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Weed Control Evaluations in Wheat, 1985-86

University of Tennessee Agricultural Experiment Station

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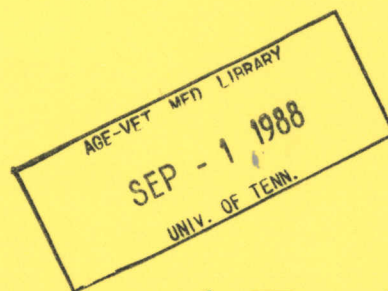
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Authors

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

STACKS



Weed Control Evaluations in Wheat, 1985-86

R. M. Hayes, G. N. Rhodes, Jr.,

*G. A. Mitchell, M. L. Thornton,
C. R. Graves, and D. D. Howard*



Department of Plant and
Soil Science

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HERBICIDE EVALUATION FOR WEED CONTROL IN WHEAT

This report is a summary of herbicide evaluations conducted by the staff of the University of Tennessee, Department of Plant and Soil Science, in 1985-86. This publication 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 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: Ernest Merriweather and Jimmy Duncan at the West Tennessee Experiment Station; Marshall Smith at Ames Plantation; Don Gibson at the Milan Experiment Station; Ernest Neal, Plateau Experiment Station; Matt Thorton, Research Assistant, Department of Plant and Soil Science; and John Oakes, Graduate student, Plant and Soil Science Department. Last, but certainly not least, we would like to thank our secretaries, Mrs. Gloria Duncan and Miss Cheryl Broome.

In addition, we gratefully acknowledge the cooperation and partial financial support of the following commercial cooperators: Chevron, Ciba-Geigy Corp., E. I. DuPont, Hoechst-Roussel, Mobay Corp., Rhone-Poulenc, Inc., Rohm and Haas, Stauffer Chemical Co., and Union Carbide.

PROCEDURES AND TECHNIQUES USED IN HERBICIDE TRIALS

Experimental Design: Most experiments were arranged as randomized complete blocks with four replications of plots 8 to 10 feet wide by 30 feet long.

Herbicide Application: Treatments were applied with CO₂ sprayers equipped with 8002 tee jet nozzles. All postemergence applications are designated according to the Feekes scales, e.g., POST 1 = postemergence at stage 1.

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.

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

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

Weed Designations: The five letter WSSA approved Bayer code is used to designate weeds and these are provided in the "comments" section for each experiment. Also refer to the comments section for definition of additional abbreviations.

11-24-1986

EXPERIMENT DESCRIPTION FORM

The University of Tennessee

MANAGEMENT OF ANNUAL RYEGRASS IN WHEAT

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

Experimental Management

Date Planted 10-18-86 Variety COKER 747 Row Width 7 IN
Design RCB No. Reps. 4 Plot Size 8*30 FT
Field Preparation and Plot Maintenance DISK, ROTERRA, CULTIPACK.

Site Description

Season Moisture LOW
Soil Texture SILT LDAM
Soil Series TILSIT % OM .75 pH 6

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, LOLMU.

Application Equipment

Table with columns: Sprayer Type, Speed MPH, Nozzle Type, Nozzle Size, Nozzle Height, Nozzle Spacing, Boom Width, GPA, Carrier, PSI. Row 1: CO2 BACKPACK, 3, FLAT FAN, B002, 19 IN, 19 IN, 6.3FT, 19.4, WATER, 41.

Comments

LOLMU=ANNUAL RYEGRASS. THIS EXPERIMENT WAS ABANDONED DURING THE WINTER OF 1986 DUE TO SEVERE WINTER KILL OF WHEAT. THIS WAS PRIMARILY CAUSED BY ABNORMALLY DRY AND COLD CONDITIONS.

11-24-1986

SUMMARY

The University of Tennessee
MANAGEMENT OF ANNUAL RYEGRASS IN WHEAT

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

TRT. NUM.	PEST. NAME	FORM	RATE #ai/A	GROW. STAGE	CRINJ NOV 11	LOLMU NOV 11	CRINJ NOV 26	LOLMU NOV 26
1	SC-0051	3.1E	0.5	PRE	6.3	46.3	0.0	26.3
2	SC-0051	3.1E	0.75	PRE	12.5	50.0	0.0	28.8
3	SC-0051	3.1E	1.0	PRE	17.5	58.8	7.5	37.5
4	SC-0051	3.1E	1.5	PRE	27.5	66.3	17.5	45.0
5	HOELON	3.0E	0.75	PRE	5.0	87.5	1.3	81.3
6	HOELON	3.0E	1.5	PRE	6.3	90.0	0.0	92.5
7	WEEDY				0.0	0.0	0.0	0.0
LEAST SIGNIFICANT DIFF. (.05) =					4.929	10.16	4.885	14.84
STANDARD DEVIATION =					3.318	6.842	3.288	9.990
COEFF. OF VARIABILITY =					30.97	12.01	87.69	22.46

PROJ. NUM.: H-649-85-W
 FILE NAME: WRYEGRW5

INTERIM DATA

UNITS: LBai/A
 PRINTED: 12/02/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENTAL STATION

RYEGRASS CONTROL IN WHEAT

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

COUNTY: MADISON ST: TN COUNTRY: USA
 LAST UPDATE: 12/02/86 INITIATED: 10/25/85
 EXPT. STATUS: 4 COMPLETED: 06/17/86
 RELATED FILE: **NONE** SOURCE: UNIVER.

PREVIOUS CROP: WHEAT PLOT SIZE(LxW): 10.0x 30.0 SOIL pH :6.2
 PREVIOUS TILL: CONVENTIONAL SOIL TEXTURE: SILTLOAM SOIL OM%: 1.0
 FERTILITY: 65-65-65;FB 60-0-0. ROW WIDTH: 7 EXPERIMENTAL DESIGN: RCBD
 MISC. 1: 2 APP. BAYLETON/MANZATE AT 10.1&10.5 NUMBER OF REPS: 4
 MISC. 2: REPORT TYPE: INTERIM

PLANTING DATE: 10/09/85 CROP CULTIVAR: CALDWELL
 HARVEST DATE : 06/17/86 SEASONAL RAINFALL DURING EXPERIMENT
 RESIDUE TAKEN: N EARLY: OPT MID: DRY LATE: DRY

APPLICATION INFO	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
APPLICATION DATE	10/10/85	10/25/85	11/14/85	/ /	/ /
JULIAN DATE/YEAR	J283/85	J298/85	J318/85	J 0/00	J 0/00
GEN. APPLIC TYPE	PRE	POST1	POST2		
AIR/SOIL TEMP(F)	078/074	078/074	076/069	/	/
% REL. HUMIDITY	%				
WIND DIR/VELOC.	/	/	/	/	/
ROOT/LEAF MOIST.	OPT/ --	OPT/DRY	OPT/DRY	/	/
INCORP. EQUIP.	NONE	NONE	NONE		
INCORP. DEPTH in	.	.	.	.	.
SPRAYER TYPE	CO2BACKPACK	CO2BACKPACK	CO2BACKPACK		
SPRAYER GPA/PSI	018 /030	018 /030	018 /030	. /	. /
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 *****							
TRIAE	WHEAT	12/'	/	003/1.3	005/2.0	/	/
***** PEST *****							
LOLMU	ITALIANRYEGRASS	2/'	/	002/2LF	004/4LF	/	/
CENCY	CORNFLOWER	12/'	/	002/3LF	004/5LF	/	/
HORPU	LITTLE BARLEY	4/'	/	001/2LF	003/4LF	/	/
LAMAM	HENBIT	2/'	/	001/2LF	003/4LF	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/

RYEGRASS CONTROL IN WHEAT

=====

EXPERIMENT COMMENTS

KEY TO DATA HEADERS

-
- 1,5,& 9.%CRINJU VISUAL=%CROP INJURY DUE TO HERBICIDES.
 - 2,6,& 10.%CENCY CONTROL=%CORNFLOWER CONTROL.
 - 3.%LOLMU CONTROL=%ITALIAN RYEGRASS CONTROL.
 - 4,8.%HORPU CONTROL=%LITTLE BARLEY CONTROL.
 - 7.%LAMAM CONTROL=%HENBIT CONTROL.
 - 13.%MOISTU HARVEST=%MOISTURE AT HARVEST FOR EACH TREATMENT
 - 14.YIELD BU/ACRE=WHEAT YIELD AT HARVEST IN BUSHELS PER
ACRE AT 13.5 PERCENT MOISTURE WITH A TEST WEIGHT OF 60
POUNDS PER BUSHEL.
 - 15.TEST WT CALC.=TEST WEIGHT CALCULATED AT HARVEST.

SEVERE HAIL DAMAGE OCCURED ON THE ENTIRE EXPERIMENT ON APRIL 7. MANY HEADS WERE SEVERED, FLAG LEAVES WERE STRIPPED FROM THE PLANTS, AND IN SOME INSTANCES THE STEMS WERE CUT. DAMAGE FROM THIS STORM WAS UNIFORM ACROSS THE EXPERIMENT, HOWEVER. CORNFLOWER(CENCY) WAS THE PREDOMINANT WEED IN THIS TEST. TYCOR POSTEMERGENCE CAUSED SOME WHEAT INJURY BUT AT THE 1.5 LB AI/A RATE THE INJURY DID NOT PERSIST AND THE EXCELLENT WEED CONTROL RESULTED IN THIS BEING ONE OF THE HIGHEST YIELDING TREATMENTS. SENCOR AND BUCTRIL BOTH PROVIDED EXCELLENT CONTROL OF CORNFLOWER, HOWEVER, HARMONY WAS POOR ON THIS SPECIE. TREATMENTS WITH SENCOR, TYCOR, AND BUCTRIL YIELDED SIGNIFICANTLY MORE THAN THE WEEDY CHECK.

=====

APPROVED BY: _____ SUBMITTED BY: _____

DATE: _____ DATE: _____

PROJ. NUM.: H-649-85-W
 FILE NAME: WRYEGRW5

INTERIM DATA

UNITS: LBai/A
 PRINTED: 01/03/87

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

RYEGRASS CONTROL IN WHEAT

RESEARCH BY: R.M.HAYES
 COOPERATOR :
 TOTAL REPS : 4
 APPL: PRE =J283/85 POST1=J298/85

COUNTY: MADISON
 LAST UPDATE: 01/03/87
 EXPT. STATUS: 4
 POST2=J318/85

ST: TN COUNTRY: USA
 INITIATED: 10/25/85
 COMPLETED: 06/17/86

TRT. NO.	PESTICIDE NAME	FORMU.	LBai/A	APPLI- TYPE	CATION VISUAL CONTROL CONTROL CONTROL VISUAL CONTROL CONTROL CONTROL VISUAL CONTROL											
					J302/85	J302/85	J302/85	J302/85	J351/85	J351/85	J351/85	J351/85	J121/86	J121/86		
01	HOELON	EC 3.0	0.75	PRE	1	0	91	13	0	0	13	18	0	14		
02	HOELON	EC 3.0	1.0	PRE	0	0	94	30	0	0	0	0	0	6		
03	HOELON	EC 3.0	1.5	PRE	0	24	93	19	0	33	23	24	0	15		
04	HOELON	EC 3.0	0.5	PRE	3	24	83	19	0	35	18	0	0	24		
	HOELON	EC 3.0	0.5	POST1												
05	HOELON	EC 3.0	0.5	PRE	4	24	86	28	0	33	21	23	0	25		
	HOELON	EC 3.0	0.75	POST1												
06	HOELON	EC 3.0	0.75	POST1	6	36	68	25	0	23	23	0	0	20		
07	HOELON	EC 3.0	1.0	POST1	8	24	90	25	0	30	30	0	0	15		
08	HOELON	EC 3.0	1.5	POST1	6	0	78	13	3	0	0	15	0	0		
09	HOELON	EC 3.0	1.0	POST2	NA	NA	NA	NA	20	99	99	86	3	100		
	SENCOR	DF 75%	0.38	POST2												
10	HOELON	EC 3.0	1.0	POST1	5	0	90	33	5	99	99	85	8	100		
	SENCOR	DF 75%	0.38	POST2												
11	HOELON	EC 3.0	1.0	POST1	1	45	93	45	0	60	71	8	0	46		
	HARMONY	DF 75%	0.015	POST1												
12	HOELON	EC 3.0	1.0	POST1	6	95	86	33	0	99	99	31	0	100		
	BUCTRIL	EC 2.0	0.38	POST1												
13	HOELON	EC 3.0	1.0	POST1	31	95	93	61	33	99	99	99	8	100		
	TYCOR	WP 50%	1.5	POST1												
14	HOELON	EC 3.0	1.0	POST1	38	99	96	94	83	99	99	99	65	100		
	TYCOR	WP 50%	3.0	POST1												
15	WEEDY CK				0	0	0	0	0	0	0	0	3	0		

PROJ. NUM.: H-649-85-W
FILE NAME: WRYEGRW5

INTERIM DATA

UNITS: LBai/A
PRINTED: 01/03/87

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

RYEGRASS CONTROL IN WHEAT

APPL: PRE =J283/85 POST1=J298/85 POST2=J318/85

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PESTICIDE	APPLI-	%CRINJU	%CENCY	%LOLMU	%HORPU	%CRINJU	%CENCY	%LAMAM	%HORPU	%CRINJU	%CENCY		
TRT. -----	CATION	VISUAL	CONTROL	CONTROL	CONTROL	VISUAL	CONTROL	CONTROL	CONTROL	VISUAL	CONTROL		
NO. NAME	FORMU.	LBai/A	TYPE	J302/85	J302/85	J302/85	J302/85	J351/85	J351/85	J351/85	J351/85	J121/86	J121/86

=====

LSD(0.05) =	4	37	19	36	8	32	38	34	9	23
STANDARD DEVIATION =	3	25	13	25	6	22	26	24	6	16
COEFF. OF VARIABILITY =	41	82	17	87	58	48	57	73	105	36

PROJ. NUM.: H-649-85-W
 FILE NAME: WRYEGRW5

INTERIM DATA

UNITS: LBai/A
 PRINTED: 12/03/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

RYEGRASS CONTROL IN WHEAT

RESEARCH BY: R.M.HAYES
 COOPERATOR :
 TOTAL REPS : 4
 APPL: PRE =J283/85 POST1=J298/85

COUNTY: MADISON
 LAST UPDATE: 12/02/86
 EXPT. STATUS: 4
 POST2=J318/85

ST: TN COUNTRY: US
 INITIATED: 10/25/85
 COMPLETED: 06/17/86

TRT. NO.	NAME	FORMU.	LBai/A	TYPE	APPLI- CATION	%DISTU	YIELD BU/ACRE	TEST WT CALC.	
01	HOELON	EC 3.0	0.75	PRE			19.4	16.9	46.8
02	HOELON	EC 3.0	1.0	PRE			19.8	16.5	45.7
03	HOELON	EC 3.0	1.5	PRE			20.0	16.8	44.9
04	HOELON	EC 3.0	0.5	PRE			19.1	18.3	46.6
	HOELON	EC 3.0	0.5	POST1					
05	HOELON	EC 3.0	0.5	PRE			18.1	18.1	48.0
	HOELON	EC 3.0	0.75	POST1					
06	HOELON	EC 3.0	0.75	POST1			18.7	16.8	46.7
07	HOELON	EC 3.0	1.0	POST1			18.8	16.5	46.7
08	HOELON	EC 3.0	1.5	POST1			21.5	13.9	42.3
09	HOELON	EC 3.0	1.0	POST2			15.6	20.8	53.4
	SENCOR	DF 75%	0.38	POST2					
10	HOELON	EC 3.0	1.0	POST1			14.8	22.0	54.0
	SENCOR	DF 75%	0.38	POST2					
11	HOELON	EC 3.0	1.0	POST1			17.4	21.7	49.2
	HARMONY	DF 75%	0.015	POST1					
12	HOELON	EC 3.0	1.0	POST1			15.1	20.4	53.0
	BUCTRIL	EC 2.0	0.38	POST1					
13	HOELON	EC 3.0	1.0	POST1			15.0	27.3	54.0
	TYCOR	WP 50%	1.5	POST1					
14	HOELON	EC 3.0	1.0	POST1			15.5	18.9	50.7
	TYCOR	WP 50%	3.0	POST1					
15	WEEDY CK						19.2	16.3	46.5

PROJ. NUM.: H-649-85-W

INTERIM DATA

UNITS: LBai/A

FILE NAME: WRYEGRW5

PRINTED: 12/03/85

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

RYEGRASS CONTROL IN WHEAT

APPL: PRE =J283/85 POST1=J298/85 POST2=J318/85

TRT. NO.	PESTICIDE NAME	FORMU. LBai/A	APPLI- CATION	%MOISTU	YIELD BU/ACRE	TEST WT. CALC.						
				J168/86	J168/86	J168/86						

LSD(0.05) = 2.0 3.9 3.5
 STANDARD DEVIATION = 1.4 2.7 2.5
 COEFF. OF VARIABILITY = 7.7 14.4 5.1

CHEAT CONTROL IN WHEAT

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

COUNTY: MADISON
LAST UPDATE: 12/01/86
EXPT. STATUS: 4
RELATED FILE: **NONE**

ST: TN COUNTRY: USA
INITIATED: 10/09/85
COMPLETED: 06/16/86
SOURCE: UNIVER.

PREVIOUS CROP: WHEAT PLOT SIZE(LxW): 10.0x 30.0 SOIL pH :6.3
PREVIOUS TILL: NO-TILLAGE SOIL TEXTURE: SILT LOAM SOIL OM%: 1.2
FERTILITY: 45-45-45AP;60#N MAR 3 ROW WIDTH: 07 EXPERIMENTAL DESIGN: RCBD
MISC. 1: BAYLETON + MANZATE ACC TO LABEL NUMBER OF REPS: 4
MISC. 2: REPORT TYPE: INTERIM

PLANTING DATE: 10/09/85 CROP CULTIVAR: CALDWELL
HARVEST DATE : 06/16/86 SEASONAL RAINFALL DURING EXPERIMENT
RESIDUE TAKEN: N EARLY: WET MID: OPT LATE: DRY

Table with 6 columns: APPLICATION INFO, APPLIC. 1, APPLIC. 2, APPLIC. 3, APPLIC. 4, APPLIC. 5. Rows include Application Date, Julian Date/Year, Gen. Applic Type, Air/Soil Temp, % Rel. Humidity, Wind Dir/Veloc., Root/Leaf Moist., Incorp. Equip., Incorp. Depth, Sprayer Type, Sprayer GPA/PSI, Nozzle Type, Rain/Irrig. in, and 0-24 hr/1-3 days, 4-7 days/2nd wk, 3rd / 4th week.

Table with 6 columns: SPEC. CODE, SPECIES, DEN-SITY, APPLIC. 1, APPLIC. 2, APPLIC. 3, APPLIC. 4, APPLIC. 5. Rows include CROP (WHEAT) and PEST (CHEATGRASS).

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

CHEAT CONTROL IN WHEAT

=====

EXPERIMENT COMMENTS

SEVERE HAIL DAMAGE OCCURRED ON THE ENTIRE EXPERIMENT ON APRIL 7. MANY OF THE HEADS WERE SEVERED, FLAG LEAVES WERE STRIPPED FROM THE PLANTS, AND IN SOME INSTANCES THE STEMS WERE CUT. DAMAGE FROM THIS STORM WAS UNIFORM ACROSS THE EXPERIMENT, HOWEVER.

KEY TO DATA HEADERS

- 1. %CRINJU CHLOROS = %CROP INJURY AND THE INJURY RATED WAS CHLOROSIS.
- 2. %CRINJU VISUAL = %VISUAL CROP INJURY.
- 3. %BROSE VISUAL = %CONTROL OF CHEATGRASS.
- 4. %MOISTU TESTED = %MOISTURE OF HARVESTED GRAIN.
- 5. YIELD BU/ACRE = YIELD IN BUSHELS PER ACRE CORRECTED TO 13.5% MOISTURE WITH A TEST WEIGHT OF 60 POUNDS PER BUSHEL.
- 6. TEST WT. CALC. = TEST WEIGHT OF HARVESTED GRAIN PER BUSHEL.

TYCOR PREEMERGENCE CAUSED EXCESSIVE WHEAT INJURY AT THE 2.0 AND 3.0 LB/AI/A RATE. EARLY POSTEMERGENCE (STAGE 1 OR 2) WAS MUCH LESS INJURIOUS AND PROVIDED GOOD-EXCELLENT CONTROL. EXCELLENT CONTROL WITHOUT WHEAT INJURY WAS ALSO OBTAINED WITH TYCOR PLUS SENCOR (1.0+0.25 LB/AI/A). WHEAT YIELDS WERE HIGHEST WHERE CHEAT WAS CONTROLLED.

=====

APPROVED BY: _____ SUBMITTED BY: _____

DATE: _____

DATE: _____

PROJ. NUM.: H-692-85-W-B
 FILE NAME: WCHEAT16

INTERIM DATA

UNITS: LBai/A
 PRINTED: 12/01/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

CHEAT CONTROL IN WHEAT

RESEARCH BY: R.M.HAYES COUNTY: MADISON ST: TN COUNTRY: USA
 COOPERATOR : LAST UPDATE: 12/01/86 INITIATED: 10/09/85
 TOTAL REPS : 4 EXPT. STATUS: 4 COMPLETED: 06/16/86
 APPL: PRE =J282/85 POST1=J298/86 POST2=J318/86 POST3=J 85/86

=====

TRT.	PESTICIDE	APPLI-	%CRINJU	%CRINJU	%BROSE	%MOISTU	YIELD	TEST WT					
NO. NAME	FORMU.	LBai/A	TYPE	J291/85	J121/86	J121/86	J167/86	J167/86	J167/86	J167/86			

=====

01	SC 0051	EC 3.0	0.75	PRE	3	0	23	12.8	27.7	54.8			
02	SC 0051	EC 3.0	1.0	PRE	9	0	18	11.7	29.0	55.8			
03	SC 0051	EC 3.0	1.5	PRE	10	0	20	12.5	29.0	55.0			
04	TYCOR	WP 50%	1.5	PRE	10	13	54	12.6	31.2	56.5			
05	TYCOR	WP 50%	2.0	PRE	18	40	98	12.7	33.2	56.1			
06	TYCOR	WP 50%	3.0	PRE	23	60	98	14.4	26.6	53.1			
07	TYCOR	WP 50%	1.5	POST1	NA	0	85	11.7	36.0	57.0			
08	TYCOR	WP 50%	2.0	POST1	NA	5	98	11.6	36.6	57.4			
09	TYCOR	WP 50%	3.0	POST1	NA	20	97	11.5	38.9	57.7			
10	TYCOR	WP 50%	1.5	POST2	NA	0	94	12.2	35.4	57.0			
11	TYCOR	WP 50%	2.0	POST2	NA	3	86	11.7	34.4	57.1			
12	TYCOR	WP 50%	3.0	POST2	NA	0	73	12.1	36.1	56.9			
13	TYCOR	WP 50%	1.0	POST2	NA	3	97	11.5	32.1	57.1			
	SENCOR	DF 75%	0.25	POST2									
14	SENCOR	DF 75%	1.0	POST2	NA	0	48	12.5	32.1	55.7			
15	HOELON	EC 3.0	1.0	PRE	0	3	65	12.3	33.7	56.7			
	SENCOR	DF 75%	0.38	POST2									
16	HOELON	EC 3.0	1.0	PRE	0	3	8	11.3	27.2	57.4			
	SENCOR	DF 75%	0.38	POST3									
17	HOELON	EC 3.0	1.0	PRE	0	3	13	12.9	29.7	55.8			
18	WEEDY CK				0	0	0	11.6	25.4	55.9			

PROJ. NUM.: H-692-85-W-B
FILE NAME: WCHEAT16

INTERIM DATA

UNITS: LBai/A
PRINTED: 12/01/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

CHEAT CONTROL IN WHEAT

APPL: PRE =J282/85 POST1=J298/86 POST2=J318/86 POST3=J 85/86

PESTICIDE	APPLI-	%CRINJU	%CRINJU	%BROSE	%MOISTU	YIELD	TEST WT					
TRT.	-----	CATION	CHLOROS	VISUAL	CONTROL	TESTED	BU/ACRE	CALC.				
NO. NAME	FORMU.	LBai/A	TYPE	J291/85	J121/86	J121/86	J167/86	J167/86	J167/86			

LSD(0.05) =	6	13	36	2.3	5.7	1.9
STANDARD DEVIATION =	4	9	25	1.6	3.9	1.3
COEFF. OF VARIABILITY =	109	105	42	13.0	12.4	2.3

PROJ. NUM.: H-692-85-W-M
 FILE NAME: WCHEAT26

INTERIM DATA

UNITS: LBai/A
 PRINTED: 12/03/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

SYNERGIST FOR CHEAT HERBICIDES IN WHEAT

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

COUNTY: MADISON ST: TN COUNTRY: USA
 LAST UPDATE: 12/03/86 INITIATED: 10/09/85
 EXPT. STATUS: 3 COMPLETED: 06/09/86
 RELATED FILE: **NONE** SOURCE: UNIVER.

PREVIOUS CROP: WHEAT PLOT SIZE(LxW): 10.0x 30.0 SOIL pH :6.3
 PREVIOUS TILL: NO-TILLAGE SOIL TEXTURE: SILT LOAM SOIL OM%: 1.2
 FERTILITY: 45-45-45 AP;60#N MAR 3 ROW WIDTH: 07 EXPERIMENTAL DESIGN: RCBD
 MISC. 1: BAYLETON+MANZATE ACC. TO LABEL. NUMBER OF REPS: 4
 MISC. 2: REPORT TYPE: INTERIM

PLANTING DATE: 10/09/85 CROP CULTIVAR: CALDWELL
 HARVEST DATE : 06/16/86 SEASONAL RAINFALL DURING EXPERIMENT
 RESIDUE TAKEN: N EARLY: WET MID: OPT LATE: DRY

APPLICATION INFO	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
APPLICATION DATE	10/09/85	10/25/85	03/26/86	/ /	/ /
JULIAN DATE/YEAR	J282/85	J298/85	J 85/86	J 0/00	J 0/00
GEN. APPLIC TYPE	PRE	POST1	POST2		
AIR/SOIL TEMP(F)	/	/	/	/	/
% REL. HUMIDITY	%				
WIND DIR/VELOC.	/	/	/	/	/
ROOT/LEAF MOIST.	OPT/	OPT/DRY	OPT/DRY	/	/
INCORP. EQUIP.					
INCORP. DEPTH in	.	.	.	.	.
SPRAYER TYPE	CO2BACKPACK	CO2BACKPACK	CO2BACKPACK		
SPRAYER GPA/PSI	018 /032	018 /032	018 /032	. /	. /
NOZZLE TYPE	FLATFAN8002	FLATFAN8002	FLATFAN8002		
RAIN / IRRIG. in					
0-24 hr/1-3 days	. / .	. / .	. / .	. / .	. / .
4-7 days/2nd wk	0.7 /2.93	0.93/ .	. / .	. / .	. / .
3rd / 4th week	1.8 /0.93	. / .	. / .	. / .	. / .

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 *****							
TRIAE	WINTER WHEAT	12/'	/	02 /1	04 /3	/	/
***** PEST *****							
BROSE	CHEATGRASS	75/'	/	1.5/	3.0/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/

SYNERGIST FOR CHEAT HERBICIDES IN WHEAT

=====

EXPERIMENT COMMENTS

SEVERE HAIL DAMAGE OCCURED ON THE ENTIRE EXPERIMENT ON APRIL 7. MANY HEADS WERE SEVERED, FLAG LEAVES WERE STRIPPED FROM THE PLANTS, AND IN SOME INSTANCES THE STEMS WERE CUT. DAMAGE FROM THIS STORM WAS UNIFORM ACROSS THE EXPERIMENT, HOWEVER.

KEY TO DATA HEADERS

-
1. %CRINJU VISUAL = %VISUAL CROP CAUSED BY THE HERBICIDES.
 2. %MOISTU TESTED = %MOISTURE TESTED FOR EACH TREATMENT AT HARVEST.
 3. YIELD BU/ACRE = WHEAT YIELD AT HARVEST IN BUSHELS PER ACRE AT 13.5 PERCENT MOISTURE WITH A TEST WEIGHT OF 60 POUNDS PER BUSHEL.
 4. TEST WT CALC. = TEST WEIGHT CALCULATED FOR EACH TREATMENT AT HARVEST.

SUMMARY

TYCOR AT 3.0 LB AI/A CAUSED WHEAT INJURY WHICH WAS NOT REDUCED BY BAY 2091. THERE WAS NO EVIDENCE THAT BAY 2091 SAFENED SENCOR OR TYCOR POST-EMERGENCE. CHEAT CONTROL FROM THE SPRING APPLICATION WAS ADVERSELY AFFECTED BY DRY CONDITIONS FOLLOWING APPLICATION, WHILE FALL APPLICATIONS WHICH WERE PROPERLY TIMED PROVIDED EXCELLENT WEED CONTROL AND YIELDS.

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APPROVED BY: _____ SUBMITTED BY: _____

DATE: _____

DATE: _____

PROJ. NUM.: H-692-85-W-M
 FILE NAME: WCHEAT26

INTERIM DATA

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

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

SYNERGIST FOR CHEAT HERBICIDES IN WHEAT

RESEARCH BY: R.M.HAYES
 COOPERATOR :
 TOTAL REPS : 4
 APPL: PRE =J282/J5 POST1=J298/85

COUNTY: MADISON ST: TN COUNTRY: USA
 LAST UPDATE: 10/29/86 INITIATED: 10/09/85
 EXPT. STATUS: 3 COMPLETED: 06/09/86
 POST2=J318/85 POST3=J 85/86

TRT. NO.	NAME	PESTICIDE		APPLI- TYPE	SCRINJU J291/85	MOISTU J167/86	YIELD BU/ACRE	TEST WT CALC.						
		FORMU.	LBai/A											
01	TYCOR	WP 50%	1.5	PRE	6	12.3	47.8	56.3						
02	TYCOR	WP 50%	3.0	PRE	24	15.6	31.2	49.4						
03	TYCOR	WP 50%	1.5	PRE	10	12.6	46.4	56.7						
	BAY 2091	EC 4.17	0.38	PRE										
04	TYCOR	WP 50%	3.0	PRE	29	12.8	33.0	53.7						
	BAY 2091	EC 4.17	0.75	PRE										
05	SENCOR	DF 75%	0.38	POST1	NA	11.3	44.8	57.3						
06	SENCOR	DF 75%	0.75	POST1	NA	11.1	47.2	57.4						
07	SENCOR	DF 75%	0.38	POST1	NA	12.6	46.8	56.4						
	BAY 2091	EC 4.17	0.38	POST1										
08	SENCOR	DF 75%	0.75	POST1	NA	14.7	39.8	52.8						
	BAY 2091	EC 4.17	0.75	POST1										
09	TYCOR	WP 50%	1.5	POST1	NA	11.8	34.0	43.2						
10	TYCOR	WP 50%	3.0	POST1	NA	11.2	48.0	57.6						
11	TYCOR	WP 50%	1.5	POST1	NA	11.7	45.0	57.4						
	BAY 2091	EC 4.17	0.38	POST1										
12	TYCOR	WP 50%	3.0	POST1	NA	11.6	47.2	57.3						
	BAY 2091	EC 4.17	0.75	POST1										
13	SENCOR	DF 75%	0.38	POST2	NA	12.7	33.6	55.8						
14	TYCOR	WP 50%	1.5	POST2	NA	12.2	36.4	55.5						
15	AMBER	DF 80%		POST2	NA	12.2	35.8	55.5						
16	HARMONY	DF 75%		POST2	NA	12.4	35.4	56.0						
	X-77	%A 100%	0.5%	POST2										

PROJ. NUM.: H-692-85-W-M

INTERIM DATA

UNITS: LBai/A

FILE NAME: WCHEAT26

PRINTED: 10/29/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

SYNERGIST FOR CHEAT HERBICIDES IN WHEAT

APPL: PRE =J282/85 POST1=J298/85 POST2=J318/85 POST3=J 85/86

PESTICIDE	APPLI-;%CRINJU;%MOISTU;YIELD ;TEST WT;								
TRT. -----	CATION;VISUAL ;TESTED ;BU/ACRE;CALC. ;								
NO. NAME	FORMU. LBai/A	TYPE;J291/85;J167/86;J167/86;J167/86;							

17 HARMONY DF 75%	POST2	NA	13.8	30.9	54.7
X-77 %A 100% 0.5%	POST2				

18 WEEDY CK		0	15.8	34.1	51.8
-------------	--	---	------	------	------

LSD(0.05) =	3	3.3	10.3	10.4
STANDARD DEVIATION =	2	2.3	7.1	7.2
COEFF. OF VARIABILITY =	51	18.0	17.9	13.2

PROJ. NUM.: 6WNS-B-M
 FILE NAME: MSENXNB6

INTERIM DATA

UNITS: LBai/A
 PRINTED: 12/12/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENTATION

N BY SENCOR ON WHEAT ON COLLINS SILTLOAM

RESEARCH BY: R.M.HAYES&DON HOWARD COUNTY: GIBSON ST: TN COUNTRY: USA
 COOPERATOR : JOHN F.BRADLEY LAST UPDATE: 12/12/86 INITIATED: 10/29/85
 TOTAL REPS : 4 EXPT. STATUS: 4 COMPLETED: 06/18/86
 REPORTED BY: R.M. HAYES RELATED FILE: **NONE** SOURCE: UNIVER.

PREVIOUS CROP: CORN PLOT SIZE(LxW): 10.0x 30.0 SOIL pH :6.5
 PREVIOUS TILL: CONVENTIONAL SOIL TEXTURE: SILT LOAM SOIL OM%: 0.9
 FERTILITY: 30-60-60 ON 10/16. ROW WIDTH: 07 EXPERIMENTAL DESIGN: RCBS
 MISC. 1: 70 UNITS OF N APPLIED ON 2/26. NUMBER OF REPS: 4
 MISC. 2: REPORT TYPE: INTERIM

PLANTING DATE: 10/29/85 CROP CULTIVAR: COKER 916
 HARVEST DATE : 06/18/86 SEASONAL RAINFALL DURING EXPERIMENT
 RESIDUE TAKEN: N EARLY: WET MID: OPT LATE: DRY

APPLICATION INFO	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
APPLICATION DATE	03/27/86	/ /	/ /	/ /	/ /
JULIAN DATE/YEAR	J 86/86	J 0/00	J 0/00	J 0/00	J 0/00
GEN. APPLIC TYPE	POST				
AIR/SOIL TEMP(F)	070/061	/	/	/	/
% REL. HUMIDITY	%				
WIND DIR/VELOC.	/	/	/	/	/
ROOT/LEAF MOIST.	DRY/OPT	/	/	/	/
INCorp. EQUIP.	NONE				
INCorp. DEPTH in	.	.	.	.	.
SPRAYER TYPE	CO2BACKPACK				
SPRAYER GPA/PSI	018 /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 *****	*****	*****	*****	*****	*****	*****
TRIAE	WINTER WHEAT		010/6	/	/	/	/
*****	***** PEST *****	*****	*****	*****	*****	*****	*****
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/

N BY SENCOR ON WHEAT ON COLLINS SILTLOAM

EXPERIMENT COMMENTS

KEY TO DATA HEADERS

- 1. %CRINJU VISUAL = % VISUAL CROP INJURY.
- 2. SAME AS NUMBER ONE.
- 3. Y/BU/AC HARVEST = WHEAT YIELD IN BUSHEL PER ACRE AT 13.5 PERCENT MOISTURE.
- 4. %MOISTU CALC. = PERCENT MOISTURE CALCULATED AT HARVEST FOR EACH TREATMENT.

SUMMARY

THERE WAS APPROXIMATELY A 10 BU/A WHEAT YIELD INCREASE WHEN THE NITROGEN RATE WAS INCREASED FROM 60 TO 120 LB N/A WITHOUT SENCOR, BUT WHERE SENCOR WAS APPLIED NOT ONLY WAS THE YIELD REDUCED, BUT THERE WAS NO RESPONSE TO ADDITIONAL NITROGEN. WHEAT INJURY WAS HIGHER AT THE HIGHER SENCOR RATE. THERE WAS ONLY A SLIGHT INDICATION THAT HIGH NITROGEN MIGHT INCREASE INJURY FROM SENCOR. FURTHERMORE, THERE WAS NO INDICATION THAT SENCOR INJURY COULD BE OVERCOME BY HIGHER NITROGEN RATES. THERE WERE NO WEEDS PRESENT TO AFFECT WHEAT YIELDS.

APPROVED BY: _____ SUBMITTED BY: _____

DATE: _____ DATE: _____

PROJ. NUM.: 6WNS-B-M
 FILE NAME: MSENXNB6

INTERIM DATA

UNITS: LBai/A
 PRINTED: 12/12/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

N BY SENCOR ON WHEAT ON COLLINS SILTLOAM

RESEARCH BY: R.M.HAYES&DON HOWARD COUNTY: GIBSON ST: TN COUNTRY: USA
 COOPERATOR : JOHN F.BRADLEY LAST UPDATE: 12/12/86 INITIATED: 10/29/86
 TOTAL REPS : 4 EXPT. STATUS: 4 COMPLETED: 06/18/86
 APPL: POST =J 86/86

TRT.	PESTICIDE	APPLI-	%CRINJU	%CRINJU	Y/BU/AC	%MOISTU				
NO. NAME	FORMU. LBai/A	TYPE	J105/86	J115/86	J169/86	J169/86				

01	SENCOR DF 75% 0.0	POST	0	3	58.2	13.9				
	NITROGEN DF 34% 60	POST								
02	SENCOR DF 75% 0.0	POST	0	0	68.5	13.4				
	NITROGEN DF 34% 120	POST								
03	SENCOR DF 75% 0.38	POST	21	13	44.5	13.6				
	NITROGEN DF 34% 60	POST								
04	SENCOR DF 75% 0.38	POST	16	13	45.6	13.4				
	NITROGEN DF 34% 120	POST								
05	SENCOR DF 75% 0.75	POST	31	29	30.5	13.5				
	NITROGEN DF 34% 60	POST								
06	SENCOR DF 75% 0.75	POST	30	35	30.0	13.5				
	NITROGEN DF 34% 120	POST								

LSD(0.05) = 8 11 6.6 .3
 STANDARD DEVIATION = 5 7 4.4 .2
 COEFF. OF VARIABILITY = 31 48 9.5 1.7

PROJ. NUM.: 6WNS-P-M
 FILE NAME: MSENXNH6

INTERIM DATA

UNITS: LBai/6
 PRINTED: 12/12/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENTAL STATION

N BY SENCOR ON WHEAT ON LORING SILT LOAM

RESEARCH BY: R.M.HAYES&DON HOWARD COUNTY: GIBSON ST: TN COUNTRY: USA
 COOPERATOR : JOHN F.BRADLEY LAST UPDATE: 12/12/86 INITIATED: 11/04/86
 TOTAL REPS : 4 EXPT. STATUS: 4 COMPLETED: 06/18/86
 REPORTED BY: R.M. HAYES RELATED FILE: **NONE** SOURCE: UNIVER.

PREVIOUS CROP: SOYBEANS PLOT SIZE(LxW): 10.0x 30.0 SOIL pH :6.6
 PREVIOUS TILL: NO-TILL SOIL TEXTURE: SILT LOAM SOIL OM%: 1.0
 FERTILITY: 30-60-60 ON 11/4. ROW WIDTH: 07 EXPERIMENTAL DESIGN: RCBD
 MISC. 1: 70 UNITS OF N APPLIED ON 2/26. NUMBER OF REPS: 4
 MISC. 2: REPORT TYPE: INTERIM

PLANTING DATE: 11/04/85 CROP CULTIVAR: CALDWELL
 HARVEST DATE : 06/18/86 SEASONAL RAINFALL DURING EXPERIMENT
 RESIDUE TAKEN: N EARLY: WET MID: OPT LATE: DRY

APPLICATION INFO	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
APPLICATION DATE	03/31/86	/ /	/ /	/ /	/ /
JULIAN DATE/YEAR	J 90/86	J 0/00	J 0/00	J 0/00	J 0/00
GEN. APPLIC TYPE	POST				
AIR/SOIL TEMP(F)	080/069	/	/	/	/
% REL. HUMIDITY	%				
WIND DIR/VELOC.	SW/03	/	/	/	/
ROOT/LEAF MOIST.	DRY/DRY	/	/	/	/
INCORP. EQUIP.	NONE				
INCORP. DEPTH in	.	.	.	.	.
SPRAYER TYPE	CO2BACKPACK				
SPRAYER GPA/PSI	018 /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 *****							
TRIAE	WINTER WHEAT		010/	/	/	/	/
***** PEST *****			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/

N BY SENCOR ON WHEAT ON LORING SILT LOAM

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EXPERIMENT COMMENTS

KEY TO DATA HEADERS

-
- 1.%CRINJU VISUAL = %VISUAL CROP INJURY.
 - 2.Y/BU/AC HARVEST = WHEAT YIELD IN BUSHELS PER ACRE AT 13.5 PERCENT MOISTURE.
 - 3.%MOISTU CALC. = PERCENT MOISTURE CALCULATED AT HARVEST FOR EACH TREATMENT.

SUMMARY

WHEAT YIELDS WERE NOT SIGNIFICANTLY REDUCED BY THE LABEL RATE OF SENCOR,BUT WHERE TWICE THAT RATE WAS APPLIED YIELDS WERE DEFINITELY REDUCED,(50% AT HIGH NITROGEN RATE).THERE WAS A SLIGHT INDICATION OF GREATER YIELD REDUCTION AT HIGHER NITROGEN RATES IN THE PRESENCE OF SENCOR.EARLY INJURY RATINGS CORRESPONDED WELL WITH SUBSEQUENT WHEAT GRAIN YIELD REDUCTIONS.THERE WERE NO WEEDS PRESENT TO AFFECT WHEAT YIELDS.

=====

APPROVED BY: _____ SUBMITTED BY: _____

DATE: _____

DATE: _____

PROJ. NUM.: 6WNS-P-M
 FILE NAME: MSENXNH6

INTERIM DATA

UNITS: LBai/A
 PRINTED: 12/12/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

N BY SENCOR ON WHEAT ON LORING SILT LOAM

RESEARCH BY: R.M.HAYES&DON HOWARD COUNTY: GIBSON ST: TN COUNTRY: USA
 COOPERATOR : JOHN F.BRADLEY LAST UPDATE: 12/12/86 INITIATED: 11/04/85
 TOTAL REPS : 4 EXPT. STATUS: 4 COMPLETED: 06/18/86
 APPL: POST =J 90/86

TRT.	PESTICIDE	APPLI- CATION	%CRINJU VISUAL	Y/BU/AC HARVEST	%MOISTU CALC.						
NO. NAME	FORMU. LBai/A	TYPE	J115/86	J169/86	J169/86						

01	SENCOR	DF 75%	0.0	POST	0	51.2	13.9				
	NITROGEN	DF 34%	60	POST							
02	SENCOR	DF 75%	0.0	POST	0	50.2	13.4				
	NITROGEN	DF 34%	120	POST							
03	SENCOR	DF 75%	0.38	POST	3	48.2	13.7				
	NITROGEN	DF 34%	60	POST							
04	SENCOR	DF 75%	0.38	POST	6	46.9	13.5				
	NITROGEN	DF 34%	120	POST							
05	SENCOR	DF 75%	0.75	POST	28	29.8	13.8				
	NITROGEN	DF 34%	60	POST							
06	SENCOR	DF 75%	0.75	POST	33	25.3	14.0				
	NITROGEN	DF 34%	120	POST							

LSD(0.05) = 13 7.5 .3
 STANDARD DEVIATION = 9 5.0 .2
 COEFF. OF VARIABILITY = 77 11.8 1.7

WILD GARLIC CONTROL IN WHEAT

RESEARCH BY: R.M. HAYES COUNTY: HARDEMAN ST: TN COUNTRY: USA
 COOPERATOR : MARSHAL SMITH LAST UPDATE: 12/01/86 INITIATED: 11/08/85
 TOTAL REPS : 4 EXPT. STATUS: 4 COMPLETED: 06/17/86
 REPORTED BY: R.M. HAYES RELATED FILE: **NONE** SOURCE: UNIVER.

PREVIOUS CROP: SOYBEANS PLOT SIZE(LxW): 10.0x 30.0 SOIL pH : .
 PREVIOUS TILL: CONVENTIONAL SOIL TEXTURE: LORING SIL. SOIL OM%: 01.0
 FERTILITY: ACC. TO U.T. RECOMMEND. ROW WIDTH: 07 EXPERIMENTAL DESIGN: RCB
 MISC. 1: BAYLETON/MANZATE ACC. TO LABEL,2 APPLIC. NUMBER OF REPS: 4
 MISC. 2: REPORT TYPE: INTERIM

PLANTING DATE: 11/08/85 CROP CULTIVAR: COKER 916
 HARVEST DATE : 06/17/86 SEASONAL RAINFALL DURING EXPERIMENT
 RESIDUE TAKEN: N EARLY: OPT MID: DRY LATE: DRY

APPLICATION INFO	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
APPLICATION DATE	03/26/86	04/04/86	/ /	/ /	/ /
JULIAN DATE/YEAR	J 85/86	J 94/86	J 0/00	J 0/00	J 0/00
GEN. APPLIC TYPE	POST1	POST2			
AIR/SOIL TEMP(F)	78 /65	70 /68	/	/	/
% REL. HUMIDITY	%				
WIND DIR/VELOC.	SW/7	S /5	/	/	/
ROOT/LEAF MOIST.	OPT/DRY	OPT/DRY	/	/	/
INCORP. EQUIP.	NONE	NONE			
INCORP. DEPTH in	.	.	.	.	.
SPRAYER TYPE	CO2BACKPACK	CO2BACKPACK			
SPRAYER GPA/PSI	018.0/32	018.0/32	018.0/	.	.
NOZZLE TYPE	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 *****							
TRIAE	WHEAT	12/'	010/5.0	015/7.0	/	/	/
***** PEST *****							
ALLVI	WILD GARLIC	52/M	010/	014/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/

WILD GARLIC CONTROL IN WHEAT

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EXPERIMENT COMMENTS

KEY TO DATA HEADERS

-
1. BU/ACRE HARVEST=WHEAT YIELD IN BUSHEL
PER ACRE WITH 13.5 PERCENT MOISTURE AND
A TEST WEIGHT OF 60 POUNDS PER BUSHEL.
 - 2,4&6.%ALLVI CONTROL=PERCENT WILD GARLIC
CONTROL.
 - 3.%TRIAE VISUAL=PERCENT VISUAL WHEAT INJURY.
 - 5&7.%ERICA CONTROL=PERCENT HORSEWEED CONTROL.
 - 8.%SORHA CONTROL=PERCENT JOHNSONGRASS
CONTROL.
 10. SOYBEAN Y/BU/AC=SOYBEAN YIELD IN BUSHEL
PER ACRE AT 13 PERCENT MOISTURE WITH A
TEST WEIGHT OF 60 POUNDS, (MOISTURE AT
HARVEST WAS 15.1%).

INITIAL ACTIVITY ON WILD GARLIC WAS BEST WITH 2,4-D, HOWEVER, CONTROL THEN DECLINED. IN CONTRAST, HARMONY AND DPXE8698 PROVIDED POOR INITIAL ACTIVITY ON WILD GARLIC BUT CONTROL IMPROVED WITH TIME. HARMONY COMBINATIONS WITH SENCOR AND TYCOR INJURED WHEAT. HORSEWEED WAS CONTROLLED WITH 2,4-D ALONE OR IN COMBINATION WITH HARMONY AND WITH DPXE8698 APPLICATIONS OF HARMONY EARLY WHEN WILD GARLIC BEGAN SPRING GROWTH WERE MORE EFFECTIVE THAN APPLICATIONS MADE JUST 11 DAYS LATER.

=====

APPROVED BY: _____ SUBMITTED BY: _____

DATE: _____ DATE: _____

PROJ. NUM.:
 FILE NAME: AGARLIC6

INTERIM DATA

UNITS: LBai/A
 PRINTED: 12/01/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

WILD GARLIC CONTROL IN WHEAT

RESEARCH BY: R.M. HAYES COUNTY: HARDEMAN ST: TN COUNTRY: USA
 COOPERATOR : MARSHAL SMITH LAST UPDATE: 12/01/86 INITIATED: 11/08/85
 TOTAL REPS : 4 EXPT. STATUS: 4 COMPLETED: 06/17/86
 APPL: POST1=J 85/86 POST2=J 94/86

TRT. NO.	PESTICIDE NAME	FORMU.	LBai/A	APPLI- TYPE	BU/ACRE	%ALLVI	%TRIAE	%ALLVI	%ERICA	%ALLVI	%ERICA	%SORHA	SOYBEAN	Y/8U/AC	J307/86
01	DPXE8698 X-77	DF 75% %A 100%	0.015	3/26	51.5	28	8	66	99	98	98	0	33.9		
02	DPXE8698 X-77	DF 75% %A 100%	0.03	3/26	45.7	20	23	76	99	98	99	8	36.9		
03	DPXE8698 X-77	DF 75% %A 100%	0.045	3/26	50.7	28	10	78	99	99	99	20	36.2		
04	HARMONY X-77	DF 75% %A 100%	0.015	3/26	50.1	21	5	60	50	97	0	25	36.0		
05	HARMONY X-77	DF 75% %A 100%	0.03	3/26	49.3	23	5	71	85	97	15	8	35.5		
06	HARMONY X-77	DF 75% %A 100%	0.045	3/26	52.2	33	5	65	88	98	0	8	36.4		
07	HARMONY X-77	DF 75% %A 100%	0.015	4/04	50.7	0	0	35	61	88	0	20	32.2		
08	HARMONY X-77	DF 75% %A 100%	0.030	4/04	50.3	0	0	41	55	86	8	43	34.2		
09	HARMONY X-77	DF 75% %A 100%	0.045	4/04	53.8	0	0	40	66	77	13	8	37.9		
10	HARMONY 2,4-D X-77	DF 75% EC 4.0 %A 100%	0.015 0.75	3/26 3/26	50.9	59	0	58	96	83	99	13	34.8		
11	HARMONY LEXONE	DF 75% DF 75%	0.015 0.38	3/26 3/26	37.4	10	45	60	76	90	30	8	37.4		
12	HARMONY HOELON	DF 75% EC 3.0	0.015 1.0	3/26 3/26	49.7	20	0	58	63	89	8	8	36.2		
13	HARMONY TYCOR	DF 75% WP 50%	0.015 1.5	3/26 3/26	43.3	8	35	55	73	84	10	25	37.1		

PROJ. NUM.:
 FILE NAME: AGARLJC6

INTERIM DATA

UNITS: LBai/A
 PRINTED: 12/01/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

WILD GARLIC CONTROL IN WHEAT

APPL: POST1=J 85/86 POST2=J 94/86

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      PESTICIDE      APPLI-BU/ACRE; %ALLVI ; %TRIAE ; %ALLVI ; %ERICA ; %ALLVI ; %ERICA ; %SORHA ;      ;SOYBEAN;      ;
TRT. ----- CATION; HARVEST; CONTROL; INJURY ; CONTROL; CONTROL; CONTROL; CONTROL; CONTROL;      ;Y/BU/AC;      ;
NO. NAME  FORNU. LBai/A  TYPE; J168/86; J 94/86; J 94/86; J111/86; J111/86; J127/86; J127/86; J127/86;      ;J307/86;      ;
=====
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14	2,4-D	EC 4.0	1.0	3/26	47.4	80	8	38	97	18	99	0	33.5
15	WEEDY-CK				52.3	20	1	0	0	0	0	5	29.3
				LSD(0.05) =	5.7	30	14	30	24	12	20	30	NA
				STANDARD DEVIATION =	3.9	21	10	21	16	8	14	21	NA
				COEFF. OF VARIABILITY =	8.0	89	104	39	22	11	37	162	NA

PROJ. NUM.: H-692-85-MES

INTERIM DATA

UNITS: LBai/A

FILE NAME: MGARLIC5

PRINTED: 12/04/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENTAL STATION

WILD GARLIC CONTROL IN WHEAT MILAN

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

COUNTY: GIBSON ST: TN COUNTRY: USA
LAST UPDATE: 12/04/86 INITIATED: 10/20/84
EXPT. STATUS: 4 COMPLETED: 06/17/85
RELATED FILE: **NONE** SOURCE: UNIVER.

PREVIOUS CROP: GRAIN SORGHUM PLOT SIZE(LxW): 10.0x 30.0 SOIL pH :6.5
PREVIOUS TILL: CONVENTIONAL SOIL TEXTURE: SILT LOAM SOIL OM%: 1.0
FERTILITY: 60-0-0;SPRING ROW WIDTH: 07 EXPERIMENTAL DESIGN: RCBL
MISC. 1: NUMBER OF REPS: 4
MISC. 2: REPORT TYPE: INTERIM

PLANTING DATE: 10/20/84 CROP CULTIVAR: CALDWELL
HARVEST DATE : 06/17/85 SEASONAL RAINFALL DURING EXPERIMENT
RESIDUE TAKEN: N EARLY: OPT MID: OPT LATE: OPT

Table with 6 columns: APPLICATION INFO, APPLIC. 1, APPLIC. 2, APPLIC. 3, APPLIC. 4, APPLIC. 5. Rows include application date, Julian date, gen. applic type, air/soil temp, % rel. humidity, wind dir/veloc, root/leaf moist, incorp. equip, sprayer type, sprayer gpa/psi, nozzle type, and rain/irrig. data.

Table with 7 columns: 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. Rows include CROP (WINTER WHEAT) and PEST (WILD GARLIC, CHEATGRASS, CAROLINA GERANIUM, CUTLEAF, EVENINGPRIMROSE, COMMONCHICKWEED, CORN COCKLE).

WILD GARLIC CONTROL IN WHEAT MILAN

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EXPERIMENT COMMENTS

KEY TO DATA HEADERS

-
- 1&2.%ALLVI CONTROL=PERCENT WILD GARLIC CONTROL.
 - 3.%BROSE CONTROL=PERCENT CHEATGRASS CONYTOLE.
 - 4.%BROAD-LEAF WD=PERCENT BROADLEAF WEED CONTROL.THESE WEEDS CONSISTED OF CAROLINAGERANIUM,CUTLEAF EVENINGPRIMROSE,COMMON CHICKWEED,AND CORN COCKLE.
 - 5.NO.HEADS/MT.SQ=NUMBER OF WILD GARLIC HEADS PER SQUARE METER.
 - 6.% OF CK HEADS=NUMBER OF WILD GARLIC HEADS AS A PERCENT OF THE CHECK.
 - 7.BUBBLET/MT.SQ=NUMBER OF WILD GARLIC AERIAL BUBBLET PER SQUARE METER
 - 8.% OF CK BUBBLET=NUMBER OF AERIAL BUBBLET AS A PERCENT OF THE CHECK.
 - 9.BUBBLET WGHT/GR=WILD GARLIC AERIAL WEIGHT IN GRAMS PER SQUARE METER.
 - 10.% OF CK WEIGHT=AERIAL BUBBLET WEIGHT AS A PERCENT OF THE CHECK.

SUMMARY

EARLY APPLICATION OF HARMONY AT 0.015 LB AI/A ALONE OR IN COMBINATION WITH 2,4-D WERE THE MOST EFFECTIVE TREATMENTS FOR WILD GARLIC. COMBINATIONS OF HARMONY WITH LEXONE REDUCED ACTIVITY ON WILD GARLIC. INITIAL ACTIVITY OF 2,4-D WAS FAIR BUT DECLINED SHARPLY BY THE NEXT RATING.DELAYING HARMONY APPLICATION 25 DAYS RESULTED IN A RATHER DRAMATIC DECLINE IN ACTIVITY.IN ADDITION TO WILD GARLIC,HARMONY WAS VERY ACTIVE ON MANY WINTER ANNUAL BROADLEAF WEEDS.

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APPROVED BY: _____ SUBMITTED BY: _____

DATE: _____ DATE: _____

PROJ. NUM.: H-692-85-MES
 FILE NAME: MGARLIC5

INTERIM DATA

UNITS: LBai/A
 PRINTED: 12/04/85

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

WILD GARLIC CONTROL IN WHEAT MILAN

RESEARCH BY: R.M.HAYES
 COOPERATOR : JOHN F.BRADLEY
 TOTAL REPS : 4
 APPL: POST =J 94/85

COUNTY: GIBSON
 LAST UPDATE: 12/04/86
 EXPT. STATUS: 4

ST: TN COUNTRY: USA
 INITIATED: 10/20/84
 COMPLETED: 06/17/85

TRT.	PESTICIDE	FORMU.	LBai/A	APPLI- TYPE	%ALLVI J119/86	%ALLVI J128/86	%BROSE J119/86	%BROAD- J119/86	LEAF WD
01	HARMONY	DF 75%	0.008	4-4	61	96	8	71	
	X-77	%A 100%	0.5%	4-4					
02	HARMONY	DF 75%	0.015	4-4	76	97	0	98	
	X-77	%A 100%	0.5%	4-4					
03	HARMONY	DF 75%	0.030	4-4	70	97	19	65	
	X-77	%A 100%	0.5%	4-4					
04	HARMONY	DF 75%	0.045	4-4	93	95	0	80	
	X-77	%A 100%	0.5%	4-4					
05	HARMONY	DF 75%	0.060	4-4	91	94	0	89	
	X-77	%A 100%	0.5%	4-4					
06	HARMONY	DF 75%	0.015	4-4	81	96	56	94	
	2,4-D	EC 4.0	0.5	4-4					
	X-77	%A 100%	0.5%	4-4					
07	HARMONY	DF 75%	0.015	4-4	90	97	8	97	
	2,4-D	EC 4.0	0.75	4-4					
	X-77	%A 100%	0.5%	4-4					
08	HARMONY	DF 75%	0.015	4-4	19	19	8	66	
	LEXONE	DF 75%	0.25	4-4					
09	HARMONY	DF 75%	0.015	4-4	10	0	34	98	
	LEXONE	DF 75%	0.38	4-4					
10	HARMONY	DF 75%	0.008	4-29	3	0	10	23	
	X-77	%A 100%	0.5%	4-29					
11	HARMONY	DF 75%	0.015	4-29	0	6	0	0	
	X-77	%A 100%	0.5%	4-29					
12	HARMONY	DF 75%	0.030	4-29	0	13	0	15	
	X-77	%A 100%	0.5%	4-29					

PROJ. NUM.: H-692-85-MES

INTERIM DATA

UNITS: LBai/A

FILE NAME: MGARLIC5

PRINTED: 12/04/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

WILD GARLIC CONTROL IN WHEAT MILAN

APPL: POST =J 94/85

TRT. NO.	PESTICIDE NAME	FORMU.	LBai/A	APPLI- TYPE	%ALLVI J119/86	%ALLVI J128/86	%BROSE J119/86	%BROAD- J119/86	LEAF WD
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13	2,4-D	EC 4.0	0.75	4-4	76	55	32	94	
	X-77	%A 100%	0.5%	4-4					

14	2,4-D	EC 4.0	1.0	4-4	63	13	0	93	
	X-77	%A 100%	0.5%	4-4					

15	WEEDY CK				0	0	0	0	
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LSD(0.05) =	25	17	32	33
STANDARD DEVIATION =	17	12	22	23
COEFF. OF VARIABILITY =	35	23	191	35

PROJ. NUM.: H-692-85-MES
 FILE NAME: MGARLIC5

INTERIM DATA

UNITS: LBai/A
 PRINTED: 12/04/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

WILD GARLIC CONTROL IN WHEAT MILAN

RESEARCH BY: R.M.HAYES
 COOPERATOR : JOHN F.BRADLEY
 TOTAL REPS : 4
 APPL: POST =J 94/85

COUNTY: GIBSON
 LAST UPDATE: 12/04/86
 EXPT. STATUS: 4

ST: TN COUNTRY: USA
 INITIATED: 10/20/86
 COMPLETED: 06/17/86

TRT. NO.	PESTICIDE		APPLI-;NO.HEAD;% OF CK;		BUBBLET;% OF CK;		BUBBLET;% OF CK;			
	FORMU. LBai/A	TYPE	J168/85	J168/85	J168/85	J168/85	J168/86	J168/85		
01	HARMONY DF 75% 0.008	4-4	5	65	259	102	2.01	39		
	X-77 %A 100% 0.5%	4-4								
02	HARMONY DF 75% 0.015	4-4	0	2	6	1	.03	0		
	X-77 %A 100% 0.5%	4-4								
03	HARMONY DF 75% 0.030	4-4	1	17	79	35	.72	16		
	X-77 %A 100% 0.5%	4-4								
04	HARMONY DF 75% 0.045	4-4	1	17	81	38	.48	11		
	X-77 %A 100% 0.5%	4-4								
05	HARMONY DF 75% 0.060	4-4	3	33	163	48	1.41	22		
	X-77 %A 100% 0.5%	4-4								
06	HARMONY DF 75% 0.015	4-4	2	14	81	14	.78	8		
	2,4-D EC 4.0 0.5	4-4								
	X-77 %A 100% 0.5%	4-4								
07	HARMONY DF 75% 0.015	4-4	1	10	57	10	.44	5		
	2,4-D EC 4.0 0.75	4-4								
	X-77 %A 100% 0.5%	4-4								
08	HARMONY DF 75% 0.015	4-4	18	123	1394	236	13.40	121		
	LEXONE DF 75% 0.25	4-4								
09	HARMONY DF 75% 0.015	4-4	13	94	1373	181	10.13	104		
	LEXONE DF 75% 0.38	4-4								
10	HARMONY DF 75% 0.008	4-29	8	67	334	82	2.93	33		
	X-77 %A 100% 0.5%	4-29								
11	HARMONY DF 75% 0.015	4-29	6	64	240	64	1.46	23		
	X-77 %A 100% 0.5%	4-29								
12	HARMONY DF 75% 0.030	4-29	5	46	203	65	1.46	26		
	X-77 %A 100% 0.5%	4-29								

PROJ. NUM.: H-692-85-MES

INTERIM DATA

UNITS: LBai/A

FILE NAME: MGARLIC5

PRINTED: 12/04/85

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

WILD GARLIC CONTROL IN WHEAT MILAN

APPL: POST =J 94/85

TRT. NO.	NAME	PESTICIDE		APPLI-NO.HEAD;% OF CK		BUBBLET;% OF CK		BUBBLET;% OF CK				
		FORMU.	LBai/A	CATION	/MT. SQ;HEADS	/MT. SQ;BUBBLET	/MT. SQ;BUBBLET	WGHT/GR;WEIGHT	WGHT/GR;WEIGHT			
			TYPE	J168/85	J168/85	J168/85	J168/85	J168/86	J168/85			
13	2,4-D	EC 4.0	0.75	4-4	12	89	858	119	5.76	56		
	X-77	%A 100%	0.5%	4-4								
14	2,4-D	EC 4.0	1.0	4-4	9	87	393	106	5.27	71		
	X-77	%A 100%	0.5%	4-4								
15	WEEDY CK				19	100	1425	100	14.83	100		
					LSD(0.05) =	7	49	708	103	5.21	36	
					STANDARD DEVIATION =	5	34	490	72	3.61	25	
					COEFF. OF VARIABILITY =	66	62	106	89	88.59	58	

PROJ. NUM.: H-692-MES-WH

INTERIM DATA

UNITS: LBai/A

FILE NAME: WHCULT16

PRINTED: 12/04/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

WHEAT CULTIVAR RESPONSE TO SENCOR/BOTTOM

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

COUNTY: GIBSON
LAST UPDATE: 12/04/86
EXPT. STATUS: 4
RELATED FILE: **NONE**
ST: TN COUNTRY: USA
INITIATED: 10/22/86
COMPLETED: 06/19/86
SOURCE: UNIVER.

PREVIOUS CROP: CORN
PREVIOUS TILL: NO-TILL
FERTILITY: 30-60-60 A.P. F.B.70#N
MISC. 1: 3 PT. HOELON APPLIED PRE TO ENTIRE TEST.
MISC. 2:
PLOT SIZE(LxW): 8.0x 26.0
SOIL pH :6.5
SOIL TEXTURE: COLLINS S.L. SOIL OM%: 0.9
ROW WIDTH: 07
EXPERIMENTAL DESIGN: RCBD
NUMBER OF REPS: 4
REPORT TYPE: INTERIM

PLANTING DATE: 10/22/85
HARVEST DATE : 06/19/86
RESIDUE TAKEN: N
CROP CULTIVAR: SEE PLOT PLAN
SEASONAL RAINFALL DURING EXPERIMENT
EARLY: WET MID: MOD LATE: DRY

Table with 6 columns: APPLICATION INFO, APPLIC. 1, APPLIC. 2, APPLIC. 3, APPLIC. 4, APPLIC. 5. Rows include application date, Julian date, gen. applic type, air/soil temp, humidity, wind, moisture, equipment, sprayer type, nozzle type, and rain/irrigation data.

Table with 6 columns: 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.

Table with 6 columns: CROP, WINTER WHEAT, and five application columns with slash indicators.

Table with 6 columns: PEST, ITALIANRYEGRASS, and five application columns with slash indicators.

PROJ. NUM.: H-692-MES-WH

INTERIM DATA

UNITS: LBai/A

FILE NAME: WHCULT16

PRINTED: 12/04/81

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

WHEAT CULTIVAR RESPONSE TO SENCOR/BOTTOM

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EXPERIMENT COMMENTS

SUMMARY

THERE WAS VERY LITTLE WEED PRESSURE IN THIS EXPERIMENT. SENCOR APPLICATIONS WERE MADE LATER THAN SUGGESTED ON THE LABEL DUE TO THE RAPID DEVELOPEMENT OF WHEAT UNDER THE WARMER THAN NORMAL CONDITIONS. WHEAT YIELD REDUCTIONS RANGED FROM 2 TO 39 PERCENT WITH THE LEAST REDUCTION BEING WITH FILLMORE(A LATE MATURING WHEAT)WHICH MAY HAVE BEEN HURT BY DROUGHT STRESS IN LATE MAY. FLORIDA 302 APPEARED TO HAVE VERY GOOD TOLERANCE, AND THE HIGHEST YIELD IN BOTH TREATED AND UNTREATED.

KEY TO DATA HEADERS

-
- 1. WHEAT YIELD WITHOUT SENCOR.
 - 2. WHEAT YIELD WITH AENCOR.
 - 3. PERCENT YIELD LOSS DUE TO SENCOR.

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APPROVED BY: _____ SUBMITTED BY: _____

DATE: _____

DATE: _____

PROJ. NUM.: H-692-MES-WH

INTERIM DATA

UNITS: LBai/A

FILE NAME: WHCULT16

PRINTED: 12/04/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

WHEAT CULTIVAR RESPONSE TO SENCOR/BOTTOM

RESEARCH BY: R.M.HAYES
COOPERATOR : JOHN F.BRADLEY
TOTAL REPS : 4
APPL: POST =J 90/86

COUNTY: GIBSON
LAST UPDATE: 12/04/86
EXPT. STATUS: 4

ST: TN COUNTRY: USA
INITIATED: 10/22/86
COMPLETED: 06/19/86

TRT. NO.	NAME	PESTICIDE FORMU.	APPLI. LBai/A	YIELD/W/170/86	YIELD/W/170/86	% YIELD LOSS						
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01	AUBURN			41.8	29.9	27.13						
02	CALDWELL			51.6	38.3	26.16						
03	COKER747			51.2	33.9	33.37						
04	COKER916			47.0	29.6	36.62						
05	COKER983			44.0	29.5	31.50						
06	MCNAIR 1003			47.3	34.7	25.64						
07	COKER 9323			44.1	33.7	21.20						
08	SALUDA			45.2	34.5	22.08						
09	FILLMORE			39.5	38.5	2.12						
10	FLORIDA 302			55.6	48.6	12.08						
11	HW 3015			50.7	38.5	23.32						
12	HW 3021			50.1	40.3	17.28						
13	HW 3022			42.1	30.5	27.40						
14	HW 3023			50.3	33.4	33.01						
15	PIONEER 2550			40.9	32.7	19.83						
16	PIONEER 2551			52.6	31.6	39.21						

LSD(0.05) = 8.3 7.9 17.73
STANDARD DEVIATION = 5.8 5.4 12.28
COEFF. OF VARIABILITY = 12.2 15.6 49.36

PROJ. NUM.: H69285MESWHV
 FILE NAME: MWCULT26

INTERIM DATA

UNITS: LBai/A
 PRINTED: 12/04/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

RESPONSE OF SELECTED WHEAT VAR. TO SENCOR

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

COUNTY: GIBSON ST: TN COUNTRY: USA
 LAST UPDATE: 12/04/86 INITIATED: 11/09/85
 EXPT. STATUS: 4 COMPLETED: 06/19/86
 RELATED FILE: **NONE** SOURCE: UNIVER.

PREVIOUS CROP: SOYBEANS PLOT SIZE(LxW): 30.0x 10.0 SOIL pH :6.3
 PREVIOUS TILL: NO-TILL SOIL TEXTURE: COLLINS S.L. SOIL OM%: 1.3
 FERTILITY: 30-60-60 ROW WIDTH: 07 EXPERIMENTAL DESIGN: RCBD
 MISC. 1: NUMBER OF REPS: 4
 MISC. 2: REPORT TYPE: INTERIM

PLANTING DATE: 11/09/85 CROP CULTIVAR: SEE PLAN
 HARVEST DATE : 06/19/86 SEASONAL RAINFALL DURING EXPERIMENT
 RESIDUE TAKEN: N EARLY: WET MID: DRY LATE: DRY

APPLICATION INFO	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
APPLICATION DATE	03/31/86	/ /	/ /	/ /	/ /
JULIAN DATE/YEAR	J 90/86	J 0/00	J 0/00	J 0/00	J 0/00
GEN. APPLIC TYPE	POST				
AIR/SOIL TEMP(F)	080/070	/	/	/	/
% REL. HUMIDITY	040%				
WIND DIR/VELOC.	SW/04	/	/	/	/
ROOT/LEAF MOIST.	DRY/DRY	/	/	/	/
INCORP. EQUIP.					
INCORP. DEPTH in	.	.	.	.	.
SPRAYER TYPE	HI-CYCLE				
SPRAYER GPA/PSI	020 /030	. /	. /	. /	. /
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 *****							
TRIAE	WINTER WHEAT		/	/	/	/	/
***** PEST *****							
LOLMU	ITALIANRYEGRASS		/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/
			/	/	/	/	/

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

RESPONSE OF SELECTED WHEAT VAR. TO SENCOR

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EXPERIMENT COMMENTS

SUMMARY

WEEDS WERE NOT A FACTOR IN THIS EXPERIMENT. CONDITIONS WERE WARMER THAN NORMAL AND CONSEQUENTLY FOLIAR ACTIVITY OF SENCOR WAS GREATER THAN THAT WHICH NORMALLY OCCURS UNDER COOLER CONDITIONS. ALSO, THE SENCOR APPLICATION WAS MADE LATER THAN RECOMMENDED DUE TO RAPID SPRING DEVELOPEMENT OF WHEAT. EXCELLENT WHEAT YIELDS WERE OBTAINED IN UNTREATED PLOTS OF ALL CULTIVARS. AUBURN, ALTHOUGH THE LOWEST YIELDING CULTIVAR, HAD THE LEAST PERCENT YIELD LOSS DUE TO SENCOR WHILE COKER 916 HAD ONE OF THE HIGHEST YIELD LOSSES. UNLIKE PREVIOUS TESTS CALDWELL HAD CONSIDERABLE YIELD LOSS DUE TO SENCOR. HAD SEVERE WEED PRESSURE EXISTED, UNDOUBTEDLY MUCH OF THIS YIELD LOSS FROM INJURY WOULD HAVE BEEN RECOVERED BY REDUCING WEED COMPETITION.

KEY TO DATA HEADERS

- 1. WHEAT YIELD WITHOUT SENCOR.
- 2. WHEAT YIELD WITH SENCOR.
- 3. PERCENT YIELD LOSS DUE TO SENCOR.

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

PROJ. NUM.:
 FILE NAME: MWCULT26

INTERIM DATA

UNITS: LBai/A
 PRINTED: 12/03/87

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

RESEARCH BY:
 COOPERATOR :
 TOTAL REPS : 4
 APPL :

COUNTY:
 LAST UPDATE: 12/03/86
 EXPT. STATUS:

ST: COUNTRY:
 INITIATED: / /
 COMPLETED: / /

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      PESTICIDE      APPLI-|Y/BU/AC|Y/BU/AC|      |% YIELD|      |      |      |      |      |
TRT. ----- CATION|WO/SENC|W/SENC|      |LOSS|      |      |      |      |      |
NO. NAME  FORMU. LBai/A TYPE|J170/86|J170/86|      |J170/86|      |      |      |      |      |
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01	AUBURN	49.3	37.3	23.60
02	CALDWELL	62.1	33.2	47.11
03	COKER747	66.3	40.8	38.64
04	COKER916	59.5	32.0	47.11
05	FILLMORE	51.1	33.9	30.82
06	MASSEY	59.3	35.9	39.16
07	PIONEER 2550	55.8	32.9	41.04
08	SCOTTY	61.4	39.3	34.31
09	TYLER	61.6	42.2	31.29
10	HW 3023	64.3	38.9	39.70
	LSD(0.05) =	11.5	8.5	18.83
	STANDARD DEVIATION =	7.9	5.9	12.97
	COEFF. OF VARIABILITY =	13.5	16.0	34.81