

Weed management systems in non-GMO soybean

Trial ID: SOY13-20 Study Dir.: Sprague, Powell, Stiles
 Conducted: Campus, T-11 Investigator: Christy Sprague

Planting Date: May-26-2020 **Row Spacing:** 30 IN
Variety: ZFS1326 **No. of Reps:** 4
Population: 156000 seeds/A **% OM:** 2.6
Soil Type: L loam **pH:** 6.8
Plot Size: 10 X 35 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall soil finished; Spring rye cover burndown, spring soil finish (2X)

Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	ANGR	annual grasses	mostly giant foxtail and barnyardgrass
2	CHEAL	common lambsquarters	Chenopodium album
3	AMAPO	Powell amaranth	Amaranthus powellii
4	AMBEL	common ragweed	Ambrosia artemisiifolia
5	ABUTH	velvetleaf	Abutilon theophrasti
6	SOLPT	eastern black nightshade	Solanum ptychanthum
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

	A	B
Application Timing:	PRE	POST
Date Treated:	May-26-2020	Jun-29-2020
Time Treated:	12:35 PM	2:20 PM
% Cloud Cover:	50	10
Air Temp., Unit:	88 F	84 F
% Relative Humidity:	57	47
Wind Speed/Unit/Dir:	5 mph S	4 mph SE
Soil Temp, Unit:	76 F	99 F
Leaf Moist/Dew Presence (Y/N):	5	5
Soil Moist:	5	5

Crop Stage at Each Application

	A	B
Crop 1 Name:	GLXMA	GLXMA
Height:		10 "
Stage:		V3

Weed Stage at Each Application

	A	B
Weed 1 Name:	ANGR	ANGR
Height:		4-12 " (8)
Stage:		4L
Weed 2 Name:	CHEAL	CHEAL
Height:		2-5 " (3.5)
Stage:		4-8L
Weed 3 Name:	AMAPO	AMAPO
Height:		2-9 " (5.5)
Stage:		4-10L
Weed 4 Name:	AMBEL	AMBEL
Height:		2-9 " (5.5)
Stage:		4-10L
Weed 5 Name:	ABUTH	ABUTH
Height:		4-6 " (5)
Stage:		4-5L
Weed 6 Name:	SOLPT	SOLPT
Height:		
Stage:		

Weed Density

	1	2	3	4	5	6
Date:	Jun-29-2020	Jun-29-2020	Jun-29-2020	Jun-29-2020	Jun-29-2020	Jun-29-2020
Weed Name:	ANGR	CHEAL	AMAPO	AMBEL	ABUTH	SOLPT
Density:	3 FT2	1 FT2	2 FT2	2 FT2	1 FT2	1 FT2

Application Equipment

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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	20 "	20 "	100 "	19 GPA	WATER	30 psi
B	CUB	3.8 mph	AIXR	11003	32 "	20 "	100 "	19 GPA	WATER	30 psi

Comments: The common ragweed population at this location is resistant to Group 2 (ALS-inhibiting) herbicides.

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Location: Campus, T-11

Trial Year: 2020

Protocol ID: SOY13-20

Investigator (Creator): Christy Sprague

Project ID:

Study Director: Sprague, Powell, Stiles

Sponsor Contact:

Pest Code		ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Crop Type, Code	C GLXMA					
Rating Date	Jun-17-2020	Jun-17-2020	Jun-17-2020	Jun-17-2020	Jun-17-2020	Jun-17-2020
Rating Type	injury	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	22 DA-A	22 DA-A	22 DA-A	22 DA-A	22 DA-A	22 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Appl Timing	Appl Code						
1	Boundary	6.5 L		2.4 pt/a		PRE	A	3	99	100	100	96	100
	Flexstar	1.88 L		1 pt/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
2	BroadAxe XC	7 L		32 fl oz/a		PRE	A	0	100	100	100	83	98
	Marvel	3 L		7.25 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
3	Sonic	70 WG		6 oz/a		PRE	A	2	100	100	100	100	100
	Boundary	6.5 L		1.5 pt/a		PRE	A						
4	Surveil	48 WG		3.5 oz/a		PRE	A	13	95	100	100	100	100
	Metribuzin	75 WG		6 oz/a		PRE	A						
	SelectMax	0.97 L		9 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
5	Untreated							0	0	0	0	0	0
6	Dimetric Charged	3.67 L		12 fl oz/a		PRE	A	4	91	100	100	100	100
	Flexstar	1.88 L		1 pt/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
7	Valor	51 WG		2.5 oz/a		PRE	A	7	89	98	100	96	100
	Prowl H2O	3.7 L		2 pt/a		PRE	A						
	Harmony SG	50 WG		0.125 oz/a		POST	B						
	Cobra	2 L		8 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
8	Fierce	76 WG		3 oz/a		PRE	A	8	95	100	100	99	100
	Flexstar	1.88 L		12 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
9	Fierce MTZ	2.64 L		16 fl oz/a		PRE	A	13	100	100	100	99	100
	Cobra	2 L		8 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
10	Valor XLT	40.3 WG		4 oz/a		PRE	A	6	100	100	100	100	100
	SelectMax	0.97 L		9 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
11	Authority MTZ	45 WG		14 oz/a		PRE	A	4	95	100	100	61	100
	Cobra	2 L		10 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
12	Authority Edge	4.25 L		10 fl oz/a		PRE	A	0	100	100	100	91	100
	Cobra	2 L		8 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
13	Authority Edge	4.25 L		10 fl oz/a		PRE	A	3	100	100	100	99	100
	Metribuzin	75 WG		6 oz/a		PRE	A						

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 Project ID: Study Director: Sprague, Powell, Stiles
 Sponsor Contact:

Pest Code						ANGR	CHEAL	AMAPO	AMBEL	ABUTH	
Crop Type, Code											
Rating Date						Jun-17-2020	Jun-17-2020	Jun-17-2020	Jun-17-2020	Jun-17-2020	
Rating Type						injury	control	control	control	control	
Rating Unit						percent	percent	percent	percent	percent	
Trt-Eval Interval						22 DA-A	22 DA-A	22 DA-A	22 DA-A	22 DA-A	
Number of Decimals						0	0	0	0	0	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Appl Timing	Appl Code					
14	Zidua PRO	4.09 L		6 fl oz/a	PRE	A	1	98	100	100	100
15	Trivence	61.3 WG		8 oz/a	PRE	A	11	99	100	100	100
	Assure II	0.88 L		7 fl oz/a	POST	B					
	Crop oil concentrate	L		1 % v/v	POST	B					
16	Prefix	5.29 L		2 pt/a	PRE	A	3	100	100	100	98
	Metribuzin	75 WG		6 oz/a	PRE	A					
17	Warrant Ultra	3.45 L		50 fl oz/a	PRE	A	2	99	100	100	100
	Metribuzin	75 WG		6 oz/a	PRE	A					
	SelectMax	0.97 L		9 fl oz/a	POST	B					
	Crop oil concentrate	L		1 % v/v	POST	B					
	AMS	WG		2.5 lb/100 gal	POST	B					
18	Matador	4.7 L		3.9 pt/a	PRE	A	0	96	64	95	83
	Raptor	1 L		5 fl oz/a	POST	B					
	Flexstar	1.88 L		1 pt/a	POST	B					
	Crop oil concentrate	L		1 % v/v	POST	B					
	AMS	WG		2.5 lb/100 gal	POST	B					
19	Moccasin MTZ	4.5 L		2.67 pt/a	PRE	A	1	99	100	100	98
	Ultra Blazer	2 L		1.5 pt/a	POST	B					
	Shadow	3 L		8 fl oz/a	POST	B					
	Surfactant	L		0.25 % v/v	POST	B					
	AMS	WG		8.5 lb/100 gal	POST	B					
20	Tripzin ZC	4 L		2 pt/a	PRE	A	2	90	100	100	95
	Ultra Blazer	2 L		1.5 pt/a	POST	B					
	Shadow	3 L		8 fl oz/a	POST	B					
	Surfactant	L		0.25 % v/v	POST	B					
	AMS	WG		8.5 lb/100 gal	POST	B					
21	Upstage	3 L		21 fl oz/a	PRE	A	2	100	100	100	100
	Moccasin MTZ	4.5 L		2.67 pt/a	PRE	A					
	Ultra Blazer	2 L		1.5 pt/a	POST	B					
	Shadow	3 L		8 fl oz/a	POST	B					
	Surfactant	L		0.25 % v/v	POST	B					
	AMS	WG		8.5 lb/100 gal	POST	B					
	LSD P=.05						5.1	8.6	1.7	3.1	7.7
	Standard Deviation						3.6	6.1	1.2	2.2	5.4
	CV						88.52	6.55	1.31	2.3	6.02

Could not calculate LSD (% mean diff) for columns 25,32,35,38 because error mean square = 0.

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 Project ID: Study Director: Sprague, Powell, Stiles
 Sponsor Contact:

Pest Code	SOLPT	ANGR	CHEAL	AMAPO	AMBEL
Crop Type, Code	C GLXMA				
Rating Date	Jun-17-2020	Jun-29-2020	Jun-29-2020	Jun-29-2020	Jun-29-2020
Rating Type	control	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	22 DA-A	34 DA-A	34 DA-A	34 DA-A	34 DA-A
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Appl Timing	Appl Code						
1	Boundary	6.5 L		2.4 pt/a		PRE	A	100	3	98	100	100	88
	Flexstar	1.88 L		1 pt/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
2	BroadAxe XC	7 L		32 fl oz/a		PRE	A	100	0	100	100	100	80
	Marvel	3 L		7.25 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
3	Sonic	70 WG		6 oz/a		PRE	A	100	4	100	100	100	100
	Boundary	6.5 L		1.5 pt/a		PRE	A						
4	Surveil	48 WG		3.5 oz/a		PRE	A	100	4	92	100	100	100
	Metribuzin	75 WG		6 oz/a		PRE	A						
	SelectMax	0.97 L		9 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
5	Untreated							0	0	0	0	0	0
6	Dimetric Charged	3.67 L		12 fl oz/a		PRE	A	100	2	85	100	100	90
	Flexstar	1.88 L		1 pt/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
7	Valor	51 WG		2.5 oz/a		PRE	A	100	1	83	95	100	82
	Prowl H2O	3.7 L		2 pt/a		PRE	A						
	Harmony SG	50 WG		0.125 oz/a		POST	B						
	Cobra	2 L		8 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
8	Fierce	76 WG		3 oz/a		PRE	A	100	3	93	100	100	93
	Flexstar	1.88 L		12 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
9	Fierce MTZ	2.64 L		16 fl oz/a		PRE	A	100	3	92	100	100	94
	Cobra	2 L		8 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
10	Valor XLT	40.3 WG		4 oz/a		PRE	A	100	4	87	100	100	98
	SelectMax	0.97 L		9 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
11	Authority MTZ	45 WG		14 oz/a		PRE	A	100	1	89	100	100	73
	Cobra	2 L		10 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
12	Authority Edge	4.25 L		10 fl oz/a		PRE	A	100	0	97	100	100	82
	Cobra	2 L		8 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
13	Authority Edge	4.25 L		10 fl oz/a		PRE	A	100	4	97	100	100	98
	Metribuzin	75 WG		6 oz/a		PRE	A						

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Pest Code	SOLPT	ANGR	CHEAL	AMAPO	AMBEL							
Crop Type, Code	C GLXMA											
Rating Date	Jun-17-2020	Jun-29-2020	Jun-29-2020	Jun-29-2020	Jun-29-2020							
Rating Type	control	injury	control	control	control							
Rating Unit	percent	percent	percent	percent	percent							
Trt-Eval Interval	22 DA-A	34 DA-A	34 DA-A	34 DA-A	34 DA-A							
Number of Decimals	0	0	0	0	0							
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Appl Timing	Appl Code						
14	Zidua PRO	4.09 L	L	6 fl oz/a	PRE	A	100	2	96	100	100	100
15	Trivence	61.3 WG	WG	8 oz/a	PRE	A	100	8	92	100	100	98
	Assure II	0.88 L	L	7 fl oz/a	POST	B						
	Crop oil concentrate	L	L	1 % v/v	POST	B						
16	Prefix	5.29 L	L	2 pt/a	PRE	A	100	0	100	100	100	100
	Metribuzin	75 WG	WG	6 oz/a	PRE	A						
17	Warrant Ultra	3.45 L	L	50 fl oz/a	PRE	A	90	3	95	100	100	100
	Metribuzin	75 WG	WG	6 oz/a	PRE	A						
	SelectMax	0.97 L	L	9 fl oz/a	POST	B						
	Crop oil concentrate	L	L	1 % v/v	POST	B						
	AMS	WG	WG	2.5 lb/100 gal	POST	B						
18	Matador	4.7 L	L	3.9 pt/a	PRE	A	100	0	93	68	93	78
	Raptor	1 L	L	5 fl oz/a	POST	B						
	Flexstar	1.88 L	L	1 pt/a	POST	B						
	Crop oil concentrate	L	L	1 % v/v	POST	B						
	AMS	WG	WG	2.5 lb/100 gal	POST	B						
19	Moccasin MTZ	4.5 L	L	2.67 pt/a	PRE	A	100	0	100	100	100	92
	Ultra Blazer	2 L	L	1.5 pt/a	POST	B						
	Shadow	3 L	L	8 fl oz/a	POST	B						
	Surfactant	L	L	0.25 % v/v	POST	B						
	AMS	WG	WG	8.5 lb/100 gal	POST	B						
20	Tripzin ZC	4 L	L	2 pt/a	PRE	A	100	3	86	100	100	90
	Ultra Blazer	2 L	L	1.5 pt/a	POST	B						
	Shadow	3 L	L	8 fl oz/a	POST	B						
	Surfactant	L	L	0.25 % v/v	POST	B						
	AMS	WG	WG	8.5 lb/100 gal	POST	B						
21	Upstage	3 L	L	21 fl oz/a	PRE	A	100	4	100	100	100	100
	Moccasin MTZ	4.5 L	L	2.67 pt/a	PRE	A						
	Ultra Blazer	2 L	L	1.5 pt/a	POST	B						
	Shadow	3 L	L	8 fl oz/a	POST	B						
	Surfactant	L	L	0.25 % v/v	POST	B						
	AMS	WG	WG	8.5 lb/100 gal	POST	B						
	LSD P=.05						6.2	4.7	8.3	2.3	4.6	8.6
	Standard Deviation						4.4	3.3	5.9	1.7	3.3	6.1
	CV						4.61	144.99	6.61	1.77	3.45	6.93

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Pest Code	ABUTH	SOLPT	ANGR	CHEAL	AMAPO
Crop Type, Code	C GLXMA				
Rating Date	Jun-29-2020	Jun-29-2020	Jul-6-2020	Jul-6-2020	Jul-6-2020
Rating Type	control	control	injury	control	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	34 DA-A	34 DA-A	7 DA-B	7 DA-B	7 DA-B
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Appl Timing	Appl Code						
1	Boundary	6.5 L		2.4 pt/a		PRE	A	100	100	14	96	100	100
	Flexstar	1.88 L		1 pt/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
2	BroadAxe XC	7 L		32 fl oz/a		PRE	A	93	100	11	98	100	100
	Marvel	3 L		7.25 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
3	Sonic	70 WG		6 oz/a		PRE	A	100	100	2	100	100	100
	Boundary	6.5 L		1.5 pt/a		PRE	A						
4	Surveil	48 WG		3.5 oz/a		PRE	A	100	100	3	100	100	100
	Metribuzin	75 WG		6 oz/a		PRE	A						
	SelectMax	0.97 L		9 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
5	Untreated							0	0	0	0	0	0
6	Dimetric Charged	3.67 L		12 fl oz/a		PRE	A	98	100	14	98	100	100
	Flexstar	1.88 L		1 pt/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
7	Valor	51 WG		2.5 oz/a		PRE	A	89	100	25	98	98	100
	Prowl H2O	3.7 L		2 pt/a		PRE	A						
	Harmony SG	50 WG		0.125 oz/a		POST	B						
	Cobra	2 L		8 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
8	Fierce	76 WG		3 oz/a		PRE	A	100	100	11	100	100	100
	Flexstar	1.88 L		12 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
9	Fierce MTZ	2.64 L		16 fl oz/a		PRE	A	100	100	26	100	100	100
	Cobra	2 L		8 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
10	Valor XLT	40.3 WG		4 oz/a		PRE	A	100	100	1	95	100	100
	SelectMax	0.97 L		9 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
11	Authority MTZ	45 WG		14 oz/a		PRE	A	100	100	28	98	100	100
	Cobra	2 L		10 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
12	Authority Edge	4.25 L		10 fl oz/a		PRE	A	100	100	25	94	100	100
	Cobra	2 L		8 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
13	Authority Edge	4.25 L		10 fl oz/a		PRE	A	100	100	2	92	100	100
	Metribuzin	75 WG		6 oz/a		PRE	A						

Could not calculate LSD (% mean diff) for columns 25,32,35,38 because error mean square = 0.

Weed management systems in non-GMO soybean

Trial ID: SOY13-20 Location: Campus, T-11 Trial Year: 2020
 Protocol ID: SOY13-20 Investigator (Creator): Christy Sprague
 Project ID: Study Director: Sprague, Powell, Stiles
 Sponsor Contact:

Pest Code	ABUTH	SOLPT	C GLXMA	ANGR	CHEAL	AMAPO
Crop Type, Code						
Rating Date	Jun-29-2020	Jun-29-2020	Jul-6-2020	Jul-6-2020	Jul-6-2020	Jul-6-2020
Rating Type	control	control	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	34 DA-A	34 DA-A	7 DA-B	7 DA-B	7 DA-B	7 DA-B
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Appl Timing	Appl Code						
14	Zidua PRO	4.09 L	L	6 fl oz/a	fl oz/a	PRE	A	100	100	1	96	100	100
15	Trivence	61.3 WG	WG	8 oz/a	oz/a	PRE	A	100	100	6	100	100	100
	Assure II	0.88 L	L	7 fl oz/a	fl oz/a	POST	B						
	Crop oil concentrate	L	L	1 % v/v	% v/v	POST	B						
16	Prefix	5.29 L	L	2 pt/a	pt/a	PRE	A	98	100	0	98	100	100
	Metribuzin	75 WG	WG	6 oz/a	oz/a	PRE	A						
17	Warrant Ultra	3.45 L	L	50 fl oz/a	fl oz/a	PRE	A	98	100	0	100	100	100
	Metribuzin	75 WG	WG	6 oz/a	oz/a	PRE	A						
	SelectMax	0.97 L	L	9 fl oz/a	fl oz/a	POST	B						
	Crop oil concentrate	L	L	1 % v/v	% v/v	POST	B						
	AMS	WG	WG	2.5 lb/100 gal	lb/100 gal	POST	B						
18	Matador	4.7 L	L	3.9 pt/a	pt/a	PRE	A	82	89	15	90	84	98
	Raptor	1 L	L	5 fl oz/a	fl oz/a	POST	B						
	Flexstar	1.88 L	L	1 pt/a	pt/a	POST	B						
	Crop oil concentrate	L	L	1 % v/v	% v/v	POST	B						
	AMS	WG	WG	2.5 lb/100 gal	lb/100 gal	POST	B						
19	Moccasin MTZ	4.5 L	L	2.67 pt/a	pt/a	PRE	A	96	98	18	100	100	100
	Ultra Blazer	2 L	L	1.5 pt/a	pt/a	POST	B						
	Shadow	3 L	L	8 fl oz/a	fl oz/a	POST	B						
	Surfactant	L	L	0.25 % v/v	% v/v	POST	B						
	AMS	WG	WG	8.5 lb/100 gal	lb/100 gal	POST	B						
20	Tripzin ZC	4 L	L	2 pt/a	pt/a	PRE	A	98	91	21	99	100	100
	Ultra Blazer	2 L	L	1.5 pt/a	pt/a	POST	B						
	Shadow	3 L	L	8 fl oz/a	fl oz/a	POST	B						
	Surfactant	L	L	0.25 % v/v	% v/v	POST	B						
	AMS	WG	WG	8.5 lb/100 gal	lb/100 gal	POST	B						
21	Upstage	3 L	L	21 fl oz/a	fl oz/a	PRE	A	100	100	20	100	100	100
	Moccasin MTZ	4.5 L	L	2.67 pt/a	pt/a	PRE	A						
	Ultra Blazer	2 L	L	1.5 pt/a	pt/a	POST	B						
	Shadow	3 L	L	8 fl oz/a	fl oz/a	POST	B						
	Surfactant	L	L	0.25 % v/v	% v/v	POST	B						
	AMS	WG	WG	8.5 lb/100 gal	lb/100 gal	POST	B						
	LSD P=.05							8.3	6.5	3.8	6.8	1.6	0.7
	Standard Deviation							5.9	4.6	2.7	4.8	1.2	0.5
	CV							6.31	4.85	23.25	5.15	1.23	0.54

Weed management systems in non-GMO soybean

Trial ID: SOY13-20 Location: Campus, T-11 Trial Year: 2020
 Protocol ID: SOY13-20 Investigator (Creator): Christy Sprague
 Project ID: Study Director: Sprague, Powell, Stiles
 Sponsor Contact:

Pest Code	AMBEL	ABUTH	SOLPT	C GLXMA	ANGR	CHEAL
Crop Type, Code	Jul-6-2020	Jul-6-2020	Jul-6-2020	Jul-13-2020	Jul-13-2020	Jul-13-2020
Rating Date	control	control	control	injury	control	control
Rating Type	percent	percent	percent	percent	percent	percent
Rating Unit	7 DA-B	7 DA-B	7 DA-B	14 DA-B	14 DA-B	14 DA-B
Trt-Eval Interval	0	0	0	0	0	0
Number of Decimals						

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Appl Timing	Appl Code						
1	Boundary	6.5 L		2.4 pt/a		PRE	A	99	100	100	4	97	100
	Flexstar	1.88 L		1 pt/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
2	BroadAxe XC	7 L		32 fl oz/a		PRE	A	88	100	100	4	98	100
	Marvel	3 L		7.25 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
3	Sonic	70 WG		6 oz/a		PRE	A	98	100	100	0	99	100
	Boundary	6.5 L		1.5 pt/a		PRE	A						
4	Surveil	48 WG		3.5 oz/a		PRE	A	100	100	100	0	99	100
	Metribuzin	75 WG		6 oz/a		PRE	A						
	SelectMax	0.97 L		9 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
5	Untreated							0	0	0	0	0	0
6	Dimetric Charged	3.67 L		12 fl oz/a		PRE	A	99	100	100	2	99	100
	Flexstar	1.88 L		1 pt/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
7	Valor	51 WG		2.5 oz/a		PRE	A	91	98	100	12	97	100
	Prowl H2O	3.7 L		2 pt/a		PRE	A						
	Harmony SG	50 WG		0.125 oz/a		POST	B						
	Cobra	2 L		8 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
8	Fierce	76 WG		3 oz/a		PRE	A	100	100	100	2	100	100
	Flexstar	1.88 L		12 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
9	Fierce MTZ	2.64 L		16 fl oz/a		PRE	A	100	100	100	5	100	100
	Cobra	2 L		8 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
10	Valor XLT	40.3 WG		4 oz/a		PRE	A	96	100	99	0	99	100
	SelectMax	0.97 L		9 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
11	Authority MTZ	45 WG		14 oz/a		PRE	A	91	100	100	6	100	100
	Cobra	2 L		10 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
12	Authority Edge	4.25 L		10 fl oz/a		PRE	A	96	100	100	5	98	100
	Cobra	2 L		8 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
13	Authority Edge	4.25 L		10 fl oz/a		PRE	A	97	100	100	0	94	100
	Metribuzin	75 WG		6 oz/a		PRE	A						

Weed management systems in non-GMO soybean

Trial ID: SOY13-20 Location: Campus, T-11 Trial Year: 2020
 Protocol ID: SOY13-20 Investigator (Creator): Christy Sprague
 Project ID: Study Director: Sprague, Powell, Stiles
 Sponsor Contact:

Pest Code		AMBEL	ABUTH	SOLPT		ANGR	CHEAL					
Crop Type, Code					C GLXMA							
Rating Date		Jul-6-2020	Jul-6-2020	Jul-6-2020	Jul-13-2020	Jul-13-2020	Jul-13-2020					
Rating Type		control	control	control	injury	control	control					
Rating Unit		percent	percent	percent	percent	percent	percent					
Trt-Eval Interval		7 DA-B	7 DA-B	7 DA-B	14 DA-B	14 DA-B	14 DA-B					
Number of Decimals		0	0	0	0	0	0					
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Appl Timing	Appl Code						
14	Zidua PRO	4.09 L		6 fl oz/a	PRE	A	100	100	100	0	95	100
15	Trivence	61.3 WG		8 oz/a	PRE	A	94	100	100	0	99	100
	Assure II	0.88 L		7 fl oz/a	POST	B						
	Crop oil concentrate	L		1 % v/v	POST	B						
16	Prefix	5.29 L		2 pt/a	PRE	A	100	95	100	0	99	100
	Metribuzin	75 WG		6 oz/a	PRE	A						
17	Warrant Ultra	3.45 L		50 fl oz/a	PRE	A	100	100	100	0	100	100
	Metribuzin	75 WG		6 oz/a	PRE	A						
	SelectMax	0.97 L		9 fl oz/a	POST	B						
	Crop oil concentrate	L		1 % v/v	POST	B						
	AMS	WG		2.5 lb/100 gal	POST	B						
18	Matador	4.7 L		3.9 pt/a	PRE	A	97	100	94	4	99	93
	Raptor	1 L		5 fl oz/a	POST	B						
	Flexstar	1.88 L		1 pt/a	POST	B						
	Crop oil concentrate	L		1 % v/v	POST	B						
	AMS	WG		2.5 lb/100 gal	POST	B						
19	Moccasin MTZ	4.5 L		2.67 pt/a	PRE	A	100	100	100	4	100	100
	Ultra Blazer	2 L		1.5 pt/a	POST	B						
	Shadow	3 L		8 fl oz/a	POST	B						
	Surfactant	L		0.25 % v/v	POST	B						
	AMS	WG		8.5 lb/100 gal	POST	B						
20	Tripzin ZC	4 L		2 pt/a	PRE	A	100	100	100	6	96	100
	Ultra Blazer	2 L		1.5 pt/a	POST	B						
	Shadow	3 L		8 fl oz/a	POST	B						
	Surfactant	L		0.25 % v/v	POST	B						
	AMS	WG		8.5 lb/100 gal	POST	B						
21	Upstage	3 L		21 fl oz/a	PRE	A	100	100	100	4	100	100
	Moccasin MTZ	4.5 L		2.67 pt/a	PRE	A						
	Ultra Blazer	2 L		1.5 pt/a	POST	B						
	Shadow	3 L		8 fl oz/a	POST	B						
	Surfactant	L		0.25 % v/v	POST	B						
	AMS	WG		8.5 lb/100 gal	POST	B						
	LSD P=.05						7.0	3.5	2.1	1.9	5.3	0.9
	Standard Deviation						5.0	2.5	1.5	1.3	3.7	0.6
	CV						5.37	2.59	1.55	49.42	4.0	0.66

Weed management systems in non-GMO soybean

Trial ID: SOY13-20 Location: Campus, T-11 Trial Year: 2020
 Protocol ID: SOY13-20 Investigator (Creator): Christy Sprague
 Project ID: Study Director: Sprague, Powell, Stiles
 Sponsor Contact:

Pest Code	AMAPO	AMBEL	ABUTH	SOLPT	C GLXMA	ANGR
Crop Type, Code	Jul-13-2020	Jul-13-2020	Jul-13-2020	Jul-13-2020	Jul-27-2020	Jul-27-2020
Rating Date	control	control	control	control	injury	control
Rating Type	percent	percent	percent	percent	percent	percent
Rating Unit	14 DA-B	14 DA-B	14 DA-B	14 DA-B	28 DA-B	28 DA-B
Trt-Eval Interval	0	0	0	0	0	0
Number of Decimals						

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Appl Timing	Appl Code	AMAPO	AMBEL	ABUTH	SOLPT	C GLXMA	ANGR
1	Boundary	6.5 L		2.4 pt/a		PRE	A	100	98	100	100	0	95
	Flexstar	1.88 L		1 pt/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
2	BroadAxe XC	7 L		32 fl oz/a		PRE	A	100	88	100	100	0	97
	Marvel	3 L		7.25 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
3	Sonic	70 WG		6 oz/a		PRE	A	100	100	100	100	1	100
	Boundary	6.5 L		1.5 pt/a		PRE	A						
4	Surveil	48 WG		3.5 oz/a		PRE	A	100	100	100	100	1	100
	Metribuzin	75 WG		6 oz/a		PRE	A						
	SelectMax	0.97 L		9 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
5	Untreated							0	0	0	0	0	0
6	Dimetric Charged	3.67 L		12 fl oz/a		PRE	A	100	100	100	100	0	100
	Flexstar	1.88 L		1 pt/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
7	Valor	51 WG		2.5 oz/a		PRE	A	100	94	99	100	1	98
	Prowl H2O	3.7 L		2 pt/a		PRE	A						
	Harmony SG	50 WG		0.125 oz/a		POST	B						
	Cobra	2 L		8 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
8	Fierce	76 WG		3 oz/a		PRE	A	100	100	100	100	0	100
	Flexstar	1.88 L		12 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
9	Fierce MTZ	2.64 L		16 fl oz/a		PRE	A	100	100	100	100	1	100
	Cobra	2 L		8 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
10	Valor XLT	40.3 WG		4 oz/a		PRE	A	100	94	99	100	0	100
	SelectMax	0.97 L		9 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
11	Authority MTZ	45 WG		14 oz/a		PRE	A	100	96	100	100	0	99
	Cobra	2 L		10 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
12	Authority Edge	4.25 L		10 fl oz/a		PRE	A	100	100	100	100	1	96
	Cobra	2 L		8 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
13	Authority Edge	4.25 L		10 fl oz/a		PRE	A	100	98	100	100	0	92
	Metribuzin	75 WG		6 oz/a		PRE	A						

Could not calculate LSD (% mean diff) for columns 25,32,35,38 because error mean square = 0.

Weed management systems in non-GMO soybean

Trial ID: SOY13-20 Location: Campus, T-11 Trial Year: 2020
 Protocol ID: SOY13-20 Investigator (Creator): Christy Sprague
 Project ID: Study Director: Sprague, Powell, Stiles
 Sponsor Contact:

Pest Code	AMAPO	AMBEL	ABUTH	SOLPT	C GLXMA	ANGR							
Crop Type, Code	Jul-13-2020	Jul-13-2020	Jul-13-2020	Jul-13-2020	Jul-27-2020	Jul-27-2020							
Rating Date	control	control	control	control	injury	control							
Rating Type	percent	percent	percent	percent	percent	percent							
Rating Unit	14 DA-B	14 DA-B	14 DA-B	14 DA-B	28 DA-B	28 DA-B							
Trt-Eval Interval	0	0	0	0	0	0							
Number of Decimals	0	0	0	0	0	0							
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Unit Unit	Appl Timing	Appl Code						
14	Zidua PRO	4.09 L	L	6 fl oz/a	fl oz/a	PRE	A	100	100	100	100	1	95
15	Trivence	61.3 WG	WG	8 oz/a	oz/a	PRE	A	100	95	100	100	2	98
	Assure II	0.88 L	L	7 fl oz/a	fl oz/a	POST	B						
	Crop oil concentrate	L	L	1 % v/v	% v/v	POST	B						
16	Prefix	5.29 L	L	2 pt/a	pt/a	PRE	A	100	100	95	100	0	98
	Metribuzin	75 WG	WG	6 oz/a	oz/a	PRE	A						
17	Warrant Ultra	3.45 L	L	50 fl oz/a	fl oz/a	PRE	A	100	100	99	100	1	100
	Metribuzin	75 WG	WG	6 oz/a	oz/a	PRE	A						
	SelectMax	0.97 L	L	9 fl oz/a	fl oz/a	POST	B						
	Crop oil concentrate	L	L	1 % v/v	% v/v	POST	B						
	AMS	WG	WG	2.5 lb/100 gal	lb/100 gal	POST	B						
18	Matador	4.7 L	L	3.9 pt/a	pt/a	PRE	A	100	98	100	100	1	98
	Raptor	1 L	L	5 fl oz/a	fl oz/a	POST	B						
	Flexstar	1.88 L	L	1 pt/a	pt/a	POST	B						
	Crop oil concentrate	L	L	1 % v/v	% v/v	POST	B						
	AMS	WG	WG	2.5 lb/100 gal	lb/100 gal	POST	B						
19	Moccasin MTZ	4.5 L	L	2.67 pt/a	pt/a	PRE	A	100	100	100	100	0	100
	Ultra Blazer	2 L	L	1.5 pt/a	pt/a	POST	B						
	Shadow	3 L	L	8 fl oz/a	fl oz/a	POST	B						
	Surfactant	L	L	0.25 % v/v	% v/v	POST	B						
	AMS	WG	WG	8.5 lb/100 gal	lb/100 gal	POST	B						
20	Tripzin ZC	4 L	L	2 pt/a	pt/a	PRE	A	100	99	100	95	0	93
	Ultra Blazer	2 L	L	1.5 pt/a	pt/a	POST	B						
	Shadow	3 L	L	8 fl oz/a	fl oz/a	POST	B						
	Surfactant	L	L	0.25 % v/v	% v/v	POST	B						
	AMS	WG	WG	8.5 lb/100 gal	lb/100 gal	POST	B						
21	Upstage	3 L	L	21 fl oz/a	fl oz/a	PRE	A	100	100	100	100	0	100
	Moccasin MTZ	4.5 L	L	2.67 pt/a	pt/a	PRE	A						
	Ultra Blazer	2 L	L	1.5 pt/a	pt/a	POST	B						
	Shadow	3 L	L	8 fl oz/a	fl oz/a	POST	B						
	Surfactant	L	L	0.25 % v/v	% v/v	POST	B						
	AMS	WG	WG	8.5 lb/100 gal	lb/100 gal	POST	B						
	LSD P=.05								6.8	3.4	3.1	2.0	5.5
	Standard Deviation							0.0	4.8	2.4	2.2	1.4	3.9
	CV							0.0	5.13	2.53	2.3	296.69	4.19

Could not calculate LSD (% mean diff) for columns 25,32,35,38 because error mean square = 0.

Weed management systems in non-GMO soybean

Trial ID: SOY13-20 Location: Campus, T-11 Trial Year: 2020
 Protocol ID: SOY13-20 Investigator (Creator): Christy Sprague
 Project ID: Study Director: Sprague, Powell, Stiles
 Sponsor Contact:

Pest Code	CHEAL	AMAPO	AMBEL	ABUTH	SOLPT	ANGR
Crop Type, Code						
Rating Date	Jul-27-2020	Jul-27-2020	Jul-27-2020	Jul-27-2020	Jul-27-2020	Oct-12-2020
Rating Type	control	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	28 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B	105 DA-B
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Appl Timing	Appl Code						
1	Boundary	6.5 L		2.4 pt/a		PRE	A	100	100	99	100	100	93
	Flexstar	1.88 L		1 pt/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
2	BroadAxe XC	7 L		32 fl oz/a		PRE	A	100	100	91	100	100	96
	Marvel	3 L		7.25 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
3	Sonic	70 WG		6 oz/a		PRE	A	100	100	100	100	100	100
	Boundary	6.5 L		1.5 pt/a		PRE	A						
4	Surveil	48 WG		3.5 oz/a		PRE	A	100	100	100	100	100	99
	Metribuzin	75 WG		6 oz/a		PRE	A						
	SelectMax	0.97 L		9 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
5	Untreated							0	0	0	0	0	0
6	Dimetric Charged	3.67 L		12 fl oz/a		PRE	A	100	100	100	100	100	100
	Flexstar	1.88 L		1 pt/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
7	Valor	51 WG		2.5 oz/a		PRE	A	100	100	96	100	100	97
	Prowl H2O	3.7 L		2 pt/a		PRE	A						
	Harmony SG	50 WG		0.125 oz/a		POST	B						
	Cobra	2 L		8 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
8	Fierce	76 WG		3 oz/a		PRE	A	100	100	100	100	100	100
	Flexstar	1.88 L		12 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
9	Fierce MTZ	2.64 L		16 fl oz/a		PRE	A	100	100	100	100	100	100
	Cobra	2 L		8 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
10	Valor XLT	40.3 WG		4 oz/a		PRE	A	100	100	90	95	100	99
	SelectMax	0.97 L		9 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
11	Authority MTZ	45 WG		14 oz/a		PRE	A	100	100	99	100	100	100
	Cobra	2 L		10 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
12	Authority Edge	4.25 L		10 fl oz/a		PRE	A	100	100	100	100	100	94
	Cobra	2 L		8 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
13	Authority Edge	4.25 L		10 fl oz/a		PRE	A	100	100	92	100	100	89
	Metribuzin	75 WG		6 oz/a		PRE	A						

Could not calculate LSD (% mean diff) for columns 25,32,35,38 because error mean square = 0.

Weed management systems in non-GMO soybean

Trial ID: SOY13-20 Location: Campus, T-11 Trial Year: 2020
 Protocol ID: SOY13-20 Investigator (Creator): Christy Sprague
 Project ID: Study Director: Sprague, Powell, Stiles
 Sponsor Contact:

Pest Code	CHEAL	AMAPO	AMBEL	ABUTH	SOLPT	ANGR						
Crop Type, Code												
Rating Date	Jul-27-2020	Jul-27-2020	Jul-27-2020	Jul-27-2020	Jul-27-2020	Oct-12-2020						
Rating Type	control	control	control	control	control	control						
Rating Unit	percent	percent	percent	percent	percent	percent						
Trt-Eval Interval	28 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B	105 DA-B						
Number of Decimals	0	0	0	0	0	0						
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Appl Timing	Appl Code						
14	Zidua PRO	4.09 L	L	6 fl oz/a	PRE	A	100	100	100	100	100	95
15	Trivence	61.3 WG	WG	8 oz/a	PRE	A	100	100	95	100	100	99
	Assure II	0.88 L	L	7 fl oz/a	POST	B						
	Crop oil concentrate	L	L	1 % v/v	POST	B						
16	Prefix	5.29 L	L	2 pt/a	PRE	A	100	100	100	94	100	97
	Metribuzin	75 WG	WG	6 oz/a	PRE	A						
17	Warrant Ultra	3.45 L	L	50 fl oz/a	PRE	A	100	100	99	96	100	100
	Metribuzin	75 WG	WG	6 oz/a	PRE	A						
	SelectMax	0.97 L	L	9 fl oz/a	POST	B						
	Crop oil concentrate	L	L	1 % v/v	POST	B						
	AMS	WG	WG	2.5 lb/100 gal	POST	B						
18	Matador	4.7 L	L	3.9 pt/a	PRE	A	92	100	100	96	100	99
	Raptor	1 L	L	5 fl oz/a	POST	B						
	Flexstar	1.88 L	L	1 pt/a	POST	B						
	Crop oil concentrate	L	L	1 % v/v	POST	B						
	AMS	WG	WG	2.5 lb/100 gal	POST	B						
19	Moccasin MTZ	4.5 L	L	2.67 pt/a	PRE	A	100	100	99	100	100	100
	Ultra Blazer	2 L	L	1.5 pt/a	POST	B						
	Shadow	3 L	L	8 fl oz/a	POST	B						
	Surfactant	L	L	0.25 % v/v	POST	B						
	AMS	WG	WG	8.5 lb/100 gal	POST	B						
20	Tripzin ZC	4 L	L	2 pt/a	PRE	A	100	100	96	100	100	97
	Ultra Blazer	2 L	L	1.5 pt/a	POST	B						
	Shadow	3 L	L	8 fl oz/a	POST	B						
	Surfactant	L	L	0.25 % v/v	POST	B						
	AMS	WG	WG	8.5 lb/100 gal	POST	B						
21	Upstage	3 L	L	21 fl oz/a	PRE	A	100	100	100	100	100	100
	Moccasin MTZ	4.5 L	L	2.67 pt/a	PRE	A						
	Ultra Blazer	2 L	L	1.5 pt/a	POST	B						
	Shadow	3 L	L	8 fl oz/a	POST	B						
	Surfactant	L	L	0.25 % v/v	POST	B						
	AMS	WG	WG	8.5 lb/100 gal	POST	B						
	LSD P=.05						1.8	.	7.2	5.4	.	6.8
	Standard Deviation						1.3	0.0	5.1	3.8	0.0	4.8
	CV						1.32	0.0	5.45	4.02	0.0	5.16

Could not calculate LSD (% mean diff) for columns 25,32,35,38 because error mean square = 0.

Weed management systems in non-GMO soybean

Trial ID: SOY13-20 Location: Campus, T-11 Trial Year: 2020
 Protocol ID: SOY13-20 Investigator (Creator): Christy Sprague
 Project ID: Study Director: Sprague, Powell, Stiles
 Sponsor Contact:

Pest Code	CHEAL	AMAPO	AMBEL	ABUTH	SOLPT	C GLXMA
Crop Type, Code						Oct-13-2020
Rating Date	Oct-12-2020	Oct-12-2020	Oct-12-2020	Oct-12-2020	Oct-12-2020	Oct-13-2020
Rating Type	control	control	control	control	control	moisture
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	105 DA-B	105 DA-B	105 DA-B	105 DA-B	105 DA-B	106 DA-B
Number of Decimals	0	0	0	0	0	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Appl Timing	Appl Code	CHEAL	AMAPO	AMBEL	ABUTH	SOLPT	C GLXMA
1	Boundary	6.5 L		2.4 pt/a		PRE	A	100	100	100	100	100	15.7
	Flexstar	1.88 L		1 pt/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
2	BroadAxe XC	7 L		32 fl oz/a		PRE	A	100	100	90	100	100	15.9
	Marvel	3 L		7.25 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
3	Sonic	70 WG		6 oz/a		PRE	A	100	100	99	100	100	15.4
	Boundary	6.5 L		1.5 pt/a		PRE	A						
4	Surveil	48 WG		3.5 oz/a		PRE	A	100	100	100	100	100	16.1
	Metribuzin	75 WG		6 oz/a		PRE	A						
	SelectMax	0.97 L		9 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
5	Untreated							0	0	0	0	0	19.2
6	Dimetric Charged	3.67 L		12 fl oz/a		PRE	A	100	100	100	100	100	16.3
	Flexstar	1.88 L		1 pt/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
7	Valor	51 WG		2.5 oz/a		PRE	A	96	100	95	95	100	16.1
	Prowl H2O	3.7 L		2 pt/a		PRE	A						
	Harmony SG	50 WG		0.125 oz/a		POST	B						
	Cobra	2 L		8 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
8	Fierce	76 WG		3 oz/a		PRE	A	100	100	100	100	100	15.9
	Flexstar	1.88 L		12 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		1 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
9	Fierce MTZ	2.64 L		16 fl oz/a		PRE	A	100	100	100	100	100	16.2
	Cobra	2 L		8 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
10	Valor XLT	40.3 WG		4 oz/a		PRE	A	100	100	91	93	100	15.9
	SelectMax	0.97 L		9 fl oz/a		POST	B						
	Surfactant	L		0.25 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
11	Authority MTZ	45 WG		14 oz/a		PRE	A	100	100	100	100	100	15.9
	Cobra	2 L		10 fl oz/a		POST	B						
	SelectMax	0.97 L		12 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
12	Authority Edge	4.25 L		10 fl oz/a		PRE	A	100	100	100	100	100	16.1
	Cobra	2 L		8 fl oz/a		POST	B						
	Crop oil concentrate	L		0.5 % v/v		POST	B						
	AMS	WG		2.5 lb/100 gal		POST	B						
13	Authority Edge	4.25 L		10 fl oz/a		PRE	A	100	100	90	100	100	15.9
	Metribuzin	75 WG		6 oz/a		PRE	A						

Could not calculate LSD (% mean diff) for columns 25,32,35,38 because error mean square = 0.

Weed management systems in non-GMO soybean

Trial ID: SOY13-20 Location: Campus, T-11 Trial Year: 2020
 Protocol ID: SOY13-20 Investigator (Creator): Christy Sprague
 Project ID: Study Director: Sprague, Powell, Stiles
 Sponsor Contact:

Pest Code	CHEAL	AMAPO	AMBEL	ABUTH	SOLPT	C GLXMA							
Crop Type, Code	Oct-12-2020	Oct-12-2020	Oct-12-2020	Oct-12-2020	Oct-12-2020	Oct-13-2020							
Rating Date	control	control	control	control	control	moisture							
Rating Type	percent	percent	percent	percent	percent	percent							
Rating Unit	105 DA-B	105 DA-B	105 DA-B	105 DA-B	105 DA-B	106 DA-B							
Trt-Eval Interval	0	0	0	0	0	1							
Number of Decimals													
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Appl Timing	Appl Code						
14	Zidua PRO	4.09 L	L	6 fl oz/a	fl oz/a	PRE	A	100	100	98	100	100	16.4
15	Trivence	61.3 WG	WG	8 oz/a	oz/a	PRE	A	100	100	95	100	100	15.8
	Assure II	0.88 L	L	7 fl oz/a	fl oz/a	POST	B						
	Crop oil concentrate	L	L	1 % v/v	% v/v	POST	B						
16	Prefix	5.29 L	L	2 pt/a	pt/a	PRE	A	100	100	100	96	100	15.8
	Metribuzin	75 WG	WG	6 oz/a	oz/a	PRE	A						
17	Warrant Ultra	3.45 L	L	50 fl oz/a	fl oz/a	PRE	A	100	100	100	93	100	15.8
	Metribuzin	75 WG	WG	6 oz/a	oz/a	PRE	A						
	SelectMax	0.97 L	L	9 fl oz/a	fl oz/a	POST	B						
	Crop oil concentrate	L	L	1 % v/v	% v/v	POST	B						
	AMS	WG	WG	2.5 lb/100 gal	lb/100 gal	POST	B						
18	Matador	4.7 L	L	3.9 pt/a	pt/a	PRE	A	95	100	98	100	100	15.7
	Raptor	1 L	L	5 fl oz/a	fl oz/a	POST	B						
	Flexstar	1.88 L	L	1 pt/a	pt/a	POST	B						
	Crop oil concentrate	L	L	1 % v/v	% v/v	POST	B						
	AMS	WG	WG	2.5 lb/100 gal	lb/100 gal	POST	B						
19	Moccasin MTZ	4.5 L	L	2.67 pt/a	pt/a	PRE	A	99	100	100	100	98	15.9
	Ultra Blazer	2 L	L	1.5 pt/a	pt/a	POST	B						
	Shadow	3 L	L	8 fl oz/a	fl oz/a	POST	B						
	Surfactant	L	L	0.25 % v/v	% v/v	POST	B						
	AMS	WG	WG	8.5 lb/100 gal	lb/100 gal	POST	B						
20	Tripzin ZC	4 L	L	2 pt/a	pt/a	PRE	A	100	100	96	100	87	16.4
	Ultra Blazer	2 L	L	1.5 pt/a	pt/a	POST	B						
	Shadow	3 L	L	8 fl oz/a	fl oz/a	POST	B						
	Surfactant	L	L	0.25 % v/v	% v/v	POST	B						
	AMS	WG	WG	8.5 lb/100 gal	lb/100 gal	POST	B						
21	Upstage	3 L	L	21 fl oz/a	fl oz/a	PRE	A	100	100	100	100	100	15.5
	Moccasin MTZ	4.5 L	L	2.67 pt/a	pt/a	PRE	A						
	Ultra Blazer	2 L	L	1.5 pt/a	pt/a	POST	B						
	Shadow	3 L	L	8 fl oz/a	fl oz/a	POST	B						
	Surfactant	L	L	0.25 % v/v	% v/v	POST	B						
	AMS	WG	WG	8.5 lb/100 gal	lb/100 gal	POST	B						
	LSD P=.05							2.0	.	8.7	6.6	5.3	0.83
	Standard Deviation							1.4	0.0	6.2	4.7	3.7	0.58
	CV							1.47	0.0	6.66	4.95	3.94	3.63

Weed management systems in non-GMO soybean

Trial ID: SOY13-20

Location: Campus, T-11

Trial Year: 2020

Protocol ID: SOY13-20

Investigator (Creator): Christy Sprague

Project ID:

Study Director: Sprague, Powell, Stiles

Sponsor Contact:

Pest Code	
Crop Type, Code	C GLXMA
Rating Date	Oct-13-2020
Rating Type	yield
Rating Unit	bu/acre
Trt-Eval Interval	at 13% M
Number of Decimals	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Timing	Appl Code	
1	Boundary	6.5 L		2.4 pt/a		PRE	A	52.7
	Flexstar	1.88 L		1 pt/a		POST	B	
	Crop oil concentrate	L		1 % v/v		POST	B	
	AMS	WG		2.5 lb/100 gal		POST	B	
2	BroadAxe XC	7 L		32 fl oz/a		PRE	A	49.6
	Marvel	3 L		7.25 fl oz/a		POST	B	
	Crop oil concentrate	L		1 % v/v		POST	B	
	AMS	WG		2.5 lb/100 gal		POST	B	
3	Sonic	70 WG		6 oz/a		PRE	A	49.1
	Boundary	6.5 L		1.5 pt/a		PRE	A	
4	Surveil	48 WG		3.5 oz/a		PRE	A	51.0
	Metribuzin	75 WG		6 oz/a		PRE	A	
	SelectMax	0.97 L		9 fl oz/a		POST	B	
	Surfactant	L		0.25 % v/v		POST	B	
	AMS	WG		2.5 lb/100 gal		POST	B	
5	Untreated							30.6
6	Dimetric Charged	3.67 L		12 fl oz/a		PRE	A	53.4
	Flexstar	1.88 L		1 pt/a		POST	B	
	SelectMax	0.97 L		12 fl oz/a		POST	B	
	Crop oil concentrate	L		1 % v/v		POST	B	
	AMS	WG		2.5 lb/100 gal		POST	B	
7	Valor	51 WG		2.5 oz/a		PRE	A	51.8
	Prowl H2O	3.7 L		2 pt/a		PRE	A	
	Harmony SG	50 WG		0.125 oz/a		POST	B	
	Cobra	2 L		8 fl oz/a		POST	B	
	SelectMax	0.97 L		12 fl oz/a		POST	B	
	Surfactant	L		0.25 % v/v		POST	B	
8	Fierce	76 WG		3 oz/a		PRE	A	50.3
	Flexstar	1.88 L		12 fl oz/a		POST	B	
	SelectMax	0.97 L		12 fl oz/a		POST	B	
	Crop oil concentrate	L		1 % v/v		POST	B	
	AMS	WG		2.5 lb/100 gal		POST	B	
9	Fierce MTZ	2.64 L		16 fl oz/a		PRE	A	53.7
	Cobra	2 L		8 fl oz/a		POST	B	
	SelectMax	0.97 L		12 fl oz/a		POST	B	
	Crop oil concentrate	L		0.5 % v/v		POST	B	
	AMS	WG		2.5 lb/100 gal		POST	B	
10	Valor XLT	40.3 WG		4 oz/a		PRE	A	56.3
	SelectMax	0.97 L		9 fl oz/a		POST	B	
	Surfactant	L		0.25 % v/v		POST	B	
	AMS	WG		2.5 lb/100 gal		POST	B	
11	Authority MTZ	45 WG		14 oz/a		PRE	A	57.0
	Cobra	2 L		10 fl oz/a		POST	B	
	SelectMax	0.97 L		12 fl oz/a		POST	B	
	Crop oil concentrate	L		0.5 % v/v		POST	B	
	AMS	WG		2.5 lb/100 gal		POST	B	
12	Authority Edge	4.25 L		10 fl oz/a		PRE	A	50.0
	Cobra	2 L		8 fl oz/a		POST	B	
	Crop oil concentrate	L		0.5 % v/v		POST	B	
	AMS	WG		2.5 lb/100 gal		POST	B	
13	Authority Edge	4.25 L		10 fl oz/a		PRE	A	50.0
	Metribuzin	75 WG		6 oz/a		PRE	A	

Weed management systems in non-GMO soybean

Trial ID: SOY13-20 Location: Campus, T-11 Trial Year: 2020
 Protocol ID: SOY13-20 Investigator (Creator): Christy Sprague
 Project ID: Study Director: Sprague, Powell, Stiles
 Sponsor Contact:

Pest Code
 Crop Type, Code C GLXMA
 Rating Date Oct-13-2020
 Rating Type yield
 Rating Unit bu/acre
 Trt-Eval Interval at 13% M
 Number of Decimals 1

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Appl Timing	Appl Code	
14	Zidua PRO	4.09	L		6 fl oz/a	PRE	A	48.9
15	Trivence	61.3	WG		8 oz/a	PRE	A	47.3
	Assure II	0.88	L		7 fl oz/a	POST	B	
	Crop oil concentrate		L		1 % v/v	POST	B	
16	Prefix	5.29	L		2 pt/a	PRE	A	48.4
	Metribuzin	75	WG		6 oz/a	PRE	A	
17	Warrant Ultra	3.45	L		50 fl oz/a	PRE	A	49.8
	Metribuzin	75	WG		6 oz/a	PRE	A	
	SelectMax	0.97	L		9 fl oz/a	POST	B	
	Crop oil concentrate		L		1 % v/v	POST	B	
	AMS		WG		2.5 lb/100 gal	POST	B	
18	Matador	4.7	L		3.9 pt/a	PRE	A	48.7
	Raptor	1	L		5 fl oz/a	POST	B	
	Flexstar	1.88	L		1 pt/a	POST	B	
	Crop oil concentrate		L		1 % v/v	POST	B	
	AMS		WG		2.5 lb/100 gal	POST	B	
19	Moccasin MTZ	4.5	L		2.67 pt/a	PRE	A	51.1
	Ultra Blazer	2	L		1.5 pt/a	POST	B	
	Shadow	3	L		8 fl oz/a	POST	B	
	Surfactant		L		0.25 % v/v	POST	B	
	AMS		WG		8.5 lb/100 gal	POST	B	
20	Tripzin ZC	4	L		2 pt/a	PRE	A	47.8
	Ultra Blazer	2	L		1.5 pt/a	POST	B	
	Shadow	3	L		8 fl oz/a	POST	B	
	Surfactant		L		0.25 % v/v	POST	B	
	AMS		WG		8.5 lb/100 gal	POST	B	
21	Upstage	3	L		21 fl oz/a	PRE	A	51.7
	Moccasin MTZ	4.5	L		2.67 pt/a	PRE	A	
	Ultra Blazer	2	L		1.5 pt/a	POST	B	
	Shadow	3	L		8 fl oz/a	POST	B	
	Surfactant		L		0.25 % v/v	POST	B	
	AMS		WG		8.5 lb/100 gal	POST	B	
	LSD P=.05							7.63
	Standard Deviation							5.38
	CV							10.8