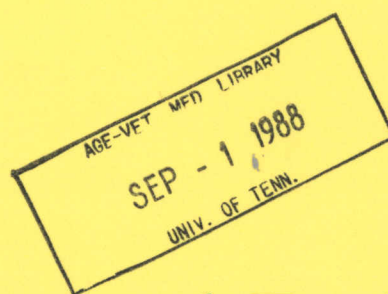


STACKS



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 cooperator 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

1 2 3 4 5 6

Date Treated 10-18-86
Time Treated PM
Cloud Cover CLEAR
Air Temperature 74
Relative Humidity 62
Wind Speed/Direction 5 MPH-W
Soil Temperature 78
Soil/Leaf Surface Moisture DRY
Soil Subsurface Moisture MOIST
Soil Tilth FINE
Crop Stage PRE
Pest Name, Stage & Density
LOLMU 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 IN	19 IN	6.3FT	19.4	WATER	41

Comments

LOLMU=ANNUAL RYEGRASS. THIS EXPERIMENT WAS ABADONED 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 cooperator 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

INTERIM DATA

UNITS: LBai/A

FILE NAME: WRYEGRW5

PRINTED: 12/02/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

RYEGRASS CONTROL IN WHEAT

RESEARCH BY: R.M.HAYES

COUNTY: MADISON

ST: TN COUNTRY: USA

COOPERATOR :

LAST UPDATE: 12/02/86

INITIATED: 10/25/85

TOTAL REPS : 4

EXPT. STATUS: 4

COMPLETED: 06/17/86

REPORTED BY: R.M.HAYES

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	/	/
INCRP. EQUIP.	NONE	NONE	NONE		
INCRP. 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.	DEN-	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
CODE	SITY	HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.

***** CROP *****	*****	*****	*****	*****	*****	*****
TRIAE WHEAT	12/'	/	003/1.3	005/2.0	/	/

***** PEST *****	*****	*****	*****	*****	*****	*****
LOLMU ITALIAN RYEGRASS	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	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/

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

INTERIM DATA

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

W E S T E R N T E N N E S S E E A G R I E X P S T A T I O N

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 BUSHEL 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 UNI-
FORM ACROSS THE EXPERIMENT, HOWEVER. CORNFLOWER(CENCY) WAS THE PREDOM-
INANT 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 EXCELL-
ENT WEED CONTROL RESULTED IN THIS BEING ONE OF THE HIGHEST YIELDING
TREATMENTS. SENCOR AND BUCTRIL BOTH PROVIDED EXCELLENT CONTROL OF CORN-
FLOWER, 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

INTERIM DATA

UNITS: LBai/A

FILE NAME: WRYEGRW5

PRINTED: 01/03/87

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

RYEGRASS CONTROL IN WHEAT

RESEARCH BY: R.M.HAYES

COUNTY: MADISON

ST: TN COUNTRY: USA

COOPERATOR :

LAST UPDATE: 01/03/87

INITIATED: 10/25/85

TOTAL REPS : 4

EXPT. STATUS: 4

COMPLETED: 06/17/86

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

TRT.	PESTICIDE	APPLI-;%CRINJU;%CENCY	%LLOLMU	%HORPU	%CRINJU;%CENCY	%LAMAM	%HORPU	%CRINJU;%CENCY	
NO. NAME	FORMU. LBai/A	TYPE	J302/85	J302/85	J302/85	J302/85	J351/85	J351/85	J351/85
			J302/85	J302/85	J302/85	J302/85	J351/85	J351/85	J351/85

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

INTERIM DATA

UNITS: LBai/A

FILE NAME: WRYEGRW5

PRINTED: 01/03/87

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

RYEGRASS CONTROL IN WHEAT

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

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

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

INTERIM DATA

UNITS: LBai/A

FILE NAME: WRYEGRW5

PRINTED: 12/03/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

RYEGRASS CONTROL IN WHEAT

RESEARCH BY: R.M.HAYES

COUNTY: MADISON

ST: TN COUNTRY: US

COOPERATOR :

LAST UPDATE: 12/02/86

INITIATED: 10/25/85

TOTAL REPS : 4

EXPT. STATUS: 4

COMPLETED: 06/17/86

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

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

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: 12/03/80

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

RYEGRASS CONTROL IN WHEAT

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

PESTICIDE		APPLI-1	MOISTU	YIELD	TEST WT								
TRT. -----		CATION	HARVEST	BU/ACRE	CALC.								
NO. NAME	FORMU. LBai/A	TYPE	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
 PREVIOUS TILL: NO-TILLAGE
 FERTILITY: 45-45-45AP;60#N MAR 3
 MISC. 1: BAYLETON + MANZATE ACC TO LABEL
 MISC. 2:

PLOT SIZE(LxW): 10.0x 30.0
 SOIL TEXTURE: SILT LOAM
 ROW WIDTH: 07
 EXPERIMENTAL DESIGN: RCBD
 NUMBER OF REPS: 4
 REPORT TYPE: INTERIM

PLANTING DATE: 10/09/85
 HARVEST DATE : 06/16/86
 RESIDUE TAKEN: N

CROP CULTIVAR: CALDWELL
 SEASONAL RAINFALL DURING EXPERIMENT
 EARLY: WET MID: OPT LATE: DRY

APPLICATION INFO	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
APPLICATION DATE	10/09/85	10/25/86	11/14/86	03/26/86	/ /
JULIAN DATE/YEAR	J282/85	J298/86	J318/86	J 85/86	J 0/00
GEN. APPLIC TYPE	PRE	POST1	POST2	POST3	/
AIR/SOIL TEMP(F)	/	080/	/	/	/
% REL. HUMIDITY	%				
WIND DIR/VELOC.	/	/	/	/	/
ROOT/LEAF MOIST.	OPT/	OPT/DRY	OPT/DRY	OPT/DRY	/
INCORP. EQUIP.					
INCORP. DEPTH in	.	.	.	.	.
SPRAYER TYPE	CO2BACKPACK	CO2BACKPACK	CO2BACKPACK	CO2BACKPACK	.
SPRAYER GPA/PSI	018 /032	018 /032	018 /032	018 /032	. /
NOZZLE TYPE	FLATFAN8002	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.	SPECIES	DEN-SITY	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.

CROP	HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.
WHEAT	12/'	/	/	/	/	/

PEST	HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.
CHEATGRASS	75/M	/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/

WESTERN TENNESSEE AGRICULTURAL EXPERIMENTATION 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 BUSHEL 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

INTERIM DATA

UNITS: LBai/A

FILE NAME: WCHEAT16

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					

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	HOFLON	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

INTERIM DATA

UNITS: LBai/A

FILE NAME: WCHEAT16

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

INTERIM DATA

UNITS: LBai/A

FILE NAME: WCHEAT26

PRINTED: 12/03/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

SYNERGIST FOR CHEAT HERBICIDES IN WHEAT

RESEARCH BY: R.M.HAYES

COUNTY: MADISON

ST: TN COUNTRY: USA

COOPERATOR :

LAST UPDATE: 12/03/86

INITIATED: 10/09/85

TOTAL REPS : 4

EXPT. STATUS: 3

COMPLETED: 06/09/86

REPORTED BY: R.M.HAYES

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.	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 BUSHEL 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 BAY2091 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.

APPROVED BY: _____ SUBMITTED BY: _____

DATE: _____

DATE: _____

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

RESEARCH BY: R.M.HAYES

COUNTY: MADISON

ST: TN COUNTRY: USA

COOPERATOR :

LAST UPDATE: 10/29/86

INITIATED: 10/09/85

TOTAL REPS : 4

EXPT. STATUS: 3

COMPLETED: 06/09/86

APPL: PRE =J282/J5 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	J167/86	J167/86	J167/86
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

INTERIM DATA

UNITS: LBai/A

FILE NAME: MSENXNB6

PRINTED: 12/12/86

WESTERN TENNESSEE AGRICULTURAL EXPERIMENTATION

N BY SENCOR ON WHEAT ON COLLINS SILTLOAM

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

COUNTY: GIBSON

LAST UPDATE: 12/12/86

EXPT. STATUS: 4

RELATED FILE: **NONE**

ST: TN COUNTRY: USA

INITIATED: 10/29/86

COMPLETED: 06/18/86

SOURCE: UNIVER.

PREVIOUS CROP: CORN
PREVIOUS TILL: CONVENTIONAL
FERTILITY: 30-60-60 ON 10/16.
MISC. 1: 70 UNITS OF N APPLIED ON 2/26.
MISC. 2:

PLOT SIZE(LxW): 10.0x 30.0 SOIL pH :6.5
SOIL TEXTURE: SILT LOAM SOIL OM%: 0.9
ROW WIDTH: 07 EXPERIMENTAL DESIGN: RCBS
NUMBER OF REPS: 4
REPORT TYPE: INTERIM

PLANTING DATE: 10/29/85
HARVEST DATE : 06/18/86
RESIDUE TAKEN: N

CROP CULTIVAR: COKER 916
SEASONAL RAINFALL DURING EXPERIMENT
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	/	/	/	/
INCRP. EQUIP.	NONE				
INCRP. 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.	DEN-	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
CODE	SITY	HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.
***** CROP *****						
TRIAE WINTER WHEAT		010/6	/	/	/	/
***** PEST *****						
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/

PROJ. NUM.: 6WNS-B-M

INTERIM DATA

UNITS: LBai/A

FILE NAME: MSENXNB6

PRINTED: 12/12/81

W E S T E R N T E N N E S S E E A G R I E X P S T A T I O N

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.FUTHERMORE,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

INTERIM DATA

UNITS: LBai/A

FILE NAME: MSENXNB6

PRINTED: 12/12/86

W E S T E R N T E N N E S S E E A G R I E X P S T A T I O N

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 EXPERIMENT STATION

N BY SENCOR ON WHEAT ON LORING SILT LOAM

RESEARCH BY: R.M.HAYES&DON HOWARD COUNTY: GIBSON ST: TN COUNTRY: US
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: RCB
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.	DEN-	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
CODE	SPECIES	SITY	HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.

***** CROP *****						
TRIAE WINTER WHEAT		010/	/	/	/	/

***** PEST *****						
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/

PROJ. NUM.: 6WNS-P-M

INTERIM DATA

UNITS: LBai/A

FILE NAME: MSENXNH6

PRINTED: 12/12/8

W E S T E R N T E N N E S S E E A G R I E X P S T A T I O N

N BY SENCOR ON WHEAT ON LORING SILT LOAM

=====

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: _____

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

N BY SENCOR ON WHEAT ON LORING SILT LOAM

RESEARCH BY: R.M.HAYES&DON HOWARD

COOPERATOR : JOHN F. BRADLEY

TOTAL REPS : 4

APPL: POST =J 90/86

COUNTY: GIBSON

LAST UPDATE: 12/12/86

EXPT. STATUS: 4

ST: TN COUNTRY: USA

INITIATED: 11/04/85

COMPLETED: 06/18/80

TRT.	PESTICIDE	APPLI-	%CRINJU	Y/BU/AC	%MOISTU
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

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
REPORTED BY: R.M. HAYES	RELATED FILE: **NONE**	SOURCE: UNIVER.

[illegible]

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	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
			HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.

***** CROP *****		*****	*****	*****	*****	*****	*****
TRIAE	WHEAT	12/'	010/5.0	015/7.0	/	/	/

[illegible]

PROJ. NUM.:

INTERIM DATA

UNITS: LBai/A

FILE NAME: AGARLIC6

PRINTED: 12/01/86

W E S T E R N T E N N E S S E E A G R I E X P S T A T I O N

WILD GARLIC CONTROL IN WHEAT

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 COMB-
INATIONS 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.: INTERIM DATA UNITS: LBai/A
 FILE NAME: AGARLIC6 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

PESTICIDE		APPLI-	BU/ACRE	%ALLVI	%TRIAE	%ALLVI	%ERICA	%ALLVI	%ERICA	%SORHA		SOYBEAN
TRT. -----		CATION	HARVEST	CONTROL	INJURY	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL		Y/8U/AC
NO.	NAME	FORMU.	LBai/A	TYPE	J168/86	J 94/86	J 94/86	J111/86	J111/86	J127/86	J127/86	J127/86
01	DPXE8698	DF 75%	0.015	3/26	51.5	28	8	66	99	98	98	0
	X-77	%A 100%	0.5%	3/26								33.9
02	DPXE8698	DF 75%	0.03	3/26	45.7	20	23	76	99	98	99	8
	X-77	%A 100%	0.5%	3/26								36.9
03	DPXE8698	DF 75%	0.045	3/26	50.7	28	10	78	99	99	99	20
	X-77	%A 100%	0.5%	3/26								36.2
04	HARMONY	DF 75%	0.015	3/26	50.1	21	5	60	50	97	0	25
	X-77	%A 100%	0.5%	3/26								36.0
05	HARMONY	DF 75%	0.03	3/26	49.3	23	5	71	85	97	15	8
	X-77	%A 100%	0.5%	3/26								35.5
06	HARMONY	DF 75%	0.045	3/26	52.2	33	5	65	88	98	0	8
	X-77	%A 100%	0.5%	3/26								36.4
07	HARMONY	DF 75%	0.015	4/04	50.7	0	0	35	61	88	0	20
	X-77	%A 100%	0.5%	4/04								32.2
08	HARMONY	DF 75%	0.030	4/04	50.3	0	0	41	55	86	8	43
	X-77	%A 100%	0.5%	4/04								34.2
09	HARMONY	DF 75%	0.045	4/04	53.8	0	0	40	66	77	13	8
	X-77	%A 100%	0.5%	4/04								37.9
10	HARMONY	DF 75%	0.015	3/26	50.9	59	0	58	96	83	99	13
	2,4-D	EC 4.0	0.75	3/26								
	X-77	%A 100%	0.5%	3/26								34.8
11	HARMONY	DF 75%	0.015	3/26	37.4	10	45	60	76	90	30	8
	LEXONE	DF 75%	0.38	3/26								37.4
12	HARMONY	DF 75%	0.015	3/26	49.7	20	0	58	63	89	8	8
	HOELON	EC 3.0	1.0	3/26								36.2
13	HARMONY	DF 75%	0.015	3/26	43.3	8	35	55	73	84	10	25
	TYCOR	WP 50%	1.5	3/26								37.1

PROJ. NUM.:
FILE NAME: AGARLJC6

INTERIM DATA

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

W E S T E R N T E N N E S S E E A G R I E X P S T A T I O N

WILD GARLIC CONTROL IN WHEAT

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

TRT.	PESTICIDE	APPLI-	BU/ACRE	%ALLVI	%TRIAE	%ALLVI	%ERICA	%ALLVI	%ERICA	%SORHA	%SOYBEAN	
NO. NAME	FORMU.	LBai/A	TYPE	J168/86	J 94/86	J 94/86	J111/86	J111/86	J127/86	J127/86	J127/86	J307/86

14	2,4-D	EC 4.0	1.0	3/26	47.4	80	8	38	97	18	99	0	33.5
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15	WEEDY-CK				52.3	20	1	0	0	0	0	5	29.3
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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: 12/04/85

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT 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
 PREVIOUS TILL: CONVENTIONAL
 FERTILITY: 60-0-0; SPRING
 MISC. 1:
 MISC. 2:

PLOT SIZE(LxW): 10.0x 30.0 SOIL pH :6.5
 SOIL TEXTURE: SILT LOAM SOIL OM%: 1.0
 ROW WIDTH: 07 EXPERIMENTAL DESIGN: RCB
 NUMBER OF REPS: 4
 REPORT TYPE: INTERIM

PLANTING DATE: 10/20/84
 HARVEST DATE : 06/17/85
 RESIDUE TAKEN: N

CROP CULTIVAR: CALDWELL
 SEASONAL RAINFALL DURING EXPERIMENT
 EARLY: OPT MID: OPT LATE: OPT

APPLICATION INFO	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
APPLICATION DATE	04/04/85	/ /	/ /	/ /	/ /
JULIAN DATE/YEAR	J 94/85	J 0/00	J 0/00	J 0/00	J 0/00
GEN. APPLIC TYPE	POST				
AIR/SOIL TEMP(F)	084/	/	/	/	/
% REL. HUMIDITY	%				
WIND DIR/VELOC.	SW/10	/	/	/	/
ROOT/LEAF MOIST.	OPT/DRY	/	/	/	/
INCRP. EQUIP.					
INCRP. DEPTH in	.	.	.	.	.
SPRAYER TYPE	CO2BACKPACK				
SPRAYER GPA/PSI	18.0 /30	. /	. /	. /	. /
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.
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***** CROP *****							
TRIAE WINTER WHEAT		/	/	/	/	/	/

***** PEST *****							
ALLVI WILD GARLIC		/	/	/	/	/	/
BROSE CHEATGRASS		/	/	/	/	/	/
GERCA CAROLINA		/	/	/	/	/	/
OLELA GERANIUM		/	/	/	/	/	/
OLELA CUTLEAF		/	/	/	/	/	/
STEME EVENINGPRIMROSE		/	/	/	/	/	/
STEME COMMONCHICKWEED		/	/	/	/	/	/
AGOGI CORN COCKLE		/	/	/	/	/	/

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

INTERIM DATA

UNITS: LB ai/A

FILE NAME: MGARLIC5

PRINTED: 12/04/85

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

WILD GARLIC CONTROL IN WHEAT MILAN

EXPERIMENT COMMENTS

KEY TO DATA HEADERS

- 1&2.%ALLVI CONTROL=PERCENT WILD GARLIC CONTROL.
- 3.%BROSE CONTROL=PERCENT CHEATGRASS CONYOL.
- 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 BUBBLES PER SQUARE METER
- 8.% OF CK BUBBLET=NUMBER OF AERIAL BUBBLES 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.

APPROVED BY: _____ SUBMITTED BY: _____

DATE: _____ DATE: _____

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: 10/20/84
 COMPLETED: 06/17/85

TRT.	PESTICIDE	APPLI-	%ALLVI	%ALLVI	%BROSE	%BROAD-						
NO. NAME	FORMU. LBai/A	TYPE	J119/86	J128/86	J119/86	J119/86						

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		APPLI-ALLVI		ALLVI		BROSE		BROAD-							
	FORMU. LBai/A		TYPE		J119/86		J128/86		J119/86		J119/86					

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

INTERIM DATA

UNITS: LBai/A

FILE NAME: MGARLIC5

PRINTED: 12/04/86

W E S T E R N T E N N E S S E E A G R I E X P S T A T I O N

WILD GARLIC CONTROL IN WHEAT MILAN

RESEARCH BY: R.M.HAYES

COUNTY: GIBSON

ST: TN COUNTRY: USA

COOPERATOR : JOHN F.BRADLEY

LAST UPDATE: 12/04/86

INITIATED: 10/20/86

TOTAL REPS : 4

EXPT. STATUS: 4

COMPLETED: 06/17/86

APPL: POST =J 94/85

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

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

INTERIM DATA

UNITS: LBai/A

FILE NAME: MGARLIC5

PRINTED: 12/00/88

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

WILD GARLIC CONTROL IN WHEAT MILAN

APPL: POST =J 94/85

=====										
PESTICIDE		APPLI-NO.HEAD;% OF CK		BUBBLET;% OF CK		BUBBLET;% OF CK				
TRT.-----		CATION;MT. SQ;HEADS		;MT. SQ;BUBBLET		;WGHT/GR;WEIGHT				
NO. NAME	FORMU. LBai/A	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 ST: TN COUNTRY: USA
 LAST UPDATE: 12/04/86 INITIATED: 10/22/86
 EXPT. STATUS: 4 COMPLETED: 06/19/86
 RELATED FILE: **NONE** SOURCE: UNIVER.

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

PLANTING DATE: 10/22/85 CROP CULTIVAR: SEE PLOT PLAN
 HARVEST DATE : 06/19/86 SEASONAL RAINFALL DURING EXPERIMENT
 RESIDUE TAKEN: N EARLY: WET MID: MOD 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	/	/	/	/
INCRP. EQUIP.					
INCRP. 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.	DEN-	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
CODE	SPECIES	SITY	HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.

***** CROP *****						
TRIAE	WINTER WHEAT		/	/	/	/

***** PEST *****						
LOLMU	ITALIAN RYEGRASS		/	/	/	/
			/	/	/	/
			/	/	/	/
			/	/	/	/
			/	/	/	/
			/	/	/	/
			/	/	/	/
			/	/	/	/
			/	/	/	/

PROJ. NUM.: H-692-MES-WH
FILE NAME: WHCULT16

INTERIM DATA

UNITS: LBai/A
PRINTED: 12/04/81

W E S T E R N T E N N E S S E E A G R I E X P S T A T I O N

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.

=====

APPROVED BY: _____ SUBMITTED BY: _____

DATE: _____

DATE: _____

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

INTERIM DATA

UNITS: LBai/A

FILE NAME: WHCULT16

PRINTED: 12/04/86

W E S T E R N T E N N E S S E E A G R I E X P S T A T I O N

WHEAT CULTIVAR RESPONSE TO SENCOR/BOTTOM

RESEARCH BY: R.M.HAYES

COUNTY: GIBSON

ST: TN COUNTRY: USA

COOPERATOR : JOHN F.BRADLEY

LAST UPDATE: 12/04/86

INITIATED: 10/22/86

TOTAL REPS : 4

EXPT. STATUS: 4

COMPLETED: 06/19/86

APPL: POST =J 90/86

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

INTERIM DATA

UNITS: LBai/A

FILE NAME: MWCULT26

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: 11/09/86
 EXPT. STATUS: 4 COMPLETED: 06/19/86
 RELATED FILE: **NONE** SOURCE: UNIVER.

PREVIOUS CROP: SOYBEANS
 PREVIOUS TILL: NO-TILL
 FERTILITY: 30-60-60
 MISC. 1:
 MISC. 2:

PLOT SIZE(LxW): 30.0x 10.0 SOIL pH :6.3
 SOIL TEXTURE: COLLINS S.L. SOIL OM%: 1.3
 ROW WIDTH: 07 EXPERIMENTAL DESIGN: RC8
 NUMBER OF REPS: 4
 REPORT TYPE: INTERIM

PLANTING DATE: 11/09/85
 HARVEST DATE : 06/19/86
 RESIDUE TAKEN: N

CROP CULTIVAR: SEE PLAN
 SEASONAL RAINFALL DURING EXPERIMENT
 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.	DEN-	APPLIC. 1	APPLIC. 2	APPLIC. 3	APPLIC. 4	APPLIC. 5
CODE	SPECIES	SITY	HTin/STG.	HTin/STG.	HTin/STG.	HTin/STG.

***** CROP *****						
TRIAE WINTER WHEAT		/	/	/	/	/

***** PEST *****						
LOLMU ITALIAN RYEGRASS		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/
		/	/	/	/	/

PROJ. NUM.: H69285MESWHV
FILE NAME: MWCULT26

INTERIM DATA

UNITS: LBai/A
PRINTED: 12/04/81

W E S T E R N T E N N E S S E E A G R I E X P S T A T I O N

RESPONSE OF SELECTED WHEAT VAR.TO SENCOR

=====

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 RECCOMENDED 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.

=====

APPROVED BY: _____ SUBMITTED BY: _____

DATE: _____

DATE: _____

PROJ. NUM.:
FILE NAME: MWCULT26

INTERIM DATA

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

WESTERN TENNESSEE AGRICULTURAL EXPERIMENT STATION

RESEARCH BY:
COOPERATOR :
TOTAL REPS : 4
APPL:

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

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

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						

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