

Weed control programs with Engenia in XtendFlex soybean

Trial ID: SOY09-23 Study Dir.: Sprague, Stiles
 Conducted: Campus, C-14 Investigator: Christy Sprague

Planting Date: May-10-2023 **Row Spacing:** 30 IN
Variety: AG26XF3 **No. of Reps:** 4
Population: 150000 seeds/A **% OM:** 2.1
Soil Type: CL clay loam **pH:** 7.7
Plot Size: 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plowed, fall soil finished twice, spring soil finished twice.
Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	ANGR	annual grass	mainly foxtail species
2	CHEAL	common lambsquarters	Chenopodium album
3	AMAPO	Powell amaranth	Amaranthus powellii
4	AMBEL	common ragweed	Ambrosia artemisiifolia
5	ABUTH	velvetleaf	Abutilon theophrasti
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

	A	B	C
Application Timing:	PRE	EPOS	POST
Date Treated:	May-10-2023	May-26-2023	Jun-20-2023
Time Treated:	4:45 PM	12:05 PM	10:00 AM
% Cloud Cover:	0	0	0
Air Temp., Unit:	77 F	67 F	73 F
% Relative Humidity:	33	34	55
Wind Speed/Unit/Dir:	6 MPH W	2 MPH NE	8 MPH NE
Soil Temp, Unit:	67 F	65 F	71 F
Leaf Moist/Dew Presence (Y/N):	N	N	N
Soil Moist:	5	5	5

Crop Stage at Each Application

	A	B	C
Crop 1 Name:	GLXMA	GLXMA	GLXMA
Height:		2 "	8 "
Stage:		VC	V3

Weed Stage at Each Application

	A	B	C
Weed 1 Name:	ANGR	ANGR	ANGR
Height:		0.5-1 " (1)	5-9 " (6)
Stage:		2L	3-5L
Weed 2 Name:	CHEAL	CHEAL	CHEAL
Height:			2-4 " (4)
Stage:			4-8L
Weed 3 Name:	AMAPO	AMAPO	AMAPO
Height:			3 "
Stage:			6-8L
Weed 4 Name:	AMBEL	AMBEL	AMBEL
Height:		1-2 " (2)	4-6 " (5)
Stage:		2-4L	4-12L
Weed 5 Name:	ABUTH	ABUTH	ABUTH
Height:			3 "
Stage:			3-5L

Weed Density

	1	2	3	4	5
Date:	Jun-20-2023	Jun-20-2023	Jun-20-2023	Jun-20-2023	Jun-20-2023
Weed Name:	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Density:	5 FT2	1 FT2	1 FT2	3 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	TTI	11003	18.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	27 PSI
B	CUB	3.8 MPH	TTI	11003	18.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	27 PSI
C	CUB	3.8 MPH	TTI/AI XR	11003	24.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	PSI

Comments: Common ragweed (AMBEL) at this location is resistant to the Group 2 (ALS-inhibiting) herbicides. TTI = 27 PSI; AIXR = 30 PSI

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Trial ID: SOY09-23

Protocol ID: SOY09-23 Location: Campus, C-14 Trial Year: 2023

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	May-26-2023	May-26-2023	May-26-2023	May-26-2023	May-26-2023	May-26-2023
Rating Type	injury	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Type, Code						
Pest Code	GLXMA	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Trt-Eval Interval	0 DA-B	0 DA-B	0 DA-B	0 DA-B	0 DA-B	0 DA-B
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing	May-26-2023 injury %	May-26-2023 control %	May-26-2023 control %	May-26-2023 control %	May-26-2023 control %	May-26-2023 control %
1	Untreated					0	0	0	0	0	0
2	Engenia	12.8 fl oz/a		A	PRE	0	91	100	100	100	99
	Zidua SC	3.25 fl oz/a		A	PRE						
	Sentris	8 fl oz/a		A	PRE						
	AIXR Nozzle			C	POST						
	Liberty	36 fl oz/a		C	POST						
	Outlook	12 fl oz/a		C	POST						
	AMS	8.5 lb/100 gal		C	POST						
3	Engenia	12.8 fl oz/a		A	PRE	0	92	100	100	98	98
	Zidua SC	3.25 fl oz/a		A	PRE						
	Sentris	8 fl oz/a		A	PRE						
	AIXR Nozzle			D	LPOS						
	Liberty	36 fl oz/a		D	LPOS						
	Outlook	12 fl oz/a		D	LPOS						
	AMS	8.5 lb/100 gal		D	LPOS						
4	TTI Nozzle			B	EPOS	0	0	0	0	0	0
	Engenia	12.8 fl oz/a		B	EPOS						
	Zidua SC	3.25 fl oz/a		B	EPOS						
	Sentris	8 fl oz/a		B	EPOS						
	AIXR Nozzle			C	POST						
	Liberty	36 fl oz/a		C	POST						
	Outlook	12 fl oz/a		C	POST						
	AMS	8.5 lb/100 gal		C	POST						
5	TTI Nozzle			B	EPOS	0	0	0	0	0	0
	Engenia	12.8 fl oz/a		B	EPOS						
	Zidua SC	3.25 fl oz/a		B	EPOS						
	Sentris	8 fl oz/a		B	EPOS						
	AIXR Nozzle			D	LPOS						
	Liberty	36 fl oz/a		D	LPOS						
	Outlook	12 fl oz/a		D	LPOS						
	AMS	8.5 lb/100 gal		D	LPOS						
6	Zidua PRO	6 fl oz/a		A	PRE	0	96	100	100	80	98
	TTI Nozzle			C	POST						
	Engenia	12.8 fl oz/a		C	POST						
	Outlook	12 fl oz/a		C	POST						
	Volunteer	9 fl oz/a		C	POST						
	Crop oil concentrate	1 % v/v		C	POST						
	Sentris	8 fl oz/a		C	POST						
	Cognitive 1	0.5 % v/v		C	POST						
7	Verdict	5 fl oz/a		A	PRE	0	86	100	100	82	99
	TTI Nozzle			C	POST						
	Engenia	12.8 fl oz/a		C	POST						
	Outlook	12 fl oz/a		C	POST						
	Volunteer	9 fl oz/a		C	POST						
	Crop oil concentrate	1 % v/v		C	POST						
	Sentris	8 fl oz/a		C	POST						
	Cognitive 1	0.5 % v/v		C	POST						

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Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	May-26-2023	May-26-2023	May-26-2023	May-26-2023	May-26-2023	May-26-2023				
Rating Type	injury	control	control	control	control	control				
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100				
Crop Type, Code										
Pest Code	GLXMA	ANGR	CHEAL	AMAPO	AMBEL	ABUTH				
Trt-Eval Interval	0 DA-B	0 DA-B	0 DA-B	0 DA-B	0 DA-B	0 DA-B				
Number of Decimals	0	0	0	0	0	0				
Trt No.	Treatment Name	Rate	Appl Code	Appl Timing						
8	Verdict	5 fl oz/a	A	PRE	0	96	100	100	100	99
	Engenia	12.8 fl oz/a	A	PRE						
	Sentris	8 fl oz/a	A	PRE						
	AIXR Nozzle		C	POST						
	Liberty	36 fl oz/a	C	POST						
	Zidua SC	3.25 fl oz/a	C	POST						
	Volunteer	9 fl oz/a	C	POST						
	Crop oil concentrate	1 % v/v	C	POST						
	Cognitive 1	0.5 % v/v	C	POST						
	AMS	8.5 lb/100 gal	C	POST						
9	Zidua PRO	4.5 fl oz/a	A	PRE	0	97	100	100	100	100
	Engenia	12.8 fl oz/a	A	PRE						
	Sentris	8 fl oz/a	A	PRE						
	AIXR Nozzle		C	POST						
	Liberty	36 fl oz/a	C	POST						
	Outlook	12 fl oz/a	C	POST						
	AMS	8.5 lb/100 gal	C	POST						
	LSD P=.05				.	5.8	.	.	5.8	3.6
	Standard Deviation				0.0	4.0	0.0	0.0	4.0	2.4
	CV				0.0	6.42	0.0	0.0	6.43	3.71

Could not calculate LSD (% mean diff) for columns 1,3,4,7,15,18,23,26,31 because error mean square = 0.

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Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	Jun-20-2023	Jun-20-2023	Jun-20-2023	Jun-20-2023	Jun-20-2023	Jul-4-2023	Jul-4-2023
Rating Type	injury	control	control	control	control	injury	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Type, Code	C, GLXMA					C, GLXMA	
Pest Code		ANGR	CHEAL	AMBEL	ABUTH		ANGR
Trt-Eval Interval	0 DA-C	0 DA-C	0 DA-C	0 DA-C	0 DA-C	14 DA-C	14 DA-C
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing	Jun-20-2023 injury	Jun-20-2023 control	Jun-20-2023 control	Jun-20-2023 control	Jun-20-2023 control	Jul-4-2023 injury	Jul-4-2023 control
1	Untreated					0	0	0	0	0	0	0
2	Engenia	12.8 fl oz/a		A	PRE	0	81	93	88	95	0	100
	Zidua SC	3.25 fl oz/a		A	PRE							
	Sentris	8 fl oz/a		A	PRE							
	AIXR Nozzle			C	POST							
	Liberty	36 fl oz/a		C	POST							
	Outlook	12 fl oz/a		C	POST							
	AMS	8.5 lb/100 gal		C	POST							
3	Engenia	12.8 fl oz/a		A	PRE	0	74	98	91	95	0	98
	Zidua SC	3.25 fl oz/a		A	PRE							
	Sentris	8 fl oz/a		A	PRE							
	AIXR Nozzle			D	LPOS							
	Liberty	36 fl oz/a		D	LPOS							
	Outlook	12 fl oz/a		D	LPOS							
	AMS	8.5 lb/100 gal		D	LPOS							
4	TTI Nozzle			B	EPOS	0	0	28	39	39	0	99
	Engenia	12.8 fl oz/a		B	EPOS							
	Zidua SC	3.25 fl oz/a		B	EPOS							
	Sentris	8 fl oz/a		B	EPOS							
	AIXR Nozzle			C	POST							
	Liberty	36 fl oz/a		C	POST							
	Outlook	12 fl oz/a		C	POST							
	AMS	8.5 lb/100 gal		C	POST							
5	TTI Nozzle			B	EPOS	0	0	20	39	38	0	91
	Engenia	12.8 fl oz/a		B	EPOS							
	Zidua SC	3.25 fl oz/a		B	EPOS							
	Sentris	8 fl oz/a		B	EPOS							
	AIXR Nozzle			D	LPOS							
	Liberty	36 fl oz/a		D	LPOS							
	Outlook	12 fl oz/a		D	LPOS							
	AMS	8.5 lb/100 gal		D	LPOS							
6	Zidua PRO	6 fl oz/a		A	PRE	0	84	89	76	96	0	75
	TTI Nozzle			C	POST							
	Engenia	12.8 fl oz/a		C	POST							
	Outlook	12 fl oz/a		C	POST							
	Volunteer	9 fl oz/a		C	POST							
	Crop oil concentrate	1 % v/v		C	POST							
	Sentris	8 fl oz/a		C	POST							
	Cognitive 1	0.5 % v/v		C	POST							
7	Verdict	5 fl oz/a		A	PRE	0	69	80	73	95	0	64
	TTI Nozzle			C	POST							
	Engenia	12.8 fl oz/a		C	POST							
	Outlook	12 fl oz/a		C	POST							
	Volunteer	9 fl oz/a		C	POST							
	Crop oil concentrate	1 % v/v		C	POST							
	Sentris	8 fl oz/a		C	POST							
	Cognitive 1	0.5 % v/v		C	POST							

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Investigator: Christy Sprague

Rating Date	Jun-20-2023	Jun-20-2023	Jun-20-2023	Jun-20-2023	Jun-20-2023	Jul-4-2023	Jul-4-2023				
Rating Type	injury	control	control	control	control	injury	control				
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100				
Crop Type, Code	C, GLXMA					C, GLXMA					
Pest Code		ANGR	CHEAL	AMBEL	ABUTH		ANGR				
Trt-Eval Interval	0 DA-C	0 DA-C	0 DA-C	0 DA-C	0 DA-C	14 DA-C	14 DA-C				
Number of Decimals	0	0	0	0	0	0	0				
Trt No.	Treatment Name	Rate Unit	Appl Code	Appl Timing							
8	Verdict	5 fl oz/a	A	PRE	0	76	100	95	98	4	99
	Engenia	12.8 fl oz/a	A	PRE							
	Sentris	8 fl oz/a	A	PRE							
	AIXR Nozzle		C	POST							
	Liberty	36 fl oz/a	C	POST							
	Zidua SC	3.25 fl oz/a	C	POST							
	Volunteer	9 fl oz/a	C	POST							
	Crop oil concentrate	1 % v/v	C	POST							
	Cognitive 1	0.5 % v/v	C	POST							
	AMS	8.5 lb/100 gal	C	POST							
9	Zidua PRO	4.5 fl oz/a	A	PRE	0	77	100	98	99	0	99
	Engenia	12.8 fl oz/a	A	PRE							
	Sentris	8 fl oz/a	A	PRE							
	AIXR Nozzle		C	POST							
	Liberty	36 fl oz/a	C	POST							
	Outlook	12 fl oz/a	C	POST							
	AMS	8.5 lb/100 gal	C	POST							
	LSD P=.05				.	6.4	9.1	8.5	8.8	1.5	7.5
	Standard Deviation				0.0	4.4	6.2	5.8	6.0	1.0	5.2
	CV				0.0	8.57	9.23	8.76	8.29	210.78	6.42

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Protocol ID: SOY09-23 Location: Campus, C-14 Trial Year: 2023

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	Jul-4-2023	Jul-4-2023	Jul-4-2023	Jul-4-2023	Jul-18-2023	Jul-18-2023	Jul-18-2023
Rating Type	control	control	control	control	injury	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Type, Code					C, GLXMA		
Pest Code	CHEAL	AMAPO	AMBEL	ABUTH		ANGR	CHEAL
Trt-Eval Interval	14 DA-C	14 DA-C	14 DA-C	14 DA-C	28 DA-C	28 DA-C	28 DA-C
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing	0	0	0	0	0	0
1	Untreated					0	0	0	0	0	0
2	Engenia	12.8 fl oz/a		A	PRE	99	100	100	100	0	100
	Zidua SC	3.25 fl oz/a		A	PRE						
	Sentris	8 fl oz/a		A	PRE						
	AIXR Nozzle			C	POST						
	Liberty	36 fl oz/a		C	POST						
	Outlook	12 fl oz/a		C	POST						
	AMS	8.5 lb/100 gal		C	POST						
3	Engenia	12.8 fl oz/a		A	PRE	98	100	100	91	0	98
	Zidua SC	3.25 fl oz/a		A	PRE						
	Sentris	8 fl oz/a		A	PRE						
	AIXR Nozzle			D	LPOS						
	Liberty	36 fl oz/a		D	LPOS						
	Outlook	12 fl oz/a		D	LPOS						
	AMS	8.5 lb/100 gal		D	LPOS						
4	TTI Nozzle			B	EPOS	95	100	100	100	0	99
	Engenia	12.8 fl oz/a		B	EPOS						
	Zidua SC	3.25 fl oz/a		B	EPOS						
	Sentris	8 fl oz/a		B	EPOS						
	AIXR Nozzle			C	POST						
	Liberty	36 fl oz/a		C	POST						
	Outlook	12 fl oz/a		C	POST						
	AMS	8.5 lb/100 gal		C	POST						
5	TTI Nozzle			B	EPOS	89	100	100	88	0	93
	Engenia	12.8 fl oz/a		B	EPOS						
	Zidua SC	3.25 fl oz/a		B	EPOS						
	Sentris	8 fl oz/a		B	EPOS						
	AIXR Nozzle			D	LPOS						
	Liberty	36 fl oz/a		D	LPOS						
	Outlook	12 fl oz/a		D	LPOS						
	AMS	8.5 lb/100 gal		D	LPOS						
6	Zidua PRO	6 fl oz/a		A	PRE	100	100	86	98	0	89
	TTI Nozzle			C	POST						
	Engenia	12.8 fl oz/a		C	POST						
	Outlook	12 fl oz/a		C	POST						
	Volunteer	9 fl oz/a		C	POST						
	Crop oil concentrate	1 % v/v		C	POST						
	Sentris	8 fl oz/a		C	POST						
	Cognitive 1	0.5 % v/v		C	POST						
7	Verdict	5 fl oz/a		A	PRE	100	100	86	100	0	72
	TTI Nozzle			C	POST						
	Engenia	12.8 fl oz/a		C	POST						
	Outlook	12 fl oz/a		C	POST						
	Volunteer	9 fl oz/a		C	POST						
	Crop oil concentrate	1 % v/v		C	POST						
	Sentris	8 fl oz/a		C	POST						
	Cognitive 1	0.5 % v/v		C	POST						

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Protocol ID: SOY09-23 Location: Campus, C-14 Trial Year: 2023

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	Jul-4-2023	Jul-4-2023	Jul-4-2023	Jul-4-2023	Jul-18-2023	Jul-18-2023	Jul-18-2023
Rating Type	control	control	control	control	injury	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Type, Code					C, GLXMA		
Pest Code	CHEAL	AMAPO	AMBEL	ABUTH		ANGR	CHEAL
Trt-Eval Interval	14 DA-C	14 DA-C	14 DA-C	14 DA-C	28 DA-C	28 DA-C	28 DA-C
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Appl Timing	Jul-4-2023 control	Jul-4-2023 control	Jul-4-2023 control	Jul-4-2023 control	Jul-18-2023 injury	Jul-18-2023 control	Jul-18-2023 control
8	Verdict	5 fl oz/a		A	PRE	100	100	100	100	0	100	100
	Engenia	12.8 fl oz/a		A	PRE							
	Sentris	8 fl oz/a		A	PRE							
	AIXR Nozzle			C	POST							
	Liberty	36 fl oz/a		C	POST							
	Zidua SC	3.25 fl oz/a		C	POST							
	Volunteer	9 fl oz/a		C	POST							
	Crop oil concentrate	1 % v/v		C	POST							
	Cognitive 1	0.5 % v/v		C	POST							
	AMS	8.5 lb/100 gal		C	POST							
9	Zidua PRO	4.5 fl oz/a		A	PRE	100	100	100	100	0	100	100
	Engenia	12.8 fl oz/a		A	PRE							
	Sentris	8 fl oz/a		A	PRE							
	AIXR Nozzle			C	POST							
	Liberty	36 fl oz/a		C	POST							
	Outlook	12 fl oz/a		C	POST							
	AMS	8.5 lb/100 gal		C	POST							
	LSD P=.05					4.4	.	4.8	6.9	.	4.7	2.6
	Standard Deviation					3.0	0.0	3.3	4.7	0.0	3.2	1.8
	CV					3.45	0.0	3.84	5.49	0.0	3.89	1.99

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Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	Jul-18-2023	Jul-18-2023	Aug-1-2023	Aug-1-2023	Aug-1-2023	Aug-1-2023	Aug-1-2023
Rating Type	control	control	injury	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Type, Code			C, GLXMA				
Pest Code	AMBEL	ABUTH		ANGR	CHEAL	AMAPO	AMBEL
Trt-Eval Interval	28 DA-C	28 DA-C	42 DA-C	42 DA-C	42 DA-C	42 DA-C	42 DA-C
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Appl Timing	Jul-18-2023 control	Jul-18-2023 control	Aug-1-2023 injury	Aug-1-2023 control	Aug-1-2023 control	Aug-1-2023 control	Aug-1-2023 control
1	Untreated					0	0	0	0	0	0	0
2	Engenia	12.8 fl oz/a		A	PRE	100	100	0	100	100	100	98
	Zidua SC	3.25 fl oz/a		A	PRE							
	Sentris	8 fl oz/a		A	PRE							
	AIXR Nozzle			C	POST							
	Liberty	36 fl oz/a		C	POST							
	Outlook	12 fl oz/a		C	POST							
	AMS	8.5 lb/100 gal		C	POST							
3	Engenia	12.8 fl oz/a		A	PRE	100	97	0	98	100	100	98
	Zidua SC	3.25 fl oz/a		A	PRE							
	Sentris	8 fl oz/a		A	PRE							
	AIXR Nozzle			D	LPOS							
	Liberty	36 fl oz/a		D	LPOS							
	Outlook	12 fl oz/a		D	LPOS							
	AMS	8.5 lb/100 gal		D	LPOS							
4	TTI Nozzle			B	EPOS	100	100	0	99	100	100	99
	Engenia	12.8 fl oz/a		B	EPOS							
	Zidua SC	3.25 fl oz/a		B	EPOS							
	Sentris	8 fl oz/a		B	EPOS							
	AIXR Nozzle			C	POST							
	Liberty	36 fl oz/a		C	POST							
	Outlook	12 fl oz/a		C	POST							
	AMS	8.5 lb/100 gal		C	POST							
5	TTI Nozzle			B	EPOS	100	90	0	95	92	100	98
	Engenia	12.8 fl oz/a		B	EPOS							
	Zidua SC	3.25 fl oz/a		B	EPOS							
	Sentris	8 fl oz/a		B	EPOS							
	AIXR Nozzle			D	LPOS							
	Liberty	36 fl oz/a		D	LPOS							
	Outlook	12 fl oz/a		D	LPOS							
	AMS	8.5 lb/100 gal		D	LPOS							
6	Zidua PRO	6 fl oz/a		A	PRE	100	100	0	92	100	100	100
	TTI Nozzle			C	POST							
	Engenia	12.8 fl oz/a		C	POST							
	Outlook	12 fl oz/a		C	POST							
	Volunteer	9 fl oz/a		C	POST							
	Crop oil concentrate	1 % v/v		C	POST							
	Sentris	8 fl oz/a		C	POST							
	Cognitive 1	0.5 % v/v		C	POST							
7	Verdict	5 fl oz/a		A	PRE	100	100	0	76	100	100	99
	TTI Nozzle			C	POST							
	Engenia	12.8 fl oz/a		C	POST							
	Outlook	12 fl oz/a		C	POST							
	Volunteer	9 fl oz/a		C	POST							
	Crop oil concentrate	1 % v/v		C	POST							
	Sentris	8 fl oz/a		C	POST							
	Cognitive 1	0.5 % v/v		C	POST							

Could not calculate LSD (% mean diff) for columns 1,3,4,7,15,18,23,26,31 because error mean square = 0.

Michigan State University

Weed control programs with Engenia in XtendFlex soybean

Trial ID: SOY09-23

Protocol ID: SOY09-23 Location: Campus, C-14 Trial Year: 2023

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	Jul-18-2023	Jul-18-2023	Aug-1-2023	Aug-1-2023	Aug-1-2023	Aug-1-2023	Aug-1-2023				
Rating Type	control	control	injury	control	control	control	control				
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100				
Crop Type, Code	C, GLXMA										
Pest Code	AMBEL	ABUTH		ANGR	CHEAL	AMAPO	AMBEL				
Trt-Eval Interval	28 DA-C	28 DA-C	42 DA-C	42 DA-C	42 DA-C	42 DA-C	42 DA-C				
Number of Decimals	0	0	0	0	0	0	0				
Trt No.	Treatment Name	Rate	Appl Code	Appl Timing							
8	Verdict	5 fl oz/a	A	PRE	100	100	0	98	100	100	100
	Engenia	12.8 fl oz/a	A	PRE							
	Sentris	8 fl oz/a	A	PRE							
	AIXR Nozzle		C	POST							
	Liberty	36 fl oz/a	C	POST							
	Zidua SC	3.25 fl oz/a	C	POST							
	Volunteer	9 fl oz/a	C	POST							
	Crop oil concentrate	1 % v/v	C	POST							
	Cognitive 1	0.5 % v/v	C	POST							
	AMS	8.5 lb/100 gal	C	POST							
9	Zidua PRO	4.5 fl oz/a	A	PRE	100	100	0	99	100	100	98
	Engenia	12.8 fl oz/a	A	PRE							
	Sentris	8 fl oz/a	A	PRE							
	AIXR Nozzle		C	POST							
	Liberty	36 fl oz/a	C	POST							
	Outlook	12 fl oz/a	C	POST							
	AMS	8.5 lb/100 gal	C	POST							
	LSD P=.05				0.6	4.6	.	5.7	3.9	.	2.2
	Standard Deviation				0.4	3.1	0.0	3.9	2.7	0.0	1.5
	CV				0.5	3.6	0.0	4.69	3.04	0.0	1.73

Could not calculate LSD (% mean diff) for columns 1,3,4,7,15,18,23,26,31 because error mean square = 0.

Michigan State University

Weed control programs with Engenia in XtendFlex soybean

Trial ID: SOY09-23

Protocol ID: SOY09-23 Location: Campus, C-14 Trial Year: 2023

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	Aug-1-2023	Oct-23-2023	Oct-23-2023	Oct-23-2023	Oct-23-2023	Oct-23-2023
Rating Type	control	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Type, Code						
Pest Code	ABUTH	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Trt-Eval Interval	42 DA-C	@harvest	@harvest	@harvest	@harvest	@harvest
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing	Aug-1-2023	Oct-23-2023	Oct-23-2023	Oct-23-2023	Oct-23-2023	Oct-23-2023
1	Untreated					0	0	0	0	0	0
2	Engenia	12.8 fl oz/a		A	PRE	100	99	99	100	100	100
	Zidua SC	3.25 fl oz/a		A	PRE						
	Sentris	8 fl oz/a		A	PRE						
	AIXR Nozzle			C	POST						
	Liberty	36 fl oz/a		C	POST						
	Outlook	12 fl oz/a		C	POST						
	AMS	8.5 lb/100 gal		C	POST						
3	Engenia	12.8 fl oz/a		A	PRE	98	96	100	100	100	95
	Zidua SC	3.25 fl oz/a		A	PRE						
	Sentris	8 fl oz/a		A	PRE						
	AIXR Nozzle			D	LPOS						
	Liberty	36 fl oz/a		D	LPOS						
	Outlook	12 fl oz/a		D	LPOS						
	AMS	8.5 lb/100 gal		D	LPOS						
4	TTI Nozzle			B	EPOS	100	99	100	100	99	100
	Engenia	12.8 fl oz/a		B	EPOS						
	Zidua SC	3.25 fl oz/a		B	EPOS						
	Sentris	8 fl oz/a		B	EPOS						
	AIXR Nozzle			C	POST						
	Liberty	36 fl oz/a		C	POST						
	Outlook	12 fl oz/a		C	POST						
	AMS	8.5 lb/100 gal		C	POST						
5	TTI Nozzle			B	EPOS	95	88	96	100	99	95
	Engenia	12.8 fl oz/a		B	EPOS						
	Zidua SC	3.25 fl oz/a		B	EPOS						
	Sentris	8 fl oz/a		B	EPOS						
	AIXR Nozzle			D	LPOS						
	Liberty	36 fl oz/a		D	LPOS						
	Outlook	12 fl oz/a		D	LPOS						
	AMS	8.5 lb/100 gal		D	LPOS						
6	Zidua PRO	6 fl oz/a		A	PRE	100	89	100	100	100	100
	TTI Nozzle			C	POST						
	Engenia	12.8 fl oz/a		C	POST						
	Outlook	12 fl oz/a		C	POST						
	Volunteer	9 fl oz/a		C	POST						
	Crop oil concentrate	1 % v/v		C	POST						
	Sentris	8 fl oz/a		C	POST						
	Cognitive 1	0.5 % v/v		C	POST						
7	Verdict	5 fl oz/a		A	PRE	100	58	100	100	99	100
	TTI Nozzle			C	POST						
	Engenia	12.8 fl oz/a		C	POST						
	Outlook	12 fl oz/a		C	POST						
	Volunteer	9 fl oz/a		C	POST						
	Crop oil concentrate	1 % v/v		C	POST						
	Sentris	8 fl oz/a		C	POST						
	Cognitive 1	0.5 % v/v		C	POST						

Could not calculate LSD (% mean diff) for columns 1,3,4,7,15,18,23,26,31 because error mean square = 0.

Michigan State University

Weed control programs with Engenia in XtendFlex soybean

Trial ID: SOY09-23

Protocol ID: SOY09-23 Location: Campus, C-14 Trial Year: 2023

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	Aug-1-2023	Oct-23-2023	Oct-23-2023	Oct-23-2023	Oct-23-2023	Oct-23-2023				
Rating Type	control	control	control	control	control	control				
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100				
Crop Type, Code										
Pest Code	ABUTH	ANGR	CHEAL	AMAPO	AMBEL	ABUTH				
Trt-Eval Interval	42 DA-C	@harvest	@harvest	@harvest	@harvest	@harvest				
Number of Decimals	0	0	0	0	0	0				
Trt No.	Treatment Name	Rate	Appl Code	Appl Timing						
8	Verdict	5 fl oz/a	A	PRE	100	97	100	100	99	100
	Engenia	12.8 fl oz/a	A	PRE						
	Sentris	8 fl oz/a	A	PRE						
	AIXR Nozzle		C	POST						
	Liberty	36 fl oz/a	C	POST						
	Zidua SC	3.25 fl oz/a	C	POST						
	Volunteer	9 fl oz/a	C	POST						
	Crop oil concentrate	1 % v/v	C	POST						
	Cognitive 1	0.5 % v/v	C	POST						
	AMS	8.5 lb/100 gal	C	POST						
9	Zidua PRO	4.5 fl oz/a	A	PRE	100	100	100	100	100	100
	Engenia	12.8 fl oz/a	A	PRE						
	Sentris	8 fl oz/a	A	PRE						
	AIXR Nozzle		C	POST						
	Liberty	36 fl oz/a	C	POST						
	Outlook	12 fl oz/a	C	POST						
	AMS	8.5 lb/100 gal	C	POST						
	LSD P=.05				5.5	6.8	3.5	.	1.8	4.1
	Standard Deviation				3.8	4.7	2.4	0.0	1.2	2.8
	CV				4.3	5.78	2.69	0.0	1.38	3.22

Could not calculate LSD (% mean diff) for columns 1,3,4,7,15,18,23,26,31 because error mean square = 0.