

Weed control in non-GMO soybean

Trial ID: SOY10-25 Study Dir.: Stiles, Sprague
 Conducted: Campus, C-16 Investigator: Christy Sprague

Planting Date: May-14-2025 **Row Spacing:** 30 "
Variety: ZFS1326 **No. of Reps:** 4
Population: 150000 S/A **% OM:** 2
Soil Type: L loam **pH:** 6.7
Plot Size: 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plow and soil finish; spring soil finish (2- times).

Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	ANGR	annual grass	mostly giant foxtail and barnyardgrass
2	CHEAL	common lambsquarters	Chenopodium album
3	AMBEL	common ragweed	Ambrosia artemisiifolia
4	ABUTH	velvetleaf	Abutilon theophrasti

Crop	Code	Common Name
1	GLXMA	Soybean

Application Description

	A	B	C	D
Application Timing:	PRE	EPOS	POST	LPOS
Date Treated:	May-15-2025	Jun-13-2025	Jun-18-2025	Jun-30-2025
Time Treated:	10:30 AM	1:30 PM	9:00 AM	9:15 AM
% Cloud Cover:	20	76	90	45
Air Temp., Unit:	70 F	70 F	73 F	75 F
% Relative Humidity:	45	63	80	90
Wind Speed/Unit/Dir:	5 MPH N	6 MPH ENE	5 MPH SW	3 MPH S
Soil Temp, Unit:	66 F	71 F	75 F	79 F
Leaf Moist/Dew Presence (Y/N):	N	N	N	N
Soil Moist:	3	5	5	5

Crop Stage at Each Application

	A	B	C	D
Crop 1 Name:	GLXMA	GLXMA	GLXMA	GLXMA
Height:	3 "	5 "	12-14 " (13)	
Stage:	V1	V2	V6	

Weed Stage at Each Application

	A	B	C	D
Weed 1 Name:	ANGR	ANGR	ANGR	ANGR
Height:	1-5 " (3)			2-9 " (6)
Stage:	2-5L			4-8L
Weed 2 Name:	CHEAL	CHEAL	CHEAL	CHEAL
Height:	1-4 " (2.5)			2-8 " (4)
Stage:	4-15L			6-20+L
Weed 3 Name:	AMBEL	AMBEL	AMBEL	AMBEL
Height:	1-3 " (2)		2-3 " (2)	2-9 " (6)
Stage:	2-8L		3-10L	4-10L
Weed 4 Name:	ABUTH	ABUTH	ABUTH	ABUTH
Height:				4 "
Stage:				2-5L

Weed Density

	1	2	3	4
Date:	Jun-13-2025	Jun-13-2025	Jun-13-2025	Jun-13-2025
Weed Name:	ANGR	CHEAL	AMBEL	ABUTH
Density:	4 FT2	2 FT2	10 FT2	1 FT2

Application Equipment

Appl	Sprayer Type	Ground Speed	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	Spray Volume	Carrier	Operation Pressure
A	CUB	3.8 MPH	AIXR	11003	18.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI
B	CUB	3.8 MPH	AIXR	11003	20.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI
C	CUB	3.8 MPH	AIXR	11003	24.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI
D	CUB	3.8 MPH	AIXR	11003	30.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI

Comments: Common ragweed is ALS (Group 2) resistant.

Michigan State University

Weed control in non-GMO soybean

Trial ID: SOY10-25

Protocol ID: SOY10-25 Location: Campus, C-16 Trial Year: 2025

Study Director: Stiles, Sprague Sponsor Contact:

Investigator: Christy Sprague

Rating Date					Jun-12-2025	Jun-12-2025	Jun-12-2025	Jun-12-2025	Jun-17-2025	Jun-17-2025
Rating Type					injury	control	control	control	injury	control
Rating Unit					%	%	%	%	%	%
Crop Type, Code					C, GLXMA				C, GLXMA	
Pest Code						ANGR	CHEAL	AMBEL		ANGR
Treatment Appl. Interval					28 DA-A	28 DA-A	28 DA-A	28 DA-A	33 DA-A	33 DA-A
Number of Decimals					0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing					
1	Boundary	2.4 pt/a	A	PRE		8	100	100	91	4
	Flexstar	12 fl oz/a	C	POST						100
	Crop oil concentrate	1 % v/v	C	POST						
	AMS	2.5 lb/a	C	POST						
2	BroadAxe XC	32 fl oz/a	A	PRE		5	100	100	60	3
	Flexstar	1 pt/a	C	POST						100
	Crop oil concentrate	1 % v/v	C	POST						
	AMS	2.5 lb/a	C	POST						
3	Sonic	6 oz/a	A	PRE		2	100	100	95	3
	Boundary	1.5 pt/a	A	PRE						100
	Cobra	8 fl oz/a	C	POST						
	Crop oil concentrate	1.5 pt/a	C	POST						
	AMS	2.5 lb/a	C	POST						
4	Valor EZ	2 fl oz/a	A	PRE		9	91	100	96	6
	Metribuzin	6 oz/a	A	PRE						95
	Flexstar	1 pt/a	C	POST						
	SelectMax	12 fl oz/a	C	POST						
	Crop oil concentrate	1 % v/v	C	POST						
	AMS	2.5 lb/a	C	POST						
5	Valor EZ	2.5 fl oz/a	A	PRE		9	89	100	82	5
	Prowl H2O	2 pt/a	A	PRE						90
	Cobra	10 fl oz/a	C	POST						
	SelectMax	12 fl oz/a	C	POST						
	Crop oil concentrate	1.5 pt/a	C	POST						
	AMS	2.5 lb/a	C	POST						
6	Untreated					0	0	0	0	0
7	Fierce EZ	7.5 fl oz/a	A	PRE		8	100	100	94	7
	Cobra	10 fl oz/a	C	POST						99
	Crop oil concentrate	1.5 pt/a	C	POST						
	AMS	2.5 lb/a	C	POST						
8	Fierce MTZ	16 fl oz/a	A	PRE		9	100	100	98	4
	Cobra	10 fl oz/a	C	POST						100
	Crop oil concentrate	1 pt/a	C	POST						
	AMS	2.5 lb/a	C	POST						
9	Fierce XLT	4 oz/a	A	PRE		8	100	100	98	10
	Flexstar	1 pt/a	C	POST						100
	Crop oil concentrate	1 % v/v	C	POST						
10	Tendovo	2.1 qt/a	A	PRE		18	100	100	96	9
	Flexstar	1 pt/a	C	POST						100
	Crop oil concentrate	1 % v/v	C	POST						
	AMS	2.5 lb/a	C	POST						
11	Authority Edge	9 fl oz/a	A	PRE		9	100	100	74	7
	Cobra	12.5 fl oz/a	C	POST						100
	Crop oil concentrate	1.5 pt/a	C	POST						
	AMS	2.5 lb/a	C	POST						
12	Authority Edge	7 fl oz/a	A	PRE		12	100	100	93	10
	Metribuzin	6 oz/a	A	PRE						100
	Cobra	12.5 fl oz/a	C	POST						
	Crop oil concentrate	1 pt/a	C	POST						
	AMS	2.5 lb/a	C	POST						

Missing data estimates are included in columns: Average=22,23,24

Could not calculate LSD (% mean diff) or mean separation letters for columns 3 because error variance is 0.

Mean separation letters are 'na' (not applicable) when error variance is 0

Michigan State University

Weed control in non-GMO soybean

Trial ID: SOY10-25

Protocol ID: SOY10-25 Location: Campus, C-16 Trial Year: 2025

Study Director: Stiles, Sprague Sponsor Contact:

Investigator: Christy Sprague

Rating Date					Jun-12-2025	Jun-12-2025	Jun-12-2025	Jun-12-2025	Jun-17-2025	Jun-17-2025	
Rating Type					injury	control	control	control	injury	control	
Rating Unit					%	%	%	%	%	%	
Crop Type, Code					C, GLXMA				C, GLXMA		
Pest Code						ANGR	CHEAL	AMBEL		ANGR	
Treatment Appl. Interval					28 DA-A	28 DA-A	28 DA-A	28 DA-A	33 DA-A	33 DA-A	
Number of Decimals					0	0	0	0	0	0	
Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing						
13	Zidua PRO	6 fl oz/a	A	PRE		10	100	100	97	7	100
	Flexstar	1 pt/a	D	LPOS							
	Crop oil concentrate	1 % v/v	D	LPOS							
	AMS	2.5 lb/a	D	LPOS							
14	Zidua PRO	6 fl oz/a	A	PRE		19	100	100	100	12	100
	Metribuzin	6 oz/a	A	PRE							
	Cobra	10 fl oz/a	D	LPOS							
	Crop oil concentrate	1.5 pt/a	D	LPOS							
	AMS	2.5 lb/a	D	LPOS							
15	Valor XLT	2.5 oz/a	A	PRE		10	100	100	97	8	100
	Valor EZ	1.5 fl oz/a	A	PRE							
	Metribuzin	8 oz/a	A	PRE							
16	Prefix	2 pt/a	A	PRE		13	100	100	100	6	100
	Metribuzin	6 oz/a	A	PRE							
	Flexstar	1 pt/a	D	LPOS							
	Crop oil concentrate	1 % v/v	D	LPOS							
	AMS	2.5 lb/a	D	LPOS							
17	Warrant Ultra	50 fl oz/a	A	PRE		5	100	100	99	3	100
	Metribuzin	6 oz/a	A	PRE							
	Cobra	10 fl oz/a	D	LPOS							
	Crop oil concentrate	1.5 pt/a	D	LPOS							
	AMS	2.5 lb/a	D	LPOS							
18	Matador-S	3 pt/a	A	PRE		5	100	100	81	1	100
	Ultra Blazer	1.5 pt/a	C	POST							
	Surfactant	0.25 % v/v	C	POST							
19	Varisto	27 fl oz/a	B	EPOS		0	0	0	0	35	88
	Flexstar	1 pt/a	B	EPOS							
	Crop oil concentrate	1 % v/v	B	EPOS							
	AMS	2.5 lb/a	B	EPOS							
	SelectMax	9 fl oz/a	D	LPOS							
	Surfactant	0.25 % v/v	D	LPOS							
	AMS	2.5 lb/a	D	LPOS							
20	Flexstar	1 pt/a	B	EPOS		0	0	0	0	33	98
	Harmony SG	0.125 oz/a	B	EPOS							
	SelectMax	12 fl oz/a	B	EPOS							
	Surfactant	0.25 % v/v	B	EPOS							
	AMS	2.5 lb/a	B	EPOS							
21	Synchrony XP	0.375 oz/a	B	EPOS		0	0	0	0	36	93
	Cobra	10 fl oz/a	B	EPOS							
	Assure II	9 fl oz/a	B	EPOS							
	Surfactant	0.25 % v/v	B	EPOS							
	AMS	2.5 lb/a	B	EPOS							
LSD P=.05					8.7	7.9	.	6.4	4.8	5.1	
Standard Deviation					6.2	5.6	0.0	4.5	3.4	3.6	
CV					84.0	6.98	0.0	6.16	34.58	3.89	

Missing data estimates are included in columns: Average=22,23,24

Could not calculate LSD (% mean diff) or mean separation letters for columns 3 because error variance is 0.

Mean separation letters are 'na' (not applicable) when error variance is 0

Michigan State University

Weed control in non-GMO soybean

Trial ID: SOY10-25

Protocol ID: SOY10-25 Location: Campus, C-16 Trial Year: 2025

Study Director: Stiles, Sprague Sponsor Contact:

Investigator: Christy Sprague

Rating Date					Jun-17-2025	Jun-17-2025	Jun-27-2025	Jun-27-2025	Jun-27-2025	Jun-27-2025	Jun-27-2025	Jul-2-2025
Rating Type					control	control	injury	control	control	control	control	injury
Rating Unit					%	%	%	%	%	%	%	%
Crop Type, Code							C, GLXMA					C, GLXMA
Pest Code					CHEAL	AMBEL		ANGR	CHEAL	AMBEL		
Treatment Appl. Interval					33 DA-A	33 DA-A	14 DA-B	14 DA-B	14 DA-B	14 DA-B	14 DA-B	14 DA-C
Number of Decimals					0	0	0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Appl Unit	Appl Code								
1	Boundary	2.4 pt/a	A	PRE	100	87	11	100	100	100		4
	Flexstar	12 fl oz/a	C	POST								
	Crop oil concentrate	1 % v/v	C	POST								
	AMS	2.5 lb/a	C	POST								
2	BroadAxe XC	32 fl oz/a	A	PRE	100	57	14	100	100	100		3
	Flexstar	1 pt/a	C	POST								
	Crop oil concentrate	1 % v/v	C	POST								
	AMS	2.5 lb/a	C	POST								
3	Sonic	6 oz/a	A	PRE	100	90	19	100	100	100		10
	Boundary	1.5 pt/a	A	PRE								
	Cobra	8 fl oz/a	C	POST								
	Crop oil concentrate	1.5 pt/a	C	POST								
	AMS	2.5 lb/a	C	POST								
4	Valor EZ	2 fl oz/a	A	PRE	100	92	14	100	100	100		1
	Metribuzin	6 oz/a	A	PRE								
	Flexstar	1 pt/a	C	POST								
	SelectMax	12 fl oz/a	C	POST								
	Crop oil concentrate	1 % v/v	C	POST								
	AMS	2.5 lb/a	C	POST								
5	Valor EZ	2.5 fl oz/a	A	PRE	96	77	19	98	96	100		10
	Prowl H2O	2 pt/a	A	PRE								
	Cobra	10 fl oz/a	C	POST								
	SelectMax	12 fl oz/a	C	POST								
	Crop oil concentrate	1.5 pt/a	C	POST								
	AMS	2.5 lb/a	C	POST								
6	Untreated				0	0	0	0	0	0		0
7	Fierce EZ	7.5 fl oz/a	A	PRE	100	86	21	98	98	100		13
	Cobra	10 fl oz/a	C	POST								
	Crop oil concentrate	1.5 pt/a	C	POST								
	AMS	2.5 lb/a	C	POST								
8	Fierce MTZ	16 fl oz/a	A	PRE	100	92	18	99	100	100		9
	Cobra	10 fl oz/a	C	POST								
	Crop oil concentrate	1 pt/a	C	POST								
	AMS	2.5 lb/a	C	POST								
9	Fierce XLT	4 oz/a	A	PRE	100	92	14	100	100	100		12
	Flexstar	1 pt/a	C	POST								
	Crop oil concentrate	1 % v/v	C	POST								
10	Tendovo	2.1 qt/a	A	PRE	100	91	16	100	100	100		8
	Flexstar	1 pt/a	C	POST								
	Crop oil concentrate	1 % v/v	C	POST								
	AMS	2.5 lb/a	C	POST								
11	Authority Edge	9 fl oz/a	A	PRE	100	73	23	100	100	100		16
	Cobra	12.5 fl oz/a	C	POST								
	Crop oil concentrate	1.5 pt/a	C	POST								
	AMS	2.5 lb/a	C	POST								
12	Authority Edge	7 fl oz/a	A	PRE	100	86	20	100	100	100		18
	Metribuzin	6 oz/a	A	PRE								
	Cobra	12.5 fl oz/a	C	POST								
	Crop oil concentrate	1 pt/a	C	POST								
	AMS	2.5 lb/a	C	POST								

Missing data estimates are included in columns: Average=22,23,24

Could not calculate LSD (% mean diff) or mean separation letters for columns 3 because error variance is 0.

Mean separation letters are 'na' (not applicable) when error variance is 0

Michigan State University

Weed control in non-GMO soybean

Trial ID: SOY10-25

Protocol ID: SOY10-25 Location: Campus, C-16 Trial Year: 2025

Study Director: Stiles, Sprague Sponsor Contact:

Investigator: Christy Sprague

Rating Date					Jun-17-2025	Jun-17-2025	Jun-27-2025	Jun-27-2025	Jun-27-2025	Jun-27-2025	Jun-27-2025	Jul-2-2025
Rating Type					control	control	injury	control	control	control	control	injury
Rating Unit					%	%	%	%	%	%	%	%
Crop Type, Code							C, GLXMA					C, GLXMA
Pest Code					CHEAL	AMBEL		ANGR	CHEAL	AMBEL		
Treatment Appl. Interval					33 DA-A	33 DA-A	14 DA-B	14 DA-B	14 DA-B	14 DA-B	14 DA-B	14 DA-C
Number of Decimals					0	0	0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing							
13	Zidua PRO	6 fl oz/a	A	PRE		100	94	0	99	100	79	12
	Flexstar	1 pt/a	D	LPOS								
	Crop oil concentrate	1 % v/v	D	LPOS								
	AMS	2.5 lb/a	D	LPOS								
14	Zidua PRO	6 fl oz/a	A	PRE		100	100	4	100	100	84	33
	Metribuzin	6 oz/a	A	PRE								
	Cobra	10 fl oz/a	D	LPOS								
	Crop oil concentrate	1.5 pt/a	D	LPOS								
	AMS	2.5 lb/a	D	LPOS								
15	Valor XLT	2.5 oz/a	A	PRE		100	95	4	93	100	86	0
	Valor EZ	1.5 fl oz/a	A	PRE								
	Metribuzin	8 oz/a	A	PRE								
16	Prefix	2 pt/a	A	PRE		100	98	0	99	100	93	8
	Metribuzin	6 oz/a	A	PRE								
	Flexstar	1 pt/a	D	LPOS								
	Crop oil concentrate	1 % v/v	D	LPOS								
	AMS	2.5 lb/a	D	LPOS								
17	Warrant Ultra	50 fl oz/a	A	PRE		100	97	0	98	98	80	33
	Metribuzin	6 oz/a	A	PRE								
	Cobra	10 fl oz/a	D	LPOS								
	Crop oil concentrate	1.5 pt/a	D	LPOS								
	AMS	2.5 lb/a	D	LPOS								
18	Matador-S	3 pt/a	A	PRE		100	80	14	100	100	100	2
	Ultra Blazer	1.5 pt/a	C	POST								
	Surfactant	0.25 % v/v	C	POST								
19	Varisto	27 fl oz/a	B	EPOS		100	98	14	75	100	100	13
	Flexstar	1 pt/a	B	EPOS								
	Crop oil concentrate	1 % v/v	B	EPOS								
	AMS	2.5 lb/a	B	EPOS								
	SelectMax	9 fl oz/a	D	LPOS								
	Surfactant	0.25 % v/v	D	LPOS								
	AMS	2.5 lb/a	D	LPOS								
20	Flexstar	1 pt/a	B	EPOS		100	100	11	84	98	100	0
	Harmony SG	0.125 oz/a	B	EPOS								
	SelectMax	12 fl oz/a	B	EPOS								
	Surfactant	0.25 % v/v	B	EPOS								
	AMS	2.5 lb/a	B	EPOS								
21	Synchrony XP	0.375 oz/a	B	EPOS		98	100	15	88	91	98	7
	Cobra	10 fl oz/a	B	EPOS								
	Assure II	9 fl oz/a	B	EPOS								
	Surfactant	0.25 % v/v	B	EPOS								
	AMS	2.5 lb/a	B	EPOS								
LSD P=.05						2.1	6.9	4.6	4.3	2.5	4.2	6.1
Standard Deviation						1.5	4.9	3.3	3.0	1.8	2.9	4.3
CV						1.56	5.75	27.52	3.31	1.87	3.22	43.6

Missing data estimates are included in columns: Average=22,23,24

Could not calculate LSD (% mean diff) or mean separation letters for columns 3 because error variance is 0.

Mean separation letters are 'na' (not applicable) when error variance is 0

Michigan State University

Weed control in non-GMO soybean

Trial ID: SOY10-25

Protocol ID: SOY10-25 Location: Campus, C-16 Trial Year: 2025

Study Director: Stiles, Sprague Sponsor Contact:

Investigator: Christy Sprague

Rating Date					Jul-2-2025	Jul-2-2025	Jul-2-2025	Jul-18-2025	Jul-18-2025	Jul-18-2025	Jul-18-2025
Rating Type					control	control	control	injury	control	control	control
Rating Unit					%	%	%	%	%	%	%
Crop Type, Code					C, GLXMA						
Pest Code					ANGR	CHEAL	AMBEL		ANGR	CHEAL	AMBEL
Treatment Appl. Interval					14 DA-C	14 DA-C	14 DA-C	18 DA-D	18 DA-D	18 DA-D	18 DA-D
Number of Decimals					0	0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Appl Timing						
1	Boundary	2.4 pt/a	A	PRE		100	100	100	0	100	100
	Flexstar	12 fl oz/a	C	POST							
	Crop oil concentrate	1 % v/v	C	POST							
	AMS	2.5 lb/a	C	POST							
2	BroadAxe XC	32 fl oz/a	A	PRE		100	100	100	1	100	100
	Flexstar	1 pt/a	C	POST							
	Crop oil concentrate	1 % v/v	C	POST							
	AMS	2.5 lb/a	C	POST							
3	Sonic	6 oz/a	A	PRE		99	100	100	1	96	100
	Boundary	1.5 pt/a	A	PRE							
	Cobra	8 fl oz/a	C	POST							
	Crop oil concentrate	1.5 pt/a	C	POST							
	AMS	2.5 lb/a	C	POST							
4	Valor EZ	2 fl oz/a	A	PRE		100	100	100	0	99	100
	Metribuzin	6 oz/a	A	PRE							
	Flexstar	1 pt/a	C	POST							
	SelectMax	12 fl oz/a	C	POST							
	Crop oil concentrate	1 % v/v	C	POST							
	AMS	2.5 lb/a	C	POST							
5	Valor EZ	2.5 fl oz/a	A	PRE		100	96	100	1	97	93
	Prowl H2O	2 pt/a	A	PRE							
	Cobra	10 fl oz/a	C	POST							
	SelectMax	12 fl oz/a	C	POST							
	Crop oil concentrate	1.5 pt/a	C	POST							
	AMS	2.5 lb/a	C	POST							
6	Untreated					0	0	0	0	0	0
7	Fierce EZ	7.5 fl oz/a	A	PRE		97	98	100	0	96	99
	Cobra	10 fl oz/a	C	POST							
	Crop oil concentrate	1.5 pt/a	C	POST							
	AMS	2.5 lb/a	C	POST							
8	Fierce MTZ	16 fl oz/a	A	PRE		100	100	100	1	97	100
	Cobra	10 fl oz/a	C	POST							
	Crop oil concentrate	1 pt/a	C	POST							
	AMS	2.5 lb/a	C	POST							
9	Fierce XLT	4 oz/a	A	PRE		100	100	100	2	98	100
	Flexstar	1 pt/a	C	POST							
	Crop oil concentrate	1 % v/v	C	POST							
10	Tendovo	2.1 qt/a	A	PRE		100	100	100	0	100	100
	Flexstar	1 pt/a	C	POST							
	Crop oil concentrate	1 % v/v	C	POST							
	AMS	2.5 lb/a	C	POST							
11	Authority Edge	9 fl oz/a	A	PRE		99	100	100	2	98	100
	Cobra	12.5 fl oz/a	C	POST							
	Crop oil concentrate	1.5 pt/a	C	POST							
	AMS	2.5 lb/a	C	POST							
12	Authority Edge	7 fl oz/a	A	PRE		100	100	100	3	100	100
	Metribuzin	6 oz/a	A	PRE							
	Cobra	12.5 fl oz/a	C	POST							
	Crop oil concentrate	1 pt/a	C	POST							
	AMS	2.5 lb/a	C	POST							

Missing data estimates are included in columns: Average=22,23,24

Could not calculate LSD (% mean diff) or mean separation letters for columns 3 because error variance is 0.

Mean separation letters are 'na' (not applicable) when error variance is 0

Michigan State University

Weed control in non-GMO soybean

Trial ID: SOY10-25

Protocol ID: SOY10-25 Location: Campus, C-16 Trial Year: 2025

Study Director: Stiles, Sprague Sponsor Contact:

Investigator: Christy Sprague

Rating Date					Jul-2-2025	Jul-2-2025	Jul-2-2025	Jul-18-2025	Jul-18-2025	Jul-18-2025	Jul-18-2025	
Rating Type					control	control	control	injury	control	control	control	
Rating Unit					%	%	%	%	%	%	%	
Crop Type, Code					C, GLXMA							
Pest Code					ANGR	CHEAL	AMBEL		ANGR	CHEAL	AMBEL	
Treatment Appl. Interval					14 DA-C	14 DA-C	14 DA-C	18 DA-D	18 DA-D	18 DA-D	18 DA-D	
Number of Decimals					0	0	0	0	0	0	0	
Trt	Treatment	Rate	Appl	Appl								
No.	Name	Rate	Unit	Code	Timing							
13	Zidua PRO	6 fl oz/a	A	PRE		100	100	99	1	100	100	99
	Flexstar	1 pt/a	D	LPOS								
	Crop oil concentrate	1 % v/v	D	LPOS								
	AMS	2.5 lb/a	D	LPOS								
14	Zidua PRO	6 fl oz/a	A	PRE		100	100	99	7	100	100	100
	Metribuzin	6 oz/a	A	PRE								
	Cobra	10 fl oz/a	D	LPOS								
	Crop oil concentrate	1.5 pt/a	D	LPOS								
	AMS	2.5 lb/a	D	LPOS								
15	Valor XLT	2.5 oz/a	A	PRE		93	100	78	0	90	100	73
	Valor EZ	1.5 fl oz/a	A	PRE								
	Metribuzin	8 oz/a	A	PRE								
16	Prefix	2 pt/a	A	PRE		100	100	100	0	100	100	100
	Metribuzin	6 oz/a	A	PRE								
	Flexstar	1 pt/a	D	LPOS								
	Crop oil concentrate	1 % v/v	D	LPOS								
	AMS	2.5 lb/a	D	LPOS								
17	Warrant Ultra	50 fl oz/a	A	PRE		99	99	97	0	96	98	100
	Metribuzin	6 oz/a	A	PRE								
	Cobra	10 fl oz/a	D	LPOS								
	Crop oil concentrate	1.5 pt/a	D	LPOS								
	AMS	2.5 lb/a	D	LPOS								
18	Matador-S	3 pt/a	A	PRE		100	100	94	0	100	100	91
	Ultra Blazer	1.5 pt/a	C	POST								
	Surfactant	0.25 % v/v	C	POST								
19	Varisto	27 fl oz/a	B	EPOS		80	100	100	4	93	100	100
	Flexstar	1 pt/a	B	EPOS								
	Crop oil concentrate	1 % v/v	B	EPOS								
	AMS	2.5 lb/a	B	EPOS								
	SelectMax	9 fl oz/a	D	LPOS								
	Surfactant	0.25 % v/v	D	LPOS								
	AMS	2.5 lb/a	D	LPOS								
20	Flexstar	1 pt/a	B	EPOS		92	96	98	0	81	95	97
	Harmony SG	0.125 oz/a	B	EPOS								
	SelectMax	12 fl oz/a	B	EPOS								
	Surfactant	0.25 % v/v	B	EPOS								
	AMS	2.5 lb/a	B	EPOS								
21	Synchrony XP	0.375 oz/a	B	EPOS		85	83	99	0	76	75	93
	Cobra	10 fl oz/a	B	EPOS								
	Assure II	9 fl oz/a	B	EPOS								
	Surfactant	0.25 % v/v	B	EPOS								
	AMS	2.5 lb/a	B	EPOS								
LSD P=.05						6.2	2.7	2.8	2.0	6.3	4.4	4.7
Standard Deviation						4.4	1.9	2.0	1.4	4.4	3.1	3.3
CV						4.74	2.0	2.1	132.8	4.85	3.35	3.61

Missing data estimates are included in columns: Average=22,23,24

Could not calculate LSD (% mean diff) or mean separation letters for columns 3 because error variance is 0.

Mean separation letters are 'na' (not applicable) when error variance is 0

Michigan State University

Weed control in non-GMO soybean

Trial ID: SOY10-25

Protocol ID: SOY10-25 Location: Campus, C-16 Trial Year: 2025

Study Director: Stiles, Sprague Sponsor Contact:

Investigator: Christy Sprague

Rating Date					Jul-18-2025	Oct-3-2025	Oct-3-2025	Oct-3-2025	Oct-6-2025	Oct-6-2025
Rating Type					control	control	control	control	moisture	yield
Rating Unit					%	%	%	%	%	bu/A
Crop Type, Code									C, GLXMA	C, GLXMA
Pest Code					ABUTH	ANGR	CHEAL	AMBEL		
Treatment Appl. Interval					18 DA-D	95 DA-D	95 DA-D	95 DA-D	98 DA-D	@13% M
Number of Decimals					0	0	0	0	1	1
Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing					
1	Boundary	2.4 pt/a	A	PRE		100	100	100	97	10.2
	Flexstar	12 fl oz/a	C	POST						48.6
	Crop oil concentrate	1 % v/v	C	POST						
	AMS	2.5 lb/a	C	POST						
2	BroadAxe XC	32 fl oz/a	A	PRE	100	100	100	100	10.0	45.8
	Flexstar	1 pt/a	C	POST						
	Crop oil concentrate	1 % v/v	C	POST						
	AMS	2.5 lb/a	C	POST						
3	Sonic	6 oz/a	A	PRE	100	93	100	91	10.1	46.7
	Boundary	1.5 pt/a	A	PRE						
	Cobra	8 fl oz/a	C	POST						
	Crop oil concentrate	1.5 pt/a	C	POST						
	AMS	2.5 lb/a	C	POST						
4	Valor EZ	2 fl oz/a	A	PRE	100	99	100	100	10.1	49.5
	Metribuzin	6 oz/a	A	PRE						
	Flexstar	1 pt/a	C	POST						
	SelectMax	12 fl oz/a	C	POST						
	Crop oil concentrate	1 % v/v	C	POST						
	AMS	2.5 lb/a	C	POST						
5	Valor EZ	2.5 fl oz/a	A	PRE	100	93	88	90	10.1	51.8
	Prowl H2O	2 pt/a	A	PRE						
	Cobra	10 fl oz/a	C	POST						
	SelectMax	12 fl oz/a	C	POST						
	Crop oil concentrate	1.5 pt/a	C	POST						
	AMS	2.5 lb/a	C	POST						
6	Untreated				0	0	0	0	11.1	10.3
7	Fierce EZ	7.5 fl oz/a	A	PRE	100	91	95	96	10.1	44.8
	Cobra	10 fl oz/a	C	POST						
	Crop oil concentrate	1.5 pt/a	C	POST						
	AMS	2.5 lb/a	C	POST						
8	Fierce MTZ	16 fl oz/a	A	PRE	100	94	100	100	10.3	50.3
	Cobra	10 fl oz/a	C	POST						
	Crop oil concentrate	1 pt/a	C	POST						
	AMS	2.5 lb/a	C	POST						
9	Fierce XLT	4 oz/a	A	PRE	100	93	100	100	10.3	49.0
	Flexstar	1 pt/a	C	POST						
	Crop oil concentrate	1 % v/v	C	POST						
10	Tendovo	2.1 qt/a	A	PRE	100	98	100	100	10.1	44.7
	Flexstar	1 pt/a	C	POST						
	Crop oil concentrate	1 % v/v	C	POST						
	AMS	2.5 lb/a	C	POST						
11	Authority Edge	9 fl oz/a	A	PRE	100	97	100	88	10.1	43.7
	Cobra	12.5 fl oz/a	C	POST						
	Crop oil concentrate	1.5 pt/a	C	POST						
	AMS	2.5 lb/a	C	POST						
12	Authority Edge	7 fl oz/a	A	PRE	100	100	100	92	10.1	45.8
	Metribuzin	6 oz/a	A	PRE						
	Cobra	12.5 fl oz/a	C	POST						
	Crop oil concentrate	1 pt/a	C	POST						
	AMS	2.5 lb/a	C	POST						

Missing data estimates are included in columns: Average=22,23,24

Could not calculate LSD (% mean diff) or mean separation letters for columns 3 because error variance is 0.

Mean separation letters are 'na' (not applicable) when error variance is 0

Michigan State University

Weed control in non-GMO soybean

Trial ID: SOY10-25

Protocol ID: SOY10-25 Location: Campus, C-16 Trial Year: 2025

Study Director: Stiles, Sprague Sponsor Contact:

Investigator: Christy Sprague

Rating Date					Jul-18-2025	Oct-3-2025	Oct-3-2025	Oct-3-2025	Oct-6-2025	Oct-6-2025	
Rating Type					control	control	control	control	moisture	yield	
Rating Unit					%	%	%	%	%	bu/A	
Crop Type, Code									C, GLXMA	C, GLXMA	
Pest Code					ABUTH	ANGR	CHEAL	AMBEL			
Treatment Appl. Interval					18 DA-D	95 DA-D	95 DA-D	95 DA-D	98 DA-D	@13% M	
Number of Decimals					0	0	0	0	1	1	
Trt	Treatment	Rate	Appl	Appl							
No.	Name	Rate	Unit	Code	Timing						
13	Zidua PRO	6 fl oz/a	A	PRE		100	99	100	99	10.1	45.9
	Flexstar	1 pt/a	D	LPOS							
	Crop oil concentrate	1 % v/v	D	LPOS							
	AMS	2.5 lb/a	D	LPOS							
14	Zidua PRO	6 fl oz/a	A	PRE		100	99	100	100	10.0	43.5
	Metribuzin	6 oz/a	A	PRE							
	Cobra	10 fl oz/a	D	LPOS							
	Crop oil concentrate	1.5 pt/a	D	LPOS							
	AMS	2.5 lb/a	D	LPOS							
15	Valor XLT	2.5 oz/a	A	PRE		100	90	100	68	10.4	37.2
	Valor EZ	1.5 fl oz/a	A	PRE							
	Metribuzin	8 oz/a	A	PRE							
16	Prefix	2 pt/a	A	PRE		100	100	100	100	10.0	49.5
	Metribuzin	6 oz/a	A	PRE							
	Flexstar	1 pt/a	D	LPOS							
	Crop oil concentrate	1 % v/v	D	LPOS							
	AMS	2.5 lb/a	D	LPOS							
17	Warrant Ultra	50 fl oz/a	A	PRE		100	91	94	100	10.0	44.8
	Metribuzin	6 oz/a	A	PRE							
	Cobra	10 fl oz/a	D	LPOS							
	Crop oil concentrate	1.5 pt/a	D	LPOS							
	AMS	2.5 lb/a	D	LPOS							
18	Matador-S	3 pt/a	A	PRE		100	100	100	85	10.1	47.4
	Ultra Blazer	1.5 pt/a	C	POST							
	Surfactant	0.25 % v/v	C	POST							
19	Varisto	27 fl oz/a	B	EPOS		100	95	99	100	10.1	43.7
	Flexstar	1 pt/a	B	EPOS							
	Crop oil concentrate	1 % v/v	B	EPOS							
	AMS	2.5 lb/a	B	EPOS							
	SelectMax	9 fl oz/a	D	LPOS							
	Surfactant	0.25 % v/v	D	LPOS							
	AMS	2.5 lb/a	D	LPOS							
20	Flexstar	1 pt/a	B	EPOS		99	83	82	96	10.0	50.8
	Harmony SG	0.125 oz/a	B	EPOS							
	SelectMax	12 fl oz/a	B	EPOS							
	Surfactant	0.25 % v/v	B	EPOS							
	AMS	2.5 lb/a	B	EPOS							
21	Synchrony XP	0.375 oz/a	B	EPOS		93	71	71	85	10.3	47.9
	Cobra	10 fl oz/a	B	EPOS							
	Assure II	9 fl oz/a	B	EPOS							
	Surfactant	0.25 % v/v	B	EPOS							
	AMS	2.5 lb/a	B	EPOS							
LSD P=.05					2.6	9.2	6.0	7.5	0.48	7.83	
Standard Deviation					1.8	6.5	4.2	5.3	0.34	5.53	
CV					1.92	7.2	4.62	5.9	3.31	12.34	

Missing data estimates are included in columns: Average=22,23,24

Could not calculate LSD (% mean diff) or mean separation letters for columns 3 because error variance is 0.

Mean separation letters are 'na' (not applicable) when error variance is 0