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Weed Control Investigations in Corn and Grain Sorghum, 1986

University of Tennessee Agricultural Experiment Station

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Authors

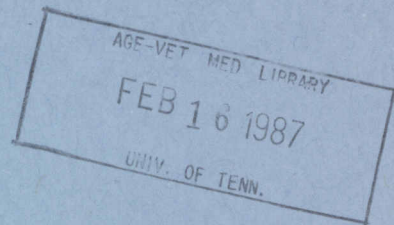
University of Tennessee Agricultural Experiment Station, G. N. Rhodes Jr., R. M. Hayes, M. L. Thornton, G. A. Mitchell, and D. D. Howard

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The University of Tennessee
Agricultural Experiment Station

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STACKS



Weed Control Investigations in Corn and Grain Sorghum, 1986

*G. N. Rhodes, Jr., R. M. Hayes, M. L. Thornton,
G. A. Mitchell, and D. D. Howard*

Department of Plant and Soil Science

TABLE OF CONTENTS

	<u>Page</u>
GENERAL REMARKS	1
PROCEDURES AND TECHNIQUES	3
ABBREVIATIONS	4
KNOXVILLE EXPERIMENT STATION	
Climatic Data	6
Evaluation of Preemergence Herbicides in Corn (TN-692-86-KPS-1)	8
Evaluation of Postemergence Herbicides in Corn (TN-692-86-KPS-4)	12
Evaluation of Postemergence Herbicides in Grain Sorghum (TN-692-86-KPS-2)	17
MIDDLE TENNESSEE EXPERIMENT STATION	
Climatic Data	21
Corn Herbicide Combinations Evaluation (TN-692-86-M-4)	23
MILAN EXPERIMENT STATION	
Climatic Data	27
Corn Post-directed Herbicides (H-692-86-MPDIRCR6)	29
Herbicide Evaluation for No-till Corn (H-692-86-MESNTCR6)	32
Influence of Nitrogen Timing on Johnsongrass in No-till Corn (H-692-86-MNXJGCR6)	37
PLATEAU EXPERIMENT STATION	
Climatic Data	41
Evaluation of Metolachlor Formulations in Corn (TN-692-86-P-2)	43
Postemergence Weed Control in Corn (TN-692-86-P-6)	45
Management of Broadleaf Weeds in Grain Sorghum (TN-692-86-P-4)	50
WEST TENNESSEE EXPERIMENT STATION	
Climatic Data	54
Corn Preemergence Herbicide Evaluation (H-692-86-WPRECR6)	56

	<u>Page</u>
Postemergence Weed Control in Corn (H-692-86-WPOSTCR6)	60
Sicklepod Control in Corn (H-692-86-CASOROT6)	64
Corn Response to Harmony Herbicide (H-692-86-WHRMYCR6)	67
Effects of Scepter and Classic on Corn (H-692-86-WRESDCR6)	70
Follow Crop Effects of Scepter and Classic on Corn (H-692-86-SC&CLCR6)	72

GENERAL REMARKS

This report is a summary of weed control investigations in corn and grain sorghum conducted by the staff of the University of Tennessee, Department of Plant and Soil Science, in 1986. It contains results of individual experiments that are not summarized over time or location and, therefore, data should not be taken out of context for use in any type of commercial publication. These data may be used in decision-making as to future research and uses of individual herbicides. The use of any particular herbicide or formulation over another is not to be construed as an endorsement or recommendation of any specific product. These data are not to be used in any type of commercial activity or release without the express written approval of the Dean of the Agricultural Experiment Station.

Many of the uses of herbicides contained herein have not been authorized by Federal and State Environmental Protection Agencies and are not recommended by the University of Tennessee Institute of Agriculture.

We would like to acknowledge the technical support of the following individuals: Bobby McKee at the Knoxville Experiment Station; Don Gibson at the Milan Experiment Station; Roy Thompson at the Middle Tennessee Experiment Station; Ernest Neal at the Plateau Experiment Station; Jimmy Duncan, Ernest Merriweather and William Wynn at the West Tennessee Experiment Station; and John Oakes, graduate student at Knoxville. Also, special thanks are extended to the superintendents and field plot crews where this research was conducted.

We would also like to thank our secretaries, Ms. Cheryl Broome and Mrs. Gloria Duncan, for their assistance in the preparation of this report.

Last but certainly not least, we gratefully acknowledge the cooperation and support from the following chemical companies: American Cyanamid Co., BASF Corp., Chevron Chemical Co., Ciba-Geigy Corp., Dow Chemical Co., E.I. DuPont Corp., Helena Chemical Co., Hoechst-Roussel Agri-Vet Co., ICI Americas Inc., Monsanto Agricultural Products, PPG Industries Inc., Rhone Poulenc Inc., Riverside-Terra Corp., Sandoz Crop Protection Corp., Shell Chemical Co., Stauffer Chemical Co., and Union Carbide Agricultural Products Co.

Procedures and Techniques Used in Herbicide Trials

Experimental Design: Most experiments were arranged as randomized complete blocks with at least three replications of plots 3-4 rows wide by 30-60 feet long with one untreated border row in most instances.

Herbicide Application: Treatments were applied with CO₂ sprayers equipped with either 8002 or 8003 flat fan nozzles at 30 psi applying 20 gpa and operated at 3 or 4 mph except where otherwise indicated.

Weed and Crop Ratings: Weed control was rated on a scale of 0 to 100 percent with 100 representing complete control. A control rating of 70 is considered commercially acceptable. Crop injury, stand reduction, and vigor reduction were also rated on a scale of 0 to 100, where 0 represents no injury and 100 represents death. An injury rating of 30 or above is not considered commercially acceptable.

Cultivation: Plots were not cultivated unless otherwise indicated.

Organic Matter: Most studies were conducted on mineral soils with 1.0 ± .5% organic matter.

Fertilization: Applied in accordance with soil tests for area and crop.

ABBREVIATIONS

A.I. = active ingredient
Bu/A = bushels per acre
C.O.C. = crop oil concentrate
CRINJ OR CRINJU = crop injury
DF = dry flowable
E or EC = emulsifiable concentrate
EPOST = early postemergence
FL = flowable
FT = feet
G = granular
GPA = gallons per acre
IN = inches
L = liquid
N/A = not applicable
O.M. = organic matter
OPT = optimum
PODIR = post-directed
POT = postemergence
PPI = preplant incorporated
PRE = preemergence
RCB = randomized complete block
REPS = replications
SC = soluble concentrate
SL or SIL = silt loam
WAP = weeks after planting
W or WP = wettable powder

Weed name abbreviations are listed on individual experiment description forms.

KNOXVILLE EXPERIMENT STATION

P.O. Box 1071

Knoxville, TN 37901-1071

Superintendent - Dr. John Hodges, III

RAINFALL
 Knoxville Experiment Station
 Knoxville, TN 1986

Date	April	May	June	July	August	September
1	0	0	0	0	.21	.34
2	0	0	.05	.11	0	.87
3	0	0	0	1.54	0	1.41
4	0	0	.49	0	0	0
5	0	0	0	0	0	0
6	0	0	0	0	0	0
7	.03	0	0	0	.09	0
8	.70	.05	0	0	.24	0
9	.10	0	.16	0	.08	.01
10	0	0	.25	0	0	0
11	0	0	0	1.35	.46	0
12	0	.01	.07	0	.62	.40
13	0	0	0	.12	0	0
14	0	.10	0	.41	0	0
15	.04	0	0	.10	0	0
16	0	0	0	0	0	.25
17	0	0	0	0	.73	0
18	0	0	0	0	0	0
19	0	.10	0	0	0	0
20	0	.20	0	0	.04	.05
21	.50	0	0	0	0	0
22	.16	0	0	0	.05	0
23	0	.57	0	0	0	0
24	0	.53	0	0	0	.02
25	0	.28	0	0	0	0
26	0	0	0	0	0	0
27	0	.62	0	0	.56	0
28	0	.17	.08	0	.62	0
29	.41	.14	0	0	.05	0
30	0	0	.50	0	0	.01
31	-	0	-	0	0	-
Total	1.94	2.77	1.60	3.63	3.75	3.36

TEMPERATURE
Knoxville Experiment Station
Knoxville, TN 1986

Date	April		May		June		July		August		Sept	
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	83	44	84	50	84	60	88	71	83	63	73	62
2	83	47	84	43	85	64	91	75	91	64	71	62
3	81	47	84	43	86	64	85	60	92	65	70	66
4	84	49	65	33	83	64	83	58	90	61	80	67
5	83	48	75	42	78	63	88	65	90	63	80	68
6	83	51	83	47	85	64	90	69	93	65	83	63
7	80	53	84	60	87	68	92	69	94	67	82	54
8	80	58	86	58	89	73	93	68	86	67	82	54
9	69	43	85	52	76	68	94	71	90	68	73	54
10	53	32	86	52	86	68	93	71	86	68	80	56
11	64	32	80	60	86	70	93	66	88	68	84	60
12	71	35	81	61	87	70	90	68	78	64	83	64
13	74	41	77	62	86	63	88	71	87	65	82	56
14	78	45	77	51	85	63	89	68	87	65	79	54
15	79	53	86	57	87	63	88	68	88	68	83	56
16	68	41	83	61	89	63	86	69	91	67	82	58
17	68	37	84	57	89	63	90	69	91	71	81	61
18	51	41	88	60	89	58	95	70	80	68	80	61
19	71	40	80	60	89	55	96	69	85	66	74	65
20	78	46	78	56	90	55	96	70	88	67	78	66
21	78	48	70	48	92	67	96	71	86	68	84	64
22	57	40	68	43	92	60	96	70	87	70	84	59
23	55	26	74	49	92	60	96	70	89	69	87	59
24	61	29	65	49	94	70	95	72	89	70	85	66
25	74	39	81	58	92	60	94	69	89	58	88	64
26	84	50	76	60	90	55	95	69	89	60	88	65
27	89	52	76	64	93	62	95	73	90	65	89	65
28	90	52	82	64	93	67	97	69	85	61	90	64
29	79	48	80	64	95	73	93	71	72	51	91	64
30	79	46	82	65	91	71	98	63	75	52	90	64
31	--	--	84	60	--	--	94	60	75	53	--	--

12-01-1986

EXPERIMENT DESCRIPTION FORM

The University of Tennessee

EVALUATION OF PREEMERGENCE HERBICIDES IN CORN

Conducted at KNOXVILLE, TN by G.N. RHODES, JR.
Project TN-692-86-KFS-1 with cooperators PLANT SCI FIELD LAB

Experimental Management

Date Planted 5-6-86 Variety PIONEER 3147 Row Width 36 IN
Design RCB No. Reps. 4 Plot Size 3 ROWS * 30FT
Field Preparation and Plot Maintenance DISK, FIELD CULTIVATOR.

Site Description

Season Moisture SEE RAINFALL TABLES
Soil Texture LOAM
Soil Series STATLER % OM 1.0 pH 6.0

Application Information

	1	2	3	4	5	6
Date Treated	5-6-86					
Time Treated	PM					
Cloud Cover	CLEAR					
Air Temperature	76					
Relative Humidity	60%					
Wind Speed/Direction	3 MPH-N					
Soil Temperature	78					
Soil/Leaf Surface Moisture	DRY					
Soil Subsurface Moisture	DRY					
Soil Tilth	FINE					
Crop Stage	PRE					
Pest Name, Stage & Density						
PANDI 2/FT	PRE					
SORHA 1/FT	PRE					
IPOLA, IPOHE 2/FT	PRE					
AMACH 1/FT	PRE					

Application Equipment

Sprayer Type	Speed MPH	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	GPA	Carrier	PSI
1. CO2 BACKPACK	3	FLAT FAN	8002	19	19	6.3FT	20	WATER	41

Comments

PANDI=FALL PANICUM; SORHA=SEEDLING JOHNSONGRASS; IPOLA=FITTED MORNINGGLORY;
IPOHE=IVYLEAF MORNINGGLORY; AMACH=SMOOTH FIGWEED.

12-01-1986

SUMMARY

The University of Tennessee
EVALUATION OF PREEMERGENCE HERBICIDES IN CORN

Conducted at KNOXVILLE, TN by G.N. RHODES, JR.
 Project TN-692-86-KPS-1 with cooperators FLANT SCI FIELD LAB

TRT. NUM.	PEST. NAME	FORM	RATE #ai/A	GROW. STAGE	CRINJ 6-7-86	FANDI 6-7-86	SORHA 6-7-86	IPOLA 6-7-86	IFOHE 6-7-86	AMACH 6-7-86
01	LASSO MT	4.0L	2.0	FRE	0.0	100.0	98.3	30.0	28.8	100.0
02	LASSO MT	4.0L	2.0	FRE	0.0	100.0	97.5	100.0	100.0	100.0
02	ATRAZINE	4.0L	1.5	FRE						
03	DUAL	8.0E	1.5	FRE	2.5	97.5	88.8	28.8	28.8	97.5
04	DUAL	8.0E	1.5	FRE	12.5	100.0	98.3	100.0	99.5	100.0
04	ATRAZINE	4.0L	1.5	FRE						
05	ATRAZINE	4.0L	1.5	FRE	0.0	100.0	70.0	100.0	100.0	100.0
06	SC-5676	7.0E	0.75	FRE	0.0	100.0	97.0	28.8	28.8	98.8
07	SC-5676	7.0E	1.0	FRE	0.0	99.5	95.8	32.5	27.5	100.0
08	SC-5676	7.0E	0.75	FRE	1.3	100.0	96.3	100.0	100.0	100.0
08	ATRAZINE	4.0L	1.5	FRE						
09	SC-0735	0.75W	0.5	FRE	2.5	100.0	100.0	98.3	98.3	100.0
10	SC-0735	0.75W	0.75	FRE	1.3	100.0	100.0	100.0	100.0	100.0
11	SC-0735	0.75W	0.5	FRE	2.5	100.0	98.8	98.8	98.8	100.0
11	ATRAZINE	4.0L	1.5	FRE						
12	SC-0774	0.75W	0.5	FRE	0.0	100.0	93.8	33.8	31.3	85.0
13	SC-0774	0.75W	0.75	FRE	1.3	100.0	94.5	62.5	47.5	100.0
14	SC-0774	0.75W	0.5	FRE	0.0	100.0	99.5	100.0	100.0	100.0
14	ATRAZINE	4.0L	1.5	FRE						
15	SC-0051	3.0E	1.0	FRE	1.3	97.5	76.3	93.8	92.5	99.3
16	SC-0051	3.0E	2.0	FRE	0.0	100.0	91.3	99.5	99.5	100.0
17	SC-0051	3.0E	1.0	FRE	0.0	100.0	83.8	100.0	100.0	100.0
17	ATRAZINE	4.0L	1.5	FRE						
18	WEEDY CK				0.0	0.0	0.0	0.0	0.0	0.0
LEAST SIGNIFICANT DIFF. (.05) =					4.082	2.374	7.921	10.46	8.754	8.050
STANDARD DEVIATION =					2.886	1.692	5.601	7.400	6.190	5.692
COEFF. OF VARIABILITY =					207.8	1.798	6.383	10.19	8.697	6.097

12-01-1986

SUMMARY

The University of Tennessee
EVALUATION OF PREEMERGENCE HERBICIDES IN CORN

Conducted at KNOXVILLE, TN by G.N. RHODES, JR.
 Project TN-692-86-KFS-1 with cooperators PLANT SCI FIELD LAB

TRT. NUM.	PEST. NAME	FORM	RATE #ai/A	GROW. STAGE	CRINJ 7-12-86	FANDI 7-12-86	SORHA 7-12-86	IPOLA 7-12-86	IFOHE 7-12-86	AMACH 7-12-86
01	LASSO MT	4.0L	2.0	PRE	0	99.3	96.3	40.0	40.0	100.0
02	LASSO MT	4.0L	2.0	PRE	0	100.0	90.5	93.5	93.5	100.0
02	ATRAZINE	4.0L	1.5	PRE						
03	DUAL	8.0E	1.5	PRE	0	98.0	88.8	32.5	32.5	100.0
04	DUAL	8.0E	1.5	PRE	0	100.0	97.3	94.3	94.3	100.0
04	ATRAZINE	4.0L	1.5	PRE						
05	ATRAZINE	4.0L	1.5	PRE	0	96.8	45.0	96.5	96.5	100.0
06	SC-5676	7.0E	0.75	PRE	0	98.8	93.8	35.0	35.0	100.0
07	SC-5676	7.0E	1.0	PRE	0	96.8	85.5	35.0	35.0	100.0
08	SC-5676	7.0E	0.75	PRE	0	98.0	78.8	96.3	96.3	100.0
08	ATRAZINE	4.0L	1.5	PRE						
09	SC-0735	0.75W	0.5	PRE	0	100.0	91.8	94.3	94.3	100.0
10	SC-0735	0.75W	0.75	PRE	0	100.0	87.5	94.3	94.3	100.0
11	SC-0735	0.75W	0.5	PRE	0	99.5	93.3	94.8	94.8	100.0
11	ATRAZINE	4.0L	1.5	PRE						
12	SC-0774	0.75W	0.5	PRE	0	98.0	78.0	32.5	32.5	100.0
13	SC-0774	0.75W	0.75	PRE	0	97.5	81.8	45.0	45.0	100.0
14	SC-0774	0.75W	0.5	PRE	0	99.5	93.5	95.0	95.0	100.0
14	ATRAZINE	4.0L	1.5	PRE						
15	SC-0051	3.0E	1.0	PRE	0	94.8	52.5	88.8	88.8	100.0
16	SC-0051	3.0E	2.0	PRE	0	96.5	58.8	91.3	91.3	100.0
17	SC-0051	3.0E	1.0	PRE	0	97.5	65.0	94.8	94.8	100.0
17	ATRAZINE	4.0L	1.5	PRE						
18	WEEDY CK				0	0.0	0.0	0.0	0.0	0.0
LEAST SIGNIFICANT DIFF. (.05) =						2.488	16.33	11.79	11.79	3.300
STANDARD DEVIATION =						1.759	11.55	8.340	8.340	1.0233
COEFF. OF VARIABILITY =						1.895	15.09	11.97	11.97	2.471

12-01-1986

SUMMARY

The University of Tennessee
EVALUATION OF PREEMERGENCE HERBICIDES IN CORN

Conducted at KNOXVILLE, TN by G.N. RHODES, JR.
 Project TN-692-86-KFS-1 with cooperators PLANT SCI FIELD LAB

TRT. NUM.	PEST. NAME	FORM	RATE #a1/A	GROW. STAGE	PANDI 10-1-86	SORHA 10-1-86	IFOLA 10-1-86	IFOHE 10-1-86	AMACH 10-1-86
01	LASSO MT	4.0L	2.0	PRE	96.0	90.0	7.5	7.5	100.0
02	LASSO MT	4.0L	2.0	PRE	96.3	91.3	91.3	88.8	100.0
02	ATRAZINE	4.0L	1.5	PRE					
03	DUAL	8.0E	1.5	PRE	93.0	78.8	0.0	0.0	100.0
04	DUAL	8.0E	1.5	PRE	97.8	92.5	93.8	93.8	100.0
04	ATRAZINE	4.0L	1.5	PRE					
05	ATRAZINE	4.0L	1.5	PRE	83.8	60.0	88.8	88.8	100.0
06	SC-5676	7.0E	0.75	PRE	96.0	88.8	7.5	7.5	100.0
07	SC-5676	7.0E	1.0	PRE	94.8	88.8	5.0	5.0	100.0
08	SC-5676	7.0E	0.75	PRE	96.8	87.5	88.8	88.8	100.0
08	ATRAZINE	4.0L	1.5	PRE					
09	SC-0735	0.75W	0.5	PRE	98.5	96.8	94.5	92.5	100.0
10	SC-0735	0.75W	0.75	PRE	96.8	93.8	94.3	94.3	100.0
11	SC-0735	0.75W	0.5	PRE	98.5	95.5	95.0	95.0	100.0
11	ATRAZINE	4.0L	1.5	PRE					
12	SC-0774	0.75W	0.5	PRE	95.5	90.0	0.0	0.0	100.0
13	SC-0774	0.75W	0.75	PRE	96.8	93.8	20.0	20.0	100.0
14	SC-0774	0.75W	0.5	PRE	96.8	93.8	84.3	84.3	100.0
14	ATRAZINE	4.0L	1.5	PRE					
15	SC-0051	3.0E	1.0	PRE	88.8	71.3	70.0	70.0	100.0
16	SC-0051	3.0E	2.0	PRE	91.3	76.3	93.0	90.5	100.0
17	SC-0051	3.0E	1.0	PRE	89.5	72.5	92.5	92.5	100.0
17	ATRAZINE	4.0L	1.5	PRE					
18	WEEDY CK				0.0	0.0	0.0	0.0	0.0
LEAST SIGNIFICANT DIFF. (.05) =					7.439	9.700	17.15	17.28	3.300
STANDARD DEVIATION =					5.260	6.859	12.13	12.22	.0233
COEFF. OF VARIABILITY =					5.894	8.450	21.28	21.59	2.471

12-01-1986

EXPERIMENT DESCRIPTION FORM

The University of Tennessee

EVALUATION OF POSTEMERGENCE HERBICIDES IN CORN

Conducted at KNOXVILLE, TN by G.N. RHODES, JR.
Project TN-692-86-KPS-4 with cooperators PLANT SCI FIELD LAB

Experimental Management

Date Planted 5-6-86 Variety PIONEER 3147 Row Width 36 IN
Design RCB No. Reps. 4 Plot Size 3 ROWS * 30FT
Field Preparation and Plot Maintenance DISK, FIELD CULTIVATOR.

Site Description

Season Moisture SEE RAINFALL TABLES
Soil Texture LOAM
Soil Series STATLER

% OM 1.0 pH 6.0

Application Information

Table with 6 columns (1-6) and rows for Date Treated, Time Treated, Cloud Cover, Air Temperature, Relative Humidity, Wind Speed/Direction, Soil Temperature, Soil/Leaf Surface Moisture, Soil Subsurface Moisture, Soil Tilth, Crop Stage, Pest Name, Stage & Density, IPOLA 2/FT, IPOHG 2/FT.

Application Equipment

Table with columns: Sprayer Type, Speed MPH, Nozzle Type, Nozzle Size, Nozzle Height, Nozzle Spacing, Boom Width, GFA, Carrier, PSI. Row 1: CO2 BACKPACK, 3, FLAT FAN, 8002, 19 IN, 19 IN, 6.3FT, 20, WATER, 41.

Comments

IPOLA=PITTED MORNINGGLORY; IPOHG=ENTIRELEAF MORNINGGLORY. FOR THE 6-14-86 EVALUATION, THE FIRST ENTRY FOR EACH WEED REFERS TO 2-4 LEAF WEEDS, AND THE SECOND ENTRY FOR EACH WEED REFERS TO 6 LEAF WEEDS. SUBSEQUENT EVALUATIONS WERE FOR ALL SIZES. APPROXIMATELY 0.5 IN OF RAIN FELL 45 MIN FOLLOWING APPLICATION OF POSTEMERGENCE TREATMENTS, RESULTING IN REDUCED EFFICACY OF SOME TREATMENTS.

12-01-1986

SUMMARY

The University of Tennessee
EVALUATION OF POSTEMERGENCE HERBICIDES IN CORN

Conducted at KNOXVILLE, TN by G.N. RHODES, JR.
Project TN-692-86-KPS-4 with cooperators PLANT SCI FIELD LAB

TRT. NUM.	PEST. NAME	RATE FORM	GROW. #ai/A STAGE	GROW. POT	CRINJ	IPOLA	IPOLA	IPOHG	IPOHG	CRINJ	IPOLA	IPOHG
					6-14-86	6-14-86	6-14-86	6-14-86	6-14-86	7-12-86	7-12-86	7-12-86
01	2,4-D	4.0L	0.5	POT	1.3	96.3	81.3	90.0	77.5	0	96.8	96.8
01	X-77	P	0.25	POT								
02	BANVEL	4.0L	0.25	POT	1.3	68.8	45.0	67.5	42.5	0	87.5	87.5
02	X-77	P	0.25	POT								
03	MARKSMAN	3.2L	0.8	POT	1.3	98.3	90.8	98.3	87.5	0	90.5	90.5
03	X-77	P	0.25	POT								
04	MARKSMAN	3.2L	1.2	POT	1.3	100.0	97.5	100.0	97.5	0	98.0	98.0
04	X-77	P	0.25	POT								
05	BASAGRAN	4.0L	.75	POT	0.0	53.8	26.3	52.5	26.3	0	35.0	35.0
05	C.D.C.	P	1.25	POT								
06	BASAGRAN	4.0L	0.25	POT	0.0	98.8	94.3	98.8	94.8	0	94.3	94.3
06	ATRAZINE	4.0L	0.5	POT								
06	C.D.C.	P	1.25	POT								
07	BASAGRAN	4.0L	0.5	POT	0.0	100.0	96.3	100.0	96.3	0	96.8	96.8
07	ATRAZINE	4.0L	0.5	POT								
07	C.D.C.	P	1.25	POT								
08	BUCTRIL	2.0E	0.25	POT	0.0	100.0	100.0	100.0	100.0	0	90.0	90.0
09	BUCTRIL	2.0E	0.38	POT	0.0	100.0	100.0	100.0	100.0	0	93.0	93.0
10	BUCT/ATR	3.0L	.568	POT	0.0	100.0	100.0	100.0	100.0	0	93.5	93.5
11	BUCT/ATR	3.0L	0.75	POT	1.3	100.0	100.0	100.0	100.0	0	95.3	95.3
12	BUCT/ATR	3.0L	1.13	POT	1.3	100.0	100.0	100.0	100.0	0	96.8	94.5
13	DPX-6316	0.75W	.008	POT	0.0	45.0	28.8	42.5	28.8	0	37.5	37.5
13	X-77	P	0.25	POT								
14	DPX-6316	0.75W	.016	POT	0.0	63.8	45.0	61.3	35.0	0	42.5	42.5
14	X-77	P	0.25	POT								
15	DPX-6316	0.75W	.024	POT	1.3	60.0	35.0	60.0	35.0	0	40.0	40.0
15	X-77	P	0.25	POT								
16	DPX-6316	0.75W	.031	POT	1.3	66.3	42.5	66.3	37.5	0	42.5	42.5
16	X-77	P	0.25	POT								
17	WEEDFREE				0.0	100.0	100.0	100.0	100.0	0	100.0	100.0

12-01-1986

SUMMARY

The University of Tennessee
EVALUATION OF POSTEMERGENCE HERBICIDES IN CORN

Conducted at KNOXVILLE, TN by G.N. RHODES, JR.
 Project TN-692-86-KPS-4 with cooperator PLANT SCI FIELD LAB

TRT. PEST.	RATE	GROW.	CRINJ	IPOLA	IPOLA	IPDHG	IPDHG	CRINJ	IPOLA	IPDHG
NUM. NAME FORM	#ai/A	STAGE	6-14-86	6-14-86	6-14-86	6-14-86	6-14-86	7-12-86	7-12-86	7-12-86
18 WEEDY			0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
LEAST SIGNIFICANT DIFF. (.05)=			2.286	7.451	9.692	8.582	8.530		11.92	11.99
STANDARD DEVIATION	=		1.616	5.269	6.853	6.068	6.032		8.428	8.484
CDEFF. OF VARIABILITY	=		291.0	6.537	9.619	7.601	8.627		11.40	11.50

12-01-1986

SUMMARY

The University of Tennessee
EVALUATION OF POSTEMERGENCE HERBICIDES IN CORN

Conducted at KNOXVILLE, TN by G.N. RHODES, JR.
 Project TN-692-86-KPS-4 with cooperators PLANT SCI FIELD LAB

TRT. NUM.	PEST. NAME	FORM	RATE #ai/A	GROW. STAGE	IFOLA 10-1-86	IFOHG 10-1-86
01	2,4-D	4.0L	0.5	FOT	90.0	90.0
01	X-77	P	0.25	POT		
02	BANVEL	4.0L	0.25	FOT	73.8	73.8
02	X-77	P	0.25	POT		
03	MARKSMAN	3.2L	0.8	FOT	77.5	77.5
03	X-77	P	0.25	POT		
04	MARKSMAN	3.2L	1.2	POT	91.3	91.3
04	X-77	P	0.25	POT		
05	BASAGRAN	4.0L	.75	POT	31.3	31.3
05	C.O.C.	P	1.25	POT		
06	BASAGRAN	4.0L	0.25	POT	81.3	81.3
06	ATRAZINE	4.0L	0.5	POT		
06	C.O.C.	P	1.25	POT		
07	BASAGRAN	4.0L	0.5	POT	85.0	85.0
07	ATRAZINE	4.0L	0.5	POT		
07	C.O.C.	P	1.25	POT		
08	BUCTRIL	2.0E	0.25	POT	90.0	90.0
09	BUCTRIL	2.0E	0.38	FOT	88.8	88.8
10	BUCT/ATR	3.0L	.568	POT	88.8	88.8
11	BUCT/ATR	3.0L	0.75	FOT	90.0	90.0
12	BUCT/ATR	3.0L	1.13	POT	82.5	82.5
13	DPX-6316	0.75W	.008	FOT	43.8	43.8
13	X-77	P	0.25	POT		
14	DPX-6316	0.75W	.016	FOT	47.5	47.5
14	X-77	P	0.25	POT		
15	DPX-6316	0.75W	.024	FOT	53.8	53.8
15	X-77	P	0.25	POT		
16	DPX-6316	0.75W	.031	POT	52.5	52.5
16	X-77	P	0.25	POT		
17	WEEDFREE				100.0	100.0

12-01-1986

SUMMARY

The University of Tennessee
EVALUATION OF POSTEMERGENCE HERBICIDES IN CORN

Conducted at KNOXVILLE, TN by G.N. RHODES, JR.
Project TN-692-86-KFS-4 with cooperator PLANT SCI FIELD LAB

TRT. NUM.	PEST. NAME	FORM	RATE #ai/A	GROW. STAGE	IPOLA 10-1-86	IPOHG 10-1-86
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18	WEEDY				0.0	0.0
----	-------	--	--	--	-----	-----

LEAST SIGNIFICANT DIFF. (.05)=					12.63	12.63
STANDARD DEVIATION					= 8.934	8.934
COEFF. OF VARIABILITY					= 12.68	12.68

12-01-1986

EXPERIMENT DESCRIPTION FORM

The University of Tennessee

EVALUATION OF POSTEMERGENCE HERBICIDES IN GRAIN SORGHUM

Conducted at KNOXVILLE, TN by G.N. RHODES, JR.
Project TN-692-86-KFS-2 with cooperators PLANT SCI FIELD LAB

Experimental Management

Date Planted 6-3-86 Variety FFR-321-DR Row Width 36 IN
Design RCB No. Reps. 4 Plot Size 3 ROWS*30 FT
Field Preparation and Plot Maintenance DISK AND FIELD CULTIVATOR.

Site Description

Season Moisture SEE RAINFALL TABLES

Soil Texture LOAM

Soil Series STATLER

% OM 1.0 pH 6.0

Application Information

	1	2	3	4	5	6
Date Treated	6-23-86					
Time Treated	AM					
Cloud Cover	CLEAR					
Air Temperature	93					
Relative Humidity	63%					
Wind Speed/Direction	4 MPH-SW					
Soil Temperature	100					
Soil/Leaf Surface Moisture	DRY					
Soil Subsurface Moisture	DRY					
Soil Tilth	N/A					
Crop Stage	5-7 IN					
Pest Name, Stage & Density						
DIGSA 5/FT	2-5 LF					
AMACH 3/FT	4-5 LF					
IFOLA 1/FT	5-6 LF					
IPOHG 1/FT	4-5 LF					

Application Equipment

Sprayer Type	Speed MPH	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	GFA	Carrier	PSI
1. CO2 BACKPACK	3	FLAT FAN	8002	19	19	6.3FT	20	WATER	41

Comments

DIGSA=LARGE CRABGRASS; AMACH=SMOOTH FIGWEED; IFOLA=FITTED MORNINGGLORY; IPOHG= ENTIRELEAF MORNINGGLORY. TEST WAS HARVESTED ON 10-8-86.

12-01-1986

SUMMARY

The University of Tennessee
EVALUATION OF POSTEMERGENCE HERBICIDES IN GRAIN SORGHUM

Conducted at KNOXVILLE, TN by G.N. RHODES, JR.
 Project TN-692-86-KFS-2 with cooperators PLANT SCI FIELD LAB

TRT. NUM.	PEST. NAME	FORM	RATE #ai/A	GROW. STAGE	CRINJ 7-12-86	DIGSA 7-12-86	AMACH 7-12-86	IFOLA 7-12-86	IPOHG 7-12-86
01	SC-0051	3.0E	.25	POT	16.3	70.0	100.0	50.0	50.0
01	TWEEN-20	P	.25	POT					
02	SC-0051	3.0E	.5	POT	28.8	75.0	100.0	67.5	67.5
02	TWEEN-20	P	.25	POT					
03	SC-0051	3.0E	.75	POT	38.8	63.8	100.0	62.5	62.5
03	TWEEN-20	P	.25	POT					
04	TANDEM	4.0E	0.5	POT	1.3	73.8	100.0	100.0	100.0
04	ATRAZINE	0.90W	1.0	POT					
04	C.O.C.	P	1.25	POT					
05	TANDEM	4.0E	0.5	POT	2.5	81.3	100.0	99.5	99.5
05	ATRAZINE	0.90W	1.25	POT					
05	C.O.C.	P	1.25	POT					
06	TANDEM	4.0E	.75	POT	1.3	80.0	100.0	100.0	100.0
06	ATRAZINE	0.90W	1.0	POT					
06	C.O.C.	P	1.25	POT					
07	TANDEM	4.0E	0.75	POT	2.5	85.0	99.5	99.8	99.8
07	ATRAZINE	0.90W	1.25	POT					
07	C.O.C.	P	1.25	POT					
08	ATRAZINE	0.90W	1.0	POT	0.0	51.3	100.0	96.3	96.3
08	C.O.C.	P	1.25	POT					
09	ATRAZINE	0.90W	1.25	POT	0.0	47.5	100.0	99.5	99.5
09	C.O.C.	P	1.25	POT					
10	BAS-514	0.50W	0.5	POT	0.0	62.5	62.5	86.3	86.3
10	C.O.C.	P	1.25	POT					
11	BAS-514	0.50W	1.0	POT	1.3	56.3	62.5	91.8	91.8
11	C.O.C.	P	1.25	POT					
12	BAS-514	0.50W	1.0	POT	1.3	74.5	100.0	100.0	100.0
12	ATRAZINE	0.90W	1.25	POT					
12	C.O.C.	P	1.25	POT					
13	WEEDFREE				0.0	100.0	100.0	100.0	100.0
14	WEEDY				0.0	0.0	0.0	0.0	0.0
LEAST SIGNIFICANT DIFF. (.05) =					3.038	21.26	3.881	7.344	7.344
STANDARD DEVIATION =					2.126	14.88	2.716	5.139	5.139
COEFF. OF VARIABILITY =					31.75	22.62	3.105	6.239	6.239

12-01-1986

SUMMARY

The University of Tennessee
EVALUATION OF POSTEMERGENCE HERBICIDES IN GRAIN SORGHUM

Conducted at KNOXVILLE, TN by G.N. RHODES, JR.
 Project TN-692-86-KPS-2 with cooperators PLANT SCI FIELD LAB

TRT. NUM.	PEST. NAME	FORM	RATE #ai/A	GROW. STAGE	CRINJ 8-2-86	DIGSA 8-2-86	AMACH 8-2-86	IFOLA 8-2-86	IFOHG 8-2-86	YIELD BU/A
01	SC-0051	3.0E	.25	POT	6.3	57.5	97.5	60.0	57.5	38.80
01	TWEEN-20	P	.25	POT						
02	SC-0051	3.0E	.5	POT	10.0	78.8	97.5	67.5	67.5	37.58
02	TWEEN-20	P	.25	POT						
03	SC-0051	3.0E	.75	POT	15.0	67.5	100.0	78.8	78.8	43.75
03	TWEEN-20	P	.25	POT						
04	TANDEM	4.0E	0.5	POT	0.0	87.0	100.0	99.5	99.5	42.75
04	ATRAZINE	0.90W	1.0	POT						
04	C.O.C.	P	1.25	POT						
05	TANDEM	4.0E	0.5	POT	0.0	92.5	100.0	100.0	100.0	41.75
05	ATRAZINE	0.90W	1.25	POT						
05	C.O.C.	P	1.25	POT						
06	TANDEM	4.0E	.75	POT	0.0	91.0	99.5	98.8	98.8	50.93
06	ATRAZINE	0.90W	1.0	POT						
06	C.O.C.	P	1.25	POT						
07	TANDEM	4.0E	0.75	POT	0.0	89.5	100.0	98.8	98.8	44.50
07	ATRAZINE	0.90W	1.25	POT						
07	C.O.C.	P	1.25	POT						
08	ATRAZINE	0.90W	1.0	POT	0.0	57.0	100.0	97.5	97.5	47.25
08	C.O.C.	P	1.25	POT						
09	ATRAZINE	0.90W	1.25	POT	0.0	61.3	100.0	98.0	98.0	34.97
09	C.O.C.	P	1.25	POT						
10	BAS-514	0.50W	0.5	POT	0.0	61.3	72.5	77.5	77.5	41.75
10	C.O.C.	P	1.25	POT						
11	BAS-514	0.50W	1.0	POT	0.0	62.5	82.5	94.3	94.3	49.65
11	C.O.C.	P	1.25	POT						
12	BAS-514	0.50W	1.0	POT	0.0	82.5	99.5	99.5	99.5	57.95
12	ATRAZINE	0.90W	1.25	POT						
12	C.O.C.	P	1.25	POT						
13	WEEDFREE				0.0	100.0	100.0	100.0	100.0	54.15
14	WEEDY				0.0	0.0	0.0	0.0	0.0	20.25
LEAST SIGNIFICANT DIFF. (.05)=					.9548	19.46	6.609	10.31	9.062	13.04
STANDARD DEVIATION					= .6681	13.62	4.625	7.215	6.341	9.125
COEFF. OF VARIABILITY					= 29.93	19.29	5.184	8.633	7.604	21.08

MIDDLE TENNESSEE EXPERIMENT STATION

Box 160

Spring Hill, TN 37174

Superintendent - Dr. Joe W. High, Jr.

RAINFALL
 Middle Tennessee Experiment Station
 Spring Hill, TN 1985

Date	April	May	June	July	August	September
1	0	0	0	0	.01	.19
2	0	.10	0	1.03	0	.44
3	0	0	0	.12	0	.26
4	.02	0	.52	0	0	.40
5	0	0	.17	0	0	.17
6	0	0	.28	0	0	0
7	.01	0	.41	.02	.05	0
8	.41	0	.30	0	.10	0
9	.16	0	0	0	0	0
10	0	0	0	.27	0	0
11	0	.03	0	0	.86	0
12	0	.02	.04	.32	0	.57
13	0	.12	0	.60	0	0
14	0	0	0	.10	0	0
15	.01	0	0	.08	0	0
16	0	0	0	.09	0	0
17	0	0	0	0	1.31	0
18	0	.06	0	0	0	0
19	0	.88	0	0	0	1.00
20	.15	.03	0	0	0	.04
21	.20	0	0	0	0	0
22	.10	0	0	0	0	.07
23	0	.02	0	0	0	0
24	0	0	0	0	0	0
25	0	.49	0	0	0	0
26	0	.20	0	.13	0	0
27	0	.62	0	.80	.02	.20
28	0	1.43	0	0	.82	0
29	.05	.58	.10	0	0	0
30	0	0	0	0	0	0
31	-	0	-	0	0	-
Total	1.11	4.58	1.82	3.56	3.17	3.34

TEMPERATURE
Middle Tennessee Experiment Station
Spring Hill, TN 1986

Date	April		May		June		July		August		Sept	
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	84	43	88	48	85	62	90	67	96	70	66	62
2	81	51	74	44	87	64	94	67	91	66	70	64
3	85	53	70	44	84	63	80	63	83	58	82	67
4	82	52	65	31	85	63	83	56	88	59	85	69
5	80	61	78	39	74	64	88	59	89	55	86	68
6	78	57	84	52	80	66	91	55	94	60	79	54
7	85	57	83	59	80	68	94	66	91	63	82	54
8	81	59	89	58	85	72	94	66	95	63	79	54
9	73	42	89	59	88	70	94	67	88	66	74	51
10	59	34	88	52	86	70	92	69	92	65	86	51
11	67	34	86	59	87	68	94	73	93	64	82	67
12	74	38	77	60	86	68	91	59	86	62	86	62
13	78	42	82	57	83	61	91	65	84	62	77	52
14	81	47	84	58	79	60	89	67	87	62	77	51
15	76	40	86	67	86	59	93	67	91	65	84	55
16	65	39	84	63	86	58	87	61	93	66	85	62
17	52	36	87	59	90	61	95	68	85	71	85	61
18	57	35	87	66	88	57	93	71	85	67	85	61
19	73	44	76	55	83	56	97	71	86	65	78	63
20	77	53	67	49	91	62	97	70	86	64	85	63
21	70	43	66	39	91	60	101	71	86	64	88	64
22	57	38	69	42	93	64	94	68	87	68	87	64
23	56	25	73	47	95	65	92	66	91	67	85	63
24	64	31	78	59	94	62	96	66	90	68	88	67
25	77	43	84	61	88	64	99	66	84	62	89	66
26	87	48	78	63	87	56	95	61	90	62	88	58
27	87	46	70	64	94	60	99	70	93	68	89	62
28	87	50	79	65	95	66	93	68	91	64	90	64
29	79	43	76	64	83	71	97	70	71	49	93	66
30	81	44	85	63	89	68	96	68	71	51	93	66
31	--	--	85	61	--	--	97	68	78	60	--	--

12-01-1986

EXPERIMENT DESCRIPTION FORM

The University of Tennessee

CORN HERBICIDE COMBINATIONS EVALUATION

Conducted at SPRING HILL, TN by G.N.RHODES, JR.
Project TN-692-B6-M-4 with cooperator MIDDLE TN EXPT STA

Experimental Management

Date Planted 4-29-86 Variety PIONEER 3147 Row Width 36 IN
Design RCB No. Reps. 4 Plot Size 3 ROWS*35 FT
Field Preparation and Plot Maintenance DISK, FIELD CULTIVATOR.

Site Description

Season Moisture SEE RAINFALL TABLES
Soil Texture SILT LOAM
Soil Series MAURY % OM 1.0 pH 6.0

Application Information

	1	2	3	4	5	6
Date Treated	4-29-86	6-6-86				
Time Treated	PM	AM				
Cloud Cover	CLEAR	50%				
Air Temperature	73	67				
Relative Humidity	48%	100%				
Wind Speed/Direction	1 MPH-N	CALM				
Soil Temperature	80	70				
Soil/Leaf Surface Moisture	DRY	WET				
Soil Subsurface Moisture	DRY	WET				
Soil Tilth	FINE	N/A				
Crop Stage	PPI&PRE	10 IN				
Pest Name, Stage & Density						
PHPBU 8/FT	PRE	3-4,7LF				
IPOHE 2/FT	PRE	3-4,7LF				

Application Equipment

	Sprayer Type	Speed MPH	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	GFA	Carrier	FSI
1.	CO2 BACKPACK	3	FLAT FAN	8002	19	19	6.3FT	20	WATER	41
2.	CO2 BACKPACK	3	FLAT FAN	8002	19	19	6.3FT	20	WATER	41

Comments

PHPBU=TALL MORNINGGLORY; IPOHE=IVYLEAF MORNINGGLORY. FOR 6-17-86 EVALUATION, FIRST ENTRY FOR EACH SPECIES REFERS TO 3-4 LF WEEDS, AND SECOND EVALUATION FOR EACH SPECIES REFERS TO 7 LF WEEDS. THE FIRST SIGNIFICANT RAINFALL (0.88 IN) DID NOT OCCUR UNTIL 3 WEEKS AFTER PLANTING. CONSEQUENTLY, CORN EMERGENCE WAS VERY SLOW AND UNEVEN. CROP INJURY RATINGS WERE NOT TAKEN DUE TO VARIABLE CORN SIZE.

12-01-1986

SUMMARY

The University of Tennessee
CORN HERBICIDE COMBINATIONS EVALUATION

Conducted at SPRING HILL, TN by G.N.RHODES, JR.
 Project TN-692-86-M-4 with cooperater MIDDLE TN EXPT STA

TRT. NUM.	PEST. NAME	FORM	RATE #ai/A	GROW. STAGE	FHPBU 6-17-86	PHPBU 6-17-86	IPOHE 6-17-86	IPOHE 6-17-86	FHPBU 7-15-86	PHPBU 8-5-86
01	GENATE +	6.7E	4.0	FFI	86.3	86.3	86.3	86.3	82.5	80.0
01	ATRAZINE	4.0L	0.75	FFI						
01	PPG-1259	3.0L	0.1	FFI						
02	GENATE +	6.7E	4.0	FFI	92.5	92.5	92.5	92.5	83.8	86.3
02	ATRAZINE	4.0L	0.75	PRE						
02	PPG-1259	3.0L	0.1	PRE						
03	GENATE +	6.7E	4.0	FFI	56.3	56.3	56.3	56.3	20.0	33.8
03	COBRA	2.0E	0.4	PRE						
04	GENATE +	6.7E	4.0	FFI	98.0	98.0	98.0	98.0	96.0	93.8
04	EXTRAZIN	4.0L	3.0	PRE						
05	LASSO MT	4.0L	2.0	PRE	67.5	67.5	67.5	67.5	56.3	60.0
05	ATRAZINE	4.0L	0.75	PRE						
05	PPG-1259	3.0L	0.1	PRE						
06	EXTRAZIN	4.0L	3.0	PRE	89.5	89.5	89.5	89.5	83.8	83.8
07	LASSO MT	4.0L	2.0	PRE	88.8	88.8	88.8	88.8	86.3	86.3
07	EXTRAZIN	4.0L	3.0	PRE						
08	LASSO MT	4.0L	2.0	PRE	93.8	93.8	93.8	93.8	88.8	83.8
08	ATRAZINE	4.0L	1.5	PRE						
09	LASSO MT	4.0L	2.0	PRE	72.5	27.5	72.5	27.5	7.5	12.5
09	BASAGRAN	4.0L	0.75	POT						
09	C.O.C.		P 1.25	POT						
10	LASSO MT	4.0L	2.0	PRE	100.0	92.5	100.0	92.5	80.0	81.3
10	BASAGRAN	4.0L	0.5	POT						
10	ATRAZINE	4.0L	0.5	POT						
10	C.O.C.		P 1.25	POT						
11	LASSO MT	4.0L	2.0	PRE	100.0	90.0	100.0	90.0	78.8	80.5
11	BASAGRAN	4.0L	0.25	POT						
11	ATRAZINE	4.0L	0.5	POT						
11	C.O.C.		P 1.25	POT						
12	LASSO MT	4.0L	2.0	PRE	82.5	38.8	83.8	38.8	57.5	45.0
12	BANVEL	4.0L	0.25	POT						
12	X-77		P 0.25	POT						
13	LASSO MT	4.0L	2.0	PRE	100.0	97.3	100.0	97.3	90.5	88.8
13	MARKSMAN	3.2L	0.8	POT						
13	X-77		P 0.25	POT						

12-01-1986

SUMMARY

The University of Tennessee
CORN HERBICIDE COMBINATIONS EVALUATION

Conducted at SPRING HILL, TN by G.N.RHODES, JR.
 Project TN-692-86-M-4 with cooperater MIDDLE TN EXPT STA

TRT. NUM.	FEST. NAME	FORM	RATE #ai/A	GROW. STAGE	PHPBU 6-17-86	PHPBU 6-17-86	IPOHE 6-17-86	IPOHE 6-17-86	PHPBU 7-15-86	PHPBU 8-5-86
14	LASSO	MT	4.0L 2.0	PRE	98.3	81.3	98.3	77.5	87.5	85.0
14	2,4-D		4.0L 0.5	POT						
14	X-77		F 0.25	POT						
15	LASSO	MT	4.0L 2.0	PRE	91.3	61.3	91.3	61.3	30.0	42.5
15	BUCTRIL		2.0E 0.25	POT						
16	LASSO	MT	4.0L 2.0	PRE	95.0	62.5	95.0	62.5	42.5	53.8
16	BUCTRIL		2.0E 0.38	POT						
17	LASSO	MT	4.0L 2.0	PRE	99.5	82.5	99.5	82.5	66.3	60.0
17	BUCT/ATR		3.0L .568	POT						
18	LASSO	MT	4.0L 2.0	PRE	100.0	93.8	100.0	93.8	81.3	82.5
18	BUCT/ATR		3.0L 0.75	POT						
19	LASSO	MT	4.0L 2.0	PRE	100.0	97.0	100.0	97.0	91.3	90.0
19	BUCT/ATR		3.0L 1.13	POT						
20	WEEDY CK				0.0	0.0	0.0	0.0	0.0	0.0
LEAST SIGNIFICANT DIFF. (.05) =					10.01	12.31	10.03	12.39	17.11	14.60
STANDARD DEVIATION =					7.084	8.706	7.095	8.767	12.09	10.32
COEFF. OF VARIABILITY =					8.278	11.63	8.286	11.74	18.46	15.53

MILAN EXPERIMENT STATION

205 Ellington Drive

Milan, TN 38358

Superintendent - Mr. John F. Bradley

RAINFALL
 Milan Experiment Station
 Milan, TN 1986

Date	April	May	June	July	August	September
1	1.35	.76	.15	0	0	.10
2	0	0	.41	.29	0	0
3	0	0	0	0	0	.69
4	0	0	4.47	0	0	0
5	0	0	1.60	0	0	0
6	0	0	.24	0	0	0
7	0	0	.15	}	.43	0
8	1.40	0	0		.25	0
9	0	0	}	}.65	0	0
10	0	.31			}1.78	0	0
11	0	0	}	0		.08
12	0	.31		}	0	0
13	0	0	}		0	0
14	0	0		}	.21	0
15	0	0	}		0	0
16	0	0		}	0	.24
17	0	.47	0		0	0	.08
18	0	0	0	0	0	1.25
19	0	0	0	0	0	.43
20	0	0	0	0	0	0
21	.78	0	0	0	0	0
22	0	.20	0	0	0	0
23	0	0	.08	0	0	0
24	0	0	0	0	0	0
25	0	1.49	0	0	0	0
26	0	0	0	1.92	0	0
27	0	0	0	0	0	0
28	.11	.67	0	0	0	0
29	0	0	0	0	0	0
30	.85	0	.35	0	0	0
31	-	0	-	0	0	-
Total	4.49	4.21	9.23	3.07	.92	2.63

TEMPERATURE
 Milan Experiment Station
 Milan, TN 1986

Date	April		May		June		July		August		Sept	
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	--	--	72	55	86	64	94	75	90	71	--	--
2	76	56	69	42	83	69	83	71	86	68	85	64
3	80	60	66	43	86	65	86	65	82	61	88	63
4	83	54	--	--	74	66	90	58	82	58	86	72
5	80	58	82	68	78	66	94	62	90	54	78	60
6	74	55	81	65	82	72	96	67	83	60	86	52
7	71	61	86	62	84	72	94	74	92	68	79	55
8	68	49	89	61	87	72	95	70	78	68	76	56
9	59	41	88	63	81	73	92	75	88	66	88	50
10	62	34	85	61	88	71	94	76	86	70	86	68
11	70	35	74	66	87	70	92	74	82	59	89	69
12	76	42	79	62	85	66	90	69	82	53	79	55
13	78	48	85	57	83	59	92	69	87	56	82	47
14	70	47	87	68	86	59	91	70	90	62	87	47
15	56	42	78	66	88	60	93	70	92	70	85	70
16	51	48	85	69	91	70	94	72	77	71	88	60
17	--	--	82	67	88	64	95	71	85	68	90	63
18	--	--	69	61	84	55	96	72	88	70	86	67
19	--	--	68	60	91	57	98	72	87	62	84	65
20	--	--	67	45	93	62	97	71	86	60	89	67
21	60	44	72	39	94	65	90	70	88	65	89	67
22	54	34	65	47	96	67	92	63	92	64	84	70
23	67	29	76	58	97	71	94	64	92	68	87	68
24	79	38	82	64	89	70	96	67	87	69	88	69
25	84	51	77	62	87	66	98	69	94	73	90	72
26	83	49	73	61	93	61	100	70	95	67	90	70
27	83	46	82	54	94	74	91	68	91	67	91	70
28	70	50	80	67	90	72	95	80	72	52	94	65
29	82	44	86	62	94	71	94	74	77	39	91	76
30	86	49	87	63	95	77	95	72	79	53	90	72
31	--	--	88	63	--	--	98	74	70	56	--	--

PROJ. NUM.:
 FILE NAME: MPDIRCR6
 WESTERN TENNESSEE AGRICULTURAL STATION

INTERIM DATA

UNITS: LBai/A
 PRINTED: 10/21/86

CORN POST DIRECTED HERBICIDES

RESEARCH BY: R.M. HAYES
 COOPERATOR : JOHN BRADLEY
 TOTAL REPS : 1
 REPORTED BY: R.M. HAYES

COUNTY: GIBSON
 LAST UPDATE: 10/21/86
 EXPT. STATUS: 3
 RELATED FILE: **NONE**
 ST: TN COUNTRY: USA
 INITIATED: 04/16/86
 COMPLETED: 09/13/86
 SOURCE: UNIVER.

PREVIOUS CROP: SOYBEANS
 PREVIOUS TILL: NO-TILLAGE
 FERTILITY: 150-80-80
 MISC. 1: 150 N AS SIDEDRESSED ANHYDROUS AMMONIA
 MISC. 2: FURADAN IN FURROW AT PLANTING
 PLOT SIZE(LxW): 10.0x 30.0
 SOIL TEXTURE: SILT LOAM
 ROW WIDTH: 030
 EXPERIMENTAL DESIGN: RCB
 NUMBER OF REPS: 4
 REPORT TYPE: INTERIM
 SOIL pH :6.8
 SOIL OM%: 1.2

PLANTING DATE: 04/16/86
 HARVEST DATE : 09/12/86
 RESIDUE TAKEN: N
 CROP CULTIVAR: PIONEER 3184
 SEASONAL RAINFALL DURING EXPERIMENT
 EARLY: OPT MID: WET LATE: DRY

APPLICATION INFO	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
APPLICATION DATE	05/23/86	/ /	/ /	/ /	/ /
JULIAN DATE/YEAR	J143/86	J 0/00	J 0/00	J 0/00	J 0/00
GEN. APPLIC TYPE	PODIR				
AIR/SOIL TEMP(F)	074/072	/	/	/	/
% REL. HUMIDITY	%				
WIND DIR/VELOC.	SW/01	/	/	/	/
ROOT/LEAF MOIST.	OPT/DRY	/	/	/	/
INCORP. EQUIP.					
INCORP. DEPTH in	.	.	.	.	.
SPRAYER TYPE	S&N SHIELD				
SPRAYER GPA/PSI	020.0/030	. /	. /	. /	. /
NOZZLE TYPE	OFFCENTER03				
RAIN / IRRIG. in					
0-24 hr/1-3 days	. / .	. / .	. / .	. / .	. / .
4-7 days/2nd wk	. / .	. / .	. / .	. / .	. / .
3rd / 4th week	. / .	. / .	. / .	. / .	. / .

SPEC. CODE	SPECIES	DEN-SITY	APPLIC. 1 HTin/STG.	APPLIC. 2 HTin/STG.	APPLIC. 3 HTin/STG.	APPLIC. 4 HTin/STG.	APPLIC. 5 HTin/STG.
***** CROP *****	ZEAMX CORN		026/	/	/	/	/
***** PEST *****	SORHA JOHNSONGRASS		018/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/

CORN POST DIRECTED HERBICIDES

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EXPERIMENT COMMENTS

JOHNSONGRASS WAS FROM SEEDLING TO 18 INCHES TALL. CORN WAS FROM 24 TO 28 INCHES TALL.

KEY TO DATA HEADERS

-
- 1.%SORHA=PERCENT CONTROL OF JOHNSONGRASS USING A POST-DIRECTED SPRAYER.
 - 2.%ZEAMX=PERCENT CORN INJURY.
 - 3.Y/BU/AC=CORN YIELD IN BUSHELS PER ACRE WITH THE MOISTURE CORRECTED TO 15.5%. MOISTURE AT HARVEST WAS 18.8%.

JOHNSONGRASS OFTEN ESCAPES PREEMERGENCE CONTROL IN NO-TILL CORN. THE OBJECTIVES OF THIS EXPERIMENT WERE TO EVALUATE SEVERAL OPTIONS FOR CONTROL AND TO DETERMINE IF THERE WAS ANY INCREASE IN YIELD AS A RESULT OF IMPROVED CONTROL. THERE WAS SOME INJURY TO CORN WHERE ROUNDUP WAS POST-DIRECTED, BUT THIS DID NOT AFFECT YIELD. IMPROVED CONTROL OF JOHNSONGRASS WAS NOT REFLECTED IN IMPROVED YIELD.

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APPROVED BY: _____ SUBMITTED BY: _____

DATE: _____

DATE: _____

PROJ. NUM.:
 FILE NAME: MPDIRCR6
 WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

INTERIM DATA

UNITS: LBai/A
 PRINTED: 10/21/86

CORN POST DIRECTED HERBICIDES

RESEARCH BY: R.M. HAYES
 COOPERATOR : JOHN BRADLEY
 TOTAL REPS : 1
 APPL: PODIR=J143/86

COUNTY: GIBSON
 LAST UPDATE: 10/21/86
 EXPT. STATUS: 3

ST: TN COUNTRY: USA
 INITIATED: 04/16/86
 COMPLETED: 09/13/86

TRT.	PESTICIDE	APPLI-%SORHA	%ZEMX	YIELD						
NO. NAME	FORMU. LBai/A	TYPE	J224/86	J224/86	J255/86					

01	POAST	EC 1.5	.28	PODIR	52	0	81.0			
	AGRIDEX	EC 4	1	PODIR						
02	POAST	EC 1.5	.28	PODIR	65	0	76.1			
	PROWL	EC 4	1	PODIR						
	AGRIDEX	EC 4	1	PODIR						
03	FUSILADE	EC 1	0.188	PODIR	91	0	82.7			
	X-77	%A 100%	0.25%	PODIR						
04	FUSILADE	EC 1	0.188	PODIR	85	0	95.6			
	PROWL	EC 4	1	PODIR						
	X-77	%A 100%	0.25%	PODIR						
05	ROUNDUP	SC 4	1	PODIR	68	33	94.1			
	X-77	%A 100%	0.25%	PODIR						
06	ROUNDUP	SC 4	1	PODIR	96	33	91.9			
	PROWL	EC 4	1	PODIR						
	X-77	%A 100%	0.25%	PODIR						
07	PARAQUAT	SC 2	0.38	PODIR	77	0	97.3			
	X-77	%A 100%	0.25%	PODIR						
08	PARAQUAT	SC 2	0.38	PODIR	82	0	90.0			
	X-77	%A 100%	0.25%	PODIR						
	PROWL	EC 4	1	POST						
09	PARAQUAT	SC 2	0.38	PODIR	55	0	88.4			
	PROWL	EC 4	1	PODIR						
	X-77	%A 100%	0.25%	PODIR						
10	WEEDY CK				60	0	106.8			

PROJ. NUM.:
 FILE NAME: MESNTCRG

UNITS: LB ai/A
 PRINTED: 10/20/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

HERBICIDE EVALUATION FOR NO-TILL CORN

RESEARCH BY: R.M. HAYES COUNTY: GIBSON ST: TN COUNTRY: USA
 COOPERATOR : JOHN BRADLEY LAST UPDATE: 10/20/86 INITIATED: 04/16/86
 TOTAL REPS : 4 EXPT. STATUS: 4 COMPLETED: 09/13/86
 REPORTED BY: R.M. HAYES RELATED FILE: NONE SOURCE: UNIVER.

PREVIOUS CROP: SOYBEANS PLOT SIZE(LxW): 10.0x 30.0 SOIL pH :6.8
 PREVIOUS TILL: NO-TILLAGE SOIL TEXTURE: GRENADA SIL SOIL OM%: 01.1
 FERTILITY: 150-80-80 ROW WIDTH: 030 EXPERIMENTAL DESIGN: RCB
 MISC. 1: FURADAN 15G AT 1.0 LB AI/A NUMBER OF REPS: 4
 MISC. 2: SOIL TEST 0-40-140 (HIGH-P;MED-K) REPORT TYPE: SUMMARY

PLANTING DATE: 04/16/86 CROP CULTIVAR: PIONEER 3184
 HARVEST DATE : 09/12/86 SEASONAL RAINFALL DURING EXPERIMENT
 RESIDUE TAKEN: N EARLY: OPT MID: WET LATE: DRY

APPLICATION INFO	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
APPLICATION DATE	04/16/86	/ /	/ /	/ /	/ /
JULIAN DATE/YEAR	J106/86	J 0/00	J 0/00	J 0/00	J 0/00
GEN. APPLIC TYPE	PRE				
AIR/SOIL TEMP(F)	052/058	/	/	/	/
% REL. HUMIDITY	%				
WIND DIR/VELOC.	NW/03	/	/	/	/
ROOT/LEAF MOIST.	WET/DRY	/	/	/	/
INCRP. EQUIP.					
INCRP. DEPTH in	.	.	.	.	.
SPRAYER TYPE	CO2BACKPACK				
SPRAYER GPA/PSI	18.0/032	. /	. /	. /	. /
NOZZLE TYPE	FLATFAN8002				
RAIN / IRRIG. in					
0-24 hr/1-3 days	. / .	. / .	. / .	. / .	. / .
4-7 days/2nd wk	. / .	. / .	. / .	. / .	. / .
3rd / 4th week	. / .	. / .	. / .	. / .	. / .

SPEC. CODE	SPECIES	DEN-SITY	APPLIC. 1 HTin/STG.	APPLIC. 2 HTin/STG.	APPLIC. 3 HTin/STG.	APPLIC. 4 HTin/STG.	APPLIC. 5 HTin/STG.
***** CROP *****	ZEAMA CORN	1.3F	/	/	/	/	/
***** PEST *****			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/

HERBICIDE EVALUATION FOR NO-TILL CORN

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EXPERIMENT COMMENTS

SC5676 CONTAINED THE EXTENDER. WEEDS PRESENT AT APPLICATION CONSISTED MAINLY OF WHEAT, CHEAT, COMMON LAMBSQUARTERS, AND A FEW SCATTERED WINTER ANNUALS SUCH AS CHICKWEED AND HENBIT.

KEY TO DATA HEADERS

- 1. BURNDN=BURNDOWN
- 2. Y/BU/AC=CORN YIELD IN BUSHELS PER ACRE WITH THE MOISTURE CORRECTED TO 15.5%. MOISTURE AT HARVEST WAS 17%.

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APPROVED BY: _____ SUBMITTED BY: _____
DATE: _____ DATE: _____

PROJ. NUM.:
 FILE NAME: MESNTRG6

UNITS: LBai/A
 PRINTED: 10/20/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

HERBICIDE EVALUATION FOR NO-TILL CORN

RESEARCH BY: R.M. HAYES
 COOPERATOR : JOHN BRADLEY
 TOTAL REPS : 4
 APPL: PRE =J106/86

COUNTY: GIBSON
 LAST UPDATE: 10/20/86
 EXPT. STATUS: 4

ST: TN COUNTRY: USA
 INITIATED: 04/16/86
 COMPLETED: 09/13/86

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      PESTICIDE      APPLI-|BURN|Y/BU/AC|
TRT. -----|-----|CATION|VISUAL|HARVEST|
NO. NAME   FORMU. LBai/A  TYPE|J125/86|J255/86|
=====
  
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01	DUAL	EC 8	2.0	PRE	96	94.3
	IGNITE	EC 1.67	0.89	PRE		
	AATREX	EC 4.0	1.5	PRE		
02	DUAL	EC 8	2.5	PRE	98	86.2
	IGNITE	EC 1.67	1.11	PRE		
	AATREX	EC 4.0	1.5	PRE		
03	BICEP	EC 6.0	3.6	PRE	95	84.3
	IGNITE	EC 1.67	0.89	PRE		
04	BICEP	EC 6.0	4.5	PRE	99	95.4
	IGNITE	EC 1.67	1.11	PRE		
05	BICEP	EC 6.0	2.7	PRE	74	86.1
	PARAQUAT	EC 2.0	0.25	PRE		
	X-77	%A 100%	0.25%	PRE		
06	EXTRAZIN	EC 4.0	4.0	PRE	60	89.3
	2,4-DLVE	EC 4.0	0.5	PRE		
	COC	EC 4.0	1.0	PRE		
07	EXTRAZIN	EC 4.0	4.0	PRE	97	103.0
	PARAQUAT	EC 2.0	0.25	PRE		
	X-77	%A 100%	0.5%	PRE		
08	SC5676	EC 7.0	1.5	PRE	85	75.5
	AATREX	EC 4.0	1.5	PRE		
	PARAQUAT	EC 2.0	0.25	PRE		
	X-77	%A 100%	0.25%	PRE		
09	SC5676	EC 7.0	2.0	PRE	81	80.2
	AATREX	EC 4.0	1.5	PRE		
	PARAQUAT	EC 2.0	0.25	PRE		
	X-77	%A 100%	0.25%	PRE		
10	DUAL	EC 8.0	1.5	PRE	64	87.7
	AATREX	EC 4.0	1.5	PRE		
	PARAQUAT	EC 2.0	0.25	PRE		
	X-77	%A 100%	0.25%	PRE		

PROJ. NUM.:
 FILE NAME: MESNTCR6

UNITS: LBai/A
 PRINTED: 10/20/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

HERBICIDE EVALUATION FOR NO-TILL CORN

APPL: PRE =J106/86

TRT. NO. NAME	PESTICIDE FORMU. LBai/A	APPLI-; %BURNON; Y/BU/AC; CATION; VISUAL ; HARVEST; TYPE; J125/86; J255/86;								
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11	LASSO	EC 4.0 2.0	PRE	86	93.6					
	AATREX	EC 4.0 1.5	PRE							
	PARAQUAT	EC 2.0 0.25	PRE							
	X-77	%A 100% 0.25%	PRE							
12	PROWL	EC 4.0 1.0	PRE	79	88.2					
	AATREX	EC 4.0 1.5	PRE							
	PARAQUAT	EC 2.0 0.25	PRE							
	X-77	%A 100% 0.25%	PRE							
13	BRONCO	EC 4.0 3.0	PRE	95	87.0					
	AATREX	EC 4.0 1.5	PRE							
	PARAQUAT	EC 2.0 0.25	PRE							
	X-77	%A 100% 0.25%	PRE							
14	SAN 582	EC 8.0 1.5	PRE	87	89.3					
	AATREX	EC 4.0 1.5	PRE							
	PARAQUAT	EC 2.0 0.25	PRE							
	X-77	%A 100% 0.25%	PRE							
15	SC0051	EC 3.0 1.0	PRE	90	85.3					
	AATREX	EC 4.0 1.5	PRE							
	PARAQUAT	EC 2.0 0.25	PRE							
	X-77	%A 100% 0.25%	PRE							
16	SC0074	WP 75% 0.75	PRE	74	98.5					
	AATREX	EC 4.0 1.5	PRE							
	PARAQUAT	EC 2.0 0.25	PRE							
	X-77	%A 100% 0.25%	PRE							
17	SC0735	WP 75% 1.0	PRE	93	88.4					
	PARAQUAT	EC 2.0 0.25	PRE							
	X-77	%A 100% 0.25%	PRE							
18	PARAQUAT	EC 2.0 0.25	PRE	28	39.5					
	X-77	%A 100% 0.25%	PRE							
19	AATREX	EC 4.0 1.5	PRE	28	72.5					
	AGRIDEX	EC 4.0 1.0	PRE							
20	WEEDY CK			0	22.3					

PROJ. NUM.:
FILE NAME: MESNTR6

UNITS: LBai/A
PRINTED: 10/20/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

HERBICIDE EVALUATION FOR NO-TILL CORN

APPL: PRE =J106/86

PESTICIDE	APPLI-;BURNDN;Y/BU/AC;									
TRT. -----	CATION;VISUAL ;HARVEST;									
NO. NAME	FORMU. LBai/A	TYPE;J125/86;J255/86;								

LSD(0.05) = 25 18.0
STANDARD DEVIATION = 18 12.4
COEFF. OF VARIABILITY = 23 15.1

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

NITROGEN BY JOHNSONGRASS-NO-TILL CORN

RESEARCH BY: R.M. HAYES
 COOPERATOR : D.D. HOWARD
 TOTAL REPS : 4
 REPORTED BY: R.M. HAYES

COUNTY: GIBSON
 LAST UPDATE: 10/21/86
 EXPT. STATUS: 3
 RELATED FILE: NONE

ST: TN COUNTRY: USA
 INITIATED: 04/16/86
 COMPLETED: 09/13/86
 SOURCE: UNIVER.

PREVIOUS CROP: SOYBEANS PLOT SIZE(LxW): 10.0x 30.0 SOIL pH :6.8
 PREVIOUS TILL: NO-TILLAGE SOIL TEXTURE: GRENADA SIL SOIL OM%: 01.1
 FERTILITY: 0-80-80 AT PLANT ROW WIDTH: 030 EXPERIMENTAL DESIGN: RCB
 MISC. 1: NITROGEN ACCORDING TO PLAN NUMBER OF REPS: 4
 MISC. 2: REPORT TYPE: INTERIM

PLANTING DATE: 04/16/86 CROP CULTIVAR: PIONEER 3184
 HARVEST DATE : 09/12/86 SEASONAL RAINFALL DURING EXPERIMENT
 RESIDUE TAKEN: N EARLY: OPT MID: WET LATE: DRY

APPLICATION INFO	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
APPLICATION DATE	/ /	/ /	/ /	/ /	/ /
JULIAN DATE/YEAR	J 0/00	J 0/00	J 0/00	J 0/00	J 0/00
GEN. APPLIC TYPE					
AIR/SOIL TEMP(F)	/	/	/	/	/
% REL. HUMIDITY	%				
WIND DIR/VELOC.	/	/	/	/	/
ROOT/LEAF MOIST.	/	/	/	/	/
INCORP. EQUIP.					
INCORP. DEPTH in	.	.	.	.	.
SPRAYER TYPE					
SPRAYER GPA/PSI	18.0/	. /	. /	. /	. /
NOZZLE TYPE					
RAIN / IRRIG. in					
0-24 hr/1-3 days	. / .	. / .	. / .	. / .	. / .
4-7 days/2nd wk	. / .	. / .	. / .	. / .	. / .
3rd / 4th week	. / .	. / .	. / .	. / .	. / .

SPEC. CODE	SPECIES	DEN-SITY	APPLIC. 1 HTin/STG.	APPLIC. 2 HTin/STG.	APPLIC. 3 HTin/STG.	APPLIC. 4 HTin/STG.	APPLIC. 5 HTin/STG.
*****	CROP						
ZEAMX	CORN		/	/	/	/	/
*****	PEST						
SORHA	JOHNSONGRASS		/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/

NITROGEN BY JOHNSONGRASS-NO-TILL CORN

=====

EXPERIMENT COMMENTS

KEY TO DATA HEADERS.

1. SORHA D.W./AC=DRY WEIGHT OF JOHNSONGRASS PER ACRE
2. %MOIST CALC.=MOISTURE OF THE CORN AT HARVEST.
3. Y/BU/AC=CORN YIELD IN BUSHELS PER ACRE WITH A MOISTURE OF 15.5%.

OUR OBJECTIVE WAS TO DETERMINE IF NITROGEN FERTILIZATION AT PLANTING GAVE JOHNSONGRASS A COMPETITIVE ADVANTAGE OVER CORN WHEN COMPARED TO DELAYING APPLICATION. AMMONIUM NITRATE (AN) AND ANHYDROUS AMMONIA (AA) WERE CHOSEN BECAUSE OF THEIR COMMON USE.

CORN YIELDS WERE LOWER WITH AA COMPARED TO AN. THE HIGHEST CORN YIELD WAS WITH AN APPLIED AT PLANTING. THE GREATEST JOHNSONGRASS DRY WEIGHT WAS WITH AA APPLIED AT PLANTING. MOST OF THE EARLY EMERGENCE OF JOHNSONGRASS IN THIS TREATMENT OCCURRED ALONG THE SLOT WHERE THE AA WAS INJECTED. THERE WAS A DEFINITE TREND TOWARD LESS JOHNSONGRASS WHERE NITROGEN APPLICATIONS WERE DELAYED.

=====

APPROVED BY: _____ SUBMITTED BY: _____

DATE: _____ DATE: _____

PROJ. NUM.: N-41
FILE NAME: MNXJGCR6

INTERIM DATA

UNITS: LBai/A
PRINTED: 10/21/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

3 NITROGEN BY JOHNSONGRASS-NO-TILL CORN

RESEARCH BY: R.M. HAYES
COOPERATOR : D.D. HOWARD
TOTAL REPS : 4
APPL:

COUNTY: GIBSON
LAST UPDATE: 10/21/86
EXPT. STATUS: 3

ST: TN COUNTRY: USA
INITIATED: 04/16/86
COMPLETED: 09/13/86

TRT.	PESTICIDE	APPLI-	SORHA	%MOIST	Y/BU/AC															
NO. NAME	FORMU.	LBai/A	TYPE	J224/86	J255/86	J255/86														

01	AN	DF 34%	150	PRE	3144.1	16.7	78.7													
02	AN	DF 34%	150	4WAP	2838.4	17.9	70.1													
03	AA	FL 82%	150	PRE	5633.3	17.1	53.8													
04	AA	FL 82%	150	4WAP	4225.0	18.7	64.3													
				LSD(0.05) =	2315.1	2.1	12.2													
				STANDARD DEVIATION =	1447.4	1.3	7.6													
				COEFF. OF VARIABILITY =	36.5	7.4	11.4													

PLATEAU EXPERIMENT STATION

Rt. 9, Box 363

Crossville, TN 38555

Superintendent - Dr. Robert D. Freeland

RAINFALL
Plateau Experiment Station
Crossville, TN 1986

Date	April	May	June	July	August	September
1	0	0	0	0	.56	.66
2	0	0	.16	.42	0	.33
3	0	0	0	1.08	0	.47
4	0	0	.42	0	0	1.66
5	0	0	.09	0	0	.20
6	.05	0	0	0	0	0
7	.28	0	.03	0	.02	0
8	.41	0	.14	.13	.01	0
9	0	0	0	0	0	0
10	0	0	.72	.06	0	0
11	0	0	.02	1.09	.68	0
12	0	0	.08	.06	0	.34
13	0	.06	0	0	0	0
14	0	0	0	.13	.01	0
15	.08	0	0	0	0	0
16	0	0	0	0	0	0
17	0	0	0	0	.34	0
18	0	0	0	0	0	0
19	0	.05	0	0	.02	0
20	.06	.38	0	0	0	.70
21	.48	0	0	.08	0	.07
22	.22	0	0	0	.42	0
23	0	.79	0	0	0	0
24	0	.11	0	0	0	0
25	0	.38	0	0	0	0
26	0	.04	0	0	0	.48
27	0	1.52	0	0	.38	0
28	0	2.93	0	0	.63	.03
29	.24	.10	.20	0	0	0
30	0	0	.01	0	0	0
31	-	0	-	0	.03	-
Total	1.82	6.36	1.87	3.05	3.10	4.94

TEMPERATURE
Plateau Experiment Station
Crossville, TN 1986

Date	April		May		June		July		August		Sept	
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	78	51	82	51	81	58	87	66	83	61	62	57
2	76	51	72	44	82	60	84	67	84	62	65	62
3	76	50	65	36	81	59	79	57	84	60	71	64
4	78	55	61	36	79	60	78	54	83	59	75	64
5	77	56	73	40	72	61	82	64	82	57	78	63
6	77	56	79	59	79	62	84	64	87	61	77	55
7	74	54	80	58	81	62	85	64	88	62	77	51
8	76	55	84	55	82	68	88	65	85	62	79	53
9	69	38	83	53	85	67	89	68	87	63	71	51
10	50	32	84	52	85	65	87	68	84	64	78	54
11	58	35	80	56	80	66	83	63	89	65	73	65
12	65	40	76	55	82	66	84	66	81	59	72	62
13	70	45	71	59	79	58	84	68	82	61	74	51
14	74	49	80	59	77	56	85	65	84	62	79	52
15	72	40	80	60	82	61	87	65	85	65	80	55
16	60	33	76	60	81	57	84	65	87	64	77	60
17	44	35	80	60	84	59	86	65	84	64	79	59
18	46	35	82	65	83	52	90	66	80	66	76	59
19	71	45	70	59	79	55	92	68	82	63	68	61
20	75	52	66	50	85	61	92	67	84	60	75	60
21	60	43	63	39	87	65	93	64	83	62	83	62
22	53	32	63	39	89	61	89	66	80	65	83	60
23	49	24	70	47	89	62	89	67	85	64	81	60
24	59	32	70	53	89	66	90	68	85	66	82	65
25	74	50	78	58	85	58	92	67	83	54	83	61
26	80	52	72	58	83	55	90	70	86	65	83	62
27	84	57	69	61	86	55	92	66	83	67	84	62
28	85	54	72	62	90	64	90	65	85	56	84	62
29	69	43	71	62	88	69	91	67	67	42	83	64
30	74	48	81	59	83	65	91	62	71	44	84	65
31	--	--	82	60	--	--	91	59	71	52	--	--

12-02-1986

EXPERIMENT DESCRIPTION FORM

The University of Tennessee

EVALUATION OF METOLACHLOR FORMULATIONS IN CORN

Conducted at CROSSVILLE, TN by G.N. RHODES, JR.
Project TN-692-86-P-2 with cooperater PLATEAU EXPT STA

Experimental Management

Date Planted 4-30-86 Variety PIONEER 3320 Row Width 36 IN
Design RCB No. Reps. 4 Plot Size 3 ROWS*30 FT
Field Preparation and Plot Maintenance DISK, ROTERRA, POWER-DRIVEN TILLER.

Site Description

Season Moisture SEE RAINFALL TABLES
Soil Texture SILT LOAM
Soil Series TILSIT

% OM 1.6 pH 6.0

Application Information

	1	2	3	4	5	6
Date Treated	4-30-86					
Time Treated	PM					
Cloud Cover	CLEAR					
Air Temperature	84					
Relative Humidity	36%					
Wind Speed/Direction	4MPH-W					
Soil Temperature	84					
Soil/Leaf Surface Moisture	DRY					
Soil Subsurface Moisture	DRY					
Soil Tilth	FINE					
Crop Stage	PRE					
Pest Name, Stage & Density						
AMACH 1/FT	PRE					
IPOLA 1/FT	PRE					

Application Equipment

Sprayer Type	Speed MPH	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Nozzle Boom Width	GPA	Carrier	PSI
1. CO2 BACKPACK	3	FLAT FAN	8002	19	19	6.3FT	20	WATER	41

Comments

CRINJ=CROP INJURY; AMACH=SMOOTH PIGWEED; IPOLA=PITTED MORNINGGLORY. RAINFALL WAS NOT RECEIVED FOR THE FIRST 3 WEEKS AFTER PLANTING. LACK OF RAINFALL AND MILD TEMPERATURES ELIMINATED THE PROBABILITY OF CROP INJURY. ANNUAL GRASS POPULATION DID NOT DEVELOP.

11-26-1986

SUMMARY

The University of Tennessee
EVALUATION OF METOLACHLOR FORMULATIONS IN CORN

Conducted at CROSSVILLE, TN by G.M. RHODES, JR.
Project TN-692-86-P-2 with cooperators PLATEAU EXPT STA

TRT. NUM.	PEST. NAME	RATE FORM	GROW. #ai/A	CRINJ STAGE	AMACH 6-6-86	IPOLA 6-6-86	AMACH 7-22-86	IPOLA 7-22-86	AMACH 8-18-86	IPOLA 8-18-86
01	DUAL	8.0E	1.5	PRE 0	98.8	88.8	98.3	84.0	100.0	78.8
01	ATRAZINE	4.0L	1.5	PRE						
02	DUAL	8.0E	3.0	PRE 0	100.0	88.8	100.0	90.0	100.0	86.3
02	ATRAZINE	4.0L	1.5	PRE						
03	CG180937	7.8E	1.5	PRE 0	99.5	91.3	100.0	88.3	100.0	71.3
03	ATRAZINE	4.0L	1.5	PRE						
04	CG180937	7.8E	3.0	PRE 0	100.0	91.3	100.0	82.0	100.0	76.3
04	ATRAZINE	4.0L	1.5	PRE						
05	LASSO MT	4.0L	2.0	PRE 0	100.0	90.0	100.0	81.8	100.0	77.5
05	ATRAZINE	4.0L	1.5	PRE						
06	LASSO MT	4.0L	4.0	PRE 0	100.0	93.3	100.0	93.3	100.0	91.3
06	ATRAZINE	4.0L	1.5	PRE						
07	BICEP	6.0L	3.6	PRE 0	99.5	92.0	98.8	86.3	98.8	85.0
08	BICEP	6.0L	7.2	PRE 0	100.0	98.3	100.0	89.3	100.0	81.3
09	BICEP-D	6.0E	3.6	PRE 0	98.8	82.5	99.3	68.3	100.0	55.0
10	BICEP-D	6.0E	7.2	PRE 0	100.0	97.0	100.0	92.0	100.0	89.3
11	DUAL G	0.25G	2.5	PRE 0	100.0	88.8	100.0	87.5	100.0	85.0
11	ATRAZINE	4.0L	1.5	PRE						
12	DUAL G	0.25G	5.0	PRE 0	99.5	92.5	100.0	85.0	100.0	81.3
12	ATRAZINE	4.0L	1.5	PRE						
13	DUAL G-D	0.25G	2.5	PRE 0	100.0	93.8	100.0	86.3	100.0	78.8
13	ATRAZINE	4.0L	1.5	PRE						
14	DUAL G-D	0.25G	5.0	PRE 0	100.0	93.3	100.0	87.8	100.0	89.8
14	ATRAZINE	4.0L	1.5	PRE						
15	ATRAZINE	4.0L	1.5	PRE 0	98.8	86.3	100.0	81.8	100.0	75.0
16	WEEDFREE			0	100.0	100.0	100.0	100.0	100.0	100.0
17	WEEDY			0	0.0	0.0	0.0	0.0	0.0	0.0
LEAST SIGNIFICANT DIFF. (.05) =					1.396	5.863	1.242	11.36	.8663	16.90
STANDARD DEVIATION =					.9769	4.103	.8695	7.955	.6062	11.82
COEFF. OF VARIABILITY =					1.041	4.753	.9260	9.777	.6446	15.45

12-02-1986

EXPERIMENT DESCRIPTION FORM

The University of Tennessee

POSTEMERGENCE WEED CONTROL IN CORN

Conducted at CROSSVILLE, TN by G.N. RHODES, JR.
Project TN-692-86-P-6 with cooperater FLATEAU EXPT STA

Experimental Management

Date Planted 4-30-86 Variety PIONEER 3320 Row Width 36 IN
Design RCB No. Reps. 4 Plot Size 3 ROWS*30 FT
Field Preparation and Plot Maintenance DISK, ROTERRA, POWER-DRIVEN TILLER.

Site Description

Season Moisture SEE RAINFALL TABLES
Soil Texture SILT LOAM
Soil Series TILSIT

% OM 1.6 pH 6.0

Application Information

Table with 6 columns (1-6) and rows for Date Treated, Time Treated, Cloud Cover, Air Temperature, Relative Humidity, Wind Speed/Direction, Soil Temperature, Soil/Leaf Surface Moisture, Soil Subsurface Moisture, Soil Tilth, Crop Stage, Pest Name, Stage & Density, CYPES 15/FT, AMACH 6/FT, DIGSA 5/FT.

Application Equipment

Table with columns: Sprayer Type, Speed MPH, Nozzle Type, Nozzle Size, Nozzle Height, Nozzle Spacing, Boom Width, GPA, Carrier, PSI. Rows 1-3 describe CO2 BACKPACK equipment.

Comments

CRINJ=CROP INJURY; CYPES=YELLOW NUTSEDGE; AMACH=SMOOTH FIGWEED; DIGSA=LARGE CRABGRASS. RAINFALL WAS NOT RECEIVED FOR THE FIRST 3 WEEKS AFTER PLANTING. CROP EMERGENCE WAS SLOW AND EXTREMELY UNEVEN, MAKING CROP INJURY EVALUATIONS DIFFICULT TO CONDUCT. YELLOW NUTSEDGE PRESSURE WAS VIRTUALLY OVERWHELMING.

11-26-1986

SUMMARY

The University of Tennessee
POSTEMERGENCE WEED CONTROL IN CORN

Conducted at CROSSVILLE, TN by G.N. RHODES, JR.
 Project TN-692-86-P-6 with cooperators PLATEAU EXPT STA

TRT. NUM.	PEST. NAME	FORM	RATE #ai/A	GROW. STAGE	CRINJ 6-19-86	CYPES 6-19-86	AMACH 6-19-86	DIGSA 6-19-86
01	SC-0051	3.0E	0.25	POT1	10.0	36.3	95.0	71.3
01	TWEEN-20	P	0.25	POT1				
02	SC-0051	3.0E	0.50	POT1	8.8	56.3	99.0	82.5
02	TWEEN-20	P	0.25	POT1				
03	SC-0051	3.0E	1.0	POT1	26.3	68.8	98.3	80.0
03	TWEEN-20	P	0.25	POT1				
04	SC-0051	3.0E	0.25	POT1	1.3	70.0	98.3	87.5
04	ATRAZINE	0.90W	0.50	POT1				
04	TWEEN-20	P	0.25	POT1				
05	SC-0051	3.0E	0.25	POT1	11.3	77.5	99.5	87.5
05	ATRAZINE	0.90W	1.0	POT1				
05	TWEEN-20	P	0.25	POT1				
06	SC-0051	3.0E	0.50	POT1	10.0	77.5	100.0	85.0
06	ATRAZINE	0.90W	0.50	POT1				
06	TWEEN-20	P	0.25	POT1				
07	SC-0051	3.0E	0.50	POT1	5.0	83.8	100.0	90.0
07	ATRAZINE	0.90W	1.0	POT1				
07	TWEEN-20	P	0.25	POT1				
08	SC-0051	3.0E	1.0	POT1	16.3	86.3	100.0	88.8
08	ATRAZINE	0.90W	0.50	POT1				
08	TWEEN-20	P	0.25	POT1				
09	SC-0051	3.0E	1.0	POT1	12.5	91.3	100.0	95.8
09	ATRAZINE	0.90W	1.0	POT1				
09	TWEEN-20	P	0.25	POT1				
10	ATRAZINE	0.90W	0.50	POT1	3.8	31.3	95.0	48.8
10	TWEEN-20	P	0.25	POT1				
11	ATRAZINE	0.90W	1.0	POT1	1.3	42.5	97.8	50.0
11	TWEEN-20	P	0.25	POT1				
12	TANDEM	4.0E	0.5	POT1	6.3	53.8	98.0	85.0
12	ATRAZINE	0.90W	1.5	POT1				
12	C.O.C.	P	1.25	POT1				
13	TANDEM	4.0E	0.75	POT1	6.3	61.3	99.0	85.0
13	ATRAZINE	0.90W	1.5	POT1				
13	C.O.C.	P	1.25	POT1				

11-26-1986

SUMMARY

The University of Tennessee
POSTEMERGENCE WEED CONTROL IN CORN

Conducted at CROSSVILLE, TN by G.N. RHODES, JR.
 Project TN-692-86-F-6 with cooperators PLATEAU EXPT STA

TRT. NUM.	PEST. NAME	FORM	RATE #ai/A	GROW. STAGE	CRINJ 6-19-86	CYPES 6-19-86	AMACH 6-19-86	DIGSA 6-19-86
14	ATRAZINE	0.90W	1.5	POT1	2.5	57.5	97.0	67.5
14	C.O.C.	P	1.25	POT1				
19	LASSO MT	4.0L	2.0	PRE	0.0	55.0	100.0	100.0
19	ATRAZINE	0.90W	1.5	PRE				
20	WEEDY				0.0	0.0	0.0	0.0
LEAST SIGNIFICANT DIFF. (.05) =					8.224	12.52	1.659	10.62
STANDARD DEVIATION =					5.815	8.858	1.173	7.516
COEFF. OF VARIABILITY =					95.92	18.67	1.589	12.48

12-01-1986

SUMMARY

The University of Tennessee
POSTEMERGENCE WEED CONTROL IN CORN

Conducted at CROSSVILLE, TN by G.N. RHODES, JR.
 Project TN-692-86-P-6 with cooperators PLATEAU EXPT STA

TRT. NUM.	PEST. NAME	FORM	RATE #ai/A	GROW. STAGE	CYPES 7-22-86	AMACH 7-22-86	DIGSA 7-22-86
01	SC-0051	3.0E	0.25	POT1	30.0	100.0	68.8
01	TWEEN-20	P	0.25	POT1			
02	SC-0051	3.0E	0.50	POT1	50.0	100.0	78.8
02	TWEEN-20	P	0.25	POT1			
03	SC-0051	3.0E	1.0	POT1	62.5	100.0	78.8
03	TWEEN-20	P	0.25	POT1			
04	SC-0051	3.0E	0.25	POT1	58.8	100.0	81.3
04	ATRAZINE	0.90W	0.50	POT1			
04	TWEEN-20	P	0.25	POT1			
05	SC-0051	3.0E	0.25	POT1	72.5	100.0	87.5
05	ATRAZINE	0.90W	1.0	POT1			
05	TWEEN-20	P	0.25	POT1			
06	SC-0051	3.0E	0.50	POT1	75.0	100.0	86.3
06	ATRAZINE	0.90W	0.50	POT1			
06	TWEEN-20	P	0.25	POT1			
07	SC-0051	3.0E	0.50	POT1	83.8	100.0	91.3
07	ATRAZINE	0.90W	1.0	POT1			
07	TWEEN-20	P	0.25	POT1			
08	SC-0051	3.0E	1.0	POT1	91.3	100.0	91.8
08	ATRAZINE	0.90W	0.50	POT1			
08	TWEEN-20	P	0.25	POT1			
09	SC-0051	3.0E	1.0	POT1	92.5	100.0	93.8
09	ATRAZINE	0.90W	1.0	POT1			
09	TWEEN-20	P	0.25	POT1			
10	ATRAZINE	0.90W	0.50	POT1	20.0	100.0	22.5
10	TWEEN-20	P	0.25	POT1			
11	ATRAZINE	0.90W	1.0	POT1	32.5	100.0	38.8
11	TWEEN-20	P	0.25	POT1			
12	TANDEM	4.0E	0.5	POT1	57.5	100.0	78.8
12	ATRAZINE	0.90W	1.5	POT1			
12	C.O.C.	P	1.25	POT1			
13	TANDEM	4.0E	0.75	POT1	51.3	100.0	61.3
13	ATRAZINE	0.90W	1.5	POT1			
13	C.O.C.	P	1.25	POT1			

12-01-1986

SUMMARY

The University of Tennessee
POSTEMERGENCE WEED CONTROL IN CORN

Conducted at CROSSVILLE, TN by G.N. RHODES, JR.
 Project TN-692-86-P-6 with cooperators FLATEAU EXPT STA

TRT. NUM.	PEST. NAME	FORM	RATE #ai/A	GROW. STAGE	CYPES 7-22-86	AMACH 7-22-86	DIGSA 7-22-86
14	ATRAZINE	0.90W	1.5	POT1	50.0	100.0	25.0
14	C.O.C.	P	1.25	POT1			
15	TANDEM	4.0E	0.5	POT2	40.0	100.0	32.5
15	ATRAZINE	0.90W	1.5	POT2			
15	C.O.C.	P	1.25	POT2			
16	TANDEM	4.0E	0.75	POT2	30.0	100.0	40.0
16	ATRAZINE	0.90W	1.5	POT2			
16	C.O.C.	P	1.25	POT2			
17	ATRAZINE	0.90W	1.5	POT2	37.5	100.0	28.8
17	C.O.C.	P	1.25	POT2			
18	TANDEM	4.0E	0.5	POT2	71.3	100.0	72.5
18	ATRAZINE	0.90W	1.5	POT2			
18	C.O.C.	P	1.25	POT2			
18	ATRAZINE	0.90W	1.0	POT3			
18	C.O.C.	P	1.25	POT3			
19	LASSO MT	4.0L	2.0	PRE	42.5	100.0	70.0
19	ATRAZINE	0.90W	1.5	PRE			
20	WEEDY				0.0	0.0	0.0
LEAST SIGNIFICANT DIFF. (.05) =					16.39	0	24.70
STANDARD DEVIATION =					11.59	0	17.46
COEFF. OF VARIABILITY =					22.11	0	28.44

12-02-1986

EXPERIMENT DESCRIPTION FORM

The University of Tennessee

MANAGEMENT OF BROADLEAF WEEDS IN GRAIN SORGHUM

Conducted at CROSSVILLE, TN by G.N. RHODES, JR.
Project TN-692-86-P-4 with cooperators PLATEAU EXPT STA

Experimental Management

Date Planted 6-19-86
Design RCB
Field Preparation and Plot Maintenance CULTIPACKER.
No. Reps. 4
Row Width 36 IN
Plot Size 3 ROWS*30 FT
DISK, ROTERRA, POWER-DRIVEN TILLER,

Site Description

Season Moisture SEE RAINFALL TABLES
Soil Texture SILT LOAM
Soil Series TILSIT

% OM 1.6 pH 6.0

Application Information

	1	2	3	4	5	6
Date Treated	6-18-86	6-19-86	7-11-86			
Time Treated	PM	PM	AM			
Cloud Cover	CLEAR	CLEAR	50%			
Air Temperature	70	83	79			
Relative Humidity	64%	56%	80%			
Wind Speed/Direction	1MPH-N	1MPH-N	3MPH-S			
Soil Temperature	78	92	86			
Soil/Leaf Surface Moisture	DRY	DRY	WET			
Soil Subsurface Moisture	MOIST	MOIST	MOIST			
Soil Tilth	FINE	FINE	N/A			
Crop Stage	FPI	PRE	4-5 IN			
Pest Name, Stage & Density						
AMACH 3/FT	PRE	PRE	POT			
CYPES 4/FT	PRE	PRE	POT			

Application Equipment

	Sprayer Type	Speed MPH	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	GPA	Carrier	FSI
1.	CO2 BACKPACK	3	FLAT FAN	8002	19	19	6.3FT	20	WATER	41
2.	CO2 BACKPACK	3	FLAT FAN	8002	19	19	6.3FT	20	WATER	41
3.	CO2 BACKPACK	3	FLAT FAN	8002	19	19	6.3FT	20	WATER	41

Comments

AMACH=SMOOTH PIGWEED; CYPES=YELLOW NUTSEDGE. TEST WAS HARVESTED ON 11-3-86.

12-02-1986

SUMMARY

The University of Tennessee
MANAGEMENT OF BROADLEAF WEEDS IN GRAIN SORGHUM

Conducted at CROSSVILLE, TN by G.M. RHODES, JR.
 Project TN-692-86-P-4 with cooperator PLATEAU EXPT STA

TRT. NUM.	PEST. NAME	RATE FORM	GROW. #ai/A	CRINJ STAGE	AMACH 7-22-86	CYPES 7-22-86	AMACH 8-5-86	CYPES 8-5-86	AMACH 8-18-86	CYPES 8-18-86	YIELD RU/A	
01	RE-40885	1.5E	0.5	PPI	0	87.5	71.3	73.8	51.3	78.8	30.0	65.30
02	RE-40885	1.5E	0.5	PRE	0	63.8	27.5	60.0	5.0	45.0	0.0	61.20
03	DUAL	8.0	1.5	PRE	0	84.3	72.5	89.5	77.5	92.0	71.3	79.25
03	ATRAZINE	4.0L	1.0	PRE								
04	LASSO MT	4.0L	2.0	PRE	0	98.8	61.3	95.0	62.5	97.5	55.0	81.90
04	ATRAZINE	4.0L	1.0	PRE								
05	ATRAZINE	4.0L	1.0	PRE	0	98.0	46.3	93.8	52.5	95.0	32.5	68.78
06	BUCTRIL	2.0E	0.25	POT	0	88.8	17.5	91.3	0.0	88.3	0.0	70.88
07	BUCTRIL	2.0E	0.38	POT	0	100.0	41.3	96.3	38.8	96.3	28.8	77.18
08	BUCTIATR	3.0L	.568	POT	0	98.3	57.5	93.3	61.3	96.3	50.0	74.88
09	BUCTIATR	3.0L	0.75	POT	0	99.3	47.5	98.0	38.8	98.5	37.5	83.50
10	BUCTIATR	3.0L	1.13	POT	0	100.0	70.0	95.0	67.5	98.8	62.5	70.15
11	BANVEL	4.0L	0.25	POT	0	76.3	21.3	86.3	0.0	93.8	7.5	67.78
12	BANVEL	4.0L	.125	POT	0	100.0	67.5	100.0	68.8	100.0	65.0	73.58
12	ATRAZINE	4.0L	1.25	POT								
12	C.O.C.	P	1.25	POT								
13	BANVEL	4.0L	0.25	POT	0	98.8	57.5	97.5	46.3	100.0	52.5	77.05
13	ATRAZINE	4.0L	1.25	POT								
14	MARKSMAN	3.2L	0.8	POT	0	98.8	50.0	97.5	27.5	100.0	26.3	76.08
15	BASAGRAM	4.0L	0.5	POT	0	98.8	88.3	97.0	83.8	97.3	80.0	82.40
15	ATRAZINE	4.0L	0.5	POT								
15	C.O.C.	P	1.25	POT								
16	BASAGRAM	4.0L	0.25	POT	0	99.3	82.5	94.5	71.3	97.5	78.8	81.83
16	ATRAZINE	4.0L	0.5	POT								
16	C.O.C.	P	1.25	POT								
17	BASAGRAM	4.0L	0.75	POT	0	90.0	81.3	72.5	76.3	80.0	63.8	69.20
17	C.O.C.	P	1.25	POT								
18	BAS-514	0.50W	0.5	POT	0	42.5	0.0	55.0	0.0	46.3	0.0	49.80
18	C.O.C.	P	1.25	POT								

12-02-1986

SUMMARY

The University of Tennessee
MANAGEMENT OF BROADLEAF WEEDS IN GRAIN SORGHUM

Conducted at CROSSVILLE, TN by G.M. RHODES, JR.
 Project TN-692-86-P-4 with cooperators PLATEAU EXPT STA

TRT. PEST.	RATE	GROW.	CRINJ	AMACH	CYPES	AMACH	CYPES	AMACH	CYPES	YIELD	
NUM. NAME	FORM	#ai/A	STAGE	7-22-86	7-22-86	7-22-86	8-5-86	8-5-86	8-18-86	8-18-86	BU/A
19 BAS-514	0.50M	1.0	POT	0	45.0	12.5	60.0	0.0	61.3	0.0	50.70
19 C.O.C.	P	1.25	POT								
20 WEEDY				0	0.0	0.0	0.0	0.0	0.0	0.0	42.35
LEAST SIGNIFICANT DIFF. (.05)=					15.58	18.61	18.16	25.09	14.23	30.09	18.60
STANDARD DEVIATION					11.01	13.16	12.84	17.74	10.06	21.28	13.15
COEFF. OF VARIABILITY					13.21	27.04	15.60	42.81	12.11	57.42	18.74

WEST TENNESSEE EXPERIMENT STATION

605 Airways Blvd

Jackson, TN 38301

Superintendent - Dr. James F. Brown

RAINFALL
West Tennessee Experiment Station
Jackson, TN 1986

Date	April	May	June	July	August	September
1	0	.76	1.35	0	0	0
2	0	0	.02	0	0	0
3	0	0	.03	0	0	0
4	1.50	0	.90	0	0	0
5	.05	0	.70	0	0	0
6	.05	0	.31	0	.12	0
7	1.20	0	.50	.05	0	0
8	1.20	0	.72	0	.26	0
9	0	0	1.00	.30	1.00	0
10	0	.59	.13	0	0	0
11	0	0	.01	0	0	.12
12	0	0	0	0	0	0
13	.10	0	0	.60	0	0
14	.01	0	0	1.70	0	0
15	0	0	0	0	0	0
16	0	0	0	0	.36	0
17	0	.35	0	0	0	.63
18	0	.16	0	0	0	1.45
19	.42	0	0	0	0	0
20	.27	0	0	0	0	.23
21	0	0	0	0	0	0
22	0	.77	0	0	0	0
23	0	.02	0	0	0	0
24	0	.55	0	0	0	0
25	0	.20	0	0	0	0
26	0	.08	0	.74	0	0
27	.08	.09	0	0	0	0
28	0	0	.28	0	0	0
29	0	0	0	0	0	0
30	.05	0	0	0	0	0
31	-	0	-	0	0	-
Total	4.93	3.57	5.95	3.39	1.74	2.43

TEMPERATURE
West Tennessee Experiment Station
Jackson, TN 1986

Date	April		May		June		July		August		Sept	
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
1	85	50	87	65	88	66	91	75	100	74	81	62
2	80	56	72	47	85	67	91	72	90	69	76	62
3	80	60	68	48	84	69	84	67	85	63	86	66
4	85	60	67	40	84	70	88	60	85	62	89	72
5	83	59	76	53	74	67	89	62	87	50	88	69
6	76	57	83	62	79	70	92	71	94	62	79	54
7	81	61	83	64	81	72	94	73	86	64	88	59
8	78	60	86	65	84	72	91	73	93	68	82	54
9	69	42	88	66	88	71	94	76	80	69	80	55
10	60	30	89	65	80	71	92	76	90	69	89	64
11	64	39	84	65	86	71	92	76	87	69	88	73
12	73	48	73	63	85	67	92	74	84	60	90	58
13	78	51	80	61	84	62	90	69	84	62	81	52
14	81	60	81	50	84	67	93	69	88	67	83	51
15	71	36	86	70	83	64	91	69	92	68	87	62
16	59	36	77	62	88	66	92	71	90	73	88	68
17	52	33	85	65	90	69	93	73	88	74	90	66
18	64	45	81	61	90	61	94	75	85	68	91	70
19	75	53	68	56	85	60	95	74	88	67	85	66
20	79	57	69	50	90	66	97	74	89	55	84	69
21	65	47	69	45	93	67	97	74	87	69	90	69
22	61	40	73	53	94	69	89	68	89	70	89	69
23	55	32	68	55	95	72	90	68	90	71	86	69
24	67	43	75	63	94	71	93	70	92	69	89	70
25	81	53	81	64	91	69	94	72	90	71	90	73
26	86	54	80	66	89	67	96	76	92	71	90	72
27	85	52	72	59	93	73	97	69	94	71	90	69
28	89	62	81	65	92	72	91	75	91	61	92	69
29	74	46	80	65	86	70	96	76	73	50	94	70
30	85	54	86	63	92	75	95	74	78	58	92	72
31	--	--	86	69	--	--	98	72	79	61	--	--

PROJ. NUM.:
 FILE NAME: WPRECR6

INTERIM DATA

UNITS: LBai/A
 PRINTED: 10/20/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

CORN PRE HERBICIDE EVALUATION

RESEARCH BY: R.M. HAYES
 COOPERATOR :
 TOTAL REPS : 4
 REPORTED BY: R.M. HAYES

COUNTY: MADISON
 LAST UPDATE: 10/20/86
 EXPT. STATUS: 4
 RELATED FILE: NONE

ST: TN COUNTRY: USA
 INITIATED: 04/18/86
 COMPLETED: 09/15/86
 SOURCE: UNIVER.

PREVIOUS CROP: SOYBEANS PLOT SIZE(LxW): 10.0x 30.0 SOIL pH :6.2
 PREVIOUS TILL: CONVENTIONAL SOIL TEXTURE: COLLINS SIL SOIL OM%: 01.0
 FERTILITY: 45-45-45 ROW WIDTH: 030 EXPERIMENTAL DESIGN: RC2
 MISC. 1: FURADAN 15G AT 10 LB/A (1.5 LB AI/A) NUMBER OF REPS: 4
 MISC. 2: 100-0-0 ON 14 MAY 86 AS ANHYD. AMMONIA REPORT TYPE: INTERIM

PLANTING DATE: 04/18/86 CROP CULTIVAR: PIONEER 3147
 HARVEST DATE : 09/15/86 SEASONAL RAINFALL DURING EXPERIMENT
 RESIDUE TAKEN: N EARLY: OPT MID: WET LATE: DRY

APPLICATION INFO	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
APPLICATION DATE	04/18/86	/ /	/ /	/ /	/ /
JULIAN DATE/YEAR	J108/86	J 0/00	J 0/00	J 0/00	J 0/00
GEN. APPLIC TYPE	PRE				
AIR/SOIL TEMP(F)	072/072	/	/	/	/
% REL. HUMIDITY	%				
WIND DIR/VELOC.	SE/02	/	/	/	/
ROOT/LEAF MOIST.	OPT/	/	/	/	/
INCRP. EQUIP.					
INCRP. DEPTH in	.	.	.	.	.
SPRAYER TYPE	CO2BACKPACK				
SPRAYER GPA/PSI	18.0/032	18.0/	. /	. /	. /
NOZZLE TYPE	FLATFAN8002				
RAIN / IRRIG. in					
0-24 hr/1-3 days	. /00.7	. / .	. / .	. / .	. / .
4-7 days/2nd wk	. /00.1	. / .	. / .	. / .	. / .
3rd / 4th week	. /00.6	. / .	. / .	. / .	. / .

SPEC. |	DEN- |	APPLIC. 1 |	APPLIC. 2 |	APPLIC. 3 |	APPLIC. 4 |	APPLIC. 5 |
CODE |	SPECIES |	SITY |	HTin/STG. |	HTin/STG. |	HTin/STG. |	HTin/STG. |
***** CROP *****						
ZEAMA |	CORN		/	/	/	/
***** PEST *****						
XANST |	COMMONCOCKLEBUR		/	/	/	/
AMACH |	SMOOTH PIGWEED		/	/	/	/
IPOHG |	ENTIRELEAF MG		/	/	/	/
BRAPP |	BR.LF.SIGNAL GR		/	/	/	/
SORHA |	JOHNSONGRASS		/	/	/	/
			/	/	/	/
			/	/	/	/
			/	/	/	/

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

CORN PRE HERBICIDE EVALUATION

=====

EXPERIMENT COMMENTS

KEY TO DATA HEADERS

-
1. CRINJU=CROP INJURY
 2. XANST=COMMON COCKLEBUR
 3. AMACH=SMOOTH PIGWEED
 4. POLPY=PENNSYLVANIA SMARTWEED
 5. SORHA=JOHNSONGRASS
 6. Y/BU/AC=YIELD IN BUSHEL
PER ACRE WITH A MOISTURE
OF 15.5% AND A TEST WEIGHT
OF 56 POUNDS PER BUSHEL.
CORN WAS HARVESTED AT A
MOISTURE OF 16% AND HAD
A TEST WEIGHT OF 55.04
POUNDS PER BUSHEL.

=====

APPROVED BY: _____ SUBMITTED BY: _____
DATE: _____ DATE: _____

WESTERN TENNESSEE AGRICULTURAL STATION

CORN PRE HERBICIDE EVALUATION

RESEARCH BY: R.M. HAYES
 COOPERATOR :
 TOTAL REPS : 4
 APPL: PRE #J108/86

COUNTY: MADISON
 LAST UPDATE: 10/20/86
 EXPT. STATUS: 4

ST: TN COUNTRY: USA
 INITIATED: 04/18/86
 COMPLETED: 09/15/86

TRT.	PESTICIDE	APPLI-	%CRINJU	%XANST	%AMACH	%POLPY	%SORHA	YIELD	
NO. NAME	FORMU. LBai/A	TYPE	J150/86	J150/86	J150/86	J150/86	J150/86	J258/86	BU/ACRE
01	DUAL AATREX	EC 8.0 FL 4.0	1.25 1.5	PRE PRE	0	96	99	99	71 143.4
02	DUAL AATREX	EC 8.0 FL 4.0	3.0 1.5	PRE PRE	0	95	99	99	89 132.0
03	CG180937 AATREX	EC 8.0 FL 4.0	1.25 1.5	PRE PRE	0	97	99	99	68 129.5
04	CG180937 AATREX	EC 8.0 FL 4.0	3.0 1.5	PRE PRE	3	96	99	99	87 140.4
05	LASSO AATREX	EC 4.0 FL 4.0	2.0 1.5	PRE PRE	0	99	99	99	78 128.4
06	LASSO AATREX	EC 4.0 FL 4.0	4.0 1.5	PRE PRE	0	98	99	99	88 142.5
07	BICEP-D	FL 6.0	2.7	PRE	0	86	99	99	81 141.9
08	BICEP-D	FL 6.0	5.4	PRE	0	98	99	99	96 143.8
09	SAN 582	EC 8.0	1.5	PRE	0	40	98	98	73 139.7
10	SAN 582	EC 8.0	3.0	PRE	13	70	99	97	90 133.0
11	SAN 582 AATREX	EC 8.0 FL 4.0	1.5 1.5	PRE PRE	0	97	99	99	89 146.5
12	SAN 582 BLADEX	EC 8.0 FL 4.0	1.5 2.0	PRE PRE	3	86	99	99	96 129.3
13	RS 118	DF 80%	3.0	PRE	6	95	99	99	66 131.8
14	RS 238	DF 80%	2.4	PRE	5	97	99	99	74 131.4
15	RS 238	DF 80%	3.2	PRE	0	97	98	99	81 138.9

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

CORN PRE HERBICIDE EVALUATION

APPL: PRE 1108/86

TRT. NO.	NAME	FORMU.	Lb ai/A	APPL. TYPE	CRINJU	XANST	AMACH	POLPY	SORHA	YIELD	BU/ACRE

16	PPDWL	EC 4.0	1.0	PRE	0	95	99	99	61	131.4
	AATREX	FL 4.0	1.5	PRE						

17	SC 5676	EC 7.0	0.75	PRE	0	90	99	99	75	138.1
	AATREX	FL 4.0	1.5	PRE						

18	SC 5676	EC 7.0	1.5	PRE	0	97	99	99	92	132.9
	AATREX	FL 4.0	1.5	PRE						

19	WEEDY CK				0	0	0	0	0	114.8
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20	WEEDFREE				0	99	99	99	96	139.1
----	----------	--	--	--	---	----	----	----	----	-------

LS0(0.05) = 7 13 1 2 19 17.8
 STANDARD DEVIATION = 5 9 1 1 13 12.3
 COEFF. OF VARIABILITY = 355 10 1 1 17 9.1

WESTERN TENNESSEE AGRICULTURAL EXPERIMENTAL STATION

POSTEMERGENCE WEED CONTROL IN CORN

RESEARCH BY: R.M. HAYES
COOPERATOR :
TOTAL REPS : 4
REPORTED BY: R.M. HAYES

COUNTY: MADISON
LAST UPDATE: 10/20/86
EXPT. STATUS: 4
RELATED FILE: NONE

ST: TN COUNTRY: USA
INITIATED: 04/18/86
COMPLETED: 09/15/86
SOURCE: UNIVER.

PREVIOUS CROP: SOYBEAN PLOT SIZE(LxW): 6.3x 30.0 SOIL pH :6.2
PREVIOUS TILL: CONVENTIONAL SOIL TEXTURE: COLLIN SIL SOIL OM%: 01.0
FERTILITY: 45-45-45 AT PLANT ROW WIDTH: 030 EXPERIMENTAL DESIGN: RCB
MISC. 1: 100-0-0 AS ANHYDROUS AMMONIA MAY 14,1986 NUMBER OF REPS: 4
MISC. 2: FURADAN 2 LB AI/A IN FURROW REPORT TYPE: INTERIM

PLANTING DATE: 04/18/86 CROP CULTIVAR: PIONEER 3147
HARVEST DATE : 09/15/86 SEASONAL RAINFALL DURING EXPERIMENT
RESIDUE TAKEN: N EARLY: OPT MID: WET LATE: DRY

APPLICATION INFO	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
APPLICATION DATE	05/02/86	/ /	/ /	/ /	/ /
JULIAN DATE/YEAR	J122/86	J 0/00	J 0/00	J 0/00	J 0/00
GEN. APPLIC TYPE	POST3				
AIR/SOIL TEMP(F)	070/	/	/	/	/
% REL. HUMIDITY	040%				
WIND DIR/VELOC.	NW/05	/	/	/	/
ROOT/LEAF MOIST.	OPT/DRY	/	/	/	/
INCRP. EQUIP.					
INCRP. DEPTH in	.	.	.	.	.
SPRAYER TYPE	CO2BACKPACK				
SPRAYER GPA/PSI	20.0/032	. /	. /	. /	. /
NOZZLE TYPE	FLATFAN8002				
RAIN / IRRIG. in					
0-24 hr/1-3 days	. / .	. / .	. / .	. / .	. / .
4-7 days/2nd wk	. /00.6	. / .	. / .	. / .	. / .
3rd / 4th week	01.3/01.1	. / .	. / .	. / .	. / .

SPEC. CODE	SPECIES	DEN-SITY	APPLIC. 1 HTin/STG.	APPLIC. 2 HTin/STG.	APPLIC. 3 HTin/STG.	APPLIC. 4 HTin/STG.	APPLIC. 5 HTin/STG.
*****	***** CROP *****						
ZEAMA	CORN		/	/	/	/	/
*****	***** PEST *****						
XANST	COMMONCOCKLEBUR		/	/	/	/	/
AMACH	SMOOTH PIGWEED		/	/	/	/	/
ELEIN	GOOSEGRASS		/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/

PROJ. NUM.:
FILE NAME: WPOSTCR6

INTERIM DATA

UNITS: LBai/A
PRINTED: 10/20/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

POSTEMERGENCE WEED CONTROL IN CORN

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EXPERIMENT COMMENTS

KEY TO DATA HEADERS

-
1. CRINJU=CROP INJURY
 2. CRINJU=CROP INJURY
 3. SORHA=JOHNSONGRASS
 4. AMACH=SMOOTH PIGWEED
 5. XANST=COMMON COCKLEBUR
 6. BRAPP=BROADLEAF SIGNALGRASS
 7. Y/BU/AC=YIELD IN BUSHELS
PER ACRE WITH A MOISTURE
OF 15.5% AND A TEST WEIGHT
OF 56 POUNDS PER BUSHEL.
CORN WAS HARVESTED AT A
MOISTURE OF 16% AND HAD
A TEST WEIGHT OF 55.04
POUNDS PER BUSHEL.

=====

APPROVED BY: _____ SUBMITTED BY: _____
DATE: _____ DATE: _____

PROJ. NUM.:
 FILE NAME: WPOSTCR6
 WESTERN TENNESSEE AGRICULTURAL STATION

INTERIM DATA

UNITS: LBai/A
 PRINTED: 10/20/86

POSTEMERGENCE WEED CONTROL IN CORN

RESEARCH BY: R.M. HAYES
 COOPERATOR :
 TOTAL REPS : 4
 APPL: POST3=J122/86

COUNTY: MADISON
 LAST UPDATE: 10/20/86
 EXPT. STATUS: 4

ST: TN COUNTRY: USA
 INITIATED: 04/18/86
 COMPLETED: 09/15/86

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      PESTICIDE      APPLI-;%CRINJU;%CRINJU;%SORHA;%AMACH;%XANST;%BRAPP;Y/BU/AC;
TRT. ----- CATION;VISUAL;VISUAL;CONTROL;CONTROL;CONTROL;CONTROL;HARVEST;
NO. NAME  FORMU. LBai/A  TYPE;J125/86;J150/86;J150/86;J150/86;J150/86;J150/86;J258/86;
=====
  
```

01	SC0051	EC 3.0	0.75	POST	10	0	21	96	97	66	133.1
02	SC0051	EC 3.0	1.0	POST	9	0	33	97	95	65	127.5
03	SC0051	EC 3.0	0.75	POST	8	0	46	98	96	65	125.5
	AATREX	FL 4.0	1.0	POST							
04	SC0456	EC 2.0	0.5	POST	8	0	26	56	83	68	124.1
05	SC0456	EC 2.0	1.0	POST	8	0	76	97	98	96	124.3
06	SC0456	EC 2.0	0.5	POST	4	0	48	99	99	65	123.3
	AATREX	FL 4.0	1.0	POST							
07	SC0735	WP 75%	0.5	POST	5	0	65	99	98	98	131.8
08	SC0735	WP 75%	1.0	POST	8	0	83	98	98	99	122.0
09	SC0735	WP 75%	0.5	POST	3	0	28	98	97	96	118.0
	AATREX	FL 4.0	1.0	POST							
10	SC0098	EC 1.7	0.03	POST	20	0	0	0	0	0	103.1
11	SC0098	EC 1.7	0.06	POST	25	0	8	23	36	28	111.9
12	SC0098	EC 1.7	0.125	POST	34	3	45	72	47	32	120.2
13	SC0098	EC 1.7	0.03	POST	85	40	9	47	48	33	97.1
	AGRIDEX	%A 100%	1.25%	POST							
14	SC0098	EC 1.7	0.06	POST	90	53	19	37	29	0	66.0
	AGRIDEX	%A 100%	1.25%	POST							
15	2,4-DLVE	EC 4.0	1.0	POST	25	16	6	69	76	25	53.4
16	AATREX	FL 4.0	1.0	POST	9	0	0	98	97	32	120.4
	AGRIDEX	%A 100%	1.25%	POST							

PROJ. NUM.:
 FILE NAME: WPOSTCR6
 WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

INTERIM DATA

UNITS: LBai/A
 PRINTED: 10/20/86

POSTEMERGENCE WEED CONTROL IN CORN

APPL: POST3=J122/86

TRT. NO.	PESTICIDE NAME	FORMU.	LBai/A	TYPE	APPLI- CATION	%CRINJU	%CRINJU	%SORHA	%AMACH	%XAMST	%BRAPP	Y/BU/AC				
NO.	NAME	FORMU.	LBai/A	TYPE	J125/86	J150/86	J150/86	J150/86	J150/86	J150/86	J150/86	J258/86				
17	TANDEM	EC 4.0	0.75	POST	23	3	84	99	99	66	122.8					
	AATREX	FL 4.0	1.5	POST												
	AGRIDEX	%A 100%	1.25%	POST												
18	PROWL	EC 4.0	0.75	POST	19	0	29	98	98	63	114.1					
	AATREX	FL 4.0	1.0	POST												
19	MARKSMAN	SC 3.2	1.6	POST	26	28	40	99	99	75	104.9					
20	RS 010	WP 45%	0.9	POST	11	3	23	98	97	56	123.3					
	AATREX	FL 4.0	1.0	POST												
21	RS 010	WP 45%	0.9	POST	13	0	21	98	97	65	113.2					
	BLADEX	WP 80%	0.75	POST												
22	BUCTRIL-	FL 3.0	.75	POST	38	0	13	97	97	25	109.1					
	AATREX															
23	BUCTRIL	EC 2.0	0.38	POST	31	0	0	71	69	47	107.8					
24	BAS 514	WP 50%	0.5	POST	13	0	0	93	58	62	97.2					
	AGRIDEX	%A 100%	1.25%	POST												
25	BAS 514	WP 50%	1.0	POST	10	10	28	95	89	62	86.3					
	AGRIDEX	%A 100%	1.25%	POST												
26	WEEDY CK				3	0	5	23	5	0	112.1					
27	WEEDFREE				5	0	96	99	99	99	123.9					
	LSD(0.05) =				10	10	29	35	33	NA	18.0					
	STANDARD DEVIATION =				7	7	20	25	23	NA	12.4					
	COEFF. OF VARIABILITY =				34	120	65	31	29	NA	11.1					

PROJ. NUM.:
 FILE NAME: CASOROT6

INTERIM DATA

UNITS: LBai/A
 PRINTED: 10/29/86

WESTERN TENNESSEE AGRICULTURAL STATION

SICKLEPOD CONTROL IN CORN

RESEARCH BY: R.M. HAYES
 COOPERATOR :
 TOTAL REPS : 4
 REPORTED BY: R.M. HAYES

COUNTY: MADISON
 LAST UPDATE: 10/29/86
 EXPT. STATUS: 4
 RELATED FILE: **NONE**

ST: TN COUNTRY: USA
 INITIATED: 05/11/84
 COMPLETED: 10/09/86
 SOURCE: UNIVER.

PREVIOUS CROP: SAME PLOT SIZE(LxW): 13.3x 30.0 SOIL pH :6.2
 PREVIOUS TILL: CONVENTIONAL/NO-TILL SOIL TEXTURE: COLLINS S.L. SOIL OM%: 01.0
 FERTILITY: P-VH,K-VH./0-40-40 ROW WIDTH: 040 EXPERIMENTAL DESIGN: SPPL
 MISC. 1: CORN 150LB/N/A NUMBER OF REPS: 4
 MISC. 2: CORN PLOTS RECIEVED 2.0 LB AI/A. REPORT TYPE: INTERIM

PLANTING DATE: 04/30/86 CROP CULTIVAR: PIONEER 3147
 HARVEST DATE : 09/16/86 SEASONAL RAINFALL DURING EXPERIMENT
 RESIDUE TAKEN: N EARLY: OPT MID: WET LATE: DRY

APPLICATION INFO	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
APPLICATION DATE	04/30/86	/ /	/ /	/ /	/ /
JULIAN DATE/YEAR	J120/86	J 0/00	J 0/00	J 0/00	J 0/00
GEN. APPLIC TYPE	PRE	/	/	/	/
AIR/SOIL TEMP(F)	/	/	/	/	/
% REL. HUMIDITY	%	/	/	/	/
WIND DIR/VELOC.	/	/	/	/	/
ROOT/LEAF MOIST.	OPT/	/	/	/	/
INCORP. EQUIP.	NONE	/	/	/	/
INCORP. DEPTH in	.	.	.	.	.
SPRAYER TYPE	CO2BACKPACK	.	.	.	.
SPRAYER GPA/PSI	018.0/032	. /	. /	. /	. /
NOZZLE TYPE	FLATFAN8002	.	.	.	.
RAIN / IRRIG. in					
0-24 hr/1-3 days	. / .	. / .	. / .	. / .	. / .
4-7 days/2nd wk	. / .	. / .	. / .	. / .	. / .
3rd / 4th week	. / .	. / .	. / .	. / .	. / .

SPEC. CODE	SPECIES	DEN-SITY	APPLIC. 1 HTin/STG.	APPLIC. 2 HTin/STG.	APPLIC. 3 HTin/STG.	APPLIC. 4 HTin/STG.	APPLIC. 5 HTin/STG.
***** CROP *****	*****	*****	*****	*****	*****	*****	*****
ZEAMX	CORN		/	/	/	/	/
***** PEST *****	*****	*****	*****	*****	*****	*****	*****
CASOB	SICKLEPOD		/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/

PROJ. NUM.:
FILE NAME: CASOR016

INTERIM DATA

UNITS: LBai/A
PRINTED: 10/29/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

SICKLEPOD CONTROL IN CORN

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EXPERIMENT COMMENTS

ENTIRE EXPERIMENTAL AREA TREATED WITH DUAL 8E (1.5PT/A)FOR ANNUAL
GRASS AND BROADLEAF WEEDS. (PARAQUAT AT 0.5 LB/A ON NO-TILL PORTION).
SURFACTANT(0.25%) ADDED TO BOTH SCEPTER AND CLASSIC.

=====

APPROVED BY: _____ SUBMITTED BY: _____

DATE: _____

DATE: _____

PROJ. NUM.:
 FILE NAME: CASOROT6

INTERIM DATA

UNITS: LBai/A
 PRINTED: 10/29/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

SICKLEPOD CONTROL IN CORN

RESEARCH BY: R.M. HAYES
 COOPERATOR :
 TOTAL REPS : 4
 APPL: PRE =J120/86

COUNTY: MADISON
 LAST UPDATE: 10/29/86
 EXPT. STATUS: 4

ST: TN COUNTRY: USA
 INITIATED: 05/11/84
 COMPLETED: 10/09/86

NO.	NAME	FORMU.	LBai/A	TYPE	PESTICIDE APPLI-;%CASOB %CRINJU;NUM/CAS;NUM/CAS;GR./CAS;GR./CAS;CRN/YLD;%MOISTU;TEST WT;CRN/YLD;%MOISTU;TEST WT												
					CATION;CONTROL;VISUAL	/M2 N-T;/M2 C-T;/M2 N-T;/M2 C-T;	BU/A/NT;CALC.	BU/A/CT;CALC.	BU/A/NT;CALC.	BU/A/CT;CALC.	BU/A/NT;CALC.	BU/A/CT;CALC.	BU/A/NT;CALC.	BU/A/CT;CALC.	BU/A/NT;CALC.	BU/A/CT;CALC.	
01	CORN/	AATREX	FL 4.0	2.0	PRE	97	0	16	17	6	6	98.2	17.1	52.7	74.3	17.5	52.2
02	CORN/	AATEX	FL 4.0	3.0	PRE	98	0	11	16	5	5	90.5	17.2	53.6	85.8	16.9	51.0
03	CORN/	WEEDY-CK				0	0	198	81	50	29	87.3	17.4	52.7	76.1	17.2	52.4
04	CORN/	WEEDFREE				95	0	0	0	0	0	98.1	17.1	53.4	77.6	16.9	55.1
	Whole plot mean					73	0	56	29	15	10	93.5	17.2	53.1	78.4	17.1	52.6
					LSD(0.05) =	2	NA	62	18	27	11	26.2	2.7	1.7	27.5	2.7	3.1
					STANDARD DEVIATION =	1	NA	39	11	17	7	16.4	1.7	1.1	17.2	1.7	1.9
					COEFF. OF VARIABILITY =	2	NA	69	38	111	70	17.5	9.7	2.0	21.9	9.9	3.7

CORN RESPONSE TO HARMONY HERBICIDE

RESEARCH BY: R.M. HAYES COUNTY: MADISON ST: TN COUNTRY: USA
 COOPERATOR : LAST UPDATE: 10/20/86 INITIATED: 04/18/86
 TOTAL REPS : 4 EXPT. STATUS: 4 COMPLETED: 09/15/86
 REPORTED BY: R.M. HAYES RELATED FILE: NONE SOURCE: UNIVER.

PREVIOUS CROP: SOYBEANS PLOT SIZE(LxW): 10.0x 30.0 SOIL pH :6.2
 PREVIOUS TILL: CONVENTIONAL SOIL TEXTURE: COLLINS SIL SOIL OM%: 01.0
 FERTILITY: 45-45-45 AT PLANTING ROW WIDTH: 030 EXPERIMENTAL DESIGN: RCB
 MISC. 1: 100-0-0 ANHYDROUS AMMONIA MAY 14 NUMBER OF REPS: 4
 MISC. 2: FURADAN 2.0 LB AI/A IN FURROW AT PLANT REPORT TYPE: INTERIM

PLANTING DATE: 04/18/86 CROP CULTIVAR: PIONEER 3147
 HARVEST DATE : 09/15/86 SEASONAL RAINFALL DURING EXPERIMENT
 RESIDUE TAKEN: N EARLY: OPT MID: WET LATE: DRY

APPLICATION INFO	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
APPLICATION DATE	05/02/86	/ /	/ /	/ /	/ /
JULIAN DATE/YEAR	J122/86	J 0/00	J 0/00	J 0/00	J 0/00
GEN. APPLIC TYPE	POST3				
AIR/SOIL TEMP(F)	070/	/	/	/	/
% REL. HUMIDITY	%				
WIND DIR/VELOC.	NW/05	/	/	/	/
ROOT/LEAF MOIST.	OPT/DRY	/	/	/	/
INCORP. EQUIP.					
INCORP. DEPTH in	.	.	.	.	.
SPRAYER TYPE	CO2BACKPACK				
SPRAYER GPA/PSI	18.0/032	. /	. /	. /	. /
NOZZLE TYPE	FLATFAN8002				
RAIN / IRRIG. in					
0-24 hr/1-3 days	. / .	. / .	. / .	. / .	. / .
4-7 days/2nd wk	. /00.6	. / .	. / .	. / .	. / .
3rd / 4th week	01.3/01.1	. / .	. / .	. / .	. / .

SPEC. |	DEN- |	APPLIC. 1 |	APPLIC. 2 |	APPLIC. 3 |	APPLIC. 4 |	APPLIC. 5 |
CODE |	SPECIES |	SITY |	HTin/STG. |	HTin/STG. |	HTin/STG. |	HTin/STG. |
*****	CROP	*****	*****	*****	*****	*****
ZEAMA	CORN		/	/	/	/
*****	PEST	*****	*****	*****	*****	*****
			/	/	/	/
			/	/	/	/
			/	/	/	/
			/	/	/	/
			/	/	/	/
			/	/	/	/
			/	/	/	/

PROJ. NUM.:
FILE NAME: WHRMYCR6

INTERIM DATA

UNITS: LBai/A
PRINTED: 10/20/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

CORN RESPONSE TO HARMONY HERBICIDE

=====

EXPERIMENT COMMENTS

KEY TO DATA HEADERS

-
1. CRSTUN=CROP STUNTING
 2. Y/BU/AC=YIELD IN BUSHEL
PER ACRE WITH A MOISTURE
OF 15.5% AND A TEST WEIGHT
OF 56 POUNDS PER BUSHEL.
CORN WAS HARVESTED AT A
MOISTURE OF 16% AND HAD
A TEST WEIGHT OF 55.04
POUNDS PER BUSHEL.

=====

APPROVED BY: _____ SUBMITTED BY: _____
DATE: _____ DATE: _____

PROJ. NUM.:
 FILE NAME: WHRMYCR6
 WESTERN TENNESSEE AGRICULTURAL STATION

INTERIM DATA

UNITS: LBai/A
 PRINTED: 10/20/86

CORN RESPONSE TO HARMONY HERBICIDE

RESEARCH BY: R.M. HAYES
 COOPERATOR :
 TOTAL REPS : 4
 APPL: POST3=J122/86

COUNTY: MADISON
 LAST UPDATE: 10/20/86
 EXPT. STATUS: 4

ST: TN COUNTRY: USA
 INITIATED: 04/18/86
 COMPLETED: 09/15/86

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=====
      PESTICIDE      APPLI-!%CRSTUN!Y/BU/AC!
TRT. -----CATION!VISUAL !HARVEST!
NO. NAME  FORMU. LBai/A  TYPE!J150/86!J258/86!
=====
  
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01 HARMONY DF 75% 0.007 EPOST      0  90.2
   X-77    %A 100% 0.5% EPOST
02 HARMONY DF 75% 0.015 EPOST      8  94.5
   X-77    %A 100% 0.5% EPOST
03 HARMONY DF 75% 0.021 EPOST     15  89.7
   X-77    %A 100% 0.5% EPOST
04 HARMONY DF 75% 0.03  EPOST     34  89.3
   X-77    %A 100% 0.5% EPOST
05 WEEDFREE                                0  97.0
  
```

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      LSD(0.05) = 11  12.5
      STANDARD DEVIATION = 7  8.1
      COEFF. OF VARIABILITY = 64  8.8
  
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PROJ. NUM.:
 FILE NAME: WRESDCR6

INTERIM DATA

UNITS: LBai/A
 PRINTED: 10/29/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

EFFECTS OF SCEPTER AND CLASSIC ON CORN

RESEARCH BY: R.M.HAYES
 COOPERATOR :
 TOTAL REPS : 4
 APPL: PPI =J108/86

COUNTY: MADISON
 LAST UPDATE: 10/29/86
 EXPT. STATUS: 3

ST: TN COUNTRY: USA
 INITIATED: 04/18/86
 COMPLETED: 09/15/86

NO.	NAME	FORMU. LBai/A	TYPE	APPLI-;SCRINJU;PLT.WT.;Y/BU/AC;			CATION;VISUAL ;G/10PLT;HARVEST;		
				J150/86	J126/86	J258/86			
01	SCEPTER	SC 1.5	.0025 PPI	0	2.86	106.8			
02	SCEPTER	SC 1.5	0.025 PPI	43	2.29	92.5			
03	SCEPTER	SC 1.5	.05 PPI	90	1.67	46.6			
04	CLASSIC	DF 25%	.0005 PPI	0	2.82	108.0			
05	CLASSIC	DF 25%	.0054 PPI	33	2.70	98.9			
06	CLASSIC	DF 25%	.0107 PPI	40	2.50	95.0			
07	WEEDFREE			0	2.77	113.6			

LSD(0.05) = 11 .38 31.4
 STANDARD DEVIATION = 8 .26 21.1
 COEFF. OF VARIABILITY = 26 10.25 22.4

WESTERN TENNESSEE AGRICULTURAL EXPERIMENTAL STATION

F.C. EFFECT OF SCEPTER & CLASSIC ON CORN

RESEARCH BY: R.M.HAYES
 COOPERATOR :
 TOTAL REPS : 4
 REPORTED BY: R.M.HAYES

COUNTY: MADISON ST: TN COUNTRY: USA
 LAST UPDATE: 10/21/86 INITIATED: 05/17/85
 EXPT. STATUS: 4 COMPLETED: 09/12/86
 RELATED FILE: **NONE** SOURCE: UNIVER.

PREVIOUS CROP: SOYBEANS PLOT SIZE(LxW): 10.0x 30.0 SOIL pH :7.2
 PREVIOUS TILL: NO-TILL SOIL TEXTURE: COLLINS S.L. SOIL OM%: 01.1
 FERTILITY: HIGH-P,HIGH-K ROW WIDTH: 030 EXPERIMENTAL DESIGN: RC3
 MISC. 1: 45-45-45 APPLIED AT PLANTING NUMBER OF REPS: 4
 MISC. 2: 100-0-0 APPLIED AS 82% A.A. REPORT TYPE: INTERIM

PLANTING DATE: 04/17/86 CROP CULTIVAR: PIONEER 3147
 HARVEST DATE : 09/12/86 SEASONAL RAINFALL DURING EXPERIMENT
 RESIDUE TAKEN: N EARLY: OPT MID: WET LATE: DRY

APPLICATION INFO	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
APPLICATION DATE	05/17/85	05/24/85	05/31/85	/ /	/ /
JULIAN DATE/YEAR	J137/85	J144/85	J151/85	J 0/00	J 0/00
GEN. APPLIC TYPE	PRE	POST1	POST2		
AIR/SOIL TEMP(F)	080/	072/	085/	/	/
% REL. HUMIDITY	%			/	/
WIND DIR/VELOC.	/	/	/	/	/
ROOT/LEAF MOIST.	OPT/	/DRY	/DRY	/	/
INCORP. EQUIP.					
INCORP. DEPTH in	.	.	.	.	.
SPRAYER TYPE	C02BACKPACK	C02BACKPACK	C02BACKPACK		
SPRAYER GPA/PSI	018.0/032	018.0/032	018.0/032	. /	. /
NOZZLE TYPE	FLATFAN8002	FLATFAN8002	FLATFAN8002		
RAIN / IRRIG. in					
0-24 hr/1-3 days	. / .	. / .	. / .	. / .	. / .
4-7 days/2nd wk	. / .	. / .	. / .	. / .	. / .
3rd / 4th week	. / .	. / .	. / .	. / .	. / .

SPEC. CODE	SPECIES	DEN-SITY	APPLIC. 1 HTin/STG.	APPLIC. 2 HTin/STG.	APPLIC. 3 HTin/STG.	APPLIC. 4 HTin/STG.	APPLIC. 5 HTin/STG.
***** CROP *****	ZEAMA CORN		/	/	/	/	/
***** PEST *****			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/

F.C. EFFECT OF SCEPTER & CLASSIC ON CORN

=====

EXPERIMENT COMMENTS

KEY TO DATA HEADERS

- 1. CORN/HT=CORN HEIGHT IN INCHES
MEASURED ON JUNE 9.
- 2. Y/BU/AC=YIELD IN BUSHELS
PER ACRE WITH A MOISTURE
OF 15.5% AND A TEST WEIGHT
OF 56 POUNDS PER BUSHEL.
CORN WAS HARVESTED AT A
MOISTURE OF 18.8% AND HAD
A TEST WEIGHT OF 53.76
POUNDS PER BUSHEL.

OUR OBJECTIVE IN THIS EXPERIMENT WAS TO EVALUATE THE RESPONSE OF NO-TILL CORN THE YEAR FOLLOWING SCEPTER AND CLASSIC APPLICATIONS. THERE WAS NO EARLY SEASON INJURY, NO CONSISTENT PLANT HEIGHT EFFECT, AND NO YIELD REDUCTION DUE TO TREATMENT. IT SHOULD BE NOTED THAT THE PH OF THIS EXPERIMENTAL AREA RANGED FROM 7.1 TO 7.4.

=====

APPROVED BY: _____ SUBMITTED BY: _____
DATE: _____ DATE: _____

F.C. EFFECT OF SCEPTER & CLASSIC ON CORN

RESEARCH BY: R.M.HAYES COUNTY: MADISON ST: TN COUNTRY: USA
 COOPERATOR : LAST UPDATE: 10/21/86 INITIATED: 05/17/85
 TOTAL REPS : 4 EXPT. STATUS: 4 COMPLETED: 09/12/86
 APPL: PRE =J137/85 POST1=J144/85 POST2=J151/85

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=====
      PESTICIDE      APPLI-|CORN/HT|Y|BU/AC|
TRT. ----- CATION|INCHES |HARVEST|
NO. NAME      FORMU. LBai/A TYPE|J160/86|J255/86|
=====
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01	SCEPTER	EC 1.5	0.125	PRE	58.5	119.4
02	SCEPTER	EC 1.5	0.25	PRE	55.4	114.3
03	CLASSIC	DF 25%	0.03	PRE	54.1	107.8
04	CLASSIC	DF 25%	0.06	PRE	47.4	116.9
05	SCEPTER	EC 1.5	0.125	1WAP	58.1	117.5
06	SCEPTER	EC 1.5	0.25	1WAP	58.3	111.7
07	CLASSIC		0.015	1WAP	57.3	112.5
08	CLASSIC		0.03	1WAP	59.1	124.0
09	SCEPTER		0.125	2WAP	53.9	120.9
10	SCEPTER		0.25	2WAP	59.5	114.2
11	CLASSIC		0.015	2WAP	55.5	118.3
12	CLASSIC		0.03	2WAP	51.6	110.3
13	SCEPTER		0.125	3WAP	58.9	125.1
14	SCEPTER		0.25	3WAP	57.6	119.7
15	CLASSIC		0.015	3WAP	55.0	105.9
16	CLASSIC		0.03	3WAP	50.6	110.5
17	BASAGRAN BLAZER		0.25 0.125	2WAP 2WAP	56.6	125.1
18	BASAGRAN BLAZER		0.5 0.25	3WAP 3WAP	60.8	124.6

PROJ. NUM.:

INTERIM DATA

UNITS: LBai/A

FILE NAME: SC&CLCR6

PRINTED: 10/21/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

F.C. EFFECT OF SCEPTER & CLASSIC ON CORN

APPL: PRE =J137/85 POST1=J144/85 POST2=J151/85

TRT.	PESTICIDE	APPLI-	CORN/HT;	Y/BU/AC;								
NO. NAME	FORMU. LBai/A	TYPE;	J160/86;	J255/86;								

19	WEEDY CK		58.1	112.3								
20	WEEDFREE		52.4	108.9								

	LSO(0.05) =		5.9	28.7								
	STANDARD DEVIATION =		4.1	19.9								
	COEFF. OF VARIABILITY =		7.3	17.1								