arkansas-Division of Agriculture

Efficacy of Cadet, Authority XL,, Prefix, Classic, & Resource in Soybean Programs

Trial ID: HSB-51111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 5606
BBCH Scale: BSOY
Planting Method: PLANTD planted
Depth, Unit: 0.75 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: FAIR fair
Description: Roundup Ready
Planting Date: 5/31/11
Rate, Unit: 130000 P/A
Spacing Within Row, Unit: 2 IN
Soil Temperature, Unit: 79.6 F
Emergence Date: 6/6/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass
Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth
Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Bifenthrin	6.4	OZ

Soil Description

Description Name: 2011 Soybean
% Sand: 16
% Silt: 65
% Clay: 19
% OM: 2.2
pH: 6.7
CEC: 13
Texture: SIL silt loam
Soil Name: Sharkey & Desha Silt Loam
Fert. Level: G good
Soil Drainage: G good

Application Description

	A	B	C
Application Date:	6/3/11	6/13/11	7/1/11
Time of Day:	AM	PM	AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREPRE	POSPOS	POSPOS
Application Placement:	BROSOL	BROFOL	BROFOL
Applied By:	JB	JB	JM
Air Temperature, Unit:	86.2 F	85.6 F	83.2 F
% Relative Humidity:	59.9	58.0	66.1
Wind Velocity, Unit:	4.5 MPH	5.1 MPH	0.6 MPH
Wind Direction:	W	W	S
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	84.1 F	85.9 F	82.7 F
Soil Moisture:	NORMAL	GOOD	NORMAL
% Cloud Cover:	20	40	20
Next Rain Occurred On:	6/3/11	6/14/11	7/5/11

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	DESC	DESC	DESC
Stage Majority, Percent:	V0	V1	V4
Height, Unit:	0 IN	1.5 IN	5 IN

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W
Height, Unit:	0 IN	1 IN	3 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W
Height, Unit:	0 IN	1 IN	4 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W
Height, Unit:	0 IN	1 IN	2 IN

University of Arkansas-Division of Agriculture

Efficacy of Cadet, Authority XL,, Prefix, Classic, & Resource in Soybean Programs

Trial ID: HSB-51111
 Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B	C
Appl. Equipment:	Multi Boom	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix
Nozzle Size:	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Nozzles/Row:	2	2	2
% Coverage:	100	100	100
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes	Y yes

University of Arkansas-Division of Agriculture

Efficacy of Cadet, Authority XL,, Prefix, Classic, & Resource in Soybean Programs

Trial ID: HSB-51111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS						
Pest Code	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.						
Pest Scientific Name	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory						
Pest Name												
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P						
Assessment Date	6/23/11	6/23/11	6/23/11	6/23/11	6/23/11	6/23/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	V4 3-6"	V4 3-6"	V4 3-6"	V4 3-6"	V4 3-6"	V4 3-6"						
Pest Stage Majority	2-6"	2-8"	1-4"	2-6"	2-8"	1-4"						
Assessed By	JB	JB	JB	JB	JB	JB						
Days After First/Last Applic.	20 10	20 10	20 10	20 10	20 10	20 10						
Trt-Eval Interval	10 DA-B	10 DA-B	10 DA-B	10 DA-B	10 DA-B	10 DA-B						
Plant-Eval Interval	23 DP-1	23 DP-1	23 DP-1	23 DP-1	23 DP-1	23 DP-1						
Days After Emergence	17 DE-1	17 DE-1	17 DE-1	17 DE-1	17 DE-1	17 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	1	2	3	4	5	6
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0
2	Dual Magnum	0.476 lb ai/a	8 oz/a		A	Pre	100.0	100.0	97.5	100.0	99.5	95.0
	Cadet	0.00427 lb ai/a	0.6 oz/a		B	1 - 2" Weeds						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		B	1 - 2" Weeds						
	AMS	5 gal/100 gal	77 oz/a		B	1 - 2" Weeds						
3	Dual Magnum	0.476 lb ai/a	8 oz/a		A	Pre	100.0	100.0	100.0	100.0	100.0	97.8
	Resource	0.0134 lb ai/a	2 oz/a		B	1 - 2" Weeds						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		B	1 - 2" Weeds						
	AMS	5 gal/100 gal	77 oz/a		B	1 - 2" Weeds						
4	Dual Magnum	0.476 lb ai/a	8 oz/a		A	Pre	100.0	100.0	100.0	100.0	100.0	99.5
	Cadet	0.00427 lb ai/a	0.6 oz/a		B	1 - 2" Weeds						
	Classic	0.0078 lb ai/a	0.5 oz/a		B	1 - 2" Weeds						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		B	1 - 2" Weeds						
	AMS	5 gal/100 gal	77 oz/a		B	1 - 2" Weeds						
5	Dual Magnum	0.476 lb ai/a	8 oz/a		A	Pre	100.0	100.0	100.0	100.0	100.0	99.5
	Cadet	0.00427 lb ai/a	0.6 oz/a		B	1 - 2" Weeds						
	Ultra Blazer	0.375 lb ai/a	24 oz/a		B	1 - 2" Weeds						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		B	1 - 2" Weeds						
	AMS	5 gal/100 gal	77 oz/a		B	1 - 2" Weeds						
6	Dual Magnum	0.476 lb ai/a	8 oz/a		A	Pre	100.0	100.0	98.8	100.0	100.0	95.8
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		B	1 - 2" Weeds						
	AMS	5 gal/100 gal	77 oz/a		B	1 - 2" Weeds						
7	Anthem	0.101 lb ai/a	6 oz/a		A	Pre	100.0	100.0	98.8	98.8	98.8	97.5
	Authority XL	0.175 lb ai/a	4 oz/a		A	Pre						
	Cadet	0.00427 lb ai/a	0.6 oz/a		C	14 - 21 DAB						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		C	14 - 21 DAB						
	AMS	5 gal/100 gal	77 oz/a		C	14 - 21 DAB						
8	Prefix	1.32 lb ai/a	32 oz/a		A	Pre	100.0	100.0	98.8	98.8	98.8	94.5
	Cadet	0.00427 lb ai/a	0.6 oz/a		C	14 - 21 DAB						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		C	14 - 21 DAB						
	AMS	5 gal/100 gal	77 oz/a		C	14 - 21 DAB						
9	Roundup PowerMax	0.77 lb ae/a	22 oz/a		B	1 - 2" Weeds	98.8	100.0	98.8	98.0	95.0	95.3
	AMS	5 gal/100 gal	77 oz/a		B	1 - 2" Weeds						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		C	14 - 21 DAB						
	AMS	5 gal/100 gal	77 oz/a		C	14 - 21 DAB						
10	Prefix	1.32 lb ai/a	32 oz/a		A	Pre	100.0	100.0	98.8	100.0	100.0	93.0
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		C	14 - 21 DAB						
	AMS	5 gal/100 gal	77 oz/a		C	14 - 21 DAB						
	LSD (P=.05)		1.15				1.15	0.00	2.89	2.45	2.63	5.53
	Standard Deviation		0.79				0.79	0.00	1.99	1.69	1.81	3.81
	CV		0.88				0.88	0.0	2.23	1.89	2.03	4.39
	Grand Mean		89.88				89.88	90.0	89.13	89.55	89.2	86.78

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of Cadet, Authority XL,, Prefix, Classic, & Resource in Soybean Programs

Trial ID: HSB-51111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed	W Weed	W Weed	W Weed	W Weed						
Pest Code		ECHCG	AMAPA	IPOSS	ECHCG	AMAPA						
Pest Scientific Name		Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>						
Pest Name		Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth						
Crop Code		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name		Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name		Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed		PLANT C	PLANT P	PLANT P	PLANT P	PLANT P						
Assessment Date		6/23/11	7/12/11	7/12/11	7/29/11	7/29/11						
Assessment Type		PHYSTU	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit		%	%	%	%	%						
Number of Subsamples		1	1	1	1	1						
Crop Stage Majority		V4 3-6"	V8 20"	V8 20"	V8 20"	R1/2 36"						
Pest Stage Majority			5-35"	10-60"	5-25"	10-50"						
Assessed By		JB	JB	JB	JB	JB						
Days After First/Last Applic.		20 10	39 11	39 11	39 11	56 28						
Trt-Eval Interval		10 DA-B	11 DA-C	11 DA-C	11 DA-C	28 DA-C						
Plant-Eval Interval		23 DP-1	42 DP-1	42 DP-1	42 DP-1	59 DP-1						
Days After Emergence		17 DE-1	36 DE-1	36 DE-1	36 DE-1	53 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	7	8	9	10	11	12
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0
2	Dual Magnum	0.476 lb ai/a	8 oz/a		A	Pre	0.0	97.5	83.8	96.3	97.5	72.5
	Cadet	0.00427 lb ai/a	0.6 oz/a		B	1 - 2" Weeds						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		B	1 - 2" Weeds						
	AMS	5 gal/100 gal	77 oz/a		B	1 - 2" Weeds						
3	Dual Magnum	0.476 lb ai/a	8 oz/a		A	Pre	0.0	90.0	86.3	92.5	100.0	72.5
	Resource	0.0134 lb ai/a	2 oz/a		B	1 - 2" Weeds						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		B	1 - 2" Weeds						
	AMS	5 gal/100 gal	77 oz/a		B	1 - 2" Weeds						
4	Dual Magnum	0.476 lb ai/a	8 oz/a		A	Pre	0.0	97.5	90.0	100.0	100.0	75.0
	Cadet	0.00427 lb ai/a	0.6 oz/a		B	1 - 2" Weeds						
	Classic	0.0078 lb ai/a	0.5 oz/a		B	1 - 2" Weeds						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		B	1 - 2" Weeds						
	AMS	5 gal/100 gal	77 oz/a		B	1 - 2" Weeds						
5	Dual Magnum	0.476 lb ai/a	8 oz/a		A	Pre	17.5	100.0	95.0	100.0	97.5	88.8
	Cadet	0.00427 lb ai/a	0.6 oz/a		B	1 - 2" Weeds						
	Ultra Blazer	0.375 lb ai/a	24 oz/a		B	1 - 2" Weeds						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		B	1 - 2" Weeds						
	AMS	5 gal/100 gal	77 oz/a		B	1 - 2" Weeds						
6	Dual Magnum	0.476 lb ai/a	8 oz/a		A	Pre	0.0	95.0	95.0	93.8	100.0	90.0
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		B	1 - 2" Weeds						
	AMS	5 gal/100 gal	77 oz/a		B	1 - 2" Weeds						
7	Anthem	0.101 lb ai/a	6 oz/a		A	Pre	0.0	100.0	100.0	100.0	100.0	100.0
	Authority XL	0.175 lb ai/a	4 oz/a		A	Pre						
	Cadet	0.00427 lb ai/a	0.6 oz/a		C	14 - 21 DAB						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		C	14 - 21 DAB						
	AMS	5 gal/100 gal	77 oz/a		C	14 - 21 DAB						
8	Prefix	1.32 lb ai/a	32 oz/a		A	Pre	0.0	100.0	100.0	98.8	100.0	100.0
	Cadet	0.00427 lb ai/a	0.6 oz/a		C	14 - 21 DAB						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		C	14 - 21 DAB						
	AMS	5 gal/100 gal	77 oz/a		C	14 - 21 DAB						
9	Roundup PowerMax	0.77 lb ae/a	22 oz/a		B	1 - 2" Weeds	0.0	97.5	82.5	98.8	100.0	75.0
	AMS	5 gal/100 gal	77 oz/a		B	1 - 2" Weeds						
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		C	14 - 21 DAB						
	AMS	5 gal/100 gal	77 oz/a		C	14 - 21 DAB						
10	Prefix	1.32 lb ai/a	32 oz/a		A	Pre	0.0	97.5	100.0	92.5	100.0	100.0
	Roundup PowerMax	0.77 lb ae/a	22 oz/a		C	14 - 21 DAB						
	AMS	5 gal/100 gal	77 oz/a		C	14 - 21 DAB						
LSD (P=.05)							1.32	7.54	12.52	6.97	3.30	16.71
Standard Deviation							0.91	5.20	8.63	4.80	2.28	11.52
CV							52.16	5.94	10.36	5.5	2.54	14.89
Grand Mean							1.75	87.5	83.25	87.25	89.5	77.38

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of Cadet, Authority XL, Prefix, Classic, & Resource in Soybean Programs

Trial ID: HSB-51111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed							
Pest Code	IPOSS	ECHCG	AMAPA	IPOSS							
Pest Scientific Name	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Name	Morning glory	Common barnyar>	Palmer amaranth	Morning glory							
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	7/29/11	10/6/11	10/6/11	10/6/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%							
Number of Subsamples	1	1	1	1							
Crop Stage Majority	R1/2 36"	R8 37.5"	R8 37.5"	R8 37.5"							
Pest Stage Majority	10-30"	10-30"	10-60"	10-40"							
Assessed By	JB	JB	JB	JB							
Days After First/Last Applic.	56 28	126 87	126 87	126 87							
Trt-Eval Interval	28 DA-C	61 DA-A	61 DA-A	61 DA-A							
Plant-Eval Interval	59 DP-1	127 DP-1	127 DP-1	127 DP-1							
Days After Emergence	53 DE-1	120 DE-1	120 DE-1	120 DE-1							
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	13	14	15	16
1	Untreated Check							0.0	0.0	0.0	0.0
2	Dual Magnum	0.476	lb ai/a	8	oz/a	A	Pre	100.0	97.5	80.0	72.5
	Cadet	0.00427	lb ai/a	0.6	oz/a	B	1 - 2" Weeds				
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	B	1 - 2" Weeds				
	AMS	5	gal/100 gal	77	oz/a	B	1 - 2" Weeds				
3	Dual Magnum	0.476	lb ai/a	8	oz/a	A	Pre	100.0	97.5	90.0	75.0
	Resource	0.0134	lb ai/a	2	oz/a	B	1 - 2" Weeds				
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	B	1 - 2" Weeds				
	AMS	5	gal/100 gal	77	oz/a	B	1 - 2" Weeds				
4	Dual Magnum	0.476	lb ai/a	8	oz/a	A	Pre	100.0	97.5	80.0	80.0
	Cadet	0.00427	lb ai/a	0.6	oz/a	B	1 - 2" Weeds				
	Classic	0.0078	lb ai/a	0.5	oz/a	B	1 - 2" Weeds				
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	B	1 - 2" Weeds				
	AMS	5	gal/100 gal	77	oz/a	B	1 - 2" Weeds				
5	Dual Magnum	0.476	lb ai/a	8	oz/a	A	Pre	100.0	100.0	90.0	90.0
	Cadet	0.00427	lb ai/a	0.6	oz/a	B	1 - 2" Weeds				
	Ultra Blazer	0.375	lb ai/a	24	oz/a	B	1 - 2" Weeds				
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	B	1 - 2" Weeds				
	AMS	5	gal/100 gal	77	oz/a	B	1 - 2" Weeds				
6	Dual Magnum	0.476	lb ai/a	8	oz/a	A	Pre	100.0	97.5	92.5	67.5
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	B	1 - 2" Weeds				
	AMS	5	gal/100 gal	77	oz/a	B	1 - 2" Weeds				
7	Anthem	0.101	lb ai/a	6	oz/a	A	Pre	100.0	100.0	100.0	100.0
	Authority XL	0.175	lb ai/a	4	oz/a	A	Pre				
	Cadet	0.00427	lb ai/a	0.6	oz/a	C	14 - 21 DAB				
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	14 - 21 DAB				
	AMS	5	gal/100 gal	77	oz/a	C	14 - 21 DAB				
8	Prefix	1.32	lb ai/a	32	oz/a	A	Pre	100.0	100.0	100.0	92.5
	Cadet	0.00427	lb ai/a	0.6	oz/a	C	14 - 21 DAB				
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	14 - 21 DAB				
	AMS	5	gal/100 gal	77	oz/a	C	14 - 21 DAB				
9	Roundup PowerMax	0.77	lb ae/a	22	oz/a	B	1 - 2" Weeds	100.0	100.0	82.5	82.5
	AMS	5	gal/100 gal	77	oz/a	B	1 - 2" Weeds				
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	14 - 21 DAB				
	AMS	5	gal/100 gal	77	oz/a	C	14 - 21 DAB				
10	Prefix	1.32	lb ai/a	32	oz/a	A	Pre	100.0	100.0	97.5	85.0
	Roundup PowerMax	0.77	lb ae/a	22	oz/a	C	14 - 21 DAB				
	AMS	5	gal/100 gal	77	oz/a	C	14 - 21 DAB				
	LSD (P=.05)							0.00	4.50	14.07	18.12
	Standard Deviation							0.00	3.10	9.69	12.49
	CV							0.0	3.49	11.93	16.76
	Grand Mean							90.0	89.0	81.25	74.5

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs I

Trial ID: HSB-51211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 5606
BBCH Scale: BSOY
Planting Method: PLANTD planted
Depth, Unit: 0.75 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: FAIR fair
Harvest Date: 10/17/11
Harvested Width, Unit: 6.33 FT
% Standard Moisture: 13.0
Weighing Equipment: Massey Ferguson 8

Description: Roundup Ready
Planting Date: 5/31/11
Rate, Unit: 130000 P/A
Spacing Within Row, Unit: 2 IN
Soil Temperature, Unit: 79.6 F
Emergence Date: 6/6/11
Harvest Equipment: Massey Ferguson 8
Harvested Length, Unit: 28 FT
Moisture Meter: Massey Ferguson 8

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Bifenthrin	6.4	OZ

Soil Description

Description Name: 2011 Soybean
% Sand: 16 **% OM:** 2.2 **Texture:** SIL silt loam
% Silt: 65 **pH:** 6.7 **Soil Name:** Sharkey & Desha Silt Loam
% Clay: 19 **CEC:** 13 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B	C
Application Date:	6/3/11	6/13/11	7/11/11
Time of Day:	AM	PM	PM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREPRE	POSPOS	POSPOS
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	RD	JB	JB
Air Temperature, Unit:	85.1 F	85.6 F	85.2 F
% Relative Humidity:	62.5	58.0	70.5
Wind Velocity, Unit:	2.0 MPH	5.1 MPH	2.5 MPH
Wind Direction:	SE	W	W
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	82.5 F	85.9 F	87.6 F
Soil Moisture:	FAIR	GOOD	NORMAL
% Cloud Cover:	20	20	50
Next Rain Occurred On:	6/3/11	6/13/11	7/12/11

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	DESC	DESC	DESC
Stage Majority, Percent:	V0	V1	V8
Height, Unit:	0 IN	4 IN	30 IN

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W
Height, Unit:	0 IN	0.5 IN	4 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W
Height, Unit:	0 IN	0 IN	4 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W
Height, Unit:	0 IN	0 IN	4 IN

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs I

Trial ID: HSB-51211
 Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B	C
Appl. Equipment:	Multi Boom	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix
Nozzle Size:	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Nozzles/Row:	2	2	2
% Coverage:	100	100	100
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes	Y yes

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs I

Trial ID: HSB-51211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA						
Pest Code		Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>						
Pest Scientific Name		Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth						
Pest Name												
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed	PLANT C	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P						
Assessment Date	6/20/11	6/14/11	6/14/11	6/14/11	6/23/11	6/23/11						
Assessment Type	COUPLA	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	MROW	%	%	%	%	%						
Number of Subsamples	2	1	1	1	1	1						
Crop Stage Majority		V1 2-4"	V1 2-4"	V1 2-4"	V4 3-6"	V4 3-6"						
Pest Stage Majority		1-3"	1-5"	1-4"	1-5"	2-8"						
Assessed By	JB	JB	JB	JB	JB	JB						
Days After First/Last Applic.	17 7	11 1	11 1	11 1	20 10	20 10						
Trt-Eval Interval	7 DA-B	10 DA-B	10 DA-B	1 DA-B	10 DA-B	10 DA-B						
Plant-Eval Interval	20 DP-1	14 DP-1	14 DP-1	14 DP-1	23 DP-1	23 DP-1						
Days After Emergence		8 DE-1	8 DE-1	8 DE-1	17 DE-1	17 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	1	2	3	4	5	6
1	Untreated Check						27.38	0.0	0.0	0.0	0.0	0.0
2	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	27.63	100.0	100.0	100.0	98.8	100.0
	Roundup WeatherMax	1.55 lb ae/a	44 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	1.55 lb ae/a	44 oz/a		C	2 - 4" AMAPA						
3	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	30.63	100.0	100.0	100.0	88.3	93.8
	Prefix	1.32 lb ai/a	32 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
4	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	27.63	100.0	100.0	100.0	95.0	100.0
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
5	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	31.00	100.0	100.0	100.0	91.8	100.0
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
6	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	28.50	100.0	100.0	100.0	98.8	100.0
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
7	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	29.13	100.0	100.0	100.0	100.0	100.0
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
8	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	29.13	100.0	100.0	100.0	100.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
9	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	28.88	100.0	100.0	100.0	90.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
10	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	27.63	100.0	100.0	100.0	100.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
11	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	31.13	100.0	100.0	100.0	100.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE						
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
12	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	29.88	100.0	100.0	100.0	100.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE						
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
13	Authority MTZ	0.31 lb ai/a	11 oz/a		A	PRE	29.50	100.0	100.0	100.0	96.3	100.0
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
14	Authority MTZ	0.31 lb ai/a	11 oz/a		A	PRE	28.13	100.0	100.0	100.0	97.5	97.5
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
15	Authority MTZ	0.31 lb ai/a	11 oz/a		A	PRE	31.50	100.0	100.0	100.0	100.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
16	Sencor	0.25 lb ai/a	5.33 oz/a		A	PRE	29.50	100.0	100.0	100.0	91.0	93.8
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
17	Sencor	0.25 lb ai/a	5.33 oz/a		A	PRE	28.13	100.0	100.0	100.0	87.5	95.0
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
18	Sencor	0.25 lb ai/a	5.33 oz/a		A	PRE	31.00	100.0	100.0	100.0	100.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
19	Fierce	0.143 lb ai/a	3 oz/a		A	PRE	30.63	100.0	100.0	100.0	100.0	100.0
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs I

Trial ID: HSB-51211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

		W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory	W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth						
Pest Type												
Pest Code												
Pest Scientific Name												
Pest Name												
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed	PLANT C	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P						
Assessment Date	6/20/11	6/14/11	6/14/11	6/14/11	6/23/11	6/23/11						
Assessment Type	COUPLA	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	MROW	%	%	%	%	%						
Number of Subsamples	2	1	1	1	1	1						
Crop Stage Majority		V1 2-4"	V1 2-4"	V1 2-4"	V4 3-6"	V4 3-6"						
Pest Stage Majority		1-3"	1-5"	1-4"	1-5"	2-8"						
Assessed By	JB	JB	JB	JB	JB	JB						
Days After First/Last Applic.	17 7	11 1	11 1	11 1	20 10	20 10						
Trt-Eval Interval	7 DA-B	10 DA-B	10 DA-B	1 DA-B	10 DA-B	10 DA-B						
Plant-Eval Interval	20 DP-1	14 DP-1	14 DP-1	14 DP-1	23 DP-1	23 DP-1						
Days After Emergence		8 DE-1	8 DE-1	8 DE-1	17 DE-1	17 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3	4	5	6
20	Fierce	0.143 lb ai/a	3 oz/a		A	PRE	30.50	100.0	100.0	100.0	100.0	99.5
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
21	Fierce	0.143 lb ai/a	3 oz/a		A	PRE	30.25	100.0	100.0	100.0	90.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
22	Zidua	0.106 lb ai/a	2 oz/a		A	PRE	28.50	100.0	100.0	100.0	100.0	100.0
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
23	Zidua	0.106 lb ai/a	2 oz/a		A	PRE	31.88	100.0	100.0	100.0	100.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
24	Zidua	0.106 lb ai/a	2 oz/a		A	PRE	29.63	100.0	100.0	100.0	100.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
25	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	30.25	100.0	100.0	100.0	100.0	100.0
	Warrant	1.5 lb ai/a	64 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
26	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	29.63	100.0	100.0	100.0	100.0	100.0
	Warrant	1.88 lb ai/a	80 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
LSD (P=.05)							5.153	0.00	0.00	0.00	9.29	3.99
Standard Deviation							3.644	0.00	0.00	0.00	6.57	2.82
CV							12.34	0.0	0.0	0.0	7.05	2.96
Grand Mean							29.52	96.15	96.15	96.15	93.26	95.37

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs I

Trial ID: HSB-51211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed		W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code		IPOSS		ECHCG	AMAPA	IPOSS		ECHCG					
Pest Scientific Name		Ipomoea sp.		Echinochloa cr>	Amaranthus pal>	Ipomoea sp.		Echinochloa cr>					
Pest Name		Morning glory		Common barnyar>	Palmer amaranth	Morning glory		Common barnyar>					
Crop Code		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA					
Crop Scientific Name		Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max					
Crop Name		Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean					
Part Assessed		PLANT P	PLANT C	PLANT P	PLANT P	PLANT P	PLANT C	PLANT P					
Assessment Date		6/23/11	6/23/11	7/14/11	7/14/11	7/14/11	7/14/11	7/29/11					
Assessment Type		CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	PHYCHL	CONTRO					
Assessment Unit		%	%	%	%	%	%	%					
Number of Subsamples		1	1	1	1	1	1	1					
Crop Stage Majority		V4 3-6"	V4 3-6"	V9 23"	V9 23"	V9 23"	V9 23"	R1/2 36"					
Pest Stage Majority		1-6"		5-35"	10-60"	5-25"		10-50"					
Assessed By		JB	JB	JB	JB	JB	JB	JB					
Days After First/Last Applic.		20 10	20 10	41 3	41 3	41 3	41 3	56 18					
Trt-Eval Interval		10 DA-B	10 DA-B	3 DA-C	3 DA-C	3 DA-C	3 DA-C	18 DA-C					
Plant-Eval Interval		23 DP-1	23 DP-1	44 DP-1	44 DP-1	44 DP-1	44 DP-1	59 DP-1					
Days After Emergence		17 DE-1	17 DE-1				38 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Apppl Unit	Apppl Description	7	8	9	10	11	12	13
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	97.0	0.0	90.0	98.8	93.8	1.3	100.0
	Roundup WeatherMax	1.55 lb ae/a	44 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	1.55 lb ae/a	44 oz/a		C	2 - 4" AMAPA							
3	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	93.8	0.0	76.3	87.5	93.8	21.3	100.0
	Prefix	1.32 lb ai/a	32 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
4	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	97.8	5.0	80.0	90.0	91.3	16.3	100.0
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
5	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	90.0	0.0	75.0	92.5	95.0	17.5	97.5
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
6	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	97.0	7.5	87.5	96.3	96.3	0.0	95.0
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
7	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	83.8	0.0	88.8	86.3	92.5	30.0	100.0
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
8	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	92.5	11.3	92.5	93.8	98.8	18.8	100.0
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
9	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	93.0	10.0	100.0	100.0	97.5	0.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
10	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	97.0	2.5	98.8	100.0	97.5	18.8	100.0
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
11	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	97.5	0.0	96.3	98.8	100.0	18.8	100.0
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE							
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
12	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	7.5	100.0	100.0	100.0	1.3	96.3
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE							
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
13	Authority MTZ	0.31 lb ai/a	11 oz/a		A	PRE	98.8	0.0	86.3	97.5	100.0	18.8	100.0
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
14	Authority MTZ	0.31 lb ai/a	11 oz/a		A	PRE	93.5	0.0	91.0	98.8	96.3	25.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
15	Authority MTZ	0.31 lb ai/a	11 oz/a		A	PRE	100.0	0.0	95.0	96.8	100.0	0.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
16	Sencor	0.25 lb ai/a	5.33 oz/a		A	PRE	91.3	0.0	82.5	88.3	93.8	26.3	100.0
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
17	Sencor	0.25 lb ai/a	5.33 oz/a		A	PRE	91.3	0.0	83.3	89.8	97.5	22.5	97.5
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
18	Sencor	0.25 lb ai/a	5.33 oz/a		A	PRE	98.8	1.3	95.0	94.3	95.0	0.0	95.0
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
19	Fierce	0.143 lb ai/a	3 oz/a		A	PRE	95.8	2.5	97.5	98.8	100.0	21.3	100.0
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs I

Trial ID: HSB-51211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

		W Weed IPOSS		W Weed ECHCG		W Weed AMAPA		W Weed IPOSS		W Weed ECHCG				
		Ipomoea sp.		Echinochloa cr>		Amaranthus pal>		Ipomoea sp.		Echinochloa cr>				
		Morning glory		Common barnyar>		Palmer amaranth		Morning glory		Common barnyar>				
		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA			
		Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max			
		Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean			
Part Assessed		PLANT P	PLANT C	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT C	PLANT P	PLANT P			
Assessment Date		6/23/11	6/23/11	7/14/11	7/14/11	7/14/11	7/14/11	7/14/11	7/14/11	7/14/11	7/29/11			
Assessment Type		CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	PHYCHL	CONTRO	CONTRO			
Assessment Unit		%	%	%	%	%	%	%	%	%	%			
Number of Subsamples		1	1	1	1	1	1	1	1	1	1			
Crop Stage Majority		V4 3-6"	V4 3-6"	V9 23"	V9 23"	V9 23"	V9 23"	V9 23"	V9 23"	V9 23"	R1/2 36"			
Pest Stage Majority		1-6"	1-6"	5-35"	5-35"	10-60"	10-60"	5-25"	5-25"	10-50"	10-50"			
Assessed By		JB	JB	JB	JB	JB	JB	JB	JB	JB	JB			
Days After First/Last Applic.		20 10	20 10	41 3	41 3	41 3	41 3	41 3	41 3	41 3	56 18			
Trt-Eval Interval		10 DA-B	10 DA-B	3 DA-C	3 DA-C	3 DA-C	3 DA-C	3 DA-C	3 DA-C	3 DA-C	18 DA-C			
Plant-Eval Interval		23 DP-1	23 DP-1	44 DP-1	44 DP-1	44 DP-1	44 DP-1	44 DP-1	44 DP-1	44 DP-1	59 DP-1			
Days After Emergence		17 DE-1	17 DE-1											
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Unit	Appl Code	Appl Description	7	8	9	10	11	12	13
20	Fierce	0.143 lb ai/a	3 oz/a		A	PRE		97.8	2.5	100.0	100.0	100.0	18.8	100.0
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA								
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA								
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA								
21	Fierce	0.143 lb ai/a	3 oz/a		A	PRE		100.0	13.8	100.0	100.0	100.0	0.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)								
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)								
22	Zidua	0.106 lb ai/a	2 oz/a		A	PRE		97.5	6.3	100.0	100.0	100.0	16.3	100.0
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA								
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA								
23	Zidua	0.106 lb ai/a	2 oz/a		A	PRE		96.5	2.5	92.5	95.0	100.0	22.5	100.0
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA								
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA								
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA								
24	Zidua	0.106 lb ai/a	2 oz/a		A	PRE		97.8	6.3	98.8	100.0	100.0	0.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)								
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)								
25	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE		98.5	8.8	96.3	97.5	100.0	6.3	95.0
	Warrant	1.5 lb ai/a	64 oz/a		B	Pre AMAPA (V1)								
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)								
26	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE		97.5	12.5	90.5	96.8	97.5	7.5	95.0
	Warrant	1.88 lb ai/a	80 oz/a		B	Pre AMAPA (V1)								
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)								
LSD (P=.05)								6.29	14.58	9.41	6.68	6.50	10.23	6.03
Standard Deviation								4.45	10.31	6.65	4.72	4.60	7.23	4.26
CV								4.83	268.06	7.54	5.12	4.91	57.2	4.49
Grand Mean								92.08	3.85	88.21	92.19	93.7	12.64	95.05

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs I

Trial ID: HSB-51211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS								
Pest Code	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.								
Pest Scientific Name	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory								
Pest Name													
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	GRAMAT C	GRAMAT C						
Assessment Date	7/29/11	7/29/11	10/6/11	10/6/11	10/6/11	10/17/11	10/17/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	WEIDRY	YIELD						
Assessment Unit	%	%	%	%	%	lb/plot	BU						
Number of Subsamples	1	1	1	1	1	1	1						
Crop Stage Majority	R1/2 36"	R1/2 36"	R8 37.5"	R8 37.5"	R8 37.5"								
Pest Stage Majority	20-80"	10-30"	10-30"	10-70"	10-40"								
Assessed By	JB	JB	JB	JB	JB	JM	JB						
Days After First/Last Applic.	56 18	56 18	126 87	126 87	126 87	136 98	136 98						
Trt-Eval Interval	18 DA-C	18 DA-C	61 DA-A	61 DA-A	61 DA-A								
Plant-Eval Interval	59 DP-1	59 DP-1	127 DP-1	127 DP-1	127 DP-1	139 DP-1	139 DP-1						
Days After Emergence			120 DE-1	120 DE-1	120 DE-1	133 DE-1	133 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Apppl Unit	Apppl Description	14	15	16	17	18	19	20
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.00	0.0
2	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	10.55	43.0
	Roundup WeatherMax	1.55 lb ae/a	44 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	1.55 lb ae/a	44 oz/a		C	2 - 4" AMAPA							
3	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	95.0	100.0	100.0	100.0	97.5	9.85	40.1
	Prefix	1.32 lb ai/a	32 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
4	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	98.8	100.0	100.0	100.0	100.0	10.55	43.0
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
5	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	93.8	100.0	100.0	100.0	92.5	9.88	40.2
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
6	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	87.5	100.0	100.0	87.5	82.5	10.13	41.2
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
7	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	95.0	100.0	100.0	100.0	95.0	9.43	38.4
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
8	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	100.0	100.0	100.0	100.0	95.0	10.68	43.5
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
9	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	100.0	100.0	100.0	95.0	85.0	11.93	48.6
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
10	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	100.0	97.5	10.43	42.5
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
11	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	9.93	40.4
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE							
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
12	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	97.5	100.0	100.0	100.0	90.0	11.40	46.4
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE							
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
13	Authority MTZ	0.31 lb ai/a	11 oz/a		A	PRE	95.0	100.0	100.0	100.0	100.0	10.68	43.5
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
14	Authority MTZ	0.31 lb ai/a	11 oz/a		A	PRE	100.0	100.0	100.0	100.0	90.0	10.38	42.3
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
15	Authority MTZ	0.31 lb ai/a	11 oz/a		A	PRE	97.5	100.0	100.0	100.0	95.0	10.90	44.4
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
16	Sencor	0.25 lb ai/a	5.33 oz/a		A	PRE	95.0	100.0	100.0	100.0	97.5	10.50	42.8
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
17	Sencor	0.25 lb ai/a	5.33 oz/a		A	PRE	92.5	100.0	100.0	100.0	92.5	9.45	38.5
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
18	Sencor	0.25 lb ai/a	5.33 oz/a		A	PRE	87.5	100.0	95.0	90.0	85.0	9.50	38.7
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
19	Fierce	0.143 lb ai/a	3 oz/a		A	PRE	100.0	100.0	100.0	100.0	90.0	9.90	40.3
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs I

Trial ID: HSB-51211
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS								
Pest Code	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.								
Pest Scientific Name	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory								
Pest Name													
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	GRAMAT C	GRAMAT C						
Assessment Date	7/29/11	7/29/11	10/6/11	10/6/11	10/6/11	10/17/11	10/17/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	WEIDRY	YIELD						
Assessment Unit	%	%	%	%	%	lb/plot	BU						
Number of Subsamples	1	1	1	1	1	1	1						
Crop Stage Majority	R1/2 36"	R1/2 36"	R8 37.5"	R8 37.5"	R8 37.5"								
Pest Stage Majority	20-80"	10-30"	10-30"	10-70"	10-40"								
Assessed By	JB	JB	JB	JB	JB	JM	JB						
Days After First/Last Applic.	56 18	56 18	126 87	126 87	126 87	136 98	136 98						
Trt-Eval Interval	18 DA-C	18 DA-C	61 DA-A	61 DA-A	61 DA-A								
Plant-Eval Interval	59 DP-1	59 DP-1	127 DP-1	127 DP-1	127 DP-1	139 DP-1	139 DP-1						
Days After Emergence			120 DE-1	120 DE-1	120 DE-1	133 DE-1	133 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	14	15	16	17	18	19	20
20	Fierce	0.143 lb ai/a	3 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	9.48	38.6
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
21	Fierce	0.143 lb ai/a	3 oz/a		A	PRE	100.0	100.0	100.0	100.0	97.5	10.50	42.8
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
22	Zidua	0.106 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	11.38	46.3
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
23	Zidua	0.106 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	10.23	41.6
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
24	Zidua	0.106 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	100.0	90.0	10.73	43.7
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
25	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	95.0	100.0	95.0	100.0	95.0	10.05	40.9
	Warrant	1.5 lb ai/a	64 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
26	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	90.0	100.0	95.0	95.0	87.5	10.10	41.1
	Warrant	1.88 lb ai/a	80 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
	LSD (P=.05)						8.55	0.00	4.78	6.63	12.56	1.918	7.81
	Standard Deviation						6.04	0.00	3.38	4.69	8.88	1.356	5.52
	CV						6.49	0.0	3.54	4.94	9.81	13.64	13.64
	Grand Mean						93.08	96.15	95.58	94.9	90.58	9.94	40.49

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs I

Trial ID: HSB-51211
Location: Rohwer, AR

Investigator: Kenneth Smith

ARM Action Codes
TY1 = 4.0726*[C19]

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs II

Trial ID: HSB-51311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 5606
BBCH Scale: BSOY
Planting Method: PLANTD planted
Depth, Unit: 0.75 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: FAIR fair
Harvest Date: 10/17/11
Harvested Width, Unit: 6.33 FT
% Standard Moisture: 13.0
Weighing Equipment: Massey Ferguson 8

Description: Roundup Ready
Planting Date: 5/31/11
Rate, Unit: 130000 P/A
Spacing Within Row, Unit: 2 IN
Soil Temperature, Unit: 79.6 F
Emergence Date: 6/6/11
Harvest Equipment: Massey Ferguson 8
Harvested Length, Unit: 28 FT
Moisture Meter: Massey Ferguson 8

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Pest 3 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Bifenthrin	6.4	OZ

Soil Description

Description Name: 2011 Soybean
% Sand: 16 **% OM:** 2.2 **Texture:** SIL silt loam
% Silt: 65 **pH:** 6.7 **Soil Name:** Sharkey & Desha Silt Loam
% Clay: 19 **CEC:** 13 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B	C
Application Date:	6/3/11	6/13/11	7/11/11
Time of Day:	AM	PM	AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREPRE	POSPOS	POSPOS
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	JB	JB	JB
Air Temperature, Unit:	86.2 F	85.6 F	85.2 F
% Relative Humidity:	59.9	58.0	70.5
Wind Velocity, Unit:	4.5 MPH	5.1 MPH	2.5 MPH
Wind Direction:	W	W	W
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	84.1 F	85.9 F	87.6 F
Soil Moisture:	NORMAL	GOOD	NORMAL
% Cloud Cover:	20	20	50
Next Rain Occurred On:	6/3/11	6/13/11	7/12/11

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	DESC	DESC	DESC
Stage Majority, Percent:	V0	V1	V8
Height, Unit:	0 IN	4 IN	26 IN

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W
Height, Unit:	0 IN	0 IN	5 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W
Height, Unit:	0 IN	0 IN	8 IN
Pest 3 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W
Height, Unit:	0 IN	0 IN	4 IN

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs II

Trial ID: HSB-51311
 Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B	C
Appl. Equipment:	Multi Boom	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix
Nozzle Size:	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Nozzles/Row:	2	2	2
% Coverage:	100	100	100
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes	Y yes

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs II

Trial ID: HSB-51311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS						
Pest Code	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.						
Pest Scientific Name	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory						
Pest Name												
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P						
Assessment Date	6/14/11	6/14/11	6/14/11	6/23/11	6/23/11	6/23/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	V1 1-4"	V1 1-4"	V1 1-4"	V4 3-6"	V4 3-6"	V4 3-6"						
Pest Stage Majority	1-4"	1-4"	1-2"	2-6"	1-6"	1-4"						
Assessed By	JB	JB	JB	JB	JB	JB						
Days After First/Last Applic.	11 1	11 1	11 1	20 10	20 10	20 10						
Trt-Eval Interval	1 DA-B	1 DA-B	1 DA-B	10 DA-B	10 DA-B	10 DA-B						
Plant-Eval Interval	14 DP-1	14 DP-1	14 DP-1	23 DP-1	23 DP-1	23 DP-1						
Days After Emergence	8 DE-1	8 DE-1	8 DE-1	17 DE-1	17 DE-1	17 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	1	2	3	4	5	6
1	Untreated Check						100.0	100.0	100.0	100.0	100.0	100.0
2	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	100.0	100.0	100.0	96.3	97.5	94.3
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
3	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	100.0	100.0	100.0	95.0	100.0	99.0
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
4	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	100.0	100.0	100.0	98.8	100.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
5	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
6	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	99.5	100.0	98.8
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE						
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
7	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	98.8	100.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE						
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
8	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	95.5
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
9	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	100.0
	Dual Magnum	0.955 lb ai/a	16 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
10	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	100.0
	Dual Magnum	0.955 lb ai/a	16 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
11	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	100.0
	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
12	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	100.0
	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE						
	Dual Magnum	0.955 lb ai/a	16 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
13	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	100.0
	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE						
	Dual Magnum	0.955 lb ai/a	16 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
14	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	100.0	100.0	100.0	97.5	98.0	98.8
15	Reflex	0.25 lb ai/a	16 oz/a		A	PRE	100.0	100.0	100.0	95.0	100.0	97.8
16	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	100.0	100.0	100.0	98.0	97.5	98.0
	Reflex	0.25 lb ai/a	16 oz/a		A	PRE						
17	Prefix	1.32 lb ai/a	32 oz/a		A	PRE	100.0	100.0	100.0	98.8	100.0	98.8
	LSD (P=.05)						0.00	0.00	0.00	2.98	1.98	3.95
	Standard Deviation						0.00	0.00	0.00	2.08	1.39	2.76
	CV						0.0	0.0	0.0	2.25	1.48	2.97
	Grand Mean						94.12	94.12	94.12	92.79	93.71	92.99

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs II

Trial ID: HSB-51311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type						W Weed ECHCG		W Weed AMAPA		W Weed IPOSS		W Weed ECHCG	
Pest Code						Echinochloa cr>		Amaranthus pal>		Ipomoea sp.		Echinochloa cr>	
Pest Scientific Name						Common barnyar>		Palmer amaranth		Morning glory		Common barnyar>	
Pest Name													
Crop Code		GLXMA		GLXMA		GLXMA		GLXMA		GLXMA		GLXMA	
Crop Scientific Name		Glycine max		Glycine max		Glycine max		Glycine max		Glycine max		Glycine max	
Crop Name		Soybean		Soybean		Soybean		Soybean		Soybean		Soybean	
Part Assessed		PLANT C		PLANT C		PLANT P		PLANT P		PLANT P		PLANT P	
Assessment Date		6/23/11		6/23/11		7/12/11		7/12/11		7/12/11		7/29/11	
Assessment Type		PHYGEN		PHYSTU		CONTRO		CONTRO		CONTRO		CONTRO	
Assessment Unit		%		%		%		%		%		%	
Number of Subsamples		1		1		1		1		1		1	
Crop Stage Majority		V4 3-6"		V4 3-6"		V7 12"		V7 12"		V7 12"		R1/2 34"	
Pest Stage Majority						4-10"		2-12"		1-2"		10-50"	
Assessed By		JB		JB		JB		JB		JB		JB	
Days After First/Last Applic.		20 10		20 10		39 1		39 1		39 1		56 18	
Trt-Eval Interval		10 DA-B		10 DA-B		1 DA-C		1 DA-C		1 DA-C		18 DA-C	
Plant-Eval Interval		23 DP-1		23 DP-1		42 DP-1		42 DP-1		42 DP-1		59 DP-1	
Days After Emergence		17 DE-1		17 DE-1		36 DE-1		36 DE-1		36 DE-1		53 DE-1	
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Apppl Unit	Apppl Description	7	8	9	10	11	12	
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0	
2	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	5.0	7.5	86.3	90.0	90.0	100.0	
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
3	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	3.8	2.5	92.5	93.8	95.0	97.5	
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
4	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	16.3	11.3	97.5	100.0	100.0	100.0	
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
5	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	10.0	31.3	95.0	100.0	100.0	100.0	
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
6	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	1.3	11.3	96.8	100.0	100.0	100.0	
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE							
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
7	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	10.0	21.3	96.3	100.0	100.0	100.0	
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE							
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
8	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE	2.5	2.5	100.0	100.0	97.5	100.0	
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
9	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE	5.0	2.5	97.5	100.0	95.0	100.0	
	Dual Magnum	0.955 lb ai/a	16 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
10	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE	7.5	8.8	97.5	100.0	97.5	100.0	
	Dual Magnum	0.955 lb ai/a	16 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
11	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	2.5	12.5	100.0	100.0	93.8	100.0	
	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
12	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	3.8	11.3	100.0	100.0	100.0	95.0	
	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE							
	Dual Magnum	0.955 lb ai/a	16 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
13	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	5.0	8.8	100.0	100.0	100.0	100.0	
	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE							
	Dual Magnum	0.955 lb ai/a	16 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
14	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	0.0	2.5	96.3	93.8	100.0	100.0	
15	Reflex	0.25 lb ai/a	16 oz/a		A	PRE	0.0	6.3	85.0	98.8	98.8	97.5	
16	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	6.3	8.8	95.0	97.5	97.5	95.0	
	Reflex	0.25 lb ai/a	16 oz/a		A	PRE							
17	Prefix	1.32 lb ai/a	32 oz/a		A	PRE	3.8	6.3	98.8	100.0	100.0	100.0	
LSD (P=.05)							9.46	16.11	6.59	5.36	6.05	5.63	
Standard Deviation							6.62	11.27	4.61	3.75	4.23	3.94	
CV							136.42	123.6	5.11	4.05	4.6	4.22	
Grand Mean							4.85	9.12	90.25	92.57	92.06	93.24	

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs II

Trial ID: HSB-51311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS								
Pest Code	Amaranthus pal>	Ipomeoa sp.	Echinochloa cr>	Amaranthus pal>	Ipomeoa sp.								
Pest Scientific Name	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory								
Pest Name													
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	GRAMAT C	GRAMAT C						
Assessment Date	7/29/11	7/29/11	10/6/11	10/6/11	10/6/11	10/17/11	10/17/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	MOICON	WEIDRY						
Assessment Unit	%	%	%	%	%	%	lb/plot						
Number of Subsamples	1	1	1	1	1	1	1						
Crop Stage Majority	R1/2 34"	R1/2 34"	R8 37"	R8 37"	R8 37"								
Pest Stage Majority	20-80"	10-30"	10-20"	10-60"	10-40"								
Assessed By	JB	JB	JB	JB	JB	JM	JM						
Days After First/Last Applic.	56 18	56 18	126 87	126 87	126 87	136 98	136 98						
Trt-Eval Interval	18 DA-C	18 DA-C	61 DA-A	61 DA-A	61 DA-A								
Plant-Eval Interval	59 DP-1	59 DP-1	127 DP-1	127 DP-1	127 DP-1	139 DP-1	139 DP-1						
Days After Emergence	53 DE-1	53 DE-1	120 DE-1	120 DE-1	120 DE-1	133 DE-1	133 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	13	14	15	16	17	18	19
1	Untreated Check						0.0	0.0	0.0	0.0	0.0		
2	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	97.5	100.0	100.0	100.0	100.0	14.28	8.360
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
3	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	97.5	100.0	100.0	100.0	100.0	14.85	7.078
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
4	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	14.50	7.315
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
5	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	14.43	8.180
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
6	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	13.83	7.793
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE							
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
7	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	100.0	80.0	14.10	8.025
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE							
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
8	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE	100.0	100.0	100.0	100.0	95.0	14.53	8.005
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
9	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE	100.0	100.0	100.0	100.0	92.5	14.10	8.250
	Dual Magnum	0.955 lb ai/a	16 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
10	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE	100.0	100.0	100.0	100.0	97.5	13.98	7.915
	Dual Magnum	0.955 lb ai/a	16 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
11	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	14.00	7.808
	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
12	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	13.80	7.515
	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE							
	Dual Magnum	0.955 lb ai/a	16 oz/a		C	2 - 4" AMAPA							
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA							
13	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	14.15	8.203
	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE							
	Dual Magnum	0.955 lb ai/a	16 oz/a		B	Pre AMAPA (V1)							
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)							
14	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	90.0	100.0	80.0	100.0	57.5	14.10	5.433
15	Reflex	0.25 lb ai/a	16 oz/a		A	PRE	100.0	100.0	80.0	100.0	65.0	13.13	6.553
16	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	97.5	100.0	100.0	100.0	77.5	14.10	8.150
	Reflex	0.25 lb ai/a	16 oz/a		A	PRE							
17	Prefix	1.32 lb ai/a	32 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	14.35	7.828
	LSD (P=.05)						4.94	0.00	12.97	0.00	18.20	0.992	2.1209
	Standard Deviation						3.46	0.00	9.07	0.00	12.74	0.694	1.4841
	CV						3.71	0.0	9.89	0.0	14.78	4.91	19.4
	Grand Mean						93.09	94.12	91.76	94.12	86.18	14.14	7.65

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs II

Trial ID: HSB-51311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	
Pest Type Pest Code Pest Scientific Name Pest Name Crop Code Crop Scientific Name Crop Name Part Assessed Assessment Date Assessment Type Assessment Unit Number of Subsamples Crop Stage Majority Pest Stage Majority Assessed By Days After First/Last Applic. Trt-Eval Interval Plant-Eval Interval Days After Emergence								
								GLXMA Glycine max
								Soybean GRAMAT C 10/17/11 YIELD BU 1
								JB 136 98
								139 DP-1 133 DE-1
1	Untreated Check							
2	Warrant	1.13	lb ai/a	48	oz/a	A	PRE	33.8
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA	
3	Warrant	1.13	lb ai/a	48	oz/a	A	PRE	28.4
	Warrant	1.13	lb ai/a	48	oz/a	C	2 - 4" AMAPA	
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA	
4	Warrant	1.13	lb ai/a	48	oz/a	A	PRE	29.5
	Warrant	1.13	lb ai/a	48	oz/a	B	Pre AMAPA (V1)	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	Pre AMAPA (V1)	
5	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	33.0
	Warrant	1.13	lb ai/a	48	oz/a	A	PRE	
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA	
6	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	31.6
	Warrant	1.13	lb ai/a	48	oz/a	A	PRE	
	Warrant	1.13	lb ai/a	48	oz/a	C	2 - 4" AMAPA	
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA	
7	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	32.5
	Warrant	1.13	lb ai/a	48	oz/a	A	PRE	
	Warrant	1.13	lb ai/a	48	oz/a	B	Pre AMAPA (V1)	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	Pre AMAPA (V1)	
8	Dual Magnum	0.955	lb ai/a	16	oz/a	A	PRE	32.2
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA	
9	Dual Magnum	0.955	lb ai/a	16	oz/a	A	PRE	33.4
	Dual Magnum	0.955	lb ai/a	16	oz/a	C	2 - 4" AMAPA	
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA	
10	Dual Magnum	0.955	lb ai/a	16	oz/a	A	PRE	32.0
	Dual Magnum	0.955	lb ai/a	16	oz/a	B	Pre AMAPA (V1)	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	Pre AMAPA (V1)	
11	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	31.6
	Dual Magnum	0.955	lb ai/a	16	oz/a	A	PRE	
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA	
12	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	30.5
	Dual Magnum	0.955	lb ai/a	16	oz/a	A	PRE	
	Dual Magnum	0.955	lb ai/a	16	oz/a	C	2 - 4" AMAPA	
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA	
13	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	33.2
	Dual Magnum	0.955	lb ai/a	16	oz/a	A	PRE	
	Dual Magnum	0.955	lb ai/a	16	oz/a	B	Pre AMAPA (V1)	
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	Pre AMAPA (V1)	
14	Warrant	1.13	lb ai/a	48	oz/a	A	PRE	22.0
15	Reflex	0.25	lb ai/a	16	oz/a	A	PRE	26.6
16	Warrant	1.13	lb ai/a	48	oz/a	A	PRE	33.0
	Reflex	0.25	lb ai/a	16	oz/a	A	PRE	
17	Prefix	1.32	lb ai/a	32	oz/a	A	PRE	31.6
LSD (P=.05)								8.51
Standard Deviation								5.96
CV								19.27
Grand Mean								30.91

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs II

Trial ID: HSB-51311
Location: Rohwer, AR
Investigator: Kenneth Smith

ARM Action Codes

TY1 = 4.096141*[C19]*(100-@MVAVGREP([C18]))/87

University of Arkansas-Division of Agriculture

Efficacy of Ultra Blazer in Roundup Ready Soybean Programs

Trial ID: HSB-51411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 5606
BBCH Scale: BSOY
Planting Method: PLANTD planted
Depth, Unit: 0.75 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: FAIR fair
Description: Roundup Ready
Planting Date: 5/31/11
Rate, Unit: 130000 P/A
Spacing Within Row, Unit: 2 IN
Soil Temperature, Unit: 79.6 F
Emergence Date: 6/6/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass
Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth
Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Bifenthrin	6.4	OZ

Soil Description

Description Name: 2011 Soybean
% Sand: 16 **% OM:** 2.2 **Texture:** SIL silt loam
% Silt: 65 **pH:** 6.7 **Soil Name:** Sharkey & Desha Silt Loam
% Clay: 19 **CEC:** 13 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B
Application Date:	6/23/11	7/1/11
Time of Day:	AM	AM
Application Method:	SPRAY	SPRAY
Application Timing:	POSPOS	POSPOS
Application Placement:	BROFOL	BROFOL
Applied By:	JB	JB
Air Temperature, Unit:	77.9 F	83.2 F
% Relative Humidity:	84.5	66.1
Wind Velocity, Unit:	3.3 MPH	0.6 MPH
Wind Direction:	WNV	S
Dew Presence (Y/N):	Y yes	N no
Soil Temperature, Unit:	78.6 F	82.7 F
Soil Moisture:	SLIWET	NORMAL
% Cloud Cover:	20	20
Next Rain Occurred On:	6/29/11	7/5/11

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	V3	V4
Height, Unit:	4 IN	6 IN

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W
Height, Unit:	5 IN	5 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W
Height, Unit:	6 IN	7 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W
Height, Unit:	3 IN	4 IN

University of Arkansas-Division of Agriculture

Efficacy of Ultra Blazer in Roundup Ready Soybean Programs

Trial ID: HSB-51411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Application Equipment

	A	B
Appl. Equipment:	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN
Nozzles/Row:	2	2
% Coverage:	100	100
Boom Length, Unit:	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN
Carrier:	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes

University of Arkansas-Division of Agriculture

Efficacy of Ultra Blazer in Roundup Ready Soybean Programs

Trial ID: HSB-51411
Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS							
Pest Code	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Scientific Name	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory							
Pest Name													
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	7/12/11	7/12/11	7/12/11	8/1/11	8/1/11	8/1/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	V7 12"	V7 12"	V7 12"	R1/2 37"	R1/2 37"	R1/2 37"							
Pest Stage Majority	5-15"	10-40"	5-10"	10-40"	20-80"	10-30"							
Assessed By	JB	JB	JB	JB	JB	JB							
Days After First/Last Applic.	19 11	19 11	19 11	39 31	39 31	39 31							
Trt-Eval Interval	11 DA-B	11 DA-B	11 DA-B	31 DA-B	31 DA-B	31 DA-B							
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	62 DP-1	62 DP-1	62 DP-1							
Days After Emergence	36 DE-1	36 DE-1	36 DE-1	56 DE-1	56 DE-1	56 DE-1							
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	1	2	3	4	5	6
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	Ultra Blazer NIS	0.25 lb ai/a 0.25 % v/v		1 pt/a 3.84 oz/a		A	3 - 5" AMAPA	55.0	72.5	72.5	55.0	65.0	65.0
3	Ultra Blazer NIS	0.375 lb ai/a 0.25 % v/v		1.5 pt/a 3.84 oz/a		A	3 - 5" AMAPA	57.5	76.3	75.0	50.0	55.0	60.0
4	Ultra Blazer NIS	0.25 lb ai/a 0.25 % v/v		1 pt/a 3.84 oz/a		A	3 - 5" AMAPA	55.0	76.3	70.0	57.5	70.0	70.0
	Ultra Blazer NIS	0.25 lb ai/a 0.25 % v/v		1 pt/a 3.84 oz/a		B	10 DAA						
5	Ultra Blazer Prefix NIS	0.125 lb ai/a 1.32 lb ai/a 0.25 % v/v		0.5 pt/a 2 pt/a 3.84 oz/a		A	3 - 5" AMAPA	60.0	82.5	77.5	57.5	72.5	72.5
6	Ultra Blazer Flexstar NIS	0.375 lb ai/a 0.117 lb ai/a 0.25 % v/v		1.5 pt/a 0.5 pt/a 3.84 oz/a		A	3 - 5" AMAPA	57.5	77.5	72.5	52.5	52.5	55.0
7	Ultra Blazer Poast NIS	0.375 lb ai/a 0.072 lb ai/a 0.25 % v/v		1.5 pt/a 6 oz/a 3.84 oz/a		A	3 - 5" AMAPA	65.0	75.0	75.0	57.5	67.5	67.5
8	Ultra Blazer Fusilade DX NIS	0.375 lb ai/a 0.094 lb ai/a 0.25 % v/v		1.5 pt/a 6 oz/a 3.84 oz/a		A	3 - 5" AMAPA	65.0	75.0	77.5	60.0	60.0	60.0
9	Storm Roundup WeatherMax NIS	0.5 lb ai/a 0.77 lb ae/a 0.25 % v/v		1 pt/a 22 oz/a 3.84 oz/a		A	3 - 5" AMAPA	83.8	90.0	88.8	77.5	70.0	77.5
10	Prefix NIS	1.32 lb ai/a 0.25 % v/v		2 pt/a 3.84 oz/a		A	3 - 5" AMAPA	57.5	85.0	80.0	52.5	70.0	70.0
11	Flexstar NIS	0.352 lb ai/a 0.25 % v/v		1.5 pt/a 3.84 oz/a		A	3 - 5" AMAPA	60.0	82.5	77.5	57.5	75.0	75.0
12	Ultra Blazer Dual Magnum NIS	0.375 lb ai/a 0.95 lb ai/a 0.25 % v/v		1.5 pt/a 1 pt/a 3.84 oz/a		A	3 - 5" AMAPA	60.0	70.0	72.5	55.0	62.5	62.5
LSD (P=.05)								6.10	10.69	9.24	12.78	23.56	24.05
Standard Deviation								4.22	7.41	6.40	8.85	16.31	16.66
CV								7.49	10.31	9.15	16.79	27.19	27.2
Grand Mean								56.35	71.88	69.9	52.71	60.0	61.25

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy of Ultra Blazer in Roundup Ready Soybean Programs

Trial ID: HSB-51411
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed	W Weed	W Weed							
Pest Code		ECHCG	AMAPA	IPOSS							
Pest Scientific Name		Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Name		Common barnyar>	Palmer amaranth	Morning glory							
Crop Code		GLXMA	GLXMA	GLXMA							
Crop Scientific Name		Glycine max	Glycine max	Glycine max							
Crop Name		Soybean	Soybean	Soybean							
Part Assessed		PLANT P	PLANT P	PLANT P							
Assessment Date		8/15/11	8/15/11	8/15/11							
Assessment Type		CONTRO	CONTRO	CONTRO							
Assessment Unit		%	%	%							
Number of Subsamples		1	1	1							
Crop Stage Majority		R3 37"	R3 37"	R3 37"							
Pest Stage Majority		10-500"	20-80"	10-40"							
Assessed By		JB	JB	JB							
Days After First/Last Applic.		53 45	53 45	53 45							
Trt-Eval Interval		45 DA-B	45 DA-B	45 DA-B							
Plant-Eval Interval		76 DP-1	76 DP-1	76 DP-1							
Days After Emergence		70 DE-1	70 DE-1	70 DE-1							
Trt No.	Treatment Name	Rate	Rate	Other	Other	Appl	Appl	Description	7	8	9
1	Untreated Check								0.0	0.0	0.0
2	Ultra Blazer	0.25 lb ai/a		1 pt/a		A	3 - 5"	AMAPA	37.5	57.5	52.5
	NIS	0.25 % v/v		3.84 oz/a		A	3 - 5"	AMAPA			
3	Ultra Blazer	0.375 lb ai/a		1.5 pt/a		A	3 - 5"	AMAPA	42.5	50.0	50.0
	NIS	0.25 % v/v		3.84 oz/a		A	3 - 5"	AMAPA			
4	Ultra Blazer	0.25 lb ai/a		1 pt/a		A	3 - 5"	AMAPA	45.0	60.0	57.5
	NIS	0.25 % v/v		3.84 oz/a		A	3 - 5"	AMAPA			
	Ultra Blazer	0.25 lb ai/a		1 pt/a		B	10 DAA				
	NIS	0.25 % v/v		3.84 oz/a		B	10 DAA				
5	Ultra Blazer	0.125 lb ai/a		0.5 pt/a		A	3 - 5"	AMAPA	42.5	62.5	65.0
	Prefix	1.32 lb ai/a		2 pt/a		A	3 - 5"	AMAPA			
	NIS	0.25 % v/v		3.84 oz/a		A	3 - 5"	AMAPA			
6	Ultra Blazer	0.375 lb ai/a		1.5 pt/a		A	3 - 5"	AMAPA	45.0	45.0	47.5
	Flexstar	0.117 lb ai/a		0.5 pt/a		A	3 - 5"	AMAPA			
	NIS	0.25 % v/v		3.84 oz/a		A	3 - 5"	AMAPA			
7	Ultra Blazer	0.375 lb ai/a		1.5 pt/a		A	3 - 5"	AMAPA	45.0	62.5	65.0
	Poast	0.072 lb ai/a		6 oz/a		A	3 - 5"	AMAPA			
	NIS	0.25 % v/v		3.84 oz/a		A	3 - 5"	AMAPA			
8	Ultra Blazer	0.375 lb ai/a		1.5 pt/a		A	3 - 5"	AMAPA	55.0	55.0	52.5
	Fusilade DX	0.094 lb ai/a		6 oz/a		A	3 - 5"	AMAPA			
	NIS	0.25 % v/v		3.84 oz/a		A	3 - 5"	AMAPA			
9	Storm	0.5 lb ai/a		1 pt/a		A	3 - 5"	AMAPA	77.5	62.5	75.0
	Roundup WeatherMax	0.77 lb ae/a		22 oz/a		A	3 - 5"	AMAPA			
	NIS	0.25 % v/v		3.84 oz/a		A	3 - 5"	AMAPA			
10	Prefix	1.32 lb ai/a		2 pt/a		A	3 - 5"	AMAPA	55.0	57.5	62.5
	NIS	0.25 % v/v		3.84 oz/a		A	3 - 5"	AMAPA			
11	Flexstar	0.352 lb ai/a		1.5 pt/a		A	3 - 5"	AMAPA	50.0	65.0	65.0
	NIS	0.25 % v/v		3.84 oz/a		A	3 - 5"	AMAPA			
12	Ultra Blazer	0.375 lb ai/a		1.5 pt/a		A	3 - 5"	AMAPA	57.5	50.0	52.5
	Dual Magnum	0.95 lb ai/a		1 pt/a		A	3 - 5"	AMAPA			
	NIS	0.25 % v/v		3.84 oz/a		A	3 - 5"	AMAPA			
LSD (P=.05)									12.74	22.34	23.72
Standard Deviation									8.82	15.47	16.43
CV									19.16	29.59	30.57
Grand Mean									46.04	52.29	53.75

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Using Ultra Blazer & Tankmixes to Control Glyphosate Resistant Pigweed in RR Soybean

Trial ID: HSB-51511
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 5606
BBCH Scale: BSOY
Planting Method: PLANTD planted
Depth, Unit: 0.75 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: FAIR fair
Description: Roundup Ready
Planting Date: 5/31/11
Rate, Unit: 130000 P/A
Spacing Within Row, Unit: 2 IN
Soil Temperature, Unit: 79.6 F
Emergence Date: 6/6/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass
Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth
Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Bifenthrin	6.4	OZ

Soil Description

Description Name: 2011 Soybean
% Sand: 16 **% OM:** 2.2 **Texture:** SIL silt loam
% Silt: 65 **pH:** 6.7 **Soil Name:** Sharkey & Desha Silt Loam
% Clay: 19 **CEC:** 13 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B
Application Date:	6/23/11	7/1/11
Time of Day:	AM	AM
Application Method:	SPRAY	SPRAY
Application Timing:	POSPOS	POSPOS
Application Placement:	BROFOL	BROFOL
Applied By:	JB	JB
Air Temperature, Unit:	77.9 F	83.2 F
% Relative Humidity:	84.5	66.1
Wind Velocity, Unit:	3.3 MPH	0.6 MPH
Wind Direction:	WNW	S
Dew Presence (Y/N):	Y yes	N no
Soil Temperature, Unit:	78.6 F	82.7 F
Soil Moisture:	SLIWET	NORMAL
% Cloud Cover:	20	20
Next Rain Occurred On:	6/29/11	7/5/11

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	V3	V4
Height, Unit:	6 IN	8 IN

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W
Height, Unit:	5 IN	7 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W
Height, Unit:	6 IN	8 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W
Height, Unit:	3 IN	4 IN

University of Arkansas-Division of Agriculture

Using Ultra Blazer & Tankmixes to Control Glyphosate Resistant Pigweed in RR Soybean

Trial ID: HSB-51511
 Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B
Appl. Equipment:	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN
Nozzles/Row:	2	2
% Coverage:	100	100
Boom Length, Unit:	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN
Carrier:	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes

University of Arkansas-Division of Agriculture

Using Ultra Blazer & Tankmixes to Control Glyphosate Resistant Pigweed in RR Soybean

Trial ID: HSB-51511
Location: Rohwer, AR

Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS						
Pest Code	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.						
Pest Scientific Name	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory						
Pest Name												
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P						
Assessment Date	7/12/11	7/12/11	7/12/11	8/1/11	8/1/11	8/1/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	V7 12"	V7 12"	V7 12"	R1/2 37"	R1/2 37"	R1/2 37"						
Pest Stage Majority	4-10"	2-12"	1-2"	10-40"	20-60"	10-30"						
Assessed By	JB	JB	JB	JB	JB	JB						
Days After First/Last Applic.	19 11	19 11	19 11	39 31	39 31	39 31						
Trt-Eval Interval	11 DA-B	11 DA-B	11 DA-B	31 DA-B	31 DA-B	31 DA-B						
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	62 DP-1	62 DP-1	62 DP-1						
Days After Emergence	36 DE-1	36 DE-1	36 DE-1	56 DE-1	56 DE-1	56 DE-1						
Trt No.	Treatment Name	Rate	Other Unit	Other Rate	Appl Unit	Appl Description	1	2	3	4	5	6
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0
2	Storm NIS	0.75 lb ai/a 0.25 % v/v		24 oz/a 3.84 oz/a	A	V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds	50.0	55.0	55.0	37.5	42.5	42.5
3	Ultra Blazer NIS	0.25 lb ai/a 0.25 % v/v		16 oz/a 3.84 oz/a	A	V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds	60.0	71.3	67.5	50.0	50.0	50.0
4	Ultra Blazer NIS	0.375 lb ai/a 0.25 % v/v		24 oz/a 3.84 oz/a	A	V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds	57.5	65.0	62.5	50.0	50.0	45.0
5	Ultra Blazer Basagran NIS	0.25 lb ai/a 0.25 lb ai/a 0.25 % v/v		16 oz/a 8 oz/a 3.84 oz/a	A	V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds	60.0	67.5	65.0	47.5	50.0	50.0
6	Ultra Blazer Basagran NIS	0.25 lb ai/a 0.5 lb ai/a 0.25 % v/v		16 oz/a 16 oz/a 3.84 oz/a	A	V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds	52.5	60.0	60.0	42.5	40.0	42.5
7	Ultra Blazer Pursuit NIS	0.219 lb ai/a 0.0625 lb ai/a 0.25 % v/v		14 oz/a 4 oz/a 3.84 oz/a	A	V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds	57.5	67.5	65.0	57.5	65.0	65.0
8	Ultra Blazer Scepter NIS	0.219 lb ai/a 0.061 lb ai/a 0.25 % v/v		14 oz/a 1.4 oz/a 3.84 oz/a	A	V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds	60.0	67.5	65.0	52.5	52.5	52.5
9	Ultra Blazer Butyrac 200 NIS	0.25 lb ai/a 0.0313 lb ai/a 0.25 % v/v		16 oz/a 2 oz/a 3.84 oz/a	A	V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds	57.5	63.8	62.5	47.5	47.5	47.5
10	Ultra Blazer NIS	0.375 lb ai/a 0.25 % v/v		24 oz/a 3.84 oz/a	A	V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds	62.5	65.0	65.0	60.0	60.0	60.0
	Ultra Blazer NIS	0.375 lb ai/a 0.25 % v/v		24 oz/a 3.84 oz/a	B	7 DAA 7 DAA						
11	Ultra Blazer NIS	0.375 lb ai/a 0.25 % v/v		24 oz/a 3.84 oz/a	A	V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds	60.0	70.0	65.0	52.5	52.5	52.5
	Flexstar NIS	0.235 lb ai/a 0.25 % v/v		16 oz/a 3.84 oz/a	B	7 DAA 7 DAA						
12	Flexstar NIS	0.235 lb ai/a 0.25 % v/v		16 oz/a 3.84 oz/a	A	V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds	62.5	77.5	75.0	55.0	57.5	57.5
	Ultra Blazer NIS	0.375 lb ai/a 0.25 % v/v		24 oz/a 3.84 oz/a	B	7 DAA 7 DAA						
13	Ultra Blazer NIS	0.375 lb ai/a 1 % v/v		24 oz/a 15.4 oz/a	A	V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds	67.5	78.8	75.0	47.5	52.5	70.0
	COC NIS	2.53 lb ai/a 0.25 % v/v		77 oz/a 3.84 oz/a	A	V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds						
14	Ultra Blazer NIS	0.25 lb ai/a 1 % v/v		16 oz/a 15.4 oz/a	A	V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds	67.5	77.5	75.0	57.5	67.5	67.5
	COC NIS	2.53 lb ai/a 0.25 % v/v		77 oz/a 3.84 oz/a	A	V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds						
15	Ultra Blazer NIS	0.25 lb ai/a 1.13 lb ai/a 0.25 % v/v		16 oz/a 48 oz/a 3.84 oz/a	A	V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds V4 / 4 - 6" Weeds	60.0	70.0	70.0	60.0	60.0	60.0
	Warrant NIS	0.25 % v/v		3.84 oz/a	A	V4 / 4 - 6" Weeds						
LSD (P=.05)							10.64	17.57	17.04	20.74	23.81	20.56
Standard Deviation							7.44	12.30	11.93	14.52	16.66	14.39
CV							13.37	19.29	19.29	30.35	33.44	28.3
Grand Mean							55.67	63.75	61.83	47.83	49.83	50.83

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Using Ultra Blazer & Tankmixes to Control Glyphosate Resistant Pigweed in RR Soybean

Trial ID: HSB-51511
 Location: Rohwer, AR
 Investigator: Kenneth Smith

							W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory
							GLXMA Glycine max Soybean PLANT P	GLXMA Glycine max Soybean PLANT P	GLXMA Glycine max Soybean PLANT P
							8/15/11 CONTRO %	8/15/11 CONTRO %	8/15/11 CONTRO %
							1	1	1
							R3 37" 10-50" JB	R3 37" 20-80" JB	R3 37" 10-40" JB
							53 45 53 DA-A 76 DP-1 70 DE-1	53 45 53 DA-A 76 DP-1 70 DE-1	53 45 53 DA-A 76 DP-1 70 DE-1
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code Description	7	8	9
1	Untreated Check						0.0	0.0	0.0
2	Storm NIS	0.75 lb ai/a 0.25 % v/v		24 oz/a 3.84 oz/a		A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds	25.0	30.0	37.5
3	Ultra Blazer NIS	0.25 lb ai/a 0.25 % v/v		16 oz/a 3.84 oz/a		A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds	37.5	35.0	40.0
4	Ultra Blazer NIS	0.375 lb ai/a 0.25 % v/v		24 oz/a 3.84 oz/a		A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds	35.0	37.5	32.5
5	Ultra Blazer Basagran NIS	0.25 lb ai/a 0.25 lb ai/a 0.25 % v/v		16 oz/a 8 oz/a 3.84 oz/a		A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds	32.5	42.5	40.0
6	Ultra Blazer Basagran NIS	0.25 lb ai/a 0.5 lb ai/a 0.25 % v/v		16 oz/a 16 oz/a 3.84 oz/a		A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds	27.5	22.5	30.0
7	Ultra Blazer Pursuit NIS	0.219 lb ai/a 0.0625 lb ai/a 0.25 % v/v		14 oz/a 4 oz/a 3.84 oz/a		A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds	42.5	47.5	37.5
8	Ultra Blazer Scepter NIS	0.219 lb ai/a 0.061 lb ai/a 0.25 % v/v		14 oz/a 1.4 oz/a 3.84 oz/a		A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds	40.0	40.0	40.0
9	Ultra Blazer Butyrac 200 NIS	0.25 lb ai/a 0.0313 lb ai/a 0.25 % v/v		16 oz/a 2 oz/a 3.84 oz/a		A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds	37.5	45.0	52.5
10	Ultra Blazer NIS Ultra Blazer NIS	0.375 lb ai/a 0.25 % v/v 0.375 lb ai/a 0.25 % v/v		24 oz/a 3.84 oz/a 24 oz/a 3.84 oz/a		A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds B 7 DAA B 7 DAA	42.5	47.5	45.0
11	Ultra Blazer NIS Flexstar NIS	0.375 lb ai/a 0.25 % v/v 0.235 lb ai/a 0.25 % v/v		24 oz/a 3.84 oz/a 16 oz/a 3.84 oz/a		A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds B 7 DAA B 7 DAA	42.5	40.0	42.5
12	Flexstar NIS Ultra Blazer NIS	0.235 lb ai/a 0.25 % v/v 0.375 lb ai/a 0.25 % v/v		16 oz/a 3.84 oz/a 24 oz/a 3.84 oz/a		A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds B 7 DAA B 7 DAA	37.5	45.0	42.5
13	Ultra Blazer COC AMS NIS	0.375 lb ai/a 1 % v/v 2.53 lb ai/a 0.25 % v/v		24 oz/a 15.4 oz/a 77 oz/a 3.84 oz/a		A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds	45.0	55.0	55.0
14	Ultra Blazer COC AMS NIS	0.25 lb ai/a 1 % v/v 2.53 lb ai/a 0.25 % v/v		16 oz/a 15.4 oz/a 77 oz/a 3.84 oz/a		A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds	47.5	55.0	47.5
15	Ultra Blazer Warrant NIS NIS	0.25 lb ai/a 1.13 lb ai/a 0.25 % v/v 0.25 % v/v		16 oz/a 48 oz/a 3.84 oz/a 3.84 oz/a		A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds A V4 / 4 - 6" Weeds	47.5	47.5	35.0
LSD (P=.05)							13.56	19.26	15.93
Standard Deviation							9.49	13.48	11.15
CV							26.36	34.27	28.96
Grand Mean							36.0	39.33	38.5

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Permit Plus Programs for STS Soybean

Trial ID: HSB-51811
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
 Variety: Armor 47-F8 Description: Roundup Ready + STS
 BBCH Scale: BSOY Planting Date: 6/24/11
 Planting Method: PLANTD planted Rate, Unit: 130000 P/A
 Depth, Unit: 0.75 IN Spacing Within Row, Unit: 2 IN
 Row Spacing, Unit: 38 IN Soil Temperature, Unit: 81.7 F
 Seed Bed: MEDIUM medium Emergence Date: 7/1/11
 Soil Moisture: GOOD good Harvest Equipment: Massey Ferguson 8
 Harvest Date: 10/26/11 Harvested Length, Unit: 28 FT
 Harvested Width, Unit: 6.33 FT Moisture Meter: Massey Ferguson 8
 % Standard Moisture: 13.0
 Weighing Equipment: Massey Ferguson 8

Crop 2: GLXMA Glycine max Soybean
 Variety: MorSoy RT 4706 Description: Roundup Ready + STS
 BBCH Scale: BSOY Planting Date: 6/24/11
 Planting Method: PLANTD planted Rate, Unit: 130000 P/A
 Depth, Unit: 0.75 IN Spacing Within Row, Unit: 2 IN
 Row Spacing, Unit: 38 IN Soil Temperature, Unit: 81.7 F
 Seed Bed: MEDIUM medium Emergence Date: 7/1/11
 Soil Moisture: GOOD good Harvest Equipment: Massey Ferguson 8
 Harvest Date: 10/26/11 Harvested Length, Unit: 28 FT
 Harvested Width, Unit: 6.33 FT Moisture Meter: Massey Ferguson 8
 % Standard Moisture: 13.0
 Weighing Equipment: Massey Ferguson 8

Crop 3: GLXMA Glycine max Soybean
 Variety: Progeny 4606 Description: Roundup Ready + STS
 BBCH Scale: BSOY Planting Date: 6/24/11
 Planting Method: PLANTD planted Rate, Unit: 130000 P/A
 Depth, Unit: 0.75 IN Spacing Within Row, Unit: 2 IN
 Row Spacing, Unit: 38 IN Soil Temperature, Unit: 81.7 F
 Seed Bed: MEDIUM medium Emergence Date: 7/1/11
 Soil Moisture: GOOD good Harvest Equipment: Massey Ferguson 8
 Harvest Date: 10/26/11 Harvested Length, Unit: 28 FT
 Harvested Width, Unit: 6.33 FT Moisture Meter: Massey Ferguson 8
 % Standard Moisture: 13.0
 Weighing Equipment: Massey Ferguson 8

Site and Design

Plot Width, Unit: 12.66 FT Site Type: FIELD field
 Plot Length, Unit: 28 FT Experimental Unit: 1 PLOT plot
 Plot Area, Unit: 354.48 FT² Tillage Type: CONTIL conventional-till
 Replications: 4 Study Design: SPLPLO Split-Plot
 Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/24/11	Authority MTZ	45	%AW/W	DF	10	OZ/A		
2.	7/19/11	Bifenthrin				6.4	OZ		
3.	7/27/11	Dual II Magnum	7.64	LBA/GAL	EC	16	OZ/A	Y	yes
4.	7/27/11	Roundup WeatherMax	4.5	LBA/GAL	L	22	OZ/A	Y	yes

Soil Description

Description Name: Rohwer Clay Blocks
 % Sand: 3.5 % OM: 1 Texture: C clay
 % Silt: 37.4 pH: 7.3 Soil Name: Sharkey Clay
 % Clay: 59.1 CEC: 38 Fert. Level: G good
 Soil Drainage: F fair

Application Description

	A	B
Application Date:	8/9/11	8/30/11
Time of Day:	AM	AM
Application Method:	SPRAY	SPRAY
Application Timing:	POSPOS	POSPOS
Application Placement:	BROFOL	BROFOL
Applied By:	JB	JB
Air Temperature, Unit:	76.7 F	78.8 F
% Relative Humidity:	78.6	67.7
Wind Velocity, Unit:	0.8 MPH	0.3 MPH
Wind Direction:	SE	SSE
Dew Presence (Y/N):	N no	N no
Soil Temperature, Unit:	89.2 F	81.9 F
Soil Moisture:	NORMAL	NORMAL
% Cloud Cover:	60	20
Next Rain Occurred On:	8/11/11	9/4/11

University of Arkansas-Division of Agriculture

Permit Plus Programs for STS Soybean

Trial ID: HSB-51811
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	R2	R4
Height, Unit:	26 IN	34 IN
Crop 2 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	R2	R4
Height, Unit:	26 IN	34 IN
Crop 3 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	R2	R4
Height, Unit:	26 IN	34 IN

Application Equipment

	A	B
Appl. Equipment:	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN
Nozzles/Row:	2	2
% Coverage:	100	100
Boom Length, Unit:	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN
Carrier:	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes

No. Date	By	Deviations
1.6/24/11	JM	Plots 312 and 212 may have incorrect cultivars
Reasons: misplanted		
No. Date	By	Deviations
2.8/9/11	JB	Plot 401 recieved 1.5 oz rate rather than 0.75 rate
Reasons: missapplication		

University of Arkansas-Division of Agriculture

Permit Plus Programs for STS Soybean

Trial ID: HSB-51811
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA					
Pest Code		Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max					
Pest Scientific Name															
Pest Name															
Crop Code															
Crop Scientific Name															
Crop Name		Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean					
Part Assessed		PLANT C	PLANT C	PLANT C	PLANT C	PLANT C	PLANT C	PLANT C	PLANT C	PLANT C					
Assessment Date		8/18/11	8/18/11	8/18/11	8/30/11	8/30/11	8/30/11	9/7/11	9/7/11	9/7/11					
Assessment Type		PHYCHL	PHYNEC	PHYSTU	PHYCHL	PHYNEC	PHYSTU	PHYCHL	PHYNEC	PHYSTU					
Assessment Unit		%	%	%	%	%	%	%	%	%					
Number of Subsamples		1	1	1	1	1	1	1	1	1					
Crop Stage Majority		R2 26"	R2 26"	R2 26"	R3 33"	R3 33"	R3 33"	R4 34"	R4 34"	R4 34"					
Pest Stage Majority															
Assessed By		JB	JB	JB	JB	JB	JB	JB	JB	JB					
Days After First/Last Applic.		9 9	9 9	9 9	21 21	21 21	21 21	29 8	29 8	29 8					
Trt-Eval Interval		9 DA-A	9 DA-A	9 DA-A	21 DA-A	21 DA-A	21 DA-A	8 DA-B	8 DA-B	8 DA-B					
Plant-Eval Interval		55 DP-1	55 DP-1	55 DP-1	67 DP-1	67 DP-1	67 DP-1	75 DP-1	75 DP-1	75 DP-1					
Days After Emergence		48 DE-1	48 DE-1	48 DE-1	60 DE-1	60 DE-1	60 DE-1	68 DE-1	68 DE-1	68 DE-1					
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3	4	5	6	7	8	9
1	GWN-3404 GWN-3404 Armor 47-F8	0.0007 lb ai/a	0.015 oz/a		A	R1 - R2	6.3	0.0	0.0	2.5	0.0	0.0	3.8	1.3	0.0
2	GWN-3404 GWN-3404 MorSoy RT 4706 N	0.0007 lb ai/a	0.015 oz/a		A	R1 - R2	5.0	0.0	3.8	6.3	2.5	6.3	1.3	1.3	6.3
3	GWN-3404 GWN-3404 Progeny 4606 RR	0.0007 lb ai/a	0.015 oz/a		A	R1 - R2	1.3	0.0	0.0	3.8	1.3	0.0	2.5	1.3	0.0
4	GWN-3404 GWN-3404 Armor 47-F8	0.0007 lb ai/a	0.015 oz/a		B	R3 - R4							3.8	0.0	0.0
5	GWN-3404 GWN-3404 MorSoy RT 4706 N	0.0007 lb ai/a	0.015 oz/a		B	R3 - R4							2.5	3.8	2.5
6	GWN-3404 GWN-3404 Progeny 4606 RR	0.0007 lb ai/a	0.015 oz/a		B	R3 - R4							1.3	1.3	0.0
7	GWN-3404 GWN-3404 Armor 47-F8	0.035 lb ai/a	0.75 oz/a		A	R1 - R2	7.5	0.0	1.3	8.8	3.8	6.3	0.0	0.0	0.0
8	GWN-3404 GWN-3404 MorSoy RT 4706 N	0.035 lb ai/a	0.75 oz/a		A	R1 - R2	10.0	0.0	10.0	6.3	0.0	6.3	2.5	3.8	11.3
9	GWN-3404 GWN-3404 Progeny 4606 RR	0.035 lb ai/a	0.75 oz/a		A	R1 - R2	6.3	0.0	0.0	6.3	0.0	1.3	1.3	2.5	2.5
10	GWN-3404 GWN-3404 Armor 47-F8	0.035 lb ai/a	0.75 oz/a		B	R3 - R4							0.0	1.3	0.0
11	GWN-3404 GWN-3404 MorSoy RT 4706 N	0.035 lb ai/a	0.75 oz/a		B	R3 - R4							0.0	0.0	6.3
12	GWN-3404 GWN-3404 Progeny 4606 RR	0.035 lb ai/a	0.75 oz/a		B	R3 - R4							0.0	1.3	0.0
13	GWN-3404 GWN-3404 Armor 47-F8	0.07 lb ai/a	1.5 oz/a		A	R1 - R2	8.8	0.0	1.3	6.3	0.0	0.0	1.3	1.3	1.3
14	GWN-3404 GWN-3404 MorSoy RT 4706 N	0.07 lb ai/a	1.5 oz/a		A	R1 - R2	7.5	0.0	10.0	5.0	1.3	6.3	2.5	0.0	0.0
15	GWN-3404 GWN-3404 Progeny 4606 RR	0.07 lb ai/a	1.5 oz/a		A	R1 - R2	3.8	0.0	0.0	6.3	0.0	0.0	2.5	1.3	0.0
16	GWN-3404 GWN-3404 Armor 47-F8	0.07 lb ai/a	1.5 oz/a		B	R3 - R4							0.0	0.0	3.8
17	GWN-3404 GWN-3404 MorSoy RT 4706 N	0.07 lb ai/a	1.5 oz/a		B	R3 - R4							0.0	1.3	10.0
18	GWN-3404 GWN-3404 Progeny 4606 RR	0.07 lb ai/a	1.5 oz/a		B	R3 - R4							0.0	0.0	1.3
19	Armor 47-F8 Weed-Free Check	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	MorSoy RT 4706 N Weed-Free Check	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	Progeny 4606 RR Weed-Free Check	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LSD (P=.05)		4.98	0.00	3.45	4.14	2.47	5.48	3.97	3.17	5.58					
Standard Deviation		3.45	0.00	2.39	2.87	1.71	3.80	2.81	2.24	3.95					
CV		73.54	0.0	109.12	67.14	234.34	173.53	235.9	221.63	184.11					
Grand Mean		4.69	0.0	2.19	4.27	0.73	2.19	1.19	1.01	2.14					

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Permit Plus Programs for STS Soybean

Trial ID: HSB-51811
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Pest Code		Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Pest Scientific Name																
Pest Name																
Crop Code																
Crop Scientific Name																
Crop Name		Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed		PLANT C	PLANT C	PLANT C	PLANT C	PLANT C	PLANT C	PLANT C	PLANT C	PLANT C						
Assessment Date		9/8/11	9/21/11	9/21/11	9/21/11	10/26/11	10/26/11	10/26/11	10/26/11	10/26/11						
Assessment Type		HEIGHT	PHYCHL	PHYNEC	PHYSTU	GRNLVS	PHYSTU	MOICON	WEIDRY	YIELD						
Assessment Unit		CM	%	%	%	%	%	%	lb/plot	BU						
Number of Subsamples		6	1	1	1	1	1	1	1	1						
Crop Stage Majority			R5 34"	R5 34"	R5 34"	R8 34"	R8 34"	R8 34"	R8 34"	R8 34"						
Pest Stage Majority																
Assessed By			JB	JB	JB	JB	JB	JB	JB	JB						
Days After First/Last Applic.		30 9	43 22	43 22	43 22	78 57	78 57	78 57	78 57	78 57						
Trt-Eval Interval		9 DA-B	22 DA-B	22 DA-B	22 DA-B	57 DA-B	57 DA-B	57 DA-B	57 DA-B	57 DA-B						
Plant-Eval Interval		76 DP-1	89 DP-1	89 DP-1	89 DP-1	124 DP-1	124 DP-1	124 DP-1	124 DP-1	124 DP-1						
Days After Emergence		69 DE-1	82 DE-1	82 DE-1	82 DE-1	117 DE-1	117 DE-1	117 DE-1	117 DE-1	117 DE-1						
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	10	11	12	13	14	15	16	17	18
1	GWN-3404 GWN-3404 Armor 47-F8	0.0007	lb ai/a	0.015	oz/a	A	R1 - R2	70.6250071	0.0	0.0	0.0	1.3	0.0	12.00	9.55	40.5
2	GWN-3404 GWN-3404 MorSoy RT 4706 N	0.0007	lb ai/a	0.015	oz/a	A	R1 - R2	68.7083427	0.0	0.0	0.0	2.5	0.0	12.00	9.35	39.7
3	GWN-3404 GWN-3404 Progeny 4606 RR	0.0007	lb ai/a	0.015	oz/a	A	R1 - R2	72.7083431	0.0	0.0	0.0	0.0	0.0	12.00	9.28	39.3
4	GWN-3404 GWN-3404 Armor 47-F8	0.0007	lb ai/a	0.015	oz/a	B	R3 - R4	73.7916791	0.0	0.0	0.0	0.0	0.0	12.00	9.28	39.3
5	GWN-3404 GWN-3404 MorSoy RT 4706 N	0.0007	lb ai/a	0.015	oz/a	B	R3 - R4	67.9166785	0.0	0.0	0.0	5.0	0.0	12.00	8.98	38.1
6	GWN-3404 GWN-3404 Progeny 4606 RR	0.0007	lb ai/a	0.015	oz/a	B	R3 - R4	74.5833433	0.0	0.0	0.0	0.0	0.0	12.00	10.15	43.0
7	GWN-3404 GWN-3404 Armor 47-F8	0.035	lb ai/a	0.75	oz/a	A	R1 - R2	72.0833431	0.0	0.0	0.0	0.0	0.0	12.00	9.65	40.9
8	GWN-3404 GWN-3404 MorSoy RT 4706 N	0.035	lb ai/a	0.75	oz/a	A	R1 - R2	65.8333425	0.0	0.0	0.0	2.5	2.5	12.00	8.55	36.3
9	GWN-3404 GWN-3404 Progeny 4606 RR	0.035	lb ai/a	0.75	oz/a	A	R1 - R2	69.6250070	0.0	0.0	0.0	0.0	1.3	12.00	9.05	38.4
10	GWN-3404 GWN-3404 Armor 47-F8	0.035	lb ai/a	0.75	oz/a	B	R3 - R4	71.7500072	0.0	0.0	0.0	22.5	0.0	13.70	8.25	34.3
11	GWN-3404 GWN-3404 MorSoy RT 4706 N	0.035	lb ai/a	0.75	oz/a	B	R3 - R4	68.3333427	0.0	0.0	0.0	33.8	0.0	13.70	7.30	30.4
12	GWN-3404 GWN-3404 Progeny 4606 RR	0.035	lb ai/a	0.75	oz/a	B	R3 - R4	73.5000074	0.0	0.0	0.0	16.3	0.0	13.70	9.18	38.2
13	GWN-3404 GWN-3404 Armor 47-F8	0.07	lb ai/a	1.5	oz/a	A	R1 - R2	70.1250070	0.0	0.0	0.0	3.8	0.0	12.43	9.20	38.8
14	GWN-3404 GWN-3404 MorSoy RT 4706 N	0.07	lb ai/a	1.5	oz/a	A	R1 - R2	65.0833424	0.0	0.0	0.0	11.3	0.0	12.85	7.95	33.4
15	GWN-3404 GWN-3404 Progeny 4606 RR	0.07	lb ai/a	1.5	oz/a	A	R1 - R2	71.3333354	0.0	0.0	0.0	7.5	0.0	12.85	9.20	38.6
16	GWN-3404 GWN-3404 Armor 47-F8	0.07	lb ai/a	1.5	oz/a	B	R3 - R4	71.6250072	0.0	0.0	0.0	25.0	0.0	13.70	8.45	35.1
17	GWN-3404 GWN-3404 MorSoy RT 4706 N	0.07	lb ai/a	1.5	oz/a	B	R3 - R4	66.2500066	0.0	0.0	0.0	37.5	0.0	13.70	7.63	31.7
18	GWN-3404 GWN-3404 Progeny 4606 RR	0.07	lb ai/a	1.5	oz/a	B	R3 - R4	71.6666713	0.0	0.0	0.0	26.3	0.0	13.70	7.93	33.0
19	Armor 47-F8 Weed-Free Check							69.3333428	0.0	0.0	0.0	0.0	0.0	12.00	10.13	42.9
20	MorSoy RT 4706 N Weed-Free Check							67.3333426	0.0	0.0	0.0	0.0	0.0	12.00	8.60	36.5
21	Progeny 4606 RR Weed-Free Check							72.9166714	0.0	0.0	0.0	0.0	0.0	12.00	9.28	39.3
LSD (P=.05)		4.58669279		0.00				0.00	0.00	0.00	0.00	5.89	1.69	0.488	1.522	6.38
Standard Deviation		3.24328145		0.00				0.00	0.00	0.00	0.00	4.17	1.20	0.345	1.076	4.51
CV		4.62		0.0				0.0	0.0	0.0	0.0	44.88	669.33	2.74	12.09	12.02
Grand Mean		70.24		0.0				0.0	0.0	0.0	0.0	9.29	0.18	12.59	8.9	37.51

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Permit Plus Programs for STS Soybean

Trial ID: HSB-51811
Location: Rohwer, AR

Investigator: Kenneth Smith

ARM Action Codes

TY1 = 4.096141*[17]*(100-[16])/85

University of Arkansas-Division of Agriculture

Soybean Liberty Link Programs with Envive, Canopy, Cinch, Dual Magnum, Boundary, & Prefix

Trial ID: HSB-52111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Progeny 4928
BBCH Scale: BSOY
Planting Method: PLANTD planted
Depth, Unit: 0.5 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: GOOD good
Description: LL / Trilex
Planting Date: 6/1/11
Rate, Unit: 130000 P/A
Spacing Within Row, Unit: 1 IN
Soil Temperature, Unit: 79.6 F
Emergence Date: 6/8/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass
Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth
Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Bifenthrin	6.4	OZ

Soil Description

Description Name: 2011 Soybean
% Sand: 16
% Silt: 65
% Clay: 19
% OM: 2.2
pH: 6.7
CEC: 13
Texture: SIL silt loam
Soil Name: Sharkey & Desha Silt Loam
Fert. Level: G good
Soil Drainage: G good

Application Description

	A	B	C	D
Application Date:	6/3/11	6/22/11	7/1/11	6/27/11
Time of Day:	PM	AM	AM	AM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PREPRE	POSPOS	POSPOS	POSPOS
Application Placement:	BROSOL	BROFOL	BROFOL	BROFOL
Applied By:	RD	JB	JM	JB
Air Temperature, Unit:	86.2 F	77.7 F	83.2 F	83.1 F
% Relative Humidity:	59.9	88.0	66.1	73.5
Wind Velocity, Unit:	4.5 MPH	4.3 MPH	0.6 MPH	4.5 MPH
Wind Direction:	W	W	S	W
Dew Presence (Y/N):	N no	N no	N no	N no
Soil Temperature, Unit:	84.1 F	79.4 F	82.7 F	85.9 F
Soil Moisture:	NORMAL	NORMAL	GOOD	NORMAL
% Cloud Cover:	20	30	10	30
Next Rain Occurred On:	6/3/11	6/22/11	7/4/11	6/28/11

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	BBCH	BBCH	BBCH	BBCH
Stage Majority, Percent:	V0	V1	V5	V4
Height, Unit:	0 IN	3 IN	7 IN	5 IN

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W	ECHCG W
Height, Unit:	0 IN	2 IN	5 IN	4 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W	AMAPA W
Height, Unit:	0 IN	3 IN	6 IN	5 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W	IPOSS W
Height, Unit:	0 IN	1 IN	4 IN	3 IN

University of Arkansas-Division of Agriculture

Soybean Liberty Link Programs with Envive, Canopy, Cinch, Dual Magnum, Boundary, & Prefix

Trial ID: HSB-52111
 Location: Rohwer, AR

Investigator: Kenneth Smith

Application Equipment

	A	B	C	D
Appl. Equipment:	Multi Boom	Multi Boom	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix	Air-Mix
Nozzle Size:	110015	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN	19 IN
Nozzles/Row:	2	2	2	2
% Coverage:	100	100	100	100
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN	18 IN
Carrier:	WATER	WATER	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes	Y yes	Y yes

University of Arkansas-Division of Agriculture

Soybean Liberty Link Programs with Envive, Canopy, Cinch, Dual Magnum, Boundary, & Prefix

Trial ID: HSB-52111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS						
Pest Code	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.						
Pest Scientific Name	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory						
Pest Name												
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P						
Assessment Date	6/13/11	6/13/11	6/13/11	6/23/11	6/23/11	6/23/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	V2 1-4"	V2 1-4"	V2 1-4"	V4 3-6"	V4 3-6"	V4 3-6"						
Pest Stage Majority	1-3"	1-4"	1-2"	2-6"	3-9"	1-4"						
Assessed By	JB	JB	JB	JB	JB	JB						
Days After First/Last Applic.	10 10	10 10	10 10	20 1	20 1	20 1						
Trt-Eval Interval	10 DA-A	10 DA-A	10 DA-A	1 DA-B	1 DA-B	1 DA-B						
Plant-Eval Interval	12 DP-1	12 DP-1	12 DP-1	22 DP-1	22 DP-1	22 DP-1						
Days After Emergence	5 DE-1	5 DE-1	5 DE-1	15 DE-1	15 DE-1	15 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3	4	5	6
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0
2	Prefix Ignite 280	1.32 lb ai/a	32 oz/a		A	Pre	100.0	100.0	100.0	95.0	90.0	85.0
		0.402 lb ai/a	22 oz/a		C	2 - 3" AMAPA						
3	Prefix Ignite 280 Dual Magnum	1.32 lb ai/a	32 oz/a		A	Pre	100.0	97.5	100.0	92.5	90.0	87.5
		0.402 lb ai/a	22 oz/a		C	2 - 3" AMAPA						
		0.95 lb ai/a	16 oz/a		C	2 - 3" AMAPA						
4	Prefix Ignite 280 Flexstar	1.32 lb ai/a	32 oz/a		A	Pre	100.0	100.0	100.0	91.3	90.0	80.0
		0.402 lb ai/a	22 oz/a		C	2 - 3" AMAPA						
		0.235 lb ai/a	16 oz/a		C	2 - 3" AMAPA						
5	Prefix Ignite 280 Prefix	1.32 lb ai/a	32 oz/a		A	Pre	100.0	100.0	100.0	86.3	81.5	80.0
		0.402 lb ai/a	22 oz/a		C	2 - 3" AMAPA						
		0.66 lb ai/a	16 oz/a		C	2 - 3" AMAPA						
6	Boundary Ignite 280	1.22 lb ai/a	24 oz/a		A	Pre	97.5	100.0	97.5	90.0	100.0	85.0
		0.402 lb ai/a	22 oz/a		C	2 - 3" AMAPA						
7	Boundary Ignite 280 Dual Magnum	1.22 lb ai/a	24 oz/a		A	Pre	100.0	100.0	100.0	97.5	97.5	87.5
		0.402 lb ai/a	22 oz/a		C	2 - 3" AMAPA						
		0.95 lb ai/a	16 oz/a		C	2 - 3" AMAPA						
8	Boundary Ignite 280 Flexstar	1.22 lb ai/a	24 oz/a		A	Pre	100.0	100.0	100.0	95.0	95.0	82.5
		0.402 lb ai/a	22 oz/a		C	2 - 3" AMAPA						
		0.235 lb ai/a	16 oz/a		C	2 - 3" AMAPA						
9	Boundary Ignite 280 Prefix	1.22 lb ai/a	24 oz/a		A	Pre	100.0	100.0	100.0	97.5	97.5	77.5
		0.402 lb ai/a	22 oz/a		C	2 - 3" AMAPA						
		0.66 lb ai/a	16 oz/a		C	2 - 3" AMAPA						
10	Valor SX Ignite 280 Dual Magnum	0.064 lb ai/a	2 oz/a		A	Pre	95.0	100.0	100.0	70.0	87.5	90.0
		0.402 lb ai/a	22 oz/a		C	2 - 3" AMAPA						
		0.95 lb ai/a	16 oz/a		C	2 - 3" AMAPA						
11	Valor SX Ignite 280 Flexstar	0.064 lb ai/a	2 oz/a		A	Pre	97.5	97.5	100.0	72.5	80.0	85.0
		0.402 lb ai/a	22 oz/a		C	2 - 3" AMAPA						
		0.235 lb ai/a	16 oz/a		C	2 - 3" AMAPA						
12	Valor SX Ignite 280 Prefix	0.064 lb ai/a	2 oz/a		A	Pre	97.5	100.0	100.0	70.0	85.0	90.0
		0.402 lb ai/a	22 oz/a		C	2 - 3" AMAPA						
		0.66 lb ai/a	16 oz/a		C	2 - 3" AMAPA						
13	Fierce Ignite 280 Dual Magnum	0.143 lb ai/a	3 oz/a		A	Pre	100.0	100.0	100.0	92.5	95.0	92.5
		0.402 lb ai/a	22 oz/a		C	2 - 3" AMAPA						
		0.95 lb ai/a	16 oz/a		C	2 - 3" AMAPA						
14	Fierce Ignite 280 Flexstar	0.143 lb ai/a	3 oz/a		A	Pre	100.0	100.0	100.0	92.5	91.3	90.0
		0.402 lb ai/a	22 oz/a		C	2 - 3" AMAPA						
		0.235 lb ai/a	16 oz/a		C	2 - 3" AMAPA						
15	Fierce Ignite 280 Prefix	0.143 lb ai/a	3 oz/a		A	Pre	100.0	100.0	100.0	92.5	95.0	91.3
		0.402 lb ai/a	22 oz/a		C	2 - 3" AMAPA						
		0.66 lb ai/a	16 oz/a		C	2 - 3" AMAPA						
16	Prefix Ignite 280	1.32 lb ai/a	32 oz/a		B	7 - 10 DAE	100.0	100.0	100.0	100.0	100.0	100.0
		0.402 lb ai/a	22 oz/a		B	7 - 10 DAE						
17	Boundary Ignite 280	1.22 lb ai/a	24 oz/a		B	7 - 10 DAE	100.0	100.0	100.0	100.0	100.0	100.0
		0.402 lb ai/a	22 oz/a		B	7 - 10 DAE						
18	Envive		3.45 oz/a		A	Pre	95.0	100.0	100.0	77.5	90.0	90.0
	>Flumioxazin (Valor SX)	0.0625 lb ai/a	1.96 oz/a		A	Pre						
	>Chlorimuron (Classic WDG)	0.0201 lb ai/a	1.29 oz/a		A	Pre						
	>Thifensulfuron (Harmony SG)	0.00625 lb ai/a	0.2 oz/a		A	Pre						
	NIS	1 % v/v	15.4 oz/a		A	Pre						
	Ignite 280	0.402 lb ai/a	22 oz/a		D	21 - 28 DAA						
	Prefix	1.56 lb ai/a	37.7 oz/a		D	21 - 28 DAA						
19	Envive		3.45 oz/a		A	Pre	97.5	100.0	97.5	77.5	85.0	82.5
	>Flumioxazin (Valor SX)	0.0625 lb ai/a	1.96 oz/a		A	Pre						
	>Chlorimuron (Classic WDG)	0.0201 lb ai/a	1.29 oz/a		A	Pre						
	>Thifensulfuron (Harmony SG)	0.00625 lb ai/a	0.2 oz/a		A	Pre						
	NIS	1 % v/v	15.4 oz/a		A	Pre						
	Ignite 280	0.402 lb ai/a	22 oz/a		D	21 - 28 DAA						
	Dual Magnum	0.95 lb ai/a	16 oz/a		D	21 - 28 DAA						
20	Canopy NIS	0.28 lb ai/a	6 oz/a		A	Pre	100.0	100.0	100.0	80.0	92.5	95.0
		1 % v/v	15.4 oz/a		A	Pre						
	Ignite 280	0.402 lb ai/a	22 oz/a		D	21 - 28 DAA						
	Prefix	1.56 lb ai/a	37.7 oz/a		D	21 - 28 DAA						

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Soybean Liberty Link Programs with Envive, Canopy, Cinch, Dual Magnum, Boundary, & Prefix

Trial ID: HSB-52111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed							
Pest Code	ECHCG	AMAPA	IPOSS	ECHCG	AMAPA	IPOSS							
Pest Scientific Name	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Name	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory							
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	6/13/11	6/13/11	6/13/11	6/23/11	6/23/11	6/23/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	V2 1-4"	V2 1-4"	V2 1-4"	V4 3-6"	V4 3-6"	V4 3-6"							
Pest Stage Majority	1-3"	1-4"	1-2"	2-6"	3-9"	1-4"							
Assessed By	JB	JB	JB	JB	JB	JB							
Days After First/Last Applic.	10 10	10 10	10 10	20 1	20 1	20 1							
Trt-Eval Interval	10 DA-A	10 DA-A	10 DA-A	1 DA-B	1 DA-B	1 DA-B							
Plant-Eval Interval	12 DP-1	12 DP-1	12 DP-1	22 DP-1	22 DP-1	22 DP-1							
Days After Emergence	5 DE-1	5 DE-1	5 DE-1	15 DE-1	15 DE-1	15 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	1	2	3	4	5	6
21	Canopy	0.188	lb ai/a	4	oz/a	A	Pre	97.5	97.5	100.0	75.0	82.5	85.0
	NIS	1	% v/v	15.4	oz/a	A	Pre						
	Ignite 280	0.402	lb ai/a	22	oz/a	D	21 - 28 DAA						
	Dual Magnum	0.95	lb ai/a	16	oz/a	D	21 - 28 DAA						
22	Canopy	0.188	lb ai/a	4	oz/a	A	Pre	100.0	100.0	100.0	98.8	97.5	97.5
	Cinch	0.875	lb ai/a	16	oz/a	A	Pre						
	NIS	1	% v/v	15.4	oz/a	A	Pre						
	Ignite 280	0.402	lb ai/a	22	oz/a	D	21 - 28 DAA						
	Prefix	1.56	lb ai/a	37.7	oz/a	D	21 - 28 DAA						
23	Canopy	0.188	lb ai/a	4	oz/a	A	Pre	100.0	100.0	100.0	97.5	97.5	90.0
	Cinch	0.875	lb ai/a	16	oz/a	A	Pre						
	NIS	1	% v/v	15.4	oz/a	A	Pre						
	Ignite 280	0.402	lb ai/a	22	oz/a	D	21 - 28 DAA						
	Dual Magnum	0.95	lb ai/a	16	oz/a	D	21 - 28 DAA						
	LSD (P=.05)							4.13	2.43	2.10	10.32	8.46	8.49
	Standard Deviation							2.92	1.72	1.49	7.29	5.98	6.00
	CV							3.09	1.81	1.56	8.64	6.81	7.1
	Grand Mean							94.67	95.33	95.43	84.4	87.84	84.51

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Soybean Liberty Link Programs with Envive, Canopy, Cinch, Dual Magnum, Boundary, & Prefix

Trial ID: HSB-52111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG									
Pest Code	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>									
Pest Scientific Name	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>									
Pest Name													
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA									
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max									
Crop Name	Soybean	Soybean	Soybean	Soybean									
Part Assessed	PLANT C	PLANT P	PLANT P	PLANT C									
Assessment Date	6/23/11	7/12/11	7/12/11	7/12/11									
Assessment Type	PHYGEN	CONTRO	CONTRO	PHYSTU									
Assessment Unit	%	%	%	%									
Number of Subsamples	1	1	1	1									
Crop Stage Majority	V4 3-6"	V8 18"	V8 18"	V8 18"									
Pest Stage Majority		5-35"	10-60"	10-40"									
Assessed By	JB	JB	JB	JB									
Days After First/Last Applic.	20 1	39 39	39 39	39 11									
Trt-Eval Interval	1 DA-B	15 DA-D	15 DA-D	15 DA-D									
Plant-Eval Interval	22 DP-1	42 DP-1	42 DP-1	41 DP-1									
Days After Emergence	15 DE-1	36 DE-1	36 DE-1	34 DE-1									
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	7	8	9	10	11	12
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	Prefix Ignite 280	1.32 lb ai/a	ai/a	32 oz/a	oz/a	A	Pre	0.0	80.0	72.5	83.8	0.0	85.0
		0.402 lb ai/a	ai/a	22 oz/a	oz/a	C	2 - 3" AMAPA						
3	Prefix Ignite 280 Dual Magnum	1.32 lb ai/a	ai/a	32 oz/a	oz/a	A	Pre	0.0	80.0	73.8	81.3	0.0	87.5
		0.402 lb ai/a	ai/a	22 oz/a	oz/a	C	2 - 3" AMAPA						
		0.95 lb ai/a	ai/a	16 oz/a	oz/a	C	2 - 3" AMAPA						
4	Prefix Ignite 280 Flexstar	1.32 lb ai/a	ai/a	32 oz/a	oz/a	A	Pre	0.0	76.3	75.0	77.5	0.0	70.0
		0.402 lb ai/a	ai/a	22 oz/a	oz/a	C	2 - 3" AMAPA						
		0.235 lb ai/a	ai/a	16 oz/a	oz/a	C	2 - 3" AMAPA						
5	Prefix Ignite 280 Prefix	1.32 lb ai/a	ai/a	32 oz/a	oz/a	A	Pre	0.0	72.5	70.0	83.8	0.0	77.5
		0.402 lb ai/a	ai/a	22 oz/a	oz/a	C	2 - 3" AMAPA						
		0.66 lb ai/a	ai/a	16 oz/a	oz/a	C	2 - 3" AMAPA						
6	Boundary Ignite 280	1.22 lb ai/a	ai/a	24 oz/a	oz/a	A	Pre	0.0	85.0	87.5	80.0	0.0	87.5
		0.402 lb ai/a	ai/a	22 oz/a	oz/a	C	2 - 3" AMAPA						
7	Boundary Ignite 280 Dual Magnum	1.22 lb ai/a	ai/a	24 oz/a	oz/a	A	Pre	0.0	87.5	85.0	82.5	0.0	85.0
		0.402 lb ai/a	ai/a	22 oz/a	oz/a	C	2 - 3" AMAPA						
		0.95 lb ai/a	ai/a	16 oz/a	oz/a	C	2 - 3" AMAPA						
8	Boundary Ignite 280 Flexstar	1.22 lb ai/a	ai/a	24 oz/a	oz/a	A	Pre	0.0	88.8	88.8	81.3	0.0	90.0
		0.402 lb ai/a	ai/a	22 oz/a	oz/a	C	2 - 3" AMAPA						
		0.235 lb ai/a	ai/a	16 oz/a	oz/a	C	2 - 3" AMAPA						
9	Boundary Ignite 280 Prefix	1.22 lb ai/a	ai/a	24 oz/a	oz/a	A	Pre	0.0	82.5	88.8	78.8	0.0	80.0
		0.402 lb ai/a	ai/a	22 oz/a	oz/a	C	2 - 3" AMAPA						
		0.66 lb ai/a	ai/a	16 oz/a	oz/a	C	2 - 3" AMAPA						
10	Valor SX Ignite 280 Dual Magnum	0.064 lb ai/a	ai/a	2 oz/a	oz/a	A	Pre	0.0	52.5	72.5	75.0	0.0	60.0
		0.402 lb ai/a	ai/a	22 oz/a	oz/a	C	2 - 3" AMAPA						
		0.95 lb ai/a	ai/a	16 oz/a	oz/a	C	2 - 3" AMAPA						
11	Valor SX Ignite 280 Flexstar	0.064 lb ai/a	ai/a	2 oz/a	oz/a	A	Pre	0.0	50.0	70.0	70.0	0.0	55.0
		0.402 lb ai/a	ai/a	22 oz/a	oz/a	C	2 - 3" AMAPA						
		0.235 lb ai/a	ai/a	16 oz/a	oz/a	C	2 - 3" AMAPA						
12	Valor SX Ignite 280 Prefix	0.064 lb ai/a	ai/a	2 oz/a	oz/a	A	Pre	0.0	53.8	71.3	77.5	0.0	60.0
		0.402 lb ai/a	ai/a	22 oz/a	oz/a	C	2 - 3" AMAPA						
		0.66 lb ai/a	ai/a	16 oz/a	oz/a	C	2 - 3" AMAPA						
13	Fierce Ignite 280 Dual Magnum	0.143 lb ai/a	ai/a	3 oz/a	oz/a	A	Pre	0.0	77.5	91.3	93.8	0.0	70.0
		0.402 lb ai/a	ai/a	22 oz/a	oz/a	C	2 - 3" AMAPA						
		0.95 lb ai/a	ai/a	16 oz/a	oz/a	C	2 - 3" AMAPA						
14	Fierce Ignite 280 Flexstar	0.143 lb ai/a	ai/a	3 oz/a	oz/a	A	Pre	0.0	72.5	82.5	93.8	0.0	77.5
		0.402 lb ai/a	ai/a	22 oz/a	oz/a	C	2 - 3" AMAPA						
		0.235 lb ai/a	ai/a	16 oz/a	oz/a	C	2 - 3" AMAPA						
15	Fierce Ignite 280 Prefix	0.143 lb ai/a	ai/a	3 oz/a	oz/a	A	Pre	0.0	91.8	96.3	100.0	0.0	85.0
		0.402 lb ai/a	ai/a	22 oz/a	oz/a	C	2 - 3" AMAPA						
		0.66 lb ai/a	ai/a	16 oz/a	oz/a	C	2 - 3" AMAPA						
16	Prefix Ignite 280	1.32 lb ai/a	ai/a	32 oz/a	oz/a	B	7 - 10 DAE	47.5	98.8	97.5	100.0	0.0	100.0
		0.402 lb ai/a	ai/a	22 oz/a	oz/a	B	7 - 10 DAE						
17	Boundary Ignite 280	1.22 lb ai/a	ai/a	24 oz/a	oz/a	B	7 - 10 DAE	76.3	97.5	97.5	100.0	30.0	95.0
		0.402 lb ai/a	ai/a	22 oz/a	oz/a	B	7 - 10 DAE						
18	Envive >Flumioxazin (Valor SX)	0.0625 lb ai/a	ai/a	1.96 oz/a	oz/a	A	Pre	0.0	96.3	90.0	98.8	0.0	100.0
	>Chlorimuron (Classic WDG)	0.0201 lb ai/a	ai/a	1.29 oz/a	oz/a	A	Pre						
	>Thifensulfuron (Harmony SG)	0.00625 lb ai/a	ai/a	0.2 oz/a	oz/a	A	Pre						
	NIS	1 % v/v	v/v	15.4 oz/a	oz/a	A	Pre						
	Ignite 280	0.402 lb ai/a	ai/a	22 oz/a	oz/a	D	21 - 28 DAA						
	Prefix	1.56 lb ai/a	ai/a	37.7 oz/a	oz/a	D	21 - 28 DAA						
19	Envive >Flumioxazin (Valor SX)	0.0625 lb ai/a	ai/a	1.96 oz/a	oz/a	A	Pre	0.0	97.5	87.5	98.8	0.0	100.0
	>Chlorimuron (Classic WDG)	0.0201 lb ai/a	ai/a	1.29 oz/a	oz/a	A	Pre						
	>Thifensulfuron (Harmony SG)	0.00625 lb ai/a	ai/a	0.2 oz/a	oz/a	A	Pre						
	NIS	1 % v/v	v/v	15.4 oz/a	oz/a	A	Pre						
	Ignite 280	0.402 lb ai/a	ai/a	22 oz/a	oz/a	D	21 - 28 DAA						
	Dual Magnum	0.95 lb ai/a	ai/a	16 oz/a	oz/a	D	21 - 28 DAA						
20	Canopy NIS	0.28 lb ai/a	ai/a	6 oz/a	oz/a	A	Pre	0.0	97.5	91.3	97.5	0.0	95.0
	Ignite 280	1 % v/v	v/v	15.4 oz/a	oz/a	A	Pre						
	Prefix	0.402 lb ai/a	ai/a	22 oz/a	oz/a	D	21 - 28 DAA						
		1.56 lb ai/a	ai/a	37.7 oz/a	oz/a	D	21 - 28 DAA						

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Soybean Liberty Link Programs with Envive, Canopy, Cinch, Dual Magnum, Boundary, & Prefix

Trial ID: HSB-52111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed ECHCG	W Weed AMAPA	W Weed IPOSS		W Weed ECHCG						
Pest Code		Echinochloa cr>	Amaranthus pal>	Ipomoea sp.		Echinochloa cr>						
Pest Scientific Name		Common barnyar>	Palmer amaranth	Morning glory		Common barnyar>						
Pest Name												
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed	PLANT C	PLANT P	PLANT P	PLANT P	PLANT C	PLANT P						
Assessment Date	6/23/11	7/12/11	7/12/11	7/12/11	7/12/11	8/1/11						
Assessment Type	PHYGEN	CONTRO	CONTRO	CONTRO	PHYSTU	CONTRO						
Assessment Unit	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	V4 3-6"	V8 18"	V8 18"	V8 18"	V8 18"	R1/2 37"						
Pest Stage Majority		5-35"	10-60"	10-30"		10-40"						
Assessed By	JB	JB	JB	JB	JB	JB						
Days After First/Last Applic.	20 1	39 39	39 39	39 39	39 11							
Trt-Eval Interval	1 DA-B	15 DA-D	15 DA-D	15 DA-D	15 DA-D	31 DA-C						
Plant-Eval Interval	22 DP-1	42 DP-1	42 DP-1	42 DP-1	41 DP-1							
Days After Emergence	15 DE-1	36 DE-1	36 DE-1	36 DE-1	34 DE-1							
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	7	8	9	10	11	12
21	Canopy	0.188 lb ai/a	4 oz/a		A	Pre	0.0	93.8	73.8	92.5	5.0	95.0
	NIS	1 % v/v	15.4 oz/a		A	Pre						
	Ignite 280	0.402 lb ai/a	22 oz/a		D	21 - 28 DAA						
	Dual Magnum	0.95 lb ai/a	16 oz/a		D	21 - 28 DAA						
22	Canopy	0.188 lb ai/a	4 oz/a		A	Pre	7.5	100.0	97.5	100.0	5.0	100.0
	Cinch	0.875 lb ai/a	16 oz/a		A	Pre						
	NIS	1 % v/v	15.4 oz/a		A	Pre						
	Ignite 280	0.402 lb ai/a	22 oz/a		D	21 - 28 DAA						
	Prefix	1.56 lb ai/a	37.7 oz/a		D	21 - 28 DAA						
23	Canopy	0.188 lb ai/a	4 oz/a		A	Pre	0.0	100.0	97.5	100.0	3.8	100.0
	Cinch	0.875 lb ai/a	16 oz/a		A	Pre						
	NIS	1 % v/v	15.4 oz/a		A	Pre						
	Ignite 280	0.402 lb ai/a	22 oz/a		D	21 - 28 DAA						
	Dual Magnum	0.95 lb ai/a	16 oz/a		D	21 - 28 DAA						
LSD (P=.05)							3.23	12.30	11.75	9.55	5.93	15.87
Standard Deviation							2.28	8.70	8.31	6.75	4.19	11.22
CV							40.01	10.92	10.29	7.98	220.53	13.91
Grand Mean							5.71	79.64	80.76	84.62	1.9	80.65

University of Arkansas-Division of Agriculture

Soybean Liberty Link Programs with Envive, Canopy, Cinch, Dual Magnum, Boundary, & Prefix

Trial ID: HSB-52111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS							
Pest Code	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Scientific Name	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory							
Pest Name												
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	8/1/11	8/1/11	10/11/11	10/11/11	10/11/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1							
Crop Stage Majority	R1/2 37"	R1/2 37"	R8 35"	R8 35"	R8 35"							
Pest Stage Majority	20-60"	10-30"	12-36"	12-.72"	24-72"							
Assessed By	JB	JB	JB	JB	JB							
Days After First/Last Applic.			130 102	130 102	130 102							
Trt-Eval Interval	31 DA-C	31 DA-C	31 DA-C	31 DA-C	31 DA-C							
Plant-Eval Interval			132 DP-1	132 DP-1	132 DP-1							
Days After Emergence			125 DE-1	125 DE-1	125 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	13	14	15	16	17
1	Untreated Check							0.0	0.0	0.0	0.0	0.0
2	Prefix Ignite 280	1.32 lb ai/a	32 oz/a	0.402 lb ai/a	22 oz/a	A	Pre 2 - 3" AMAPA	82.5	80.0	95.0	78.8	63.8
3	Prefix Ignite 280 Dual Magnum	1.32 lb ai/a	32 oz/a	0.402 lb ai/a	22 oz/a	A	Pre 2 - 3" AMAPA	75.0	85.0	70.0	71.3	83.8
		0.95 lb ai/a	16 oz/a			C	2 - 3" AMAPA					
4	Prefix Ignite 280 Flexstar	1.32 lb ai/a	32 oz/a	0.402 lb ai/a	22 oz/a	A	Pre 2 - 3" AMAPA	65.0	72.5	73.8	65.0	55.0
		0.235 lb ai/a	16 oz/a			C	2 - 3" AMAPA					
5	Prefix Ignite 280 Prefix	1.32 lb ai/a	32 oz/a	0.402 lb ai/a	22 oz/a	A	Pre 2 - 3" AMAPA	62.5	72.5	83.8	71.3	75.0
		0.66 lb ai/a	16 oz/a			C	2 - 3" AMAPA					
6	Boundary Ignite 280	1.22 lb ai/a	24 oz/a	0.402 lb ai/a	22 oz/a	A	Pre 2 - 3" AMAPA	87.5	70.0	86.3	92.5	41.3
7	Boundary Ignite 280 Dual Magnum	1.22 lb ai/a	24 oz/a	0.402 lb ai/a	22 oz/a	A	Pre 2 - 3" AMAPA	85.0	77.5	88.8	95.0	77.5
		0.95 lb ai/a	16 oz/a			C	2 - 3" AMAPA					
8	Boundary Ignite 280 Flexstar	1.22 lb ai/a	24 oz/a	0.402 lb ai/a	22 oz/a	A	Pre 2 - 3" AMAPA	97.5	75.0	80.0	94.5	65.0
		0.235 lb ai/a	16 oz/a			C	2 - 3" AMAPA					
9	Boundary Ignite 280 Prefix	1.22 lb ai/a	24 oz/a	0.402 lb ai/a	22 oz/a	A	Pre 2 - 3" AMAPA	90.0	67.5	93.8	97.5	58.8
		0.66 lb ai/a	16 oz/a			C	2 - 3" AMAPA					
10	Valor SX Ignite 280 Dual Magnum	0.064 lb ai/a	2 oz/a	0.402 lb ai/a	22 oz/a	A	Pre 2 - 3" AMAPA	77.5	77.5	50.0	76.3	67.5
		0.95 lb ai/a	16 oz/a			C	2 - 3" AMAPA					
11	Valor SX Ignite 280 Flexstar	0.064 lb ai/a	2 oz/a	0.402 lb ai/a	22 oz/a	A	Pre 2 - 3" AMAPA	62.5	60.0	50.0	68.8	80.0
		0.235 lb ai/a	16 oz/a			C	2 - 3" AMAPA					
12	Valor SX Ignite 280 Prefix	0.064 lb ai/a	2 oz/a	0.402 lb ai/a	22 oz/a	A	Pre 2 - 3" AMAPA	75.0	72.5	53.8	72.5	86.3
		0.66 lb ai/a	16 oz/a			C	2 - 3" AMAPA					
13	Fierce Ignite 280 Dual Magnum	0.143 lb ai/a	3 oz/a	0.402 lb ai/a	22 oz/a	A	Pre 2 - 3" AMAPA	87.5	90.0	63.8	87.0	62.5
		0.95 lb ai/a	16 oz/a			C	2 - 3" AMAPA					
14	Fierce Ignite 280 Flexstar	0.143 lb ai/a	3 oz/a	0.402 lb ai/a	22 oz/a	A	Pre 2 - 3" AMAPA	87.5	85.0	63.8	95.0	93.8
		0.235 lb ai/a	16 oz/a			C	2 - 3" AMAPA					
15	Fierce Ignite 280 Prefix	0.143 lb ai/a	3 oz/a	0.402 lb ai/a	22 oz/a	A	Pre 2 - 3" AMAPA	100.0	100.0	83.8	100.0	88.8
		0.66 lb ai/a	16 oz/a			C	2 - 3" AMAPA					
16	Prefix Ignite 280	1.32 lb ai/a	32 oz/a	0.402 lb ai/a	22 oz/a	B	7 - 10 DAE	92.5	100.0	100.0	97.5	97.5
						B	7 - 10 DAE					
17	Boundary Ignite 280	1.22 lb ai/a	24 oz/a	0.402 lb ai/a	22 oz/a	B	7 - 10 DAE	90.0	95.0	86.3	91.3	82.5
						B	7 - 10 DAE					
18	Envive >Flumioxazin (Valor SX)	0.0625 lb ai/a	3.45 oz/a			A	Pre	80.0	100.0	96.3	91.3	97.5
	>Chlorimuron (Classic WDG)	0.0201 lb ai/a	1.96 oz/a			A	Pre					
	>Thifensulfuron (Harmony SG)	0.00625 lb ai/a	0.2 oz/a			A	Pre					
	NIS 1 % v/v		15.4 oz/a			A	Pre					
	Ignite 280	0.402 lb ai/a	22 oz/a			D	21 - 28 DAA					
	Prefix	1.56 lb ai/a	37.7 oz/a			D	21 - 28 DAA					
19	Envive >Flumioxazin (Valor SX)	0.0625 lb ai/a	3.45 oz/a			A	Pre	82.5	100.0	95.0	88.8	91.3
	>Chlorimuron (Classic WDG)	0.0201 lb ai/a	1.96 oz/a			A	Pre					
	>Thifensulfuron (Harmony SG)	0.00625 lb ai/a	0.2 oz/a			A	Pre					
	NIS 1 % v/v		15.4 oz/a			A	Pre					
	Ignite 280	0.402 lb ai/a	22 oz/a			D	21 - 28 DAA					
	Dual Magnum	0.95 lb ai/a	16 oz/a			D	21 - 28 DAA					
20	Canopy NIS	0.28 lb ai/a	6 oz/a			A	Pre	85.0	95.0	98.8	96.3	92.5
	Ignite 280	0.402 lb ai/a	22 oz/a			D	21 - 28 DAA					
	Prefix	1.56 lb ai/a	37.7 oz/a			D	21 - 28 DAA					

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Soybean Liberty Link Programs with Envive, Canopy, Cinch, Dual Magnum, Boundary, & Prefix

Trial ID: HSB-52111
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS							
Pest Code	AMAPA	IPOSS	ECHCG	AMAPA	IPOSS							
Pest Scientific Name	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Name	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory							
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	8/1/11	8/1/11	10/11/11	10/11/11	10/11/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1							
Crop Stage Majority	R1/2 37"	R1/2 37"	R8 35"	R8 35"	R8 35"							
Pest Stage Majority	20-60"	10-30"	12-36"	12-.72"	24-72"							
Assessed By	JB	JB	JB	JB	JB							
Days After First/Last Applic.			130 102	130 102	130 102							
Trt-Eval Interval	31 DA-C	31 DA-C	31 DA-C	31 DA-C	31 DA-C							
Plant-Eval Interval			132 DP-1	132 DP-1	132 DP-1							
Days After Emergence			125 DE-1	125 DE-1	125 DE-1							
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	13	14	15	16	17
21	Canopy	0.188	lb ai/a	4	oz/a	A	Pre	65.0	87.5	85.0	82.5	87.5
	NIS	1	% v/v	15.4	oz/a	A	Pre					
	Ignite 280	0.402	lb ai/a	22	oz/a	D	21 - 28 DAA					
	Dual Magnum	0.95	lb ai/a	16	oz/a	D	21 - 28 DAA					
22	Canopy	0.188	lb ai/a	4	oz/a	A	Pre	95.0	100.0	100.0	96.3	97.5
	Cinch	0.875	lb ai/a	16	oz/a	A	Pre					
	NIS	1	% v/v	15.4	oz/a	A	Pre					
	Ignite 280	0.402	lb ai/a	22	oz/a	D	21 - 28 DAA					
	Prefix	1.56	lb ai/a	37.7	oz/a	D	21 - 28 DAA					
23	Canopy	0.188	lb ai/a	4	oz/a	A	Pre	95.0	100.0	99.5	99.5	100.0
	Cinch	0.875	lb ai/a	16	oz/a	A	Pre					
	NIS	1	% v/v	15.4	oz/a	A	Pre					
	Ignite 280	0.402	lb ai/a	22	oz/a	D	21 - 28 DAA					
	Dual Magnum	0.95	lb ai/a	16	oz/a	D	21 - 28 DAA					
	LSD (P=.05)							19.83	18.77	18.09	17.08	20.50
	Standard Deviation							14.02	13.27	12.79	12.08	14.50
	CV							17.72	16.39	16.37	14.55	19.11
	Grand Mean							79.13	80.98	78.13	82.98	75.87

University of Arkansas-Division of Agriculture

Warrant, Dual Magnum, & Zidua Comparisons in Soybean

Trial ID: HSB-52311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Progeny 4928
BBCH Scale: BSOY
Planting Method: PLANTD planted
Depth, Unit: 0.75 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: FAIR fair
Description: LL / Trilex
Planting Date: 5/31/11
Rate, Unit: 130000 P/A
Spacing Within Row, Unit: 2 IN
Soil Temperature, Unit: 79.6 F
Emergence Date: 6/6/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass
Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth
Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: SPLBLO Split-Block
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	7/19/11	Bifenthrin	6.4	OZ

Soil Description

Description Name: 2011 Soybean
% Sand: 16
% Silt: 65
% Clay: 19
% OM: 2.2
pH: 6.7
CEC: 13
Texture: SIL silt loam
Soil Name: Sharkey & Desha Silt Loam
Fert. Level: G good
Soil Drainage: G good

Application Description

	A	B	C
Application Date:	6/2/11	6/13/11	7/1/11
Time of Day:	AM	AM	AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREPRE	POSPRE	POSPRE
Application Placement:	BROSOL	BROFOL	BROFOL
Applied By:	RD	JB	JB
Air Temperature, Unit:	85.1 F	85.6 F	83.2 F
% Relative Humidity:	62.5	58.0	66.1
Wind Velocity, Unit:	2.0 MPH	5.1 MPH	0.6 MPH
Wind Direction:	SE	W	S
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	82.5 F	85.9 F	82.7 F
Soil Moisture:	FAIR	FAIR	NORMAL
% Cloud Cover:	25	50	10
Next Rain Occurred On:	6/4/11	6/13/11	7/5/11

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	DESC	DESC	DESC
Stage Majority, Percent:	V0	V1	V5
Height, Unit:	0 IN	1.5 IN	7 IN

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W
Height, Unit:	0 IN	0.25 IN	6 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W
Height, Unit:	0 IN	0 IN	8 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W
Height, Unit:	0 IN	0 IN	4 IN

University of Arkansas-Division of Agriculture

Warrant, Dual Magnum, & Zidua Comparisons in Soybean

Trial ID: HSB-52311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Application Equipment

	A	B	C
Appl. Equipment:	Multi Boom	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix
Nozzle Size:	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Nozzles/Row:	2	2	2
% Coverage:	100	100	100
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes	Y yes

University of Arkansas-Division of Agriculture

Warrant, Dual Magnum, & Zidua Comparisons in Soybean

Trial ID: HSB-52311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed		W Weed		W Weed		W Weed		W Weed			
Pest Code		ECHCG		AMAPA		IPOSS		ECHCG		AMAPA			
Pest Scientific Name		Echinochloa cr>		Amaranthus pal>		Ipomoea sp.		Echinochloa cr>		Amaranthus pal>			
Pest Name		Common barnyar>		Palmer amaranth		Morning glory		Common barnyar>		Palmer amaranth			
Crop Code		GLXMA		GLXMA		GLXMA		GLXMA		GLXMA			
Crop Scientific Name		Glycine max		Glycine max		Glycine max		Glycine max		Glycine max			
Crop Name		Soybean		Soybean		Soybean		Soybean		Soybean			
Part Assessed		PLANT C		PLANT P		PLANT P		PLANT P		PLANT P			
Assessment Date		6/20/11		6/16/11		6/16/11		6/30/11		6/30/11			
Assessment Type		COUPLA		CONTRO		CONTRO		CONTRO		CONTRO			
Assessment Unit		MROW		%		%		%		%			
Number of Subsamples		2		1		1		1		1			
Crop Stage Majority		V3 10"		V3 10"		V3 10"		V5 12"		V5 12"			
Pest Stage Majority		1-10"		1-30"		1-10"		5-25"		5-40"			
Assessed By		JB		JB		JB		JB		JB			
Days After First/Last Applic.		18 7		14 3		14 3		28 17		28 17			
Trt-Eval Interval		7 DA-B		14 DA-A		14 DA-A		28 DA-A		28 DA-A			
Plant-Eval Interval		16 DP-1		16 DP-1		16 DP-1		30 DP-1		30 DP-1			
Days After Emergence		10 DE-1		10 DE-1		10 DE-1		24 DE-1		24 DE-1			
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	1	2	3	4	5	6	7
1	Untreated Check				A	PRE	30.13	0.0	0.0	0.0	0.0	0.0	0.0
	Untreated Check				B	V1 - V2							
	Untreated Check				C	V4 - V6							
2	Warrant	0.5625 lb ai/a	24 oz/a		A	PRE	31.75	77.5	80.0	95.0	47.5	50.0	47.5
3	Dual Magnum	0.475 lb ai/a	8 oz/a		A	PRE	26.88	77.5	82.5	97.5	40.0	47.5	47.5
4	Zidua	0.05313 lb ai/a	1 oz/a		A	PRE	29.38	92.5	92.5	95.0	72.5	70.0	60.0
5	Warrant	0.84375 lb ai/a	36 oz/a		A	PRE	27.25	87.5	90.0	97.5	62.5	65.0	55.0
6	Dual Magnum	0.7125 lb ai/a	12 oz/a		A	PRE	26.38	82.5	82.5	92.5	52.5	52.5	52.5
7	Zidua	0.07969 lb ai/a	1.5 oz/a		A	PRE	29.88	100.0	100.0	100.0	95.0	92.5	97.5
8	Warrant	1.125 lb ai/a	48 oz/a		A	PRE	29.63	80.0	82.5	92.5	50.0	62.5	55.0
9	Dual Magnum	0.95 lb ai/a	16 oz/a		A	PRE	29.63	75.0	82.5	90.0	45.0	60.0	55.0
10	Zidua	0.10625 lb ai/a	2 oz/a		A	PRE	29.38	100.0	100.0	100.0	95.0	90.0	95.0
11	Warrant	2.25 lb ai/a	96 oz/a		A	PRE	30.00	97.5	97.5	97.5	82.5	90.0	82.5
12	Dual Magnum	1.9 lb ai/a	32 oz/a		A	PRE	26.88	100.0	100.0	100.0	95.0	90.0	90.0
13	Zidua	0.2125 lb ai/a	4 oz/a		A	PRE	29.13	100.0	100.0	100.0	100.0	100.0	100.0
14	Warrant	0.5625 lb ai/a	24 oz/a		B	V1 - V2	32.25				92.5	88.8	97.5
	Ignite 280	0.53 lb ai/a	29 oz/a		B	V1 - V2							
15	Dual Magnum	0.475 lb ai/a	8 oz/a		B	V1 - V2	31.00				95.0	96.3	100.0
	Ignite 280	0.53 lb ai/a	29 oz/a		B	V1 - V2							
16	Zidua	0.05313 lb ai/a	1 oz/a		B	V1 - V2	30.50				95.0	90.0	95.0
	Ignite 280	0.53 lb ai/a	29 oz/a		B	V1 - V2							
17	Warrant	0.84375 lb ai/a	36 oz/a		B	V1 - V2	29.50				100.0	100.0	97.5
	Ignite 280	0.53 lb ai/a	29 oz/a		B	V1 - V2							
18	Dual Magnum	0.7125 lb ai/a	12 oz/a		B	V1 - V2	31.75				97.5	97.5	95.0
	Ignite 280	0.53 lb ai/a	29 oz/a		B	V1 - V2							
19	Zidua	0.07969 lb ai/a	1.5 oz/a		B	V1 - V2	31.38				100.0	100.0	100.0
	Ignite 280	0.53 lb ai/a	29 oz/a		B	V1 - V2							
20	Warrant	1.125 lb ai/a	48 oz/a		B	V1 - V2	29.25				97.5	97.5	95.0
	Ignite 280	0.53 lb ai/a	29 oz/a		B	V1 - V2							
21	Dual Magnum	0.95 lb ai/a	16 oz/a		B	V1 - V2	31.00				95.0	100.0	100.0
	Ignite 280	0.53 lb ai/a	29 oz/a		B	V1 - V2							
22	Zidua	0.10625 lb ai/a	2 oz/a		B	V1 - V2	31.75				97.5	92.5	100.0
	Ignite 280	0.53 lb ai/a	29 oz/a		B	V1 - V2							
23	Warrant	2.25 lb ai/a	96 oz/a		B	V1 - V2	33.63				97.5	100.0	100.0
	Ignite 280	0.53 lb ai/a	29 oz/a		B	V1 - V2							
24	Dual Magnum	1.9 lb ai/a	32 oz/a		B	V1 - V2	32.63				100.0	97.5	100.0
	Ignite 280	0.53 lb ai/a	29 oz/a		B	V1 - V2							
25	Zidua	0.2125 lb ai/a	4 oz/a		B	V1 - V2	29.13				100.0	100.0	100.0
	Ignite 280	0.53 lb ai/a	29 oz/a		B	V1 - V2							
26	Ignite 280	0.53 lb ai/a	29 oz/a		B	V1 - V2	29.50				97.5	93.8	97.5
	Warrant	0.5625 lb ai/a	24 oz/a		C	V4 - V6							
	Ignite 280	0.53 lb ai/a	29 oz/a		C	V4 - V6							
27	Ignite 280	0.53 lb ai/a	29 oz/a		B	V1 - V2	30.00				97.5	97.5	97.5
	Dual Magnum	0.475 lb ai/a	8 oz/a		C	V4 - V6							
	Ignite 280	0.53 lb ai/a	29 oz/a		C	V4 - V6							
28	Ignite 280	0.53 lb ai/a	29 oz/a		B	V1 - V2	29.00				100.0	100.0	100.0
	Zidua	0.05313 lb ai/a	1 oz/a		C	V4 - V6							
	Ignite 280	0.53 lb ai/a	29 oz/a		C	V4 - V6							
29	Ignite 280	0.53 lb ai/a	29 oz/a		B	V1 - V2	30.38				95.0	98.8	97.5
	Warrant	0.84375 lb ai/a	36 oz/a		C	V4 - V6							
	Ignite 280	0.53 lb ai/a	29 oz/a		C	V4 - V6							
30	Ignite 280	0.53 lb ai/a	29 oz/a		B	V1 - V2	30.75				100.0	100.0	100.0
	Dual Magnum	0.7125 lb ai/a	12 oz/a		C	V4 - V6							
	Ignite 280	0.53 lb ai/a	29 oz/a		C	V4 - V6							
31	Ignite 280	0.53 lb ai/a	29 oz/a		B	V1 - V2	29.88				100.0	100.0	100.0
	Zidua	0.07969 lb ai/a	1.5 oz/a		C	V4 - V6							
	Ignite 280	0.53 lb ai/a	29 oz/a		C	V4 - V6							
32	Ignite 280	0.53 lb ai/a	29 oz/a		B	V1 - V2	28.00				95.0	100.0	100.0
	Warrant	1.125 lb ai/a	48 oz/a		C	V4 - V6							
	Ignite 280	0.53 lb ai/a	29 oz/a		C	V4 - V6							

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant, Dual Magnum, & Zidua Comparisons in Soybean

Trial ID: HSB-52311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type		W Weed	W Weed	W Weed	W Weed	W Weed	W Weed								
Pest Code		ECHCG	AMAPA	IPOSS	ECHCG	AMAPA	IPOSS								
Pest Scientific Name		Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.								
Pest Name		Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory								
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA								
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max								
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean								
Part Assessed	PLANT C	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P								
Assessment Date	6/20/11	6/16/11	6/16/11	6/16/11	6/30/11	6/30/11	6/30/11								
Assessment Type	COUPLA	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO								
Assessment Unit	MROW	%	%	%	%	%	%								
Number of Subsamples	2	1	1	1	1	1	1								
Crop Stage Majority		V3 10"	V3 10"	V3 10"	V5 12"	V5 12"	V5 12"								
Pest Stage Majority		1-10"	1-30"	1-10"	5-25"	5-40"	5-30"								
Assessed By	JB	JB	JB	JB	JB	JB	JB								
Days After First/Last Applic.	18 7	14 3	14 3	14 3	28 17	28 17	28 17								
Trt-Eval Interval	7 DA-B	14 DA-A	14 DA-A	14 DA-A	28 DA-A	28 DA-A	28 DA-A								
Plant-Eval Interval		16 DP-1	16 DP-1	16 DP-1	30 DP-1	30 DP-1	30 DP-1								
Days After Emergence		10 DE-1	10 DE-1	10 DE-1	24 DE-1	24 DE-1	24 DE-1								
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Code	Appl Description	1	2	3	4	5	6	7	
33	Ignite 280	0.53 lb ai/a	29 oz/a		B		V1 - V2	31.13				100.0	100.0	100.0	
	Dual Magnum	0.95 lb ai/a	16 oz/a		C		V4 - V6								
	Ignite 280	0.53 lb ai/a	29 oz/a		C		V4 - V6								
34	Ignite 280	0.53 lb ai/a	29 oz/a		B		V1 - V2	30.00				100.0	100.0	100.0	
	Zidua	0.10625 lb ai/a	2 oz/a		C		V4 - V6								
	Ignite 280	0.53 lb ai/a	29 oz/a		C		V4 - V6								
35	Ignite 280	0.53 lb ai/a	29 oz/a		B		V1 - V2	29.88				95.0	97.5	100.0	
	Warrant	2.25 lb ai/a	96 oz/a		C		V4 - V6								
	Ignite 280	0.53 lb ai/a	29 oz/a		C		V4 - V6								
36	Ignite 280	0.53 lb ai/a	29 oz/a		B		V1 - V2	29.88				100.0	100.0	100.0	
	Dual Magnum	1.9 lb ai/a	32 oz/a		C		V4 - V6								
	Ignite 280	0.53 lb ai/a	29 oz/a		C		V4 - V6								
37	Ignite 280	0.53 lb ai/a	29 oz/a		B		V1 - V2	31.13				100.0	100.0	100.0	
	Zidua	0.2125 lb ai/a	4 oz/a		C		V4 - V6								
	Ignite 280	0.53 lb ai/a	29 oz/a		C		V4 - V6								
LSD (P=.05)		3.710		9.05		7.66		6.13		7.56		11.52		9.62	
Standard Deviation		2.650		6.33		5.36		4.29		5.40		8.23		6.87	
CV		8.84		7.69		6.39		4.81		6.28		9.46		7.92	
Grand Mean		29.99		82.31		83.85		89.04		86.08		86.96		86.76	

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant, Dual Magnum, & Zidua Comparisons in Soybean

Trial ID: HSB-52311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS							
Pest Code	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Scientific Name	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory							
Pest Name													
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	7/12/11	7/12/11	7/12/11	8/1/11	8/1/11	8/1/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	V8 18"	V8 18"	V8 18"	R1/2 37"	R1/2 37"	R1/2 37"							
Pest Stage Majority	5-35"	10-60"	10-30"	10-40"	20-60"	10-30"							
Assessed By	JB	JB	JB	JB	JB	JB							
Days After First/Last Applic.	40 11	40 11	40 11	60 31	60 31	60 31							
Trt-Eval Interval	11 DA-C	11 DA-C	11 DA-C	31 DA-C	31 DA-C	31 DA-C							
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	62 DP-1	62 DP-1	62 DP-1							
Days After Emergence	36 DE-1	36 DE-1	36 DE-1										
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	8	9	10	11	12	13
1	Untreated Check					A	PRE	0.0	0.0	0.0	0.0	0.0	0.0
	Untreated Check					B	V1 - V2						
	Untreated Check					C	V4 - V6						
2	Warrant	0.5625 lb ai/a		24 oz/a		A	PRE	10.0	10.0	10.0	20.0	25.0	0.0
3	Dual Magnum	0.475 lb ai/a		8 oz/a		A	PRE	10.0	10.0	10.0	0.0	0.0	0.0
4	Zidua	0.05313 lb ai/a		1 oz/a		A	PRE	47.5	45.0	45.0	33.3	26.7	26.7
5	Warrant	0.84375 lb ai/a		36 oz/a		A	PRE	30.0	37.5	30.0	32.5	32.5	0.0
6	Dual Magnum	0.7125 lb ai/a		12 oz/a		A	PRE	20.0	25.0	20.0	27.5	20.0	0.0
7	Zidua	0.07969 lb ai/a		1.5 oz/a		A	PRE	82.5	70.0	82.5	76.3	51.3	66.3
8	Warrant	1.125 lb ai/a		48 oz/a		A	PRE	20.0	32.5	20.0	15.0	48.8	0.0
9	Dual Magnum	0.95 lb ai/a		16 oz/a		A	PRE	27.5	42.5	27.5	62.5	42.5	0.0
10	Zidua	0.10625 lb ai/a		2 oz/a		A	PRE	80.0	76.3	80.0	82.5	75.0	65.0
11	Warrant	2.25 lb ai/a		96 oz/a		A	PRE	62.5	67.5	57.5	42.5	63.8	42.5
12	Dual Magnum	1.9 lb ai/a		32 oz/a		A	PRE	77.5	67.5	65.0	82.5	73.8	7.5
13	Zidua	0.2125 lb ai/a		4 oz/a		A	PRE	95.0	98.8	95.0	88.8	93.8	86.3
14	Warrant	0.5625 lb ai/a		24 oz/a		B	V1 - V2	73.8	72.5	76.3	36.7	56.7	83.3
	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2						
15	Dual Magnum	0.475 lb ai/a		8 oz/a		B	V1 - V2	75.0	75.0	77.5	67.5	48.8	72.5
	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2						
16	Zidua	0.05313 lb ai/a		1 oz/a		B	V1 - V2	77.5	71.3	75.0	72.5	52.5	78.8
	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2						
17	Warrant	0.84375 lb ai/a		36 oz/a		B	V1 - V2	77.5	70.0	77.5	62.5	45.0	72.5
	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2						
18	Dual Magnum	0.7125 lb ai/a		12 oz/a		B	V1 - V2	75.0	72.5	75.0	46.7	53.3	73.3
	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2						
19	Zidua	0.07969 lb ai/a		1.5 oz/a		B	V1 - V2	87.5	80.0	87.5	66.7	63.3	86.7
	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2						
20	Warrant	1.125 lb ai/a		48 oz/a		B	V1 - V2	75.0	77.5	75.0	72.5	62.5	77.5
	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2						
21	Dual Magnum	0.95 lb ai/a		16 oz/a		B	V1 - V2	76.7	86.7	76.7	60.0	73.3	76.7
	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2						
22	Zidua	0.10625 lb ai/a		2 oz/a		B	V1 - V2	80.0	75.0	80.0	55.0	45.0	80.0
	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2						
23	Warrant	2.25 lb ai/a		96 oz/a		B	V1 - V2	77.5	78.8	80.0	60.0	62.5	85.0
	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2						
24	Dual Magnum	1.9 lb ai/a		32 oz/a		B	V1 - V2	82.5	73.8	80.0	81.3	62.5	82.5
	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2						
25	Zidua	0.2125 lb ai/a		4 oz/a		B	V1 - V2	87.5	90.0	87.5	70.0	77.5	80.0
	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2						
26	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2	77.5	78.8	80.0	53.3	76.7	83.3
	Warrant	0.5625 lb ai/a		24 oz/a		C	V4 - V6						
	Ignite 280	0.53 lb ai/a		29 oz/a		C	V4 - V6						
27	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2	80.0	81.3	83.8	55.0	53.8	82.5
	Dual Magnum	0.475 lb ai/a		8 oz/a		C	V4 - V6						
	Ignite 280	0.53 lb ai/a		29 oz/a		C	V4 - V6						
28	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2	87.5	88.8	87.5	60.0	67.5	85.0
	Zidua	0.05313 lb ai/a		1 oz/a		C	V4 - V6						
	Ignite 280	0.53 lb ai/a		29 oz/a		C	V4 - V6						
29	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2	80.0	82.5	80.0	67.5	50.0	80.0
	Warrant	0.84375 lb ai/a		36 oz/a		C	V4 - V6						
	Ignite 280	0.53 lb ai/a		29 oz/a		C	V4 - V6						
30	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2	82.5	82.5	85.0	65.0	52.5	82.5
	Dual Magnum	0.7125 lb ai/a		12 oz/a		C	V4 - V6						
	Ignite 280	0.53 lb ai/a		29 oz/a		C	V4 - V6						
31	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2	90.0	90.0	90.0	70.0	62.5	85.0
	Zidua	0.07969 lb ai/a		1.5 oz/a		C	V4 - V6						
	Ignite 280	0.53 lb ai/a		29 oz/a		C	V4 - V6						
32	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2	76.3	77.5	78.8	25.0	60.0	75.0
	Warrant	1.125 lb ai/a		48 oz/a		C	V4 - V6						
	Ignite 280	0.53 lb ai/a		29 oz/a		C	V4 - V6						

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant, Dual Magnum, & Zidua Comparisons in Soybean

Trial ID: HSB-52311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed							
Pest Code	ECHCG	AMAPA	IPOSS	ECHCG	AMAPA	IPOSS							
Pest Scientific Name	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Name	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth	Morning glory							
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	7/12/11	7/12/11	7/12/11	8/1/11	8/1/11	8/1/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	V8 18"	V8 18"	V8 18"	R1/2 37"	R1/2 37"	R1/2 37"							
Pest Stage Majority	5-35"	10-60"	10-30"	10-40"	20-60"	10-30"							
Assessed By	JB	JB	JB	JB	JB	JB							
Days After First/Last Applic.	40 11	40 11	40 11	60 31	60 31	60 31							
Trt-Eval Interval	11 DA-C	11 DA-C	11 DA-C	31 DA-C	31 DA-C	31 DA-C							
Plant-Eval Interval	42 DP-1	42 DP-1	42 DP-1	62 DP-1	62 DP-1	62 DP-1							
Days After Emergence	36 DE-1	36 DE-1	36 DE-1										
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	8	9	10	11	12	13
33	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2	85.0	86.3	88.8	57.5	73.8	87.5
	Dual Magnum	0.95 lb ai/a		16 oz/a		C	V4 - V6						
	Ignite 280	0.53 lb ai/a		29 oz/a		C	V4 - V6						
34	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2	90.0	83.8	90.0	67.5	68.8	86.3
	Zidua	0.10625 lb ai/a		2 oz/a		C	V4 - V6						
	Ignite 280	0.53 lb ai/a		29 oz/a		C	V4 - V6						
35	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2	77.5	77.5	77.5	72.5	53.8	85.0
	Warrant	2.25 lb ai/a		96 oz/a		C	V4 - V6						
	Ignite 280	0.53 lb ai/a		29 oz/a		C	V4 - V6						
36	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2	82.5	86.3	82.5	62.5	77.5	85.0
	Dual Magnum	1.9 lb ai/a		32 oz/a		C	V4 - V6						
	Ignite 280	0.53 lb ai/a		29 oz/a		C	V4 - V6						
37	Ignite 280	0.53 lb ai/a		29 oz/a		B	V1 - V2	90.0	88.8	90.0	60.0	66.3	90.0
	Zidua	0.2125 lb ai/a		4 oz/a		C	V4 - V6						
	Ignite 280	0.53 lb ai/a		29 oz/a		C	V4 - V6						
	LSD (P=.05)							11.67	14.92	11.74	26.57	24.13	13.42
	Standard Deviation							8.33	10.66	8.39	18.98	17.23	9.58
	CV							12.3	15.71	12.39	34.58	31.58	15.76
	Grand Mean							67.75	67.82	67.68	54.88	54.56	60.81

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant, Dual Magnum, & Zidua Comparisons in Soybean

Trial ID: HSB-52311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

							W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory
							GLXMA Glycine max Soybean PLANT P 10/11/11 CONTRO	GLXMA Glycine max Soybean PLANT P 10/11/11 CONTRO	GLXMA Glycine max Soybean PLANT P 10/11/11 CONTRO
							% 1 R8 35" 10-50" JB 131 102 31 DA-C 133 DP-1 127 DE-1	% 1 R8 35" 20-80" JB 131 102 31 DA-C 133 DP-1 127 DE-1	% 1 R8 35" 10-60" JB 131 102 31 DA-C 133 DP-1 127 DE-1
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code Description	14	15	16
1	Untreated Check					A PRE	0.0	0.0	0.0
	Untreated Check					B V1 - V2			
	Untreated Check					C V4 - V6			
2	Warrant	0.5625 lb ai/a		24 oz/a		A PRE	25.0	25.0	25.0
3	Dual Magnum	0.475 lb ai/a		8 oz/a		A PRE	12.5	12.5	12.5
4	Zidua	0.05313 lb ai/a		1 oz/a		A PRE	15.0	15.0	15.0
5	Warrant	0.84375 lb ai/a		36 oz/a		A PRE	0.0	0.0	0.0
6	Dual Magnum	0.7125 lb ai/a		12 oz/a		A PRE	5.0	5.0	5.0
7	Zidua	0.07969 lb ai/a		1.5 oz/a		A PRE	56.7	56.7	56.7
8	Warrant	1.125 lb ai/a		48 oz/a		A PRE	5.0	5.0	5.0
9	Dual Magnum	0.95 lb ai/a		16 oz/a		A PRE	10.0	10.0	10.0
10	Zidua	0.10625 lb ai/a		2 oz/a		A PRE	65.0	62.5	55.0
11	Warrant	2.25 lb ai/a		96 oz/a		A PRE	20.0	17.5	20.0
12	Dual Magnum	1.9 lb ai/a		32 oz/a		A PRE	22.5	22.5	22.5
13	Zidua	0.2125 lb ai/a		4 oz/a		A PRE	96.7	90.0	90.0
14	Warrant	0.5625 lb ai/a		24 oz/a		B V1 - V2	47.5	42.5	37.5
	Ignite 280	0.53 lb ai/a		29 oz/a		B V1 - V2			
15	Dual Magnum	0.475 lb ai/a		8 oz/a		B V1 - V2	40.0	40.0	40.0
	Ignite 280	0.53 lb ai/a		29 oz/a		B V1 - V2			
16	Zidua	0.05313 lb ai/a		1 oz/a		B V1 - V2	52.5	47.5	52.5
	Ignite 280	0.53 lb ai/a		29 oz/a		B V1 - V2			
17	Warrant	0.84375 lb ai/a		36 oz/a		B V1 - V2	57.5	55.0	60.0
	Ignite 280	0.53 lb ai/a		29 oz/a		B V1 - V2			
18	Dual Magnum	0.7125 lb ai/a		12 oz/a		B V1 - V2	62.5	50.0	60.0
	Ignite 280	0.53 lb ai/a		29 oz/a		B V1 - V2			
19	Zidua	0.07969 lb ai/a		1.5 oz/a		B V1 - V2	77.5	60.0	75.0
	Ignite 280	0.53 lb ai/a		29 oz/a		B V1 - V2			
20	Warrant	1.125 lb ai/a		48 oz/a		B V1 - V2	70.0	70.0	73.3
	Ignite 280	0.53 lb ai/a		29 oz/a		B V1 - V2			
21	Dual Magnum	0.95 lb ai/a		16 oz/a		B V1 - V2	70.0	63.3	63.3
	Ignite 280	0.53 lb ai/a		29 oz/a		B V1 - V2			
22	Zidua	0.10625 lb ai/a		2 oz/a		B V1 - V2	80.0	60.0	80.0
	Ignite 280	0.53 lb ai/a		29 oz/a		B V1 - V2			
23	Warrant	2.25 lb ai/a		96 oz/a		B V1 - V2	90.0	70.0	90.0
	Ignite 280	0.53 lb ai/a		29 oz/a		B V1 - V2			
24	Dual Magnum	1.9 lb ai/a		32 oz/a		B V1 - V2	95.7	80.0	93.3
	Ignite 280	0.53 lb ai/a		29 oz/a		B V1 - V2			
25	Zidua	0.2125 lb ai/a		4 oz/a		B V1 - V2	97.5	82.5	95.0
	Ignite 280	0.53 lb ai/a		29 oz/a		B V1 - V2			
26	Ignite 280	0.53 lb ai/a		29 oz/a		B V1 - V2	60.0	62.5	65.0
	Warrant	0.5625 lb ai/a		24 oz/a		C V4 - V6			
	Ignite 280	0.53 lb ai/a		29 oz/a		C V4 - V6			
27	Ignite 280	0.53 lb ai/a		29 oz/a		B V1 - V2	72.5	65.0	72.5
	Dual Magnum	0.475 lb ai/a		8 oz/a		C V4 - V6			
	Ignite 280	0.53 lb ai/a		29 oz/a		C V4 - V6			
28	Ignite 280	0.53 lb ai/a		29 oz/a		B V1 - V2	95.0	80.0	95.0
	Zidua	0.05313 lb ai/a		1 oz/a		C V4 - V6			
	Ignite 280	0.53 lb ai/a		29 oz/a		C V4 - V6			
29	Ignite 280	0.53 lb ai/a		29 oz/a		B V1 - V2	80.0	67.5	82.5
	Warrant	0.84375 lb ai/a		36 oz/a		C V4 - V6			
	Ignite 280	0.53 lb ai/a		29 oz/a		C V4 - V6			
30	Ignite 280	0.53 lb ai/a		29 oz/a		B V1 - V2	77.5	62.5	77.5
	Dual Magnum	0.7125 lb ai/a		12 oz/a		C V4 - V6			
	Ignite 280	0.53 lb ai/a		29 oz/a		C V4 - V6			
31	Ignite 280	0.53 lb ai/a		29 oz/a		B V1 - V2	82.5	80.0	77.5
	Zidua	0.07969 lb ai/a		1.5 oz/a		C V4 - V6			
	Ignite 280	0.53 lb ai/a		29 oz/a		C V4 - V6			
32	Ignite 280	0.53 lb ai/a		29 oz/a		B V1 - V2	76.7	70.0	76.7
	Warrant	1.125 lb ai/a		48 oz/a		C V4 - V6			
	Ignite 280	0.53 lb ai/a		29 oz/a		C V4 - V6			

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant, Dual Magnum, & Zidua Comparisons in Soybean

Trial ID: HSB-52311
 Location: Rohwer, AR
 Investigator: Kenneth Smith

								W Weed	W Weed	W Weed	
								ECHCG	AMAPA	IPOSS	
								Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	
								Common barnyar>	Palmer amaranth	Morning glory	
								GLXMA	GLXMA	GLXMA	
								Glycine max	Glycine max	Glycine max	
								Soybean	Soybean	Soybean	
								PLANT P	PLANT P	PLANT P	
								10/11/11	10/11/11	10/11/11	
								CONTRO	CONTRO	CONTRO	
								%	%	%	
								1	1	1	
								R8 35"	R8 35"	R8 35"	
								10-50"	20-80"	10-60"	
								JB	JB	JB	
								131 102	131 102	131 102	
								31 DA-C	31 DA-C	31 DA-C	
								133 DP-1	133 DP-1	133 DP-1	
								127 DE-1	127 DE-1	127 DE-1	
Trt	Treatment	Rate	Rate	Other	Other	Appl	Appl				
No.	Name		Unit	Rate	Rate	Unit	Code	Description	14	15	16
33	Ignite 280	0.53	lb ai/a	29	oz/a	B	V1 - V2		92.5	85.0	92.5
	Dual Magnum	0.95	lb ai/a	16	oz/a	C	V4 - V6				
	Ignite 280	0.53	lb ai/a	29	oz/a	C	V4 - V6				
34	Ignite 280	0.53	lb ai/a	29	oz/a	B	V1 - V2		77.5	77.5	85.0
	Zidua	0.10625	lb ai/a	2	oz/a	C	V4 - V6				
	Ignite 280	0.53	lb ai/a	29	oz/a	C	V4 - V6				
35	Ignite 280	0.53	lb ai/a	29	oz/a	B	V1 - V2		67.5	67.5	67.5
	Warrant	2.25	lb ai/a	96	oz/a	C	V4 - V6				
	Ignite 280	0.53	lb ai/a	29	oz/a	C	V4 - V6				
36	Ignite 280	0.53	lb ai/a	29	oz/a	B	V1 - V2		77.5	62.5	67.5
	Dual Magnum	1.9	lb ai/a	32	oz/a	C	V4 - V6				
	Ignite 280	0.53	lb ai/a	29	oz/a	C	V4 - V6				
37	Ignite 280	0.53	lb ai/a	29	oz/a	B	V1 - V2		80.0	80.0	90.0
	Zidua	0.2125	lb ai/a	4	oz/a	C	V4 - V6				
	Ignite 280	0.53	lb ai/a	29	oz/a	C	V4 - V6				
LSD (P=.05)								30.72	27.57	30.14	
Standard Deviation								21.94	19.69	21.53	
CV								38.42	38.3	38.19	
Grand Mean								57.11	51.42	56.37	

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of Alert + Dawn PRE in Soybean

Trial ID: HSB-53011
 Location: Marianna, AR

Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Progeny 4928
BBCH Scale: BSOY
Planting Method: PLANTD planted
Depth, Unit: 0.5 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: GOOD good
Description: LL / Trilex
Planting Date: 6/9/11
Rate, Unit: 130000 P/A
Spacing Within Row, Unit: 1 IN
Soil Temperature, Unit: 81.1 F
Emergence Date: 6/16/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/10/11	Ignite 280	2.34	LBA/GAL	SL	29	OZ/A		
2.	8/8/11	Acephate				0.5	LB A/A	Y	yes
3.	8/8/11	Snxper				5.1	OZ/A	Y	yes
4.	8/23/11	Intrepid				8	OZ/A	Y	yes
5.	8/23/11	Brigade				5.1	OZ/A	Y	yes

Soil Description

Description Name: 2011 Soybean Marianna South
% Sand: 14 **% OM:** 2 **Texture:** SICL silty clay loam
% Silt: 66 **pH:** 7 **Soil Name:** Calloway Silt Loam
% Clay: 20 **CEC:** 15 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A
Application Date:	6/9/11
Time of Day:	PM
Application Method:	SPRAY
Application Timing:	PREPRE
Application Placement:	BROSIOI
Applied By:	JM
Air Temperature, Unit:	83 F
% Relative Humidity:	62.7
Wind Velocity, Unit:	4.1 MPH
Wind Direction:	W
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	84.4 F
Soil Moisture:	FAIR
% Cloud Cover:	10
Next Rain Occurred On:	6/14/11

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	GLXMA BSOY
Height, Unit:	0 IN

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	ECHCG W
Height, Unit:	0 IN
Pest 2 Code, Type, Scale:	AMAPA W
Height, Unit:	0 IN
Pest 3 Code, Type, Scale:	IPOSS W
Height, Unit:	0 IN

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of Alert + Dawn PRE in Soybean

Trial ID: HSB-53011
Location: Marianna, AR

Investigator: Kenneth Smith

Application Equipment

	A
Appl. Equipment:	Multi Boom
Equipment Type:	SPTRMO
Operation Pressure, Unit:	50 PSI
Nozzle Type:	Air-Mix
Nozzle Size:	110015
Nozzle Spacing, Unit:	19 IN
Nozzles/Row:	2
% Coverage:	100
Boom Length, Unit:	12.6 FT
Boom Height, Unit:	18 IN
Carrier:	WATER
Spray Volume, Unit:	12 gal/ac
Mix Size, Unit:	3 Liters
Propellant:	COMCO2
Tank Mix (Y/N):	Y yes

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of Alert + Dawn PRE in Soybean

Trial ID: HSB-53011
 Location: Marianna, AR

Investigator: Kenneth Smith

		W Weed ECHCG	W Weed AMAPA	W Weed ECHCG	W Weed AMAPA	W Weed ECHCG	W Weed AMAPA
		Echinochloa cr> Common barnyar>	Amaranthus pal> Palmer amaranth	Echinochloa cr> Common barnyar>	Amaranthus pal> Palmer amaranth	Echinochloa cr> Common barnyar>	Amaranthus pal> Palmer amaranth
		GLXMA Glycine max Soybean	GLXMA Glycine max Soybean	GLXMA Glycine max Soybean	GLXMA Glycine max Soybean	GLXMA Glycine max Soybean	GLXMA Glycine max Soybean
		PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P
		6/23/11	6/23/11	6/30/11	6/30/11	7/6/11	7/6/11
		CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
		%	%	%	%	%	%
		1	1	1	1	1	1
		V3 2-4"	V3 2-4"	V4 4-6"	V4 4-6"	V5 5-9"	V5 5-9"
		1-4"	1-16"	2-6"	2-24"	4-20"	4-25"
		JB	JB	JB	JB	JB	JB
		14 14	14 14	21 21	21 21	27 27	27 27
		14 DA-A	14 DA-A	21 DA-A	21 DA-A	27 DA-A	27 DA-A
		14 DP-1	14 DP-1	21 DP-1	21 DP-1	27 DP-1	27 DP-1
		7 DE-1	7 DE-1	14 DE-1	14 DE-1	20 DE-1	20 DE-1
Trt No.	Treatment Name	Rate	Other Rate	Other Unit	Appl Code	Appl Description	
		Unit	Rate	Unit			
							1 2 3 4 5 6
1	Untreated Check						0.0 0.0 0.0 0.0 0.0 0.0
2	Alert	0.50 lb ai/a	21.3 oz/a	A	PRE		77.5 72.5 52.5 42.5 50.0 40.0
3	Alert	0.75 lb ai/a	32 oz/a	A	PRE		97.5 77.5 86.3 52.5 82.5 37.5
4	Alert	1.0 lb ai/a	42.7 oz/a	A	PRE		100.0 80.0 95.0 62.5 80.0 55.0
5	Alert Dawn	0.50 lb ai/a 0.25 lb ai/a	21.3 oz/a 16 oz/a	A A	PRE PRE		97.5 87.5 80.0 80.0 75.0 57.5
6	Alert Dawn	0.50 lb ai/a 0.375 lb ai/a	21.3 oz/a 24 oz/a	A A	PRE PRE		97.5 95.0 80.0 72.5 77.5 60.0
7	Alert Dawn	0.75 lb ai/a 0.25 lb ai/a	32 oz/a 16 oz/a	A A	PRE PRE		100.0 100.0 90.0 62.5 82.5 45.0
8	Alert Dawn	0.75 lb ai/a 0.375 lb ai/a	32 oz/a 24 oz/a	A A	PRE PRE		85.0 82.5 60.0 77.5 62.5 65.0
9	Dawn	0.375 lb ai/a	24 oz/a	A	PRE		92.5 90.0 76.3 85.0 80.0 80.0
10	Dual II Magnum	1.0 lb ai/a	16.8 oz/a	A	PRE		95.0 90.0 73.8 72.5 75.0 65.0
11	Warrant	1.13 lb ai/a	48 oz/a	A	PRE		100.0 97.5 77.5 75.0 72.5 57.5
12	Prefix	1.68 lb ai/a	40 oz/a	A	PRE		100.0 100.0 87.5 95.0 80.0 92.5
13	Alert Reflex	0.50 lb ai/a 0.25 lb ai/a	21.3 oz/a 16 oz/a	A A	PRE PRE		100.0 97.5 85.0 90.0 81.3 82.5
14	Command Dawn	0.50 lb ai/a 0.25 lb ai/a	21.3 oz/a 16 oz/a	A A	PRE PRE		95.0 97.5 70.0 77.5 67.5 77.5
15	Command Reflex	0.50 lb ai/a 0.25 lb ai/a	21.3 oz/a 16 oz/a	A A	PRE PRE		100.0 95.0 90.0 75.0 72.5 67.5
LSD (P=.05)							7.08 10.09 15.90 19.14 18.14 17.49
Standard Deviation							4.95 7.06 11.13 13.39 12.70 12.24
CV							5.55 8.39 15.12 19.7 18.33 20.81
Grand Mean							89.17 84.17 73.58 68.0 69.25 58.83

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of Alert + Dawn PRE in Soybean

Trial ID: HSB-53011
Location: Marianna, AR

Investigator: Kenneth Smith

W Weed	W Weed
ECHCG	AMAPA
Echinochloa cr>	Amaranthus pal>
Common barnyar>	Palmer amaranth
GLXMA	GLXMA
Glycine max	Glycine max
Soybean	Soybean
PLANT P	PLANT P
7/13/11	7/13/11
CONTRO	CONTRO
%	%
1	1
V7 12"	V7 12"
5-25"	5-30"
JB	JB
34 34	34 34
34 DA-A	34 DA-A
34 DP-1	34 DP-1
27 DE-1	27 DE-1
7	8
0.0	0.0
45.0	45.0
92.5	7.5
78.8	32.5
68.8	56.3
67.5	66.3
71.3	37.5
77.5	62.5
73.8	73.8
72.5	60.0
67.5	62.5
75.0	91.3
81.3	81.3
62.5	73.8
66.3	72.5
18.09	16.83
12.66	11.78
18.99	21.48
66.67	54.83

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix PRE in Soybean

Trial ID: HSB-53111
 Location: Marianna, AR

Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Progeny 4928
BBCH Scale: BSOY
Planting Method: PLANTD planted
Depth, Unit: 0.5 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: GOOD good
Harvest Date: 10/14/11
Harvested Width, Unit: 6.33 FT
% Standard Moisture: 13.0
Weighing Equipment: Massey Ferguson 8 XP

Description: LL / Trilex
Planting Date: 6/9/11
Rate, Unit: 130000 P/A
Spacing Within Row, Unit: 1 IN
Soil Temperature, Unit: 81.1 F
Emergence Date: 6/16/11
Harvest Equipment: Massey Ferguson 8 XP
Harvested Length, Unit: 28 FT
Moisture Meter: Massey Ferguson 8 XP

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/10/11	Ignite 280	2.34	LBA/GAL	SL	29	OZ/A		
2.	8/8/11	Acephate				0.5	LB A/A	Y	yes
3.	8/8/11	Snxper				5.1	OZ/A	Y	yes
4.	8/23/11	Intrepid				8	OZ/A	Y	yes
5.	8/23/11	Brigade				5.1	OZ/A	Y	yes

Soil Description

Description Name: 2011 Soybean Marianna South
% Sand: 14 **% OM:** 2 **Texture:** SICL silty clay loam
% Silt: 66 **pH:** 7 **Soil Name:** Calloway Silt Loam
% Clay: 20 **CEC:** 15 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A
Application Date:	6/9/11
Time of Day:	PM
Application Method:	SPRAY
Application Timing:	PREPRE
Application Placement:	BROSIO
Applied By:	JM
Air Temperature, Unit:	83 F
% Relative Humidity:	62.7
Wind Velocity, Unit:	4.1 MPH
Wind Direction:	W
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	84.4 F
Soil Moisture:	FAIR
% Cloud Cover:	10
Next Rain Occurred On:	6/14/11

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	GLXMA BSOY
Height, Unit:	0 IN

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	ECHCG W
Height, Unit:	0 IN
Pest 2 Code, Type, Scale:	AMAPA W
Height, Unit:	0 IN
Pest 3 Code, Type, Scale:	IPOSS W
Height, Unit:	0 IN

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix PRE in Soybean

Trial ID: HSB-53111
 Location: Marianna, AR

Investigator: Kenneth Smith

Application Equipment

	A
Appl. Equipment:	Multi Boom
Equipment Type:	SPTRMO
Operation Pressure, Unit:	50 PSI
Nozzle Type:	Air-Mix
Nozzle Size:	110015
Nozzle Spacing, Unit:	19 IN
Nozzles/Row:	2
% Coverage:	100
Boom Length, Unit:	12.6 FT
Boom Height, Unit:	18 IN
Carrier:	WATER
Spray Volume, Unit:	12 gal/ac
Mix Size, Unit:	3 Liters
Propellant:	COMCO2
Tank Mix (Y/N):	Y yes

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix PRE in Soybean

Trial ID: HSB-53111
 Location: Marianna, AR

Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed ECHCG	W Weed AMAPA	W Weed ECHCG	W Weed AMAPA						
Pest Code	Echinochloa cr>	Amaranthus pal>	Echinochloa cr>	Amaranthus pal>	Echinochloa cr>	Amaranthus pal>						
Pest Scientific Name	Common barnyar>	Palmer amaranth	Common barnyar>	Palmer amaranth	Common barnyar>	Palmer amaranth						
Pest Name												
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P						
Assessment Date	6/20/11	6/20/11	6/30/11	6/30/11	7/6/11	7/6/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	V1 4-6"	V1 4-6"	V4 4-6"	V4 4-6"	V5 5-9"	V5 5-9"						
Pest Stage Majority	1-4"	1-8"	2-6"	2-24"	2-14"	2-16"						
Assessed By	JB	JB	JB	JB	JB	JB						
Days After First/Last Applic.	11 11	11 11	21 21	21 21	27 27	27 27						
Trt-Eval Interval	11 DA-A	11 DA-A	21 DA-A	21 DA-A	27 DA-A	27 DA-A						
Plant-Eval Interval	11 DP-1	11 DP-1	21 DP-1	21 DP-1	27 DP-1	27 DP-1						
Days After Emergence	4 DE-1	4 DE-1	14 DE-1	14 DE-1	20 DE-1	20 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	1	2	3	4	5	6
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0
2	CHA-044	0.99 lb ai/a	24 oz/a		A	Pre	100.0	100.0	80.0	85.0	85.0	93.8
3	CHA-044	1.33 lb ai/a	32 oz/a		A	Pre	100.0	100.0	82.5	95.0	85.0	97.5
4	CHA-044	1.66 lb ai/a	40 oz/a		A	Pre	100.0	100.0	80.0	90.0	95.0	97.5
5	CHA-044	1.99 lb ai/a	48 oz/a		A	Pre	100.0	100.0	82.5	92.5	85.0	93.8
6	CHA-044	3.98 lb ai/a	96 oz/a		A	Pre	100.0	100.0	77.5	97.5	83.8	98.8
7	Dawn	0.313 lb ai/a	20 oz/a		A	Pre	100.0	100.0	81.3	93.8	90.0	97.5
	Stalwart	1.0 lb ai/a	16 oz/a		A	Pre						
8	Dawn	0.375 lb ai/a	24 oz/a		A	Pre	100.0	100.0	90.0	92.5	90.0	93.8
	Stalwart	1.25 lb ai/a	20 oz/a		A	Pre						
9	Prefix	0.99 lb ai/a	24 oz/a		A	Pre	100.0	100.0	83.8	90.0	86.3	95.0
10	Prefix	1.32 lb ai/a	32 oz/a		A	Pre	100.0	100.0	87.5	95.0	87.5	92.5
11	Prefix	1.65 lb ai/a	40 oz/a		A	Pre	100.0	100.0	93.8	100.0	95.0	100.0
12	Prefix	1.98 lb ai/a	48 oz/a		A	Pre	100.0	100.0	85.0	97.5	87.5	95.0
13	Prefix	3.97 lb ai/a	96 oz/a		A	Pre	100.0	100.0	91.3	95.0	95.0	98.8
	LSD (P=.05)						0.00	0.00	17.93	8.15	14.75	7.83
	Standard Deviation						0.00	0.00	12.55	5.70	10.32	5.48
	CV						0.0	0.0	16.07	6.6	12.6	6.17
	Grand Mean						92.31	92.31	78.08	86.44	81.92	88.75

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix PRE in Soybean

Trial ID: HSB-53111
 Location: Marianna, AR

Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG						
Pest Code	Echinochloa cr>	Amaranthus pal>	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>						
Pest Scientific Name	Common barnyar>	Palmer amaranth	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>						
Pest Name												
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P						
Assessment Date	7/13/11	7/13/11	8/11/11	8/11/11	8/11/11	9/26/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	V7 12"	V7 12"	R2 32.5"	R2 32.5"	R2 32.5"	R7 38"						
Pest Stage Majority	5-25"	5-35"	10-30"	10-60"	5-25"	10-40"						
Assessed By	JB	JB	JB	JB	JB	JB						
Days After First/Last Applic.	34 34	34 34	63 63	63 63	63 63	109 109						
Trt-Eval Interval	34 DA-A	34 DA-A	63 DA-A	63 DA-A	63 DA-A	63 DA-A						
Plant-Eval Interval	34 DP-1	34 DP-1	63 DP-1	63 DP-1	63 DP-1	109 DP-1						
Days After Emergence	27 DE-1	27 DE-1	56 DE-1	56 DE-1	56 DE-1	102 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	7	8	9	10	11	12
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0
2	CHA-044	0.99 lb ai/a	24 oz/a		A	Pre	92.5	88.0	90.0	78.8	90.0	85.0
3	CHA-044	1.33 lb ai/a	32 oz/a		A	Pre	90.0	96.3	85.0	95.0	97.5	85.0
4	CHA-044	1.66 lb ai/a	40 oz/a		A	Pre	90.5	96.3	85.0	87.5	100.0	85.0
5	CHA-044	1.99 lb ai/a	48 oz/a		A	Pre	91.3	92.5	82.5	92.5	97.5	90.0
6	CHA-044	3.98 lb ai/a	96 oz/a		A	Pre	95.0	98.0	87.5	95.0	100.0	95.0
7	Dawn	0.313 lb ai/a	20 oz/a		A	Pre	90.0	95.0	80.0	95.0	95.0	87.5
	Stalwart	1.0 lb ai/a	16 oz/a		A	Pre						
8	Dawn	0.375 lb ai/a	24 oz/a		A	Pre	93.8	95.0	92.5	92.5	100.0	85.0
	Stalwart	1.25 lb ai/a	20 oz/a		A	Pre						
9	Prefix	0.99 lb ai/a	24 oz/a		A	Pre	87.5	88.8	80.0	77.5	97.5	85.0
10	Prefix	1.32 lb ai/a	32 oz/a		A	Pre	91.3	95.0	90.0	92.5	100.0	90.0
11	Prefix	1.65 lb ai/a	40 oz/a		A	Pre	95.5	98.8	95.0	95.0	97.5	97.5
12	Prefix	1.98 lb ai/a	48 oz/a		A	Pre	96.3	96.3	92.5	92.5	97.5	92.5
13	Prefix	3.97 lb ai/a	96 oz/a		A	Pre	96.3	98.8	90.0	92.5	92.5	90.0
LSD (P=.05)							8.93	6.51	17.75	12.20	7.72	12.30
Standard Deviation							6.25	4.56	12.42	8.54	5.40	8.60
CV							7.32	5.21	15.38	10.22	6.03	10.48
Grand Mean							85.37	87.58	80.77	83.56	89.62	82.12

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix PRE in Soybean

Trial ID: HSB-53111
 Location: Marianna, AR

Investigator: Kenneth Smith

W Weed											
AMAPA											
Amaranthus pal>											
Palmer amaranth											
GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Soybean	Soybean	Soybean	Soybean	Soybean							
PLANT P	GRAMAT C	GRAMAT C	GRAMAT C	GRAMAT C							
9/26/11	10/14/11	10/14/11	10/14/11	10/14/11							
CONTR0	MOICON	WEIDRY	YIELD								
%	%	lb/plot	BU								
1	1	1	1								
R7 38"	R7 38"	R7 38"	R7 38"								
20-60"											
JB	BA	BA	JB								
109 109	127 127	127 127	127 127								
63 DA-A	127 DA-A	127 DA-A	127 DA-A								
109 DP-1	127 DP-1	127 DP-1	127 DP-1								
102 DE-1	120 DE-1	120 DE-1	120 DE-1								
Trt Treatment	Rate	Other	Other	Appl	Appl						
No. Name	Rate	Unit	Rate	Rate	Unit	Code	Description	13	14	15	16
1 Untreated Check								0.0	19.343	6.263	23.8
2 CHA-044	0.99 lb ai/a		24 oz/a			A	Pre	80.0	9.105	10.470	44.9
3 CHA-044	1.33 lb ai/a		32 oz/a			A	Pre	90.0	8.673	10.140	42.9
4 CHA-044	1.66 lb ai/a		40 oz/a			A	Pre	77.5	8.718	10.825	46.5
5 CHA-044	1.99 lb ai/a		48 oz/a			A	Pre	82.5	8.533	9.795	42.0
6 CHA-044	3.98 lb ai/a		96 oz/a			A	Pre	87.5	8.603	10.720	46.0
7 Dawn	0.313 lb ai/a		20 oz/a			A	Pre	92.5	8.610	10.315	44.0
Stalwart	1.0 lb ai/a		16 oz/a			A	Pre				
8 Dawn	0.375 lb ai/a		24 oz/a			A	Pre	82.5	13.488	10.535	42.9
Stalwart	1.25 lb ai/a		20 oz/a			A	Pre				
9 Prefix	0.99 lb ai/a		24 oz/a			A	Pre	77.5	8.665	9.818	42.2
10 Prefix	1.32 lb ai/a		32 oz/a			A	Pre	80.0	12.785	10.985	45.1
11 Prefix	1.65 lb ai/a		40 oz/a			A	Pre	95.0	8.730	9.535	40.5
12 Prefix	1.98 lb ai/a		48 oz/a			A	Pre	95.0	22.143	11.025	40.3
13 Prefix	3.97 lb ai/a		96 oz/a			A	Pre	87.5	8.940	10.430	44.5
LSD (P=.05)								16.25	13.9878	1.6576	7.23
Standard Deviation								11.37	9.6874	1.1480	5.01
CV								14.39	86.06	11.4	11.93
Grand Mean								79.04	11.26	10.07	41.98

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix PRE in Soybean

Trial ID: HSB-53111
Location: Marianna, AR

Investigator: Kenneth Smith

ARM Action Codes

TY1 = 4.096141*[C15]*(100-[C14])/87

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix POST @ 2 - 3" Weeds in Soybean

Trial ID: HSB-53211
 Location: Marianna, AR

Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Progeny 4928
BBCH Scale: BSOY
Planting Method: PLANTD planted
Depth, Unit: 0.5 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: GOOD good
Harvest Date: 10/14/11
Harvested Width, Unit: 6.33 FT
% Standard Moisture: 13.0
Weighing Equipment: Massey Ferguson 8 XP

Description: LL / Trilex
Planting Date: 6/9/11
Rate, Unit: 130000 P/A
Spacing Within Row, Unit: 1 IN
Soil Temperature, Unit: 81.1 F
Emergence Date: 6/16/11
Harvest Equipment: Massey Ferguson 8 XP
Harvested Length, Unit: 28 FT
Moisture Meter: Massey Ferguson 8 XP

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTL conventional-till
Study Design: RACOB Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/10/11	Ignite 280	2.34	LBA/GAL	SL	29	OZ/A		
2.	8/8/11	Acephate				0.5	LB A/A	Y	yes
3.	8/8/11	Snxper				5.1	OZ/A	Y	yes
4.	8/23/11	Intrepid				8	OZ/A	Y	yes
5.	8/23/11	Brigade				5.1	OZ/A	Y	yes

Soil Description

Description Name: 2011 Soybean Marianna North
% Sand: 13 **% OM:** 2 **Texture:** SIL silt loam
% Silt: 66 **pH:** 7 **Soil Name:** Memphis Silt Loam
% Clay: 21 **CEC:** 15 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A
Application Date:	6/20/11
Time of Day:	AM
Application Method:	SPRAY
Application Timing:	POSPOS
Application Placement:	BROFOL
Applied By:	JB
Air Temperature, Unit:	87 F
% Relative Humidity:	74.6
Wind Velocity, Unit:	7.9 MPH
Wind Direction:	WSW
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	85.7 F
Soil Moisture:	SLIWET
% Cloud Cover:	20
Next Rain Occurred On:	6/22/11

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	GLXMA BSOY
Stage Scale Used:	BBCH
Stage Majority, Percent:	V2
Height, Unit:	4 IN

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix POST @ 2 - 3" Weeds in Soybean

Trial ID: HSB-53211
 Location: Marianna, AR

Investigator: Kenneth Smith

Pest Stage At Each Application

A	
Pest 1 Code, Type, Scale:	ECHCG W
Height, Unit:	3 IN
Pest 2 Code, Type, Scale:	AMAPA W
Height, Unit:	3 IN
Pest 3 Code, Type, Scale:	IPOSS W
Height, Unit:	1 IN

Application Equipment

A	
Appl. Equipment:	Multi Boom
Equipment Type:	SPTRMO
Operation Pressure, Unit:	50 PSI
Nozzle Type:	Air-Mix
Nozzle Size:	110015
Nozzle Spacing, Unit:	19 IN
Nozzles/Row:	2
% Coverage:	100
Boom Length, Unit:	12.6 FT
Boom Height, Unit:	18 IN
Carrier:	WATER
Spray Volume, Unit:	12 gal/ac
Mix Size, Unit:	3 Liters
Propellant:	COMCO2
Tank Mix (Y/N):	Y yes

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix POST @ 2 - 3" Weeds in Soybean

Trial ID: HSB-53211
 Location: Marianna, AR

Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA		W Weed ECHCG	W Weed AMAPA	W Weed IPOSS							
Pest Code	Echinochloa cr>	Amaranthus pal>		Echinochloa cr>	Amaranthus pal>	Ipomoea sp.							
Pest Scientific Name	Common barnyar>	Palmer amaranth		Common barnyar>	Palmer amaranth	Morning glory							
Pest Name													
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed	PLANT P	PLANT P	PLANT C	PLANT P	PLANT P	PLANT P	PLANT C						
Assessment Date	6/30/11	6/30/11	6/23/11	7/5/11	7/5/11	7/5/11	7/5/11						
Assessment Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO	PHYGEN						
Assessment Unit	%	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1	1						
Crop Stage Majority	V4 4-6"	V4 4-6"	V4 4-6"	V5 5-7"	V5 5-7"	V5 5-7"	V5 5-7"						
Pest Stage Majority	2-6"	2-24"		2-6"	4-20"	1-3"							
Assessed By	JB	JB	JB	JB	JB	JB	JB						
Days After First/Last Applic.	21 21	21 21	3 3	15 15	15 15	15 15	15 15						
Trt-Eval Interval	10 DA-A	10 DA-A	10 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A						
Plant-Eval Interval	21 DP-1	21 DP-1	14 DP-1	26 DP-1	26 DP-1	26 DP-1	26 DP-1						
Days After Emergence	14 DE-1	14 DE-1	7 DE-1	19 DE-1	19 DE-1	19 DE-1	19 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Unit	Appl Code	Appl Description	1	2	3	4	5	6	7
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	CHA-044	0.99 lb ai/a	24 oz/a		A	2 - 3" Weeds	100.0	95.0	6.3	99.8	96.3	100.0	0.0
	Ignite 280	0.5 lb ai/a	27.3 oz/a		A	2 - 3" Weeds							
3	CHA-044	1.33 lb ai/a	32 oz/a		A	2 - 3" Weeds	96.3	100.0	8.8	96.3	99.5	100.0	0.0
	Ignite 280	0.5 lb ai/a	27.3 oz/a		A	2 - 3" Weeds							
4	CHA-044	1.66 lb ai/a	40 oz/a		A	2 - 3" Weeds	100.0	98.8	15.0	100.0	100.0	100.0	0.0
	Ignite 280	0.5 lb ai/a	27.3 oz/a		A	2 - 3" Weeds							
5	CHA-044	3.3 lb ai/a	80 oz/a		A	2 - 3" Weeds	98.8	97.5	20.0	100.0	100.0	100.0	0.0
	Ignite 280	0.5 lb ai/a	27.3 oz/a		A	2 - 3" Weeds							
6	Dawn	0.375 lb ai/a	24 oz/a		A	2 - 3" Weeds	97.5	92.5	11.3	99.5	94.3	100.0	0.0
	Stalwart	1 lb ai/a	16 oz/a		A	2 - 3" Weeds							
	Ignite 280	0.5 lb ai/a	27.3 oz/a		A	2 - 3" Weeds							
7	Prefix	0.99 lb ai/a	24 oz/a		A	2 - 3" Weeds	100.0	100.0	8.8	100.0	98.8	100.0	0.0
	Ignite 280	0.5 lb ai/a	27.3 oz/a		A	2 - 3" Weeds							
8	Prefix	1.32 lb ai/a	32 oz/a		A	2 - 3" Weeds	100.0	98.8	13.8	100.0	100.0	100.0	0.0
	Ignite 280	0.5 lb ai/a	27.3 oz/a		A	2 - 3" Weeds							
9	Prefix	1.65 lb ai/a	40 oz/a		A	2 - 3" Weeds	100.0	100.0	40.0	100.0	100.0	100.0	3.8
	Ignite 280	0.5 lb ai/a	27.3 oz/a		A	2 - 3" Weeds							
10	Prefix	3.3 lb ai/a	80 oz/a		A	2 - 3" Weeds	96.3	100.0	30.0	100.0	100.0	100.0	0.0
	Ignite 280	0.5 lb ai/a	27.3 oz/a		A	2 - 3" Weeds							
	LSD (P=.05)						3.74	7.62	11.33	2.29	3.25	0.00	3.44
	Standard Deviation						2.58	5.25	7.81	1.58	2.24	0.00	2.37
	CV						2.9	5.95	50.8	1.76	2.52	0.0	632.46
	Grand Mean						88.88	88.25	15.38	89.55	88.88	90.0	0.38

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix POST @ 2 - 3" Weeds in Soybean

Trial ID: HSB-53211
 Location: Marianna, AR

Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG						
Pest Code	Echinochloa cr>	Amaranthus pal>	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>						
Pest Scientific Name	Common barnyar>	Palmer amaranth	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>						
Pest Name												
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P						
Assessment Date	7/13/11	7/13/11	8/11/11	8/11/11	8/11/11	9/26/11						
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	V7 12"	V7 12"	R2 32.5"	R2 32.5"	R2 32.5"	R7 38"						
Pest Stage Majority	5-25"	5-35"	10-30"	10-60"	5-25"	10-40"						
Assessed By	JB	JB	JB	JB	JB	JB						
Days After First/Last Applic.	34 34	34 34	63 63	63 63	63 63	98 98						
Trt-Eval Interval	23 DA-A	23 DA-A	52 DA-A	52 DA-A	52 DA-A	52 DA-A						
Plant-Eval Interval	34 DP-1	34 DP-1	63 DP-1	63 DP-1	63 DP-1	109 DP-1						
Days After Emergence	27 DE-1	27 DE-1	56 DE-1	56 DE-1	56 DE-1	102 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Unit	Appl Code	Appl Description	8	9	10	11	12	13
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0
2	CHA-044	0.99 lb ai/a	24 oz/a		A	2 - 3" Weeds	98.8	88.8	90.0	77.5	92.5	90.0
	Ignite 280	0.5 lb ai/a	27.3 oz/a		A	2 - 3" Weeds						
3	CHA-044	1.33 lb ai/a	32 oz/a		A	2 - 3" Weeds	96.3	97.5	95.0	92.5	100.0	100.0
	Ignite 280	0.5 lb ai/a	27.3 oz/a		A	2 - 3" Weeds						
4	CHA-044	1.66 lb ai/a	40 oz/a		A	2 - 3" Weeds	98.8	88.8	100.0	98.8	100.0	100.0
	Ignite 280	0.5 lb ai/a	27.3 oz/a		A	2 - 3" Weeds						
5	CHA-044	3.3 lb ai/a	80 oz/a		A	2 - 3" Weeds	98.8	100.0	97.5	100.0	100.0	100.0
	Ignite 280	0.5 lb ai/a	27.3 oz/a		A	2 - 3" Weeds						
6	Dawn	0.375 lb ai/a	24 oz/a		A	2 - 3" Weeds	96.3	86.8	92.5	75.0	92.5	90.0
	Stalwart	1 lb ai/a	16 oz/a		A	2 - 3" Weeds						
	Ignite 280	0.5 lb ai/a	27.3 oz/a		A	2 - 3" Weeds						
7	Prefix	0.99 lb ai/a	24 oz/a		A	2 - 3" Weeds	100.0	92.5	100.0	87.5	100.0	90.0
	Ignite 280	0.5 lb ai/a	27.3 oz/a		A	2 - 3" Weeds						
8	Prefix	1.32 lb ai/a	32 oz/a		A	2 - 3" Weeds	98.8	98.0	100.0	100.0	100.0	97.5
	Ignite 280	0.5 lb ai/a	27.3 oz/a		A	2 - 3" Weeds						
9	Prefix	1.65 lb ai/a	40 oz/a		A	2 - 3" Weeds	100.0	95.0	100.0	96.3	100.0	97.5
	Ignite 280	0.5 lb ai/a	27.3 oz/a		A	2 - 3" Weeds						
10	Prefix	3.3 lb ai/a	80 oz/a		A	2 - 3" Weeds	98.0	99.3	100.0	97.5	100.0	100.0
	Ignite 280	0.5 lb ai/a	27.3 oz/a		A	2 - 3" Weeds						
LSD (P=.05)			3.89				3.89	10.41	7.60	10.53	5.99	9.99
Standard Deviation			2.68				2.68	7.17	5.24	7.26	4.13	6.89
CV			3.03				3.03	8.48	5.98	8.8	4.66	7.96
Grand Mean			88.55				88.55	84.65	87.5	82.5	88.5	86.5

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix POST @ 2 - 3" Weeds in Soybean

Trial ID: HSB-53211
 Location: Marianna, AR

Investigator: Kenneth Smith

Trt No.	Treatment Name	Rate	Other Rate	Other Unit	Appl Code	Appl Description	14	15	16	17
1	Untreated Check						0.0	17.755	3.600	13.1
2	CHA-044 Ignite 280	0.99 lb ai/a 0.5 lb ai/a	24 oz/a 27.3 oz/a		A A	2 - 3" Weeds 2 - 3" Weeds	80.0	20.340	10.650	40.0
3	CHA-044 Ignite 280	1.33 lb ai/a 0.5 lb ai/a	32 oz/a 27.3 oz/a		A A	2 - 3" Weeds 2 - 3" Weeds	87.5	19.275	10.560	40.1
4	CHA-044 Ignite 280	1.66 lb ai/a 0.5 lb ai/a	40 oz/a 27.3 oz/a		A A	2 - 3" Weeds 2 - 3" Weeds	95.0	18.623	12.413	47.6
5	CHA-044 Ignite 280	3.3 lb ai/a 0.5 lb ai/a	80 oz/a 27.3 oz/a		A A	2 - 3" Weeds 2 - 3" Weeds	100.0	18.310	11.095	42.6
6	Dawn Stalwart Ignite 280	0.375 lb ai/a 1 lb ai/a 0.5 lb ai/a	24 oz/a 16 oz/a 27.3 oz/a		A A A	2 - 3" Weeds 2 - 3" Weeds 2 - 3" Weeds	82.5	20.048	11.155	42.0
7	Prefix Ignite 280	0.99 lb ai/a 0.5 lb ai/a	24 oz/a 27.3 oz/a		A A	2 - 3" Weeds 2 - 3" Weeds	82.5	18.708	12.283	47.0
8	Prefix Ignite 280	1.32 lb ai/a 0.5 lb ai/a	32 oz/a 27.3 oz/a		A A	2 - 3" Weeds 2 - 3" Weeds	90.0	18.108	11.910	45.9
9	Prefix Ignite 280	1.65 lb ai/a 0.5 lb ai/a	40 oz/a 27.3 oz/a		A A	2 - 3" Weeds 2 - 3" Weeds	92.5	18.290	11.798	45.4
10	Prefix Ignite 280	3.3 lb ai/a 0.5 lb ai/a	80 oz/a 27.3 oz/a		A A	2 - 3" Weeds 2 - 3" Weeds	100.0	18.230	10.455	40.3
LSD (P=.05)							12.04	5.9602	2.5597	9.77
Standard Deviation							8.30	4.1077	1.7641	6.73
CV							10.25	21.89	16.66	16.67
Grand Mean							81.0	18.77	10.59	40.39

University of Arkansas-Division of Agriculture

Efficacy & Selectivity of CHA-044 and Prefix POST @ 2 - 3" Weeds in Soybean

Trial ID: HSB-53211
Location: Marianna, AR

Investigator: Kenneth Smith

ARM Action Codes

TY1 = 4.096141*[C16]*(100-[C15])/87

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs I

Trial ID: HSB-53311
 Location: Marianna, AR

Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: MorSoy RT 4706
BBCH Scale: BSOY
Planting Method: PLANTD planted
Depth, Unit: 0.5 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: GOOD good
Description: Roundup Ready / STS
Planting Date: 6/9/11
Rate, Unit: 130000 P/A
Spacing Within Row, Unit: 1 IN
Soil Temperature, Unit: 81.1 F
Emergence Date: 6/16/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	8/8/11	Acephate	0.5	LB A/A	Y	yes
2.	8/8/11	Snxper	5.1	OZ/A	Y	yes
3.	8/23/11	Intrepid	8	OZ/A	Y	yes
4.	8/23/11	Brigade	5.1	OZ/A	Y	yes

Soil Description

Description Name: 2011 Soy/Cotton Marianna
% Sand: 1 **% OM:** 2 **Texture:** SIL silt loam
% Silt: 82 **pH:** 7 **Soil Name:** Loring Silt Loam
% Clay: 17 **CEC:** 15 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B	C
Application Date:	6/9/11	6/20/11	6/30/11
Time of Day:	PM	AM	AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREPRE	POSPRE	POSPOS
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	JM	JB	JB
Air Temperature, Unit:	83 F	87 F	81.8 F
% Relative Humidity:	62.7	74.6	78.7
Wind Velocity, Unit:	4.1 MPH	7.9 MPH	1.4 MPH
Wind Direction:	W	WSW	SSW
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	84.4 F	85.7 F	81.1 F
Soil Moisture:	FAIR	SLIWET	NORMAL
% Cloud Cover:	10	20	10
Next Rain Occurred On:	6/14/11	6/22/11	7/7/11

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	DESC	DESC	DESC
Stage Majority, Percent:	V0	V1	V3
Height, Unit:	0 IN	3 IN	6 IN

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W
Height, Unit:	0 IN	1 IN	2 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W
Height, Unit:	0 IN	2 IN	4 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W
Height, Unit:	0 IN	1 IN	2 IN

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs I

Trial ID: HSB-53311
 Location: Marianna, AR

Investigator: Kenneth Smith

Application Equipment

	A	B	C
Appl. Equipment:	Multi Boom	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix
Nozzle Size:	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Nozzles/Row:	2	2	2
% Coverage:	100	100	100
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes	Y yes

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs I

Trial ID: HSB-53311
 Location: Marianna, AR

Investigator: Kenneth Smith

Pest Type		W Weed	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code		ECHCG	AMAPA	ECHCG	AMAPA	ECHCG	AMAPA					
Pest Scientific Name		Echinochloa cr>	Amaranthus pal>	Echinochloa cr>	Amaranthus pal>	Echinochloa cr>	Amaranthus pal>					
Pest Name		Common barnyar>	Palmer amaranth	Common barnyar>	Palmer amaranth	Common barnyar>	Palmer amaranth					
Crop Code		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA					
Crop Scientific Name		Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max					
Crop Name		Soybean	Soybean	Soybean	Soybean	Soybean	Soybean					
Part Assessed		PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P					
Assessment Date		6/20/11	6/20/11	6/30/11	6/30/11	7/6/11	7/6/11					
Assessment Type		CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Assessment Unit		%	%	%	%	%	%					
Number of Subsamples		1	1	1	1	1	1					
Crop Stage Majority		V2 2-4"	V2 2-4"	V4 4-6"	V4 4-6"	V5 4-6"	V5 4-6"					
Pest Stage Majority		1-5	1-10"	1-10"	2-24"	4-12"	4-24"					
Assessed By		JB	JB	JB	JB	JB	JB					
Days After First/Last Applic.		11 11	11 11	21 10	21 10	27 6	27 6					
Trt-Eval Interval		11 DA-A	11 DA-A	10 DA-B	10 DA-B	6 DA-C	6 DA-C					
Plant-Eval Interval		11 DP-1	11 DP-1	21 DP-1	21 DP-1	27 DP-1	27 DP-1					
Days After Emergence		4 DE-1	4 DE-1	14 DE-1	14 DE-1	20 DE-1	20 DE-1					
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Apppl Code	Apppl Description	1	2	3	4	5	6
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0
2	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	91.3	95.0	100.0	99.0
	Roundup WeatherMax	1.55 lb ae/a	44 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	1.55 lb ae/a	44 oz/a		C	2 - 4" AMAPA						
3	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	95.0	95.0	60.0	87.5	100.0	98.0
	Prefix	1.32 lb ai/a	32 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
4	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	82.5	90.0	100.0	97.5
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
5	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	97.5	97.5	82.5	92.5	92.5	93.5
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
6	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	98.8	90.0	100.0	92.5
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
7	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	97.5	97.5	72.5	85.0	100.0	90.3
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
8	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	100.0	100.0	98.8	80.0	92.5	81.3
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
9	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	100.0	100.0	93.8	85.0	95.0	76.3
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
10	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	88.8	95.0	100.0	99.0
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
11	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	82.5	97.5	100.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE						
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
12	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	98.8	96.3	100.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE						
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
13	Authority MTZ	0.31 lb ai/a	11 oz/a		A	PRE	100.0	100.0	85.0	75.0	100.0	93.8
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
14	Authority MTZ	0.31 lb ai/a	11 oz/a		A	PRE	97.5	97.5	78.8	95.0	100.0	94.5
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
15	Authority MTZ	0.31 lb ai/a	11 oz/a		A	PRE	100.0	100.0	100.0	93.8	100.0	92.0
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
16	Sencor	0.25 lb ai/a	5.33 oz/a		A	PRE	100.0	100.0	93.8	90.0	100.0	88.5
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
17	Sencor	0.25 lb ai/a	5.33 oz/a		A	PRE	100.0	100.0	81.3	100.0	97.5	75.8
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
18	Sencor	0.25 lb ai/a	5.33 oz/a		A	PRE	100.0	100.0	100.0	86.3	100.0	94.3
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
19	Fierce	0.143 lb ai/a	3 oz/a		A	PRE	100.0	100.0	93.8	93.8	100.0	100.0
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs I

Trial ID: HSB-53311
 Location: Marianna, AR

Investigator: Kenneth Smith

Pest Type		W Weed	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code		ECHCG	AMAPA	ECHCG	AMAPA	ECHCG	AMAPA					
Pest Scientific Name		Echinochloa cr>	Amaranthus pal>	Echinochloa cr>	Amaranthus pal>	Echinochloa cr>	Amaranthus pal>					
Pest Name		Common barnyar>	Palmer amaranth	Common barnyar>	Palmer amaranth	Common barnyar>	Palmer amaranth					
Crop Code		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA					
Crop Scientific Name		Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max					
Crop Name		Soybean	Soybean	Soybean	Soybean	Soybean	Soybean					
Part Assessed		PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P					
Assessment Date		6/20/11	6/20/11	6/30/11	6/30/11	7/6/11	7/6/11					
Assessment Type		CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Assessment Unit		%	%	%	%	%	%					
Number of Subsamples		1	1	1	1	1	1					
Crop Stage Majority		V2 2-4"	V2 2-4"	V4 4-6"	V4 4-6"	V5 4-6"	V5 4-6"					
Pest Stage Majority		1-5	1-10"	1-10"	2-24"	4-12"	4-24"					
Assessed By		JB	JB	JB	JB	JB	JB					
Days After First/Last Applic.		11 11	11 11	21 10	21 10	27 6	27 6					
Trt-Eval Interval		11 DA-A	11 DA-A	10 DA-B	10 DA-B	6 DA-C	6 DA-C					
Plant-Eval Interval		11 DP-1	11 DP-1	21 DP-1	21 DP-1	27 DP-1	27 DP-1					
Days After Emergence		4 DE-1	4 DE-1	14 DE-1	14 DE-1	20 DE-1	20 DE-1					
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	1	2	3	4	5	6
20	Fierce	0.143 lb ai/a	3 oz/a		A	PRE	100.0	100.0	93.8	92.5	100.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
21	Fierce	0.143 lb ai/a	3 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
22	Zidua	0.106 lb ai/a	2 oz/a		A	PRE	100.0	100.0	95.0	83.8	100.0	85.0
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
23	Zidua	0.106 lb ai/a	2 oz/a		A	PRE	100.0	100.0	82.5	92.5	100.0	86.5
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
24	Zidua	0.106 lb ai/a	2 oz/a		A	PRE	100.0	100.0	98.8	91.3	100.0	90.0
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
25	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	98.8	100.0	100.0
	Warrant	1.5 lb ai/a	64 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
26	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	100.0	100.0	95.8
	Warrant	1.88 lb ai/a	80 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
LSD (P=.05)							2.86	2.86	12.13	10.55	5.38	9.50
Standard Deviation							2.02	2.02	8.58	7.46	3.80	6.72
CV							2.11	2.11	9.9	8.48	3.99	7.52
Grand Mean							95.67	95.67	86.63	87.93	95.29	89.36

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs I

Trial ID: HSB-53311
 Location: Marianna, AR

Investigator: Kenneth Smith

Pest Type		W Weed ECHCG		W Weed AMAPA		W Weed ECHCG		W Weed AMAPA		W Weed IPOSS			
Pest Code		Echinochloa cr>		Amaranthus pal>		Echinochloa cr>		Amaranthus pal>		Ipomoea sp.			
Pest Scientific Name		Common barnyar>		Palmer amaranth		Common barnyar>		Palmer amaranth		Morning glory			
Pest Name													
Crop Code		GLXMA		GLXMA		GLXMA		GLXMA		GLXMA			
Crop Scientific Name		Glycine max		Glycine max		Glycine max		Glycine max		Glycine max			
Crop Name		Soybean		Soybean		Soybean		Soybean		Soybean			
Part Assessed		PLANT C		PLANT P		PLANT P		PLANT P		PLANT P			
Assessment Date		7/6/11		7/13/11		7/13/11		8/11/11		8/11/11			
Assessment Type		PHYGEN		CONTRO		CONTRO		CONTRO		CONTRO			
Assessment Unit		%		%		%		%		%			
Number of Subsamples		1		1		1		1		1			
Crop Stage Majority		V5 4-6"		V7 11"		V7 11"		R2 32.5"		R2 32.5"			
Pest Stage Majority		5-10"		5-10"		5-25"		10-40"		10-70"			
Assessed By		JB		JB		JB		JB		JB			
Days After First/Last Applic.		27 6		34 13		34 13		63 63		63 63			
Trt-Eval Interval		6 DA-C		13 DA-C		13 DA-C		42 DA-C		42 DA-C			
Plant-Eval Interval		27 DP-1		34 DP-1		34 DP-1		63 DP-1		63 DP-1			
Days After Emergence		20 DE-1		27 DE-1		27 DE-1		56 DE-1		56 DE-1			
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Unit	Appl Code	Appl Description	7	8	9	10	11	12
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	Valor SX	0.064 lb ai/a	2 oz/a			A	PRE	1.3	100.0	92.5	100.0	90.0	97.5
	Roundup WeatherMax	1.55 lb ae/a	44 oz/a			B	Pre AMAPA (V1)						
	Roundup WeatherMax	1.55 lb ae/a	44 oz/a			C	2 - 4" AMAPA						
3	Valor SX	0.064 lb ai/a	2 oz/a			A	PRE	26.3	98.8	97.5	100.0	100.0	100.0
	Prefix	1.32 lb ai/a	32 oz/a			C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			C	2 - 4" AMAPA						
4	Valor SX	0.064 lb ai/a	2 oz/a			A	PRE	30.0	97.5	96.3	100.0	97.5	100.0
	Flexstar	0.294 lb ai/a	20 oz/a			C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			C	2 - 4" AMAPA						
5	Valor SX	0.064 lb ai/a	2 oz/a			A	PRE	12.5	87.5	86.3	92.5	85.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a			C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a			C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			C	2 - 4" AMAPA						
6	Valor SX	0.064 lb ai/a	2 oz/a			A	PRE	3.8	92.5	83.8	100.0	78.8	100.0
	Warrant	1.13 lb ai/a	48 oz/a			B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			B	Pre AMAPA (V1)						
7	Warrant	1.13 lb ai/a	48 oz/a			A	PRE	25.0	100.0	78.8	97.5	80.0	97.5
	Flexstar	0.294 lb ai/a	20 oz/a			C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			C	2 - 4" AMAPA						
8	Warrant	1.13 lb ai/a	48 oz/a			A	PRE	18.8	93.8	77.5	95.0	75.0	95.0
	Warrant	1.13 lb ai/a	48 oz/a			C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a			C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			C	2 - 4" AMAPA						
9	Warrant	1.13 lb ai/a	48 oz/a			A	PRE	2.5	93.3	76.7	100.0	72.5	100.0
	Warrant	1.13 lb ai/a	48 oz/a			B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			B	Pre AMAPA (V1)						
10	Valor SX	0.064 lb ai/a	2 oz/a			A	PRE	27.5	96.3	95.0	100.0	97.5	100.0
	Warrant	1.13 lb ai/a	48 oz/a			A	PRE						
	Flexstar	0.294 lb ai/a	20 oz/a			C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			C	2 - 4" AMAPA						
11	Valor SX	0.064 lb ai/a	2 oz/a			A	PRE	6.3	87.5	97.5	100.0	96.3	100.0
	Warrant	1.13 lb ai/a	48 oz/a			A	PRE						
	Warrant	1.13 lb ai/a	48 oz/a			C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a			C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			C	2 - 4" AMAPA						
12	Valor SX	0.064 lb ai/a	2 oz/a			A	PRE	2.5	97.5	90.0	100.0	90.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a			A	PRE						
	Warrant	1.13 lb ai/a	48 oz/a			B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			B	Pre AMAPA (V1)						
13	Authority MTZ	0.31 lb ai/a	11 oz/a			A	PRE	42.5	97.5	83.8	100.0	83.8	100.0
	Flexstar	0.294 lb ai/a	20 oz/a			C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			C	2 - 4" AMAPA						
14	Authority MTZ	0.31 lb ai/a	11 oz/a			A	PRE	16.3	81.3	78.8	100.0	82.5	100.0
	Warrant	1.13 lb ai/a	48 oz/a			C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a			C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			C	2 - 4" AMAPA						
15	Authority MTZ	0.31 lb ai/a	11 oz/a			A	PRE	10.0	97.5	87.5	100.0	85.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a			B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			B	Pre AMAPA (V1)						
16	Sencor	0.25 lb ai/a	5.33 oz/a			A	PRE	30.0	98.8	72.5	97.5	70.0	97.5
	Flexstar	0.294 lb ai/a	20 oz/a			C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			C	2 - 4" AMAPA						
17	Sencor	0.25 lb ai/a	5.33 oz/a			A	PRE	3.8	80.0	75.0	95.0	70.0	97.5
	Warrant	1.13 lb ai/a	48 oz/a			C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a			C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			C	2 - 4" AMAPA						
18	Sencor	0.25 lb ai/a	5.33 oz/a			A	PRE	0.0	100.0	80.0	100.0	75.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a			B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			B	Pre AMAPA (V1)						
19	Fierce	0.143 lb ai/a	3 oz/a			A	PRE	28.8	100.0	97.5	100.0	100.0	100.0
	Flexstar	0.294 lb ai/a	20 oz/a			C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a			C	2 - 4" AMAPA						

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs I

Trial ID: HSB-53311
 Location: Marianna, AR

Investigator: Kenneth Smith

		W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed ECHCG Echinochloa cr> Common barnyar>	W Weed AMAPA Amaranthus pal> Palmer amaranth	W Weed IPOSS Ipomoea sp. Morning glory						
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA						
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max						
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean						
Part Assessed	PLANT C	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P						
Assessment Date	7/6/11	7/13/11	7/13/11	8/11/11	8/11/11	8/11/11						
Assessment Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO						
Assessment Unit	%	%	%	%	%	%						
Number of Subsamples	1	1	1	1	1	1						
Crop Stage Majority	V5 4-6"	V7 11"	V7 11"	R2 32.5"	R2 32.5"	R2 32.5"						
Pest Stage Majority		5-10"	5-25"	10-40"	10-70"	5-25"						
Assessed By	JB	JB	JB	JB	JB	JB						
Days After First/Last Applic.	27 6	34 13	34 13	63 63	63 63	63 63						
Trt-Eval Interval	6 DA-C	13 DA-C	13 DA-C	42 DA-C	42 DA-C	42 DA-C						
Plant-Eval Interval	27 DP-1	34 DP-1	34 DP-1	63 DP-1	63 DP-1	63 DP-1						
Days After Emergence	20 DE-1	27 DE-1	27 DE-1	56 DE-1	56 DE-1	56 DE-1						
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Code	Appl Description	7	8	9	10	11	12
20	Fierce	0.143 lb ai/a	3 oz/a		A	PRE	15.0	96.3	96.3	97.5	95.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
21	Fierce	0.143 lb ai/a	3 oz/a		A	PRE	0.0	100.0	91.3	100.0	90.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
22	Zidua	0.106 lb ai/a	2 oz/a		A	PRE	27.5	96.3	85.0	100.0	85.0	100.0
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
23	Zidua	0.106 lb ai/a	2 oz/a		A	PRE	7.5	97.5	73.8	100.0	77.5	100.0
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
24	Zidua	0.106 lb ai/a	2 oz/a		A	PRE	0.0	92.5	86.3	95.0	80.0	95.0
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
25	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	10.0	85.0	87.5	100.0	82.5	100.0
	Warrant	1.5 lb ai/a	64 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
26	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	0.0	88.8	75.0	95.0	72.5	95.0
	Warrant	1.88 lb ai/a	80 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
	LSD (P=.05)						15.44	13.93	15.24	6.65	14.17	4.47
	Standard Deviation						10.92	9.85	10.77	4.70	10.02	3.16
	CV						81.67	10.87	13.08	4.96	12.34	3.32
	Grand Mean						13.37	90.61	82.37	94.81	81.2	95.19

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs I

Trial ID: HSB-53311
 Location: Marianna, AR

Investigator: Kenneth Smith

Pest Type		W Weed		W Weed					
Pest Code		ECHCG		AMAPA					
Pest Scientific Name		Echinochloa cr->		Amaranthus pal>					
Pest Name		Common barnyar>		Palmer amaranth					
Crop Code		GLXMA		GLXMA					
Crop Scientific Name		Glycine max		Glycine max					
Crop Name		Soybean		Soybean					
Part Assessed		PLANT P		PLANT P					
Assessment Date		9/26/11		9/26/11					
Assessment Type		CONTRO		CONTRO					
Assessment Unit		%		%					
Number of Subsamples		1		1					
Crop Stage Majority		R7 38"		R7 38"					
Pest Stage Majority		10-40"		20-60"					
Assessed By		JB		JB					
Days After First/Last Applic.		109 88		109 88					
Trt-Eval Interval		42 DA-C		42 DA-C					
Plant-Eval Interval		109 DP-1		109 DP-1					
Days After Emergence		102 DE-1		102 DE-1					
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	13	14
1	Untreated Check							0.0	0.0
2	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	95.0	85.0
	Roundup WeatherMax	1.55	lb ae/a	44	oz/a	B	Pre AMAPA (V1)		
	Roundup WeatherMax	1.55	lb ae/a	44	oz/a	C	2 - 4" AMAPA		
3	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	92.5	92.5
	Prefix	1.32	lb ai/a	32	oz/a	C	2 - 4" AMAPA		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA		
4	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	97.5	95.0
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA		
5	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	75.0	65.0
	Warrant	1.13	lb ai/a	48	oz/a	C	2 - 4" AMAPA		
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA		
6	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	90.0	65.0
	Warrant	1.13	lb ai/a	48	oz/a	B	Pre AMAPA (V1)		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	Pre AMAPA (V1)		
7	Warrant	1.13	lb ai/a	48	oz/a	A	PRE	92.5	67.5
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA		
8	Warrant	1.13	lb ai/a	48	oz/a	A	PRE	82.5	60.0
	Warrant	1.13	lb ai/a	48	oz/a	C	2 - 4" AMAPA		
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA		
9	Warrant	1.13	lb ai/a	48	oz/a	A	PRE	92.5	70.0
	Warrant	1.13	lb ai/a	48	oz/a	B	Pre AMAPA (V1)		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	Pre AMAPA (V1)		
10	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	95.0	95.0
	Warrant	1.13	lb ai/a	48	oz/a	A	PRE		
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA		
11	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	92.5	90.0
	Warrant	1.13	lb ai/a	48	oz/a	A	PRE		
	Warrant	1.13	lb ai/a	48	oz/a	C	2 - 4" AMAPA		
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA		
12	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	92.5	87.5
	Warrant	1.13	lb ai/a	48	oz/a	A	PRE		
	Warrant	1.13	lb ai/a	48	oz/a	B	Pre AMAPA (V1)		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	Pre AMAPA (V1)		
13	Authority MTZ	0.31	lb ai/a	11	oz/a	A	PRE	82.5	72.5
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA		
14	Authority MTZ	0.31	lb ai/a	11	oz/a	A	PRE	90.0	72.5
	Warrant	1.13	lb ai/a	48	oz/a	C	2 - 4" AMAPA		
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA		
15	Authority MTZ	0.31	lb ai/a	11	oz/a	A	PRE	92.5	75.0
	Warrant	1.13	lb ai/a	48	oz/a	B	Pre AMAPA (V1)		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	Pre AMAPA (V1)		
16	Sencor	0.25	lb ai/a	5.33	oz/a	A	PRE	91.3	60.0
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA		
17	Sencor	0.25	lb ai/a	5.33	oz/a	A	PRE	75.0	52.5
	Warrant	1.13	lb ai/a	48	oz/a	C	2 - 4" AMAPA		
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA		
18	Sencor	0.25	lb ai/a	5.33	oz/a	A	PRE	90.0	62.5
	Warrant	1.13	lb ai/a	48	oz/a	B	Pre AMAPA (V1)		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	Pre AMAPA (V1)		
19	Fierce	0.143	lb ai/a	3	oz/a	A	PRE	95.0	85.0
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA		

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs I

Trial ID: HSB-53311
 Location: Marianna, AR

Investigator: Kenneth Smith

							W Weed	W Weed	
							ECHCG	AMAPA	
							Echinochloa cr->	Amaranthus pal->	
							Common barnyar->	Palmer amaranth	
							GLXMA	GLXMA	
							Glycine max	Glycine max	
							Soybean	Soybean	
							PLANT P	PLANT P	
							9/26/11	9/26/11	
							CONTRO	CONTRO	
							%	%	
							1	1	
							R7 38"	R7 38"	
							10-40"	20-60"	
							JB	JB	
							109 88	109 88	
							42 DA-C	42 DA-C	
							109 DP-1	109 DP-1	
							102 DE-1	102 DE-1	
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	13	14
20	Fierce	0.143	lb ai/a	3	oz/a	A	PRE	95.0	87.5
	Warrant	1.13	lb ai/a	48	oz/a	C	2 - 4" AMAPA		
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA		
21	Fierce	0.143	lb ai/a	3	oz/a	A	PRE	97.5	92.5
	Warrant	1.13	lb ai/a	48	oz/a	B	Pre AMAPA (V1)		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	Pre AMAPA (V1)		
22	Zidua	0.106	lb ai/a	2	oz/a	A	PRE	87.5	62.5
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA		
23	Zidua	0.106	lb ai/a	2	oz/a	A	PRE	90.0	70.0
	Warrant	1.13	lb ai/a	48	oz/a	C	2 - 4" AMAPA		
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA		
24	Zidua	0.106	lb ai/a	2	oz/a	A	PRE	90.0	67.5
	Warrant	1.13	lb ai/a	48	oz/a	B	Pre AMAPA (V1)		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	Pre AMAPA (V1)		
25	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	90.0	67.5
	Warrant	1.5	lb ai/a	64	oz/a	B	Pre AMAPA (V1)		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	Pre AMAPA (V1)		
26	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	90.0	60.0
	Warrant	1.88	lb ai/a	80	oz/a	B	Pre AMAPA (V1)		
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	Pre AMAPA (V1)		
LSD (P=.05)							10.81	20.58	
Standard Deviation							7.64	14.55	
CV							8.82	20.34	
Grand Mean							86.68	71.54	

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs II

Trial ID: HSB-53411
 Location: Marianna, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: MorSoy RT 4706
BBCH Scale: BSOY
Planting Method: PLANTD planted
Depth, Unit: 0.5 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: GOOD good
Description: Roundup Ready / STS
Planting Date: 6/9/11
Rate, Unit: 130000 P/A
Spacing Within Row, Unit: 1 IN
Soil Temperature, Unit: 81.1 F
Emergence Date: 6/16/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass

Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth

Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	8/8/11	Acephate	0.5	LB A/A	Y	yes
2.	8/8/11	Snxper	5.1	OZ/A	Y	yes
3.	8/23/11	Intrepid	8	OZ/A	Y	yes
4.	8/23/11	Brigade	5.1	OZ/A	Y	yes

Soil Description

Description Name: 2011 Soy/Cotton Marianna
% Sand: 1 **% OM:** 2 **Texture:** SIL silt loam
% Silt: 82 **pH:** 7 **Soil Name:** Loring Silt Loam
% Clay: 17 **CEC:** 15 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B	C
Application Date:	6/9/11	6/20/11	6/30/11
Time of Day:	PM	AM	AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PREPRE	POSPRE	POSPOS
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	JM	JB	JB
Air Temperature, Unit:	83 F	87 F	81.8 F
% Relative Humidity:	62.7	74.6	78.7
Wind Velocity, Unit:	4.1 MPH	7.9 MPH	1.4 MPH
Wind Direction:	W	WSW	SSW
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	84.4 F	85.7 F	81.1 F
Soil Moisture:	FAIR	SLIWET	NORMAL
% Cloud Cover:	10	20	10
Next Rain Occurred On:	6/14/11	6/22/11	7/7/11

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	DESC	DESC	DESC
Stage Majority, Percent:	V0	V1	V3
Height, Unit:	0 IN	3 IN	6 IN

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ECHCG W	ECHCG W	ECHCG W
Height, Unit:	0 IN	1 IN	2 IN
Pest 2 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W
Height, Unit:	0 IN	2 IN	4 IN
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W
Height, Unit:	0 IN	1 IN	2 IN

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs II

Trial ID: HSB-53411
 Location: Marianna, AR

Investigator: Kenneth Smith

Application Equipment

	A	B	C
Appl. Equipment:	Multi Boom	Multi Boom	Multi Boom
Equipment Type:	SPTRMO	SPTRMO	SPTRMO
Operation Pressure, Unit:	50 PSI	50 PSI	50 PSI
Nozzle Type:	Air-Mix	Air-Mix	Air-Mix
Nozzle Size:	110015	110015	110015
Nozzle Spacing, Unit:	19 IN	19 IN	19 IN
Nozzles/Row:	2	2	2
% Coverage:	100	100	100
Boom Length, Unit:	12.6 FT	12.6 FT	12.6 FT
Boom Height, Unit:	18 IN	18 IN	18 IN
Carrier:	WATER	WATER	WATER
Spray Volume, Unit:	12 gal/ac	12 gal/ac	12 gal/ac
Mix Size, Unit:	3 Liters	3 Liters	3 Liters
Propellant:	COMCO2	COMCO2	COMCO2
Tank Mix (Y/N):	Y yes	Y yes	Y yes

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs II

Trial ID: HSB-53411
 Location: Marianna, AR

Investigator: Kenneth Smith

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed							
Pest Code	ELEIN	AMAPA	ECHCG	AMAPA	ECHCG							
Pest Scientific Name	Eleusine indica	Amaranthus pal>	Echinochloa cr>	Amaranthus pal>	Echinochloa cr>							
Pest Name	Goosegrass	Palmer amaranth	Common barnyar>	Palmer amaranth	Common barnyar>							
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT C							
Assessment Date	6/30/11	6/30/11	7/6/11	7/6/11	7/6/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN							
Assessment Unit	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1							
Crop Stage Majority	V4 4-6"	V4 4-6"	V5 4-6"	V5 4-6"	V5 4-6"							
Pest Stage Majority	Heading	2-42"	6-12"	4-14"	5-10"							
Assessed By	JB	JB	JB	JB	JB							
Days After First/Last Applic.	21 10	21 10	27 6	27 6	27 6							
Trt-Eval Interval	10 DA-B	10 DA-B	6 DA-C	6 DA-C	6 DA-C							
Plant-Eval Interval	21 DP-1	21 DP-1	27 DP-1	27 DP-1	27 DP-1							
Days After Emergence	14 DE-1	14 DE-1	20 DE-1	20 DE-1	20 DE-1							
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Description	1	2	3	4	5	6
1	Untreated Check						0.0	0.0	0.0	0.0	0.0	0.0
2	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	91.7	83.3	100.0	87.5	26.3	97.5
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
3	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	93.3	76.7	100.0	88.8	25.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
4	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	97.5	92.5	100.0	95.8	11.3	100.0
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
5	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	88.8	78.8	100.0	97.0	30.0	100.0
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
6	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	95.0	77.5	100.0	99.5	27.5	100.0
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE						
	Warrant	1.13 lb ai/a	48 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
7	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	97.5	100.0	97.5	6.3	100.0
	Warrant	1.13 lb ai/a	48 oz/a		A	PRE						
	Warrant	1.13 lb ai/a	48 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
8	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE	80.0	80.0	99.5	92.0	25.0	100.0
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
9	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE	86.3	80.0	100.0	98.0	28.8	100.0
	Dual Magnum	0.955 lb ai/a	16 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
10	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE	100.0	87.5	100.0	92.3	6.3	100.0
	Dual Magnum	0.955 lb ai/a	16 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
11	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	91.3	97.5	100.0	100.0	25.0	100.0
	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
12	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	95.0	100.0	100.0	100.0	31.3	100.0
	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE						
	Dual Magnum	0.955 lb ai/a	16 oz/a		C	2 - 4" AMAPA						
	Flexstar	0.294 lb ai/a	20 oz/a		C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		C	2 - 4" AMAPA						
13	Valor SX	0.064 lb ai/a	2 oz/a		A	PRE	100.0	100.0	100.0	100.0	3.8	100.0
	Dual Magnum	0.955 lb ai/a	16 oz/a		A	PRE						
	Dual Magnum	0.955 lb ai/a	16 oz/a		B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77 lb ae/a	22 oz/a		B	Pre AMAPA (V1)						
14	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	83.8	72.5	91.3	82.3	2.5	81.3
15	Reflex	0.25 lb ai/a	16 oz/a		A	PRE	93.3	81.7	93.3	73.7	0.0	93.3
16	Warrant	1.13 lb ai/a	48 oz/a		A	PRE	95.0	92.5	95.0	91.3	1.3	97.5
	Reflex	0.25 lb ai/a	16 oz/a		A	PRE						
17	Prefix	1.32 lb ai/a	32 oz/a		A	PRE	96.3	96.3	99.5	88.0	1.3	100.0
LSD (P=.05)							10.50	14.79	4.15	7.95	6.94	4.21
Standard Deviation							7.35	10.35	2.90	5.57	4.86	2.95
CV							8.4	12.62	3.13	6.38	32.86	3.19
Grand Mean							87.48	82.01	92.86	87.26	14.78	92.33

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

Warrant Soybean Weed Control Programs II

Trial ID: HSB-53411
 Location: Marianna, AR

Investigator: Kenneth Smith

Pest Type	W Weed AMAPA	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS	W Weed ECHCG	W Weed AMAPA							
Pest Code	Amaranthus pal>	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.	Echinochloa cr>	Amaranthus pal>							
Pest Scientific Name	Palmer amaranth	Common barnyar>	Palmer amaranth	Morning glory	Common barnyar>	Palmer amaranth							
Pest Name													
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P	PLANT P							
Assessment Date	7/13/11	8/11/11	8/11/11	8/11/11	9/26/11	9/26/11							
Assessment Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1							
Crop Stage Majority	V7 11"	R2 32.5"	R2 32.5"	R2 32.5"	R7 38"	R7 38"							
Pest Stage Majority	5-25"	10-40"	10-70"	5-25"	10-40"	20-60"							
Assessed By	JB	JB	JB	JB	JB	JB							
Days After First/Last Applic.	34 13	63 63	63 63	63 63	109 88	109 88							
Trt-Eval Interval	13 DA-C	42 DA-C	42 DA-C	42 DA-C	42 DA-C	42 DA-C							
Plant-Eval Interval	34 DP-1	63 DP-1	63 DP-1	63 DP-1	109 DP-1	109 DP-1							
Days After Emergence	27 DE-1	56 DE-1	56 DE-1	56 DE-1	102 DE-1	102 DE-1							
Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	Appl Description	7	8	9	10	11	12
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0
2	Warrant	1.13	lb ai/a	48	oz/a	A	PRE	88.8	93.8	80.0	93.8	90.0	62.5
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA						
3	Warrant	1.13	lb ai/a	48	oz/a	A	PRE	91.0	97.5	78.8	97.5	80.0	75.0
	Warrant	1.13	lb ai/a	48	oz/a	C	2 - 4" AMAPA						
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA						
4	Warrant	1.13	lb ai/a	48	oz/a	A	PRE	95.0	95.0	86.3	92.5	87.5	80.0
	Warrant	1.13	lb ai/a	48	oz/a	B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	Pre AMAPA (V1)						
5	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	98.0	100.0	93.0	100.0	92.5	87.5
	Warrant	1.13	lb ai/a	48	oz/a	A	PRE						
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA						
6	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	100.0	100.0	88.0	100.0	90.0	77.5
	Warrant	1.13	lb ai/a	48	oz/a	A	PRE						
	Warrant	1.13	lb ai/a	48	oz/a	C	2 - 4" AMAPA						
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA						
7	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	97.5	100.0	90.0	100.0	90.0	77.5
	Warrant	1.13	lb ai/a	48	oz/a	A	PRE						
	Warrant	1.13	lb ai/a	48	oz/a	B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	Pre AMAPA (V1)						
8	Dual Magnum	0.955	lb ai/a	16	oz/a	A	PRE	91.3	100.0	87.5	100.0	95.0	85.0
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA						
9	Dual Magnum	0.955	lb ai/a	16	oz/a	A	PRE	87.5	100.0	86.3	100.0	90.0	75.0
	Dual Magnum	0.955	lb ai/a	16	oz/a	C	2 - 4" AMAPA						
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA						
10	Dual Magnum	0.955	lb ai/a	16	oz/a	A	PRE	98.8	98.8	90.0	98.8	92.5	80.0
	Dual Magnum	0.955	lb ai/a	16	oz/a	B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	Pre AMAPA (V1)						
11	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	100.0	100.0	100.0	100.0	97.5	97.5
	Dual Magnum	0.955	lb ai/a	16	oz/a	A	PRE						
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA						
12	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	100.0	100.0	100.0	100.0	95.0	95.0
	Dual Magnum	0.955	lb ai/a	16	oz/a	A	PRE						
	Dual Magnum	0.955	lb ai/a	16	oz/a	C	2 - 4" AMAPA						
	Flexstar	0.294	lb ai/a	20	oz/a	C	2 - 4" AMAPA						
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	C	2 - 4" AMAPA						
13	Valor SX	0.064	lb ai/a	2	oz/a	A	PRE	100.0	100.0	97.0	100.0	90.0	90.0
	Dual Magnum	0.955	lb ai/a	16	oz/a	A	PRE						
	Dual Magnum	0.955	lb ai/a	16	oz/a	B	Pre AMAPA (V1)						
	Roundup WeatherMax	0.77	lb ae/a	22	oz/a	B	Pre AMAPA (V1)						
14	Warrant	1.13	lb ai/a	48	oz/a	A	PRE	70.0	85.0	70.0	87.5	72.5	57.5
15	Reflex	0.25	lb ai/a	16	oz/a	A	PRE	82.3	90.0	73.3	93.3	83.3	56.7
16	Warrant	1.13	lb ai/a	48	oz/a	A	PRE	97.0	95.0	77.5	95.0	90.0	77.5
	Reflex	0.25	lb ai/a	16	oz/a	A	PRE						
17	Prefix	1.32	lb ai/a	32	oz/a	A	PRE	95.0	88.8	87.5	90.0	87.5	72.5
LSD (P=.05)								8.71	8.22	12.52	7.31	9.98	15.05
Standard Deviation								6.10	5.75	8.76	5.12	6.99	10.53
CV								6.95	6.34	10.75	5.62	8.34	14.36
Grand Mean								87.77	90.81	81.48	91.08	83.73	73.33

University of Arkansas-Division of Agriculture

POST Weed Control in LL Soybean

Trial ID: HSB-53511
 Location: Marianna, AR
 Investigator: Kenneth Smith

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Progeny 4928
BBCH Scale: BSOY
Planting Method: PLANTD planted
Depth, Unit: 0.5 IN
Row Spacing, Unit: 38 IN
Seed Bed: MEDIUM medium
Soil Moisture: GOOD good
Description: LL / Trilex
Planting Date: 6/9/11
Rate, Unit: 130000 P/A
Spacing Within Row, Unit: 1 IN
Soil Temperature, Unit: 81.1 F
Emergence Date: 6/16/11

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass
Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth
Pest 3 Type: W **Code:** IPOSS Ipomoea sp.
Common Name: Morning glory

Site and Design

Plot Width, Unit: 12.66 FT
Plot Length, Unit: 28 FT
Plot Area, Unit: 354.48 FT²
Replications: 4
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Tank Mix Code	Tank Mix
1.	6/10/11	Igните 280	2.34	LBA/GAL	SL	29	OZ/A		
2.	8/8/11	Acephate				0.5	LB A/A	Y	yes
3.	8/8/11	Snxper				5.1	OZ/A	Y	yes
4.	8/23/11	Intrepid				8	OZ/A	Y	yes
5.	8/23/11	Brigade				5.1	OZ/A	Y	yes

Soil Description

Description Name: 2011 Soybean Marianna North
% Sand: 13 **% OM:** 2 **Texture:** SIL silt loam
% Silt: 66 **pH:** 7 **Soil Name:** Memphis Silt Loam
% Clay: 21 **CEC:** 15 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A
Application Date:	6/30/11
Time of Day:	PM
Application Method:	SPRAY
Application Timing:	POSPOS
Application Placement:	BROFOL
Applied By:	JB
Air Temperature, Unit:	82 F
% Relative Humidity:	78.7
Wind Velocity, Unit:	1.4 MPH
Wind Direction:	SSW
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	81.1 F
Soil Moisture:	NORMAL
% Cloud Cover:	10
Next Rain Occurred On:	7/5/11

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	GLXMA BSOY
Stage Scale Used:	BBCH
Stage Majority, Percent:	V4
Height, Unit:	4 IN

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	ECHCG W
Height, Unit:	6 IN
Pest 2 Code, Type, Scale:	AMAPA W
Height, Unit:	5 IN
Pest 3 Code, Type, Scale:	IPOSS W
Height, Unit:	3 IN

University of Arkansas-Division of Agriculture

POST Weed Control in LL Soybean

Trial ID: HSB-53511
 Location: Marianna, AR

Investigator: Kenneth Smith

Application Equipment

	A
Appl. Equipment:	Multi Boom
Equipment Type:	SPTRMO
Operation Pressure, Unit:	50 PSI
Nozzle Type:	Air-Mix
Nozzle Size:	110015
Nozzle Spacing, Unit:	19 IN
Nozzles/Row:	2
% Coverage:	100
Boom Length, Unit:	12.6 FT
Boom Height, Unit:	18 IN
Carrier:	WATER
Spray Volume, Unit:	12 gal/ac
Mix Size, Unit:	3 Liters
Propellant:	COMCO2
Tank Mix (Y/N):	Y yes

University of Arkansas-Division of Agriculture

POST Weed Control in LL Soybean

Trial ID: HSB-53511
 Location: Marianna, AR

Investigator: Kenneth Smith

Pest Type	W Weed ECHCG	W Weed AMAPA	W Weed IPOSS			W Weed ECHCG	W Weed AMAPA							
Pest Code	Echinochloa cr>	Amaranthus pal>	Ipomoea sp.			Echinochloa cr>	Amaranthus pal>							
Pest Scientific Name	Common barnyar>	Palmer amaranth	Morning glory			Common barnyar>	Palmer amaranth							
Pest Name														
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA							
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean	Soybean							
Part Assessed	PLANT P	PLANT P	PLANT P	PLANT C	PLANT C	PLANT P	PLANT P							
Assessment Date	7/2/11	7/2/11	7/2/11	7/2/11	7/2/11	7/13/11	7/13/11							
Assessment Type	CONTRO	CONTRO	CONTRO	PHYCHL	PHYNEC	CONTRO	CONTRO							
Assessment Unit	%	%	%	%	%	%	%							
Number of Subsamples	1	1	1	1	1	1	1							
Crop Stage Majority	V5 5-7"	V5 5-7"	V5 5-7"	V5 5-7"	V5 5-7"	V7 12"	V7 12"							
Pest Stage Majority	2-6"	2-6"	1-3"			5-10"	5-25"							
Assessed By	JB	JB	JB	JB	JB	JB	JB							
Days After First/Last Applic.	12 12	12 12	12 12	12 12	12 12	34 34	34 34							
Trt-Eval Interval	2 DA-A	2 DA-A	2 DA-A	2 DA-A	2 DA-A	13 DA-A	13 DA-A							
Plant-Eval Interval	23 DP-1	23 DP-1	23 DP-1	23 DP-1	23 DP-1	34 DP-1	34 DP-1							
Days After Emergence	16 DE-1	16 DE-1	16 DE-1	16 DE-1	16 DE-1	27 DE-1	27 DE-1							
Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Appl Code	Description	1	2	3	4	5	6	7
1	Untreated Check							0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Prefix Ignite 280	1.32 lb ai/a	32 oz/a		A	A	3 - 5" AMAPA	100.0	75.0	100.0	20.0	15.0	63.3	43.3
3	Dual Magnum Ignite 280	1.19 lb ai/a	20 oz/a		A	A	3 - 5" AMAPA	100.0	96.8	100.0	1.3	7.5	86.3	47.5
4	Flexstar Ignite 280	0.235 lb ai/a	16 oz/a		A	A	3 - 5" AMAPA	100.0	95.0	100.0	6.3	15.0	78.8	52.5
5	Flexstar Ignite 280	0.353 lb ai/a	24 oz/a		A	A	3 - 5" AMAPA	100.0	97.5	100.0	18.8	28.8	93.8	73.8
6	Warrant Ignite 280	1.13 lb ai/a	48 oz/a		A	A	3 - 5" AMAPA	100.0	83.8	100.0	0.0	2.5	88.8	52.5
7	Warrant Flexstar Ignite 280	1.13 lb ai/a	48 oz/a		A	A	3 - 5" AMAPA	100.0	91.3	100.0	11.3	16.3	87.5	58.8
8	Cadet Ignite 280	0.0064 lb ai/a	0.9 oz/a		A	A	3 - 5" AMAPA	100.0	95.0	100.0	7.5	11.3	83.8	55.0
9	Cobra Ignite 280	0.2 lb ai/a	12.8 oz/a		A	A	3 - 5" AMAPA	100.0	96.3	100.0	17.5	27.5	90.0	68.8
10	Resource Ignite 280	0.0403 lb ai/a	6 oz/a		A	A	3 - 5" AMAPA	100.0	92.5	100.0	7.5	15.0	90.0	56.3
11	Anthem Ignite 280	0.101 lb ai/a	6 oz/a		A	A	3 - 5" AMAPA	96.7	93.3	96.7	8.8	5.0	88.3	71.7
12	ET Ignite 280	0.00122 lb ai/a	0.75 oz/a		A	A	3 - 5" AMAPA	97.5	77.5	97.5	2.5	17.5	73.8	45.0
13	Basagran Ignite 280	0.75 lb ai/a	24 oz/a		A	A	3 - 5" AMAPA	100.0	97.5	100.0	2.5	3.8	96.3	70.0
14	Ultra Blazer Ignite 280	0.375 lb ai/a	24 oz/a		A	A	3 - 5" AMAPA	100.0	100.0	100.0	20.0	28.8	91.3	77.5
15	Ultra Blazer Ignite 280	0.5 lb ai/a	32 oz/a		A	A	3 - 5" AMAPA	100.0	97.5	100.0	17.5	31.3	87.5	68.8
16	Ultra Blazer Dual Magnum Ignite 280	0.375 lb ai/a	24 oz/a		A	A	3 - 5" AMAPA	100.0	100.0	100.0	23.8	28.8	92.5	58.8
17	Ultra Blazer Flexstar Ignite 280	0.375 lb ai/a	24 oz/a		A	A	3 - 5" AMAPA	100.0	100.0	100.0	8.8	23.8	88.8	72.5
18	Ultra Blazer Flexstar Ignite 280	0.235 lb ai/a	16 oz/a		A	A	3 - 5" AMAPA	100.0	98.8	100.0	26.3	23.8	92.5	81.3
19	Ultra Blazer Butyrac 200 Ignite 280	0.375 lb ai/a	24 oz/a		A	A	3 - 5" AMAPA	100.0	100.0	100.0	25.0	28.8	92.5	72.5
LSD (P=.05)								2.23	7.17	2.23	7.70	8.50	13.93	17.01
Standard Deviation								1.58	5.07	1.58	5.45	6.01	9.85	12.03
CV								1.67	5.71	1.67	45.99	34.62	11.96	20.29
Grand Mean								94.43	88.82	94.43	11.84	17.37	82.39	59.28

Means followed by same letter do not significantly differ (P=.05, LSD)

University of Arkansas-Division of Agriculture

POST Weed Control in LL Soybean

Trial ID: HSB-53511
 Location: Marianna, AR

Investigator: Kenneth Smith

Pest Type		W Weed		W Weed					
Pest Code		ECHCG		AMAPA					
Pest Scientific Name		Echinochloa cr>		Amaranthus pal>					
Pest Name		Common barnyard>		Palmer amaranth					
Crop Code		GLXMA		GLXMA					
Crop Scientific Name		Glycine max		Glycine max					
Crop Name		Soybean		Soybean					
Part Assessed		PLANT P		PLANT P					
Assessment Date		7/27/11		7/27/11					
Assessment Type		CONTRO		CONTRO					
Assessment Unit		%		%					
Number of Subsamples		1		1					
Crop Stage Majority		V9 18"		V7 18"					
Pest Stage Majority		5-20"		5-45"					
Assessed By		JB		JB					
Days After First/Last Applic.		27 27		27 27					
Tri-Eval Interval		27 DA-A		27 DA-A					
Plant-Eval Interval		48 DP-1		48 DP-1					
Days After Emergence		41 DE-1		41 DE-1					
Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	Appl Description	8	9
1	Untreated Check							0.0	0.0
2	Prefix	1.32 lb ai/a		32 oz/a		A	3 - 5" AMAPA	46.7	30.0
	Ignite 280	0.402 lb ai/a		22 oz/a		A	3 - 5" AMAPA		
3	Dual Magnum	1.19 lb ai/a		20 oz/a		A	3 - 5" AMAPA	75.0	36.3
	Ignite 280	0.402 lb ai/a		22 oz/a		A	3 - 5" AMAPA		
4	Flexstar	0.235 lb ai/a		16 oz/a		A	3 - 5" AMAPA	65.0	42.5
	Ignite 280	0.402 lb ai/a		22 oz/a		A	3 - 5" AMAPA		
5	Flexstar	0.353 lb ai/a		24 oz/a		A	3 - 5" AMAPA	83.8	60.0
	Ignite 280	0.402 lb ai/a		22 oz/a		A	3 - 5" AMAPA		
6	Warrant	1.13 lb ai/a		48 oz/a		A	3 - 5" AMAPA	83.8	45.0
	Ignite 280	0.402 lb ai/a		22 oz/a		A	3 - 5" AMAPA		
7	Warrant	1.13 lb ai/a		48 oz/a		A	3 - 5" AMAPA	81.3	45.0
	Flexstar	0.235 lb ai/a		16 oz/a		A	3 - 5" AMAPA		
	Ignite 280	0.402 lb ai/a		22 oz/a		A	3 - 5" AMAPA		
8	Cadet	0.0064 lb ai/a		0.9 oz/a		A	3 - 5" AMAPA	72.5	42.5
	Ignite 280	0.402 lb ai/a		22 oz/a		A	3 - 5" AMAPA		
9	Cobra	0.2 lb ai/a		12.8 oz/a		A	3 - 5" AMAPA	82.5	55.0
	Ignite 280	0.402 lb ai/a		22 oz/a		A	3 - 5" AMAPA		
10	Resource	0.0403 lb ai/a		6 oz/a		A	3 - 5" AMAPA	77.5	42.5
	Ignite 280	0.402 lb ai/a		22 oz/a		A	3 - 5" AMAPA		
11	Anthem	0.101 lb ai/a		6 oz/a		A	3 - 5" AMAPA	76.7	58.3
	Ignite 280	0.402 lb ai/a		22 oz/a		A	3 - 5" AMAPA		
12	ET	0.00122 lb ai/a		0.75 oz/a		A	3 - 5" AMAPA	62.5	30.0
	Ignite 280	0.402 lb ai/a		22 oz/a		A	3 - 5" AMAPA		
13	Basagran	0.75 lb ai/a		24 oz/a		A	3 - 5" AMAPA	86.3	57.5
	Ignite 280	0.402 lb ai/a		22 oz/a		A	3 - 5" AMAPA		
14	Ultra Blazer	0.375 lb ai/a		24 oz/a		A	3 - 5" AMAPA	81.3	65.0
	Ignite 280	0.402 lb ai/a		22 oz/a		A	3 - 5" AMAPA		
15	Ultra Blazer	0.5 lb ai/a		32 oz/a		A	3 - 5" AMAPA	77.5	55.0
	Ignite 280	0.402 lb ai/a		22 oz/a		A	3 - 5" AMAPA		
16	Ultra Blazer	0.375 lb ai/a		24 oz/a		A	3 - 5" AMAPA	81.3	46.3
	Dual Magnum	0.95 lb ai/a		16 oz/a		A	3 - 5" AMAPA		
	Ignite 280	0.402 lb ai/a		22 oz/a		A	3 - 5" AMAPA		
17	Ultra Blazer	0.375 lb ai/a		24 oz/a		A	3 - 5" AMAPA	77.5	60.0
	Flexstar	0.118 lb ai/a		8 oz/a		A	3 - 5" AMAPA		
	Ignite 280	0.402 lb ai/a		22 oz/a		A	3 - 5" AMAPA		
18	Ultra Blazer	0.375 lb ai/a		24 oz/a		A	3 - 5" AMAPA	80.0	67.5
	Flexstar	0.235 lb ai/a		16 oz/a		A	3 - 5" AMAPA		
	Ignite 280	0.402 lb ai/a		22 oz/a		A	3 - 5" AMAPA		
19	Ultra Blazer	0.375 lb ai/a		24 oz/a		A	3 - 5" AMAPA	80.0	60.0
	Butyrac 200	0.0625 lb ai/a		4 oz/a		A	3 - 5" AMAPA		
	Ignite 280	0.402 lb ai/a		22 oz/a		A	3 - 5" AMAPA		
	LSD (P=.05)							12.26	15.13
	Standard Deviation							8.67	10.70
	CV							12.02	22.63
	Grand Mean							72.15	47.28

Means followed by same letter do not significantly differ (P=.05, LSD)

UofA

DIVISION OF AGRICULTURE

RESEARCH & EXTENSION

University of Arkansas System