

Overlapping residuals for weed control in XtendFlex soybean - "Stewarded"

Trial ID: SOY08-20 Study Dir.: Sprague, Powell, Stiles
 Conducted: Campus, T-12 Investigator: Christy Sprague

Planting Date: May-23-2020 **Row Spacing:** 30 FT
Variety: AG22XF1 **No. of Reps:** 4
Population: 156000 seeds/A **% OM:** 3.3
Soil Type: CL clay loam **pH:** 6.4
Plot Size: 10 X 35 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plow, fall soil finish; Spring soil finish (2X)

Fertilizer:

Crop and Weed Description

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

Application Description

	A	B	C	D
Application Timing:	PRE	EPOS	POST	LPOS
Date Treated:	May-23-2020	Jun-15-2020	Jun-25-2020	Jun-29-2020
Time Treated:	3:00 PM	9:50 AM	2:05 PM	3:40 PM
% Cloud Cover:	75	0	60	20
Air Temp., Unit:	75 F	63 F	73 F	89 F
% Relative Humidity:	72	60	44	43
Wind Speed/Unit/Dir:	6.5 mph SE	5 mph E	5 mph W	5 mph SE
Soil Temp, Unit:	66 F	61 F	90 F	99 F
Leaf Moist/Dew Presence (Y/N):	4	5	5	5
Soil Moist:	5	5	5	5

Crop Stage at Each Application

	A	B	C	D
Crop 1 Name:	GLXMA	GLXMA	GLXMA	GLXMA
Height:		5 "	8 "	11 "
Stage:		V2	V3	V4

Weed Stage at Each Application

	A	B	C	D
Weed 1 Name:	ANGR	ANGR	ANGR	ANGR
Height:		5 "	8-12 " (10)	12-13 " (12.5)
Stage:		4L	4L	4L
Weed 2 Name:	CHEAL	CHEAL	CHEAL	CHEAL
Height:		1.5 "	2-5 " (3.5)	
Stage:		4L	6-12L	
Weed 3 Name:	AMAPO	AMAPO	AMAPO	AMAPO
Height:		1.5 "	6-8 " (7)	5-7 " (6)
Stage:		3L	6-10L	8-12L
Weed 4 Name:	AMBEL	AMBEL	AMBEL	AMBEL
Height:		2 "	2-8 " (5)	8-12 " (10)
Stage:		4L	6-10L	6-10L
Weed 5 Name:	ABUTH	ABUTH	ABUTH	ABUTH
Height:		8 "		12 "
Stage:		flower		flower
Weed 6 Name:	SINAR	SINAR	SINAR	SINAR
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	SINAR
Density:	21 FT2	1 FT2	2 FT2	2 FT2	1 FT2	1 FT2

Application Equipment

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Trial ID: SOY08-20

Study Dir.: Sprague, Powell, Stiles

Conducted: Campus, T-12

Investigator: Christy Sprague

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	20 "	22 "	100 "	19 GPA	WATER	27 psi
B	CUB	3.8 mph	TTI	11003	26 "	23 "	100 "	19 GPA	WATER	27 psi
C	CUB	3.8 mph	TTI/AIXR	11003	20 "	26 "	100 "	19 GPA	WATER	30 psi
D	CUB	3.8 mph	AIXR	11003	26 "	32 "	100 "	19 GPA	WATER	30 psi

Comments: The common ragweed (AMBEL) population in this trial is resistant to the Group 2 (ALS-inhibiting) herbicides.

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 Sponsor Contact:

Pest Code	ANGR	CHEAL	AMAPO	AMBEL	SINAR
Crop Type, Code	C GLXMA				
Rating Date	Jun-24-2020	Jun-24-2020	Jun-24-2020	Jun-24-2020	Jun-24-2020
Rating Type	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	32 DA-A	32 DA-A	32 DA-A	32 DA-A	32 DA-A
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Appl Timing	Appl Code						
1	TTI Nozzle						9	13	100	96	85	96
	Engenia Prime	5.23	L	16 fl oz/a	EPOS	B						
	Induce		L	0.25 % v/v	EPOS	B						
	Intact		L	0.5 % v/v	EPOS	B						
2	TTI Nozzle						5	13	100	95	94	94
	Engenia PRO	4.54	L	16 fl oz/a	EPOS	B						
	Induce		L	0.25 % v/v	EPOS	B						
	Intact		L	0.5 % v/v	EPOS	B						
	AIXR Nozzle				LPOS	D						
	Liberty	2.34	L	32 fl oz/a	LPOS	D						
	Outlook	6	L	16 fl oz/a	LPOS	D						
	AMS		WG	8.5 lb/100 gal	LPOS	D						
3	Untreated						0	0	0	0	0	0
4	Zidua PRO	4.09	L	4.5 fl oz/a	PRE	A	2	78	100	95	78	95
	AIXR Nozzle				POST	C						
	Liberty	2.34	L	32 fl oz/a	POST	C						
	Outlook	6	L	16 fl oz/a	POST	C						
	AMS		WG	8.5 lb/100 gal	POST	C						
5	Engenia Prime	5.23	L	16 fl oz/a	PRE	A	1	71	100	100	100	100
	AIXR Nozzle				POST	C						
	Liberty	2.34	L	32 fl oz/a	POST	C						
	Outlook	6	L	16 fl oz/a	POST	C						
	AMS		WG	8.5 lb/100 gal	POST	C						
6	Engenia PRO	4.54	L	16 fl oz/a	PRE	A	1	68	100	100	98	100
	AIXR Nozzle				POST	C						
	Liberty	2.34	L	32 fl oz/a	POST	C						
	Outlook	6	L	16 fl oz/a	POST	C						
	AMS		WG	8.5 lb/100 gal	POST	C						
7	XtendiMax	2.9	SL	44 fl oz/a	PRE	A	3	82	100	100	100	98
	Warrant	3	L	3 pt/a	PRE	A						
	AIXR Nozzle				POST	C						
	Warrant Ultra	3.45	L	50 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	AMS		WG	17 lb/100 gal	POST	C						
8	Zidua PRO	4.09	L	4.5 fl oz/a	PRE	A	1	75	98	100	73	100
	TTI Nozzle				POST	C						
	Engenia PRO	4.54	L	16 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Induce		L	0.25 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						
9	Boundary	6.5	L	2 pt/a	PRE	A	6	88	100	93	81	95
	TTI Nozzle				POST	C						
	Tavium	3.4	L	56.5 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Class Act Ridion		L	1 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						

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Pest Code						ANGR	CHEAL	AMAPO	AMBEL	SINAR		
Crop Type, Code	C	GLXMA										
Rating Date	Jun-24-2020	Jun-24-2020	Jun-24-2020	Jun-24-2020	Jun-24-2020	Jun-24-2020	Jun-24-2020	Jun-24-2020	Jun-24-2020	Jun-24-2020		
Rating Type	injury	control	control	control	control	control	control	control	control	control		
Rating Unit	percent	percent	percent	percent	percent	percent	percent	percent	percent	percent		
Trt-Eval Interval	32 DA-A	32 DA-A	32 DA-A	32 DA-A	32 DA-A	32 DA-A	32 DA-A	32 DA-A	32 DA-A	32 DA-A		
Number of Decimals	0	0	0	0	0	0	0	0	0	0		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Appl Timing	Appl Code						
10	Prefix	5.29	L	2 pt/a	PRE	A	4	88	100	99	99	100
	Metribuzin	75	WG	6 oz/a	PRE	A						
	TTI Nozzle				POST	C						
	Tavium	3.4	L	56.5 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Class Act Ridion		L	1 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						
11	Prefix	5.29	L	2 pt/a	PRE	A	4	79	95	100	91	100
	FirstRate	84	WG	0.5 oz/a	PRE	A						
	TTI Nozzle				POST	C						
	Tavium	3.4	L	56.5 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Class Act Ridion		L	1 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						
12	Sonic	70	WG	5 oz/a	PRE	A	1	72	100	100	81	100
	TTI Nozzle				POST	C						
	FeXapan	2.9	SL	22 fl oz/a	POST	C						
	EverpreX	7.62	L	16 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Induce		L	0.25 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						
13	Fierce XLT	62.41	WG	4 oz/a	PRE	A	6	78	100	100	95	100
	TTI Nozzle				POST	C						
	XtendiMax	2.9	SL	22 fl oz/a	POST	C						
	Warrant	3	L	3 pt/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Induce		L	0.25 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						
	LSD P=.05						4.0	9.4	3.2	5.6	8.9	5.8
	Standard Deviation						2.8	6.6	2.2	3.9	6.2	4.1
	CV						87.66	10.68	2.43	4.29	7.48	4.47

Could not calculate LSD (% mean diff) for columns 10,11,14,17,18,20,21,24,27,28,30,31,32 because error mean square = 0.

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 Sponsor Contact:

Pest Code	ABUTH	C GLXMA	ANGR	CHEAL	AMAPO	AMBEL
Crop Type, Code	Jun-24-2020	Jun-29-2020	Jun-29-2020	Jun-29-2020	Jun-29-2020	Jun-29-2020
Rating Date	control	injury	control	control	control	control
Rating Type	percent	percent	percent	percent	percent	percent
Rating Unit	32 DA-A	14 DA-B	14 DA-B	14 DA-B	14 DA-B	14 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	Appl Timing	Appl Code						
1	TTI Nozzle				EPOS	B	100	2	23	100	100	100
	Engenia Prime	5.23	L	16 fl oz/a	EPOS	B						
	Induce		L	0.25 % v/v	EPOS	B						
	Intact		L	0.5 % v/v	EPOS	B						
2	TTI Nozzle				EPOS	B	100	4	15	100	100	100
	Engenia PRO	4.54	L	16 fl oz/a	EPOS	B						
	Induce		L	0.25 % v/v	EPOS	B						
	Intact		L	0.5 % v/v	EPOS	B						
	AIXR Nozzle				LPOS	D						
	Liberty	2.34	L	32 fl oz/a	LPOS	D						
	Outlook	6	L	16 fl oz/a	LPOS	D						
	AMS		WG	8.5 lb/100 gal	LPOS	D						
3	Untreated						0	0	0	0	0	0
4	Zidua PRO	4.09	L	4.5 fl oz/a	PRE	A	100	6	92	100	100	99
	AIXR Nozzle				POST	C						
	Liberty	2.34	L	32 fl oz/a	POST	C						
	Outlook	6	L	16 fl oz/a	POST	C						
	AMS		WG	8.5 lb/100 gal	POST	C						
5	Engenia Prime	5.23	L	16 fl oz/a	PRE	A	95	5	92	100	100	100
	AIXR Nozzle				POST	C						
	Liberty	2.34	L	32 fl oz/a	POST	C						
	Outlook	6	L	16 fl oz/a	POST	C						
	AMS		WG	8.5 lb/100 gal	POST	C						
6	Engenia PRO	4.54	L	16 fl oz/a	PRE	A	91	7	92	100	100	100
	AIXR Nozzle				POST	C						
	Liberty	2.34	L	32 fl oz/a	POST	C						
	Outlook	6	L	16 fl oz/a	POST	C						
	AMS		WG	8.5 lb/100 gal	POST	C						
7	XtendiMax	2.9	SL	44 fl oz/a	PRE	A	94	7	98	100	100	100
	Warrant	3	L	3 pt/a	PRE	A						
	AIXR Nozzle				POST	C						
	Warrant Ultra	3.45	L	50 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	AMS		WG	17 lb/100 gal	POST	C						
8	Zidua PRO	4.09	L	4.5 fl oz/a	PRE	A	86	5	93	100	100	100
	TTI Nozzle				POST	C						
	Engenia PRO	4.54	L	16 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Induce		L	0.25 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						
9	Boundary	6.5	L	2 pt/a	PRE	A	90	6	99	100	100	98
	TTI Nozzle				POST	C						
	Tavium	3.4	L	56.5 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Class Act Ridion		L	1 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						

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Pest Code		ABUTH		ANGR	CHEAL	AMAPO	AMBEL					
Crop Type, Code		C GLXMA										
Rating Date		Jun-24-2020	Jun-29-2020	Jun-29-2020	Jun-29-2020	Jun-29-2020	Jun-29-2020					
Rating Type		control	injury	control	control	control	control					
Rating Unit		percent	percent	percent	percent	percent	percent					
Trt-Eval Interval		32 DA-A	14 DA-B	14 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						
10	Prefix	5.29	L	2 pt/a	PRE	A	91	6	98	100	100	100
	Metribuzin	75	WG	6 oz/a	PRE	A						
	TTI Nozzle				POST	C						
	Tavium	3.4	L	56.5 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Class Act Ridion		L	1 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						
11	Prefix	5.29	L	2 pt/a	PRE	A	96	4	96	100	100	100
	FirstRate	84	WG	0.5 oz/a	PRE	A						
	TTI Nozzle				POST	C						
	Tavium	3.4	L	56.5 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Class Act Ridion		L	1 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						
12	Sonic	70	WG	5 oz/a	PRE	A	94	7	93	100	100	100
	TTI Nozzle				POST	C						
	FeXapan	2.9	SL	22 fl oz/a	POST	C						
	EverpreX	7.62	L	16 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Induce		L	0.25 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						
13	Fierce XLT	62.41	WG	4 oz/a	PRE	A	100	6	95	100	100	100
	TTI Nozzle				POST	C						
	XtendiMax	2.9	SL	22 fl oz/a	POST	C						
	Warrant	3	L	3 pt/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Induce		L	0.25 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						
	LSD P=.05						12.1	4.2	4.7	.	.	1.2
	Standard Deviation						8.4	2.9	3.2	0.0	0.0	0.9
	CV						9.65	59.6	4.3	0.0	0.0	0.94

Could not calculate LSD (% mean diff) for columns 10,11,14,17,18,20,21,24,27,28,30,31,32 because error mean square = 0.

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 Sponsor Contact:

Pest Code	SINAR	ABUTH	C GLXMA	ANGR	CHEAL	AMAPO
Crop Type, Code						
Rating Date	Jun-29-2020	Jun-29-2020	Jul-9-2020	Jul-9-2020	Jul-9-2020	Jul-9-2020
Rating Type	control	control	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	14 DA-B	14 DA-B	14 DA-C	14 DA-C	14 DA-C	14 DA-C
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Appl Timing	Appl Code						
1	TTI Nozzle						98	100	3	34	100	100
	Engenia Prime	5.23 L		16 fl oz/a	EPOS B							
	Induce	L		0.25 % v/v	EPOS B							
	Intact	L		0.5 % v/v	EPOS B							
2	TTI Nozzle						100	100	8	100	100	100
	Engenia PRO	4.54 L		16 fl oz/a	EPOS B							
	Induce	L		0.25 % v/v	EPOS B							
	Intact	L		0.5 % v/v	EPOS B							
	AIXR Nozzle				LPOS D							
	Liberty	2.34 L		32 fl oz/a	LPOS D							
	Outlook	6 L		16 fl oz/a	LPOS D							
	AMS	WG		8.5 lb/100 gal	LPOS D							
3	Untreated						0	0	0	0	0	0
4	Zidua PRO	4.09 L		4.5 fl oz/a	PRE A		100	100	7	100	100	100
	AIXR Nozzle				POST C							
	Liberty	2.34 L		32 fl oz/a	POST C							
	Outlook	6 L		16 fl oz/a	POST C							
	AMS	WG		8.5 lb/100 gal	POST C							
5	Engenia Prime	5.23 L		16 fl oz/a	PRE A		100	100	4	100	100	100
	AIXR Nozzle				POST C							
	Liberty	2.34 L		32 fl oz/a	POST C							
	Outlook	6 L		16 fl oz/a	POST C							
	AMS	WG		8.5 lb/100 gal	POST C							
6	Engenia PRO	4.54 L		16 fl oz/a	PRE A		100	100	1	100	100	100
	AIXR Nozzle				POST C							
	Liberty	2.34 L		32 fl oz/a	POST C							
	Outlook	6 L		16 fl oz/a	POST C							
	AMS	WG		8.5 lb/100 gal	POST C							
7	XtendiMax	2.9 SL		44 fl oz/a	PRE A		100	100	4	100	100	100
	Warrant	3 L		3 pt/a	PRE A							
	AIXR Nozzle				POST C							
	Warrant Ultra	3.45 L		50 fl oz/a	POST C							
	Roundup PowerMax	4.5 SL		32 fl oz/a	POST C							
	AMS	WG		17 lb/100 gal	POST C							
8	Zidua PRO	4.09 L		4.5 fl oz/a	PRE A		100	100	0	100	100	100
	TTI Nozzle				POST C							
	Engenia PRO	4.54 L		16 fl oz/a	POST C							
	Roundup PowerMax	4.5 SL		32 fl oz/a	POST C							
	Induce	L		0.25 % v/v	POST C							
	Intact	L		0.5 % v/v	POST C							
9	Boundary	6.5 L		2 pt/a	PRE A		100	100	4	100	100	100
	TTI Nozzle				POST C							
	Tavium	3.4 L		56.5 fl oz/a	POST C							
	Roundup PowerMax	4.5 SL		32 fl oz/a	POST C							
	Class Act Ridion	L		1 % v/v	POST C							
	Intact	L		0.5 % v/v	POST C							

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Pest Code	SINAR	ABUTH	C GLXMA	ANGR	CHEAL	AMAPO						
Crop Type, Code	Jun-29-2020	Jun-29-2020	Jul-9-2020	Jul-9-2020	Jul-9-2020	Jul-9-2020						
Rating Date	control	control	injury	control	control	control						
Rating Type	percent	percent	percent	percent	percent	percent						
Rating Unit	14 DA-B	14 DA-B	14 DA-C	14 DA-C	14 DA-C	14 DA-C						
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 Unit	Appl Timing	Appl Code						
10	Prefix	5.29 L	L	2 pt/a	PRE	A	100	100	1	100	100	100
	Metribuzin	75 WG	WG	6 oz/a	PRE	A						
	TTI Nozzle				POST	C						
	Tavium	3.4 L	L	56.5 fl oz/a	POST	C						
	Roundup PowerMax	4.5 SL	SL	32 fl oz/a	POST	C						
	Class Act Ridion	L	L	1 % v/v	POST	C						
	Intact	L	L	0.5 % v/v	POST	C						
11	Prefix	5.29 L	L	2 pt/a	PRE	A	100	100	3	100	100	100
	FirstRate	84 WG	WG	0.5 oz/a	PRE	A						
	TTI Nozzle				POST	C						
	Tavium	3.4 L	L	56.5 fl oz/a	POST	C						
	Roundup PowerMax	4.5 SL	SL	32 fl oz/a	POST	C						
	Class Act Ridion	L	L	1 % v/v	POST	C						
	Intact	L	L	0.5 % v/v	POST	C						
12	Sonic	70 WG	WG	5 oz/a	PRE	A	100	100	4	100	100	100
	TTI Nozzle				POST	C						
	FeXapan	2.9 SL	SL	22 fl oz/a	POST	C						
	EverpreX	7.62 L	L	16 fl oz/a	POST	C						
	Roundup PowerMax	4.5 SL	SL	32 fl oz/a	POST	C						
	Induce	L	L	0.25 % v/v	POST	C						
	Intact	L	L	0.5 % v/v	POST	C						
13	Fierce XLT	62.41 WG	WG	4 oz/a	PRE	A	100	100	4	99	100	100
	TTI Nozzle				POST	C						
	XtendiMax	2.9 SL	SL	22 fl oz/a	POST	C						
	Warrant	3 L	L	3 pt/a	POST	C						
	Roundup PowerMax	4.5 SL	SL	32 fl oz/a	POST	C						
	Induce	L	L	0.25 % v/v	POST	C						
	Intact	L	L	0.5 % v/v	POST	C						
	LSD P=.05						2.0	.	4.6	2.2	.	.
	Standard Deviation						1.4	0.0	3.2	1.6	0.0	0.0
	CV						1.53	0.0	99.96	1.8	0.0	0.0

Could not calculate LSD (% mean diff) for columns 10,11,14,17,18,20,21,24,27,28,30,31,32 because error mean square = 0.

Overlapping residuals for weed control in XtendFlex soybean - "Stewarded"

Trial ID: SOY08-20 Location: Campus, T-12 Trial Year: 2020
 Protocol ID: SOY08-20 Investigator (Creator): Christy Sprague
 Project ID: Study Director: Sprague, Powell, Stiles
 Sponsor Contact:

Pest Code	AMBEL	SINAR	ABUTH	C GLXMA	ANGR	CHEAL
Crop Type, Code	Jul-9-2020	Jul-9-2020	Jul-9-2020	Jul-23-2020	Jul-23-2020	Jul-23-2020
Rating Date	control	control	control	injury	control	control
Rating Type	percent	percent	percent	percent	percent	percent
Rating Unit	14 DA-C	14 DA-C	14 DA-C	28 DA-C	28 DA-C	28 DA-C
Trt-Eval Interval	0	0	0	0	0	0
Number of Decimals						

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Appl Timing	Appl Code	AMBEL	SINAR	ABUTH	C GLXMA	ANGR	CHEAL
1	TTI Nozzle				EPOS	B	100	100	100	0	30	100
	Engenia Prime	5.23	L	16 fl oz/a	EPOS	B						
	Induce		L	0.25 % v/v	EPOS	B						
	Intact		L	0.5 % v/v	EPOS	B						
2	TTI Nozzle				EPOS	B	100	100	100	4	100	100
	Engenia PRO	4.54	L	16 fl oz/a	EPOS	B						
	Induce		L	0.25 % v/v	EPOS	B						
	Intact		L	0.5 % v/v	EPOS	B						
	AIXR Nozzle				LPOS	D						
	Liberty	2.34	L	32 fl oz/a	LPOS	D						
	Outlook	6	L	16 fl oz/a	LPOS	D						
	AMS		WG	8.5 lb/100 gal	LPOS	D						
3	Untreated						0	0	0	0	0	0
4	Zidua PRO	4.09	L	4.5 fl oz/a	PRE	A	99	100	100	1	96	100
	AIXR Nozzle				POST	C						
	Liberty	2.34	L	32 fl oz/a	POST	C						
	Outlook	6	L	16 fl oz/a	POST	C						
	AMS		WG	8.5 lb/100 gal	POST	C						
5	Engenia Prime	5.23	L	16 fl oz/a	PRE	A	100	100	100	0	99	100
	AIXR Nozzle				POST	C						
	Liberty	2.34	L	32 fl oz/a	POST	C						
	Outlook	6	L	16 fl oz/a	POST	C						
	AMS		WG	8.5 lb/100 gal	POST	C						
6	Engenia PRO	4.54	L	16 fl oz/a	PRE	A	100	100	100	0	99	100
	AIXR Nozzle				POST	C						
	Liberty	2.34	L	32 fl oz/a	POST	C						
	Outlook	6	L	16 fl oz/a	POST	C						
	AMS		WG	8.5 lb/100 gal	POST	C						
7	XtendiMax	2.9	SL	44 fl oz/a	PRE	A	100	100	100	0	100	100
	Warrant	3	L	3 pt/a	PRE	A						
	AIXR Nozzle				POST	C						
	Warrant Ultra	3.45	L	50 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	AMS		WG	17 lb/100 gal	POST	C						
8	Zidua PRO	4.09	L	4.5 fl oz/a	PRE	A	100	100	100	0	97	100
	TTI Nozzle				POST	C						
	Engenia PRO	4.54	L	16 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Induce		L	0.25 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						
9	Boundary	6.5	L	2 pt/a	PRE	A	100	100	100	0	100	100
	TTI Nozzle				POST	C						
	Tavium	3.4	L	56.5 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Class Act Ridion		L	1 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						

Overlapping residuals for weed control in XtendFlex soybean - "Stewarded"

Trial ID: SOY08-20 Location: Campus, T-12 Trial Year: 2020
 Protocol ID: SOY08-20 Investigator (Creator): Christy Sprague
 Project ID: Study Director: Sprague, Powell, Stiles
 Sponsor Contact:

Pest Code		AMBEL	SINAR	ABUTH	C GLXMA	ANGR	CHEAL					
Crop Type, Code		Jul-9-2020	Jul-9-2020	Jul-9-2020	Jul-23-2020	Jul-23-2020	Jul-23-2020					
Rating Date		control	control	control	injury	control	control					
Rating Type		percent	percent	percent	percent	percent	percent					
Rating Unit		14 DA-C	14 DA-C	14 DA-C	28 DA-C	28 DA-C	28 DA-C					
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	Appl Timing	Appl Code						
10	Prefix	5.29	L	2 pt/a	PRE	A	100	100	100	0	100	100
	Metribuzin	75	WG	6 oz/a	PRE	A						
	TTI Nozzle				POST	C						
	Tavium	3.4	L	56.5 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Class Act Ridion		L	1 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						
11	Prefix	5.29	L	2 pt/a	PRE	A	100	100	100	0	99	100
	FirstRate	84	WG	0.5 oz/a	PRE	A						
	TTI Nozzle				POST	C						
	Tavium	3.4	L	56.5 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Class Act Ridion		L	1 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						
12	Sonic	70	WG	5 oz/a	PRE	A	100	100	100	0	100	100
	TTI Nozzle				POST	C						
	FeXapan	2.9	SL	22 fl oz/a	POST	C						
	EverpreX	7.62	L	16 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Induce		L	0.25 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						
13	Fierce XLT	62.41	WG	4 oz/a	PRE	A	100	100	100	2	100	100
	TTI Nozzle				POST	C						
	XtendiMax	2.9	SL	22 fl oz/a	POST	C						
	Warrant	3	L	3 pt/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Induce		L	0.25 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						
	LSD P=.05						0.6	.	.	1.0	5.3	.
	Standard Deviation						0.4	0.0	0.0	0.7	3.7	0.0
	CV						0.43	0.0	0.0	154.03	4.28	0.0

Could not calculate LSD (% mean diff) for columns 10,11,14,17,18,20,21,24,27,28,30,31,32 because error mean square = 0.

Overlapping residuals for weed control in XtendFlex soybean - "Stewarded"

Trial ID: SOY08-20 Location: Campus, T-12 Trial Year: 2020
 Protocol ID: SOY08-20 Investigator (Creator): Christy Sprague
 Project ID: Study Director: Sprague, Powell, Stiles
 Sponsor Contact:

Pest Code	AMAPO	AMBEL	SINAR	ABUTH	ANGR	CHEAL
Crop Type, Code						
Rating Date	Jul-23-2020	Jul-23-2020	Jul-23-2020	Jul-23-2020	Oct-13-2020	Oct-13-2020
Rating Type	control	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	28 DA-C	28 DA-C	28 DA-C	28 DA-C	110 DA-C	110 DA-C
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Appl Timing	Appl Code	AMAPO	AMBEL	SINAR	ABUTH	ANGR	CHEAL
1	TTI Nozzle				EPOS	B	100	100	100	100	41	100
	Engenia Prime	5.23	L	16 fl oz/a	EPOS	B						
	Induce		L	0.25 % v/v	EPOS	B						
	Intact		L	0.5 % v/v	EPOS	B						
2	TTI Nozzle				EPOS	B	100	100	100	100	100	100
	Engenia PRO	4.54	L	16 fl oz/a	EPOS	B						
	Induce		L	0.25 % v/v	EPOS	B						
	Intact		L	0.5 % v/v	EPOS	B						
	AIXR Nozzle				LPOS	D						
	Liberty	2.34	L	32 fl oz/a	LPOS	D						
	Outlook	6	L	16 fl oz/a	LPOS	D						
	AMS		WG	8.5 lb/100 gal	LPOS	D						
3	Untreated						0	0	0	0	0	0
4	Zidua PRO	4.09	L	4.5 fl oz/a	PRE	A	98	99	100	100	100	100
	AIXR Nozzle				POST	C						
	Liberty	2.34	L	32 fl oz/a	POST	C						
	Outlook	6	L	16 fl oz/a	POST	C						
	AMS		WG	8.5 lb/100 gal	POST	C						
5	Engenia Prime	5.23	L	16 fl oz/a	PRE	A	100	100	100	100	100	100
	AIXR Nozzle				POST	C						
	Liberty	2.34	L	32 fl oz/a	POST	C						
	Outlook	6	L	16 fl oz/a	POST	C						
	AMS		WG	8.5 lb/100 gal	POST	C						
6	Engenia PRO	4.54	L	16 fl oz/a	PRE	A	100	100	100	100	100	100
	AIXR Nozzle				POST	C						
	Liberty	2.34	L	32 fl oz/a	POST	C						
	Outlook	6	L	16 fl oz/a	POST	C						
	AMS		WG	8.5 lb/100 gal	POST	C						
7	XtendiMax	2.9	SL	44 fl oz/a	PRE	A	100	100	100	100	100	100
	Warrant	3	L	3 pt/a	PRE	A						
	AIXR Nozzle				POST	C						
	Warrant Ultra	3.45	L	50 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	AMS		WG	17 lb/100 gal	POST	C						
8	Zidua PRO	4.09	L	4.5 fl oz/a	PRE	A	100	100	100	100	100	100
	TTI Nozzle				POST	C						
	Engenia PRO	4.54	L	16 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Induce		L	0.25 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						
9	Boundary	6.5	L	2 pt/a	PRE	A	100	100	100	100	99	100
	TTI Nozzle				POST	C						
	Tavium	3.4	L	56.5 fl oz/a	POST	C						
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C						
	Class Act Ridion		L	1 % v/v	POST	C						
	Intact		L	0.5 % v/v	POST	C						

Overlapping residuals for weed control in XtendFlex soybean - "Stewarded"

Trial ID: SOY08-20 Location: Campus, T-12 Trial Year: 2020
 Protocol ID: SOY08-20 Investigator (Creator): Christy Sprague
 Project ID: Study Director: Sprague, Powell, Stiles
 Sponsor Contact:

Pest Code		AMAPO	AMBEL	SINAR	ABUTH	ANGR	CHEAL				
Crop Type, Code											
Rating Date		Jul-23-2020	Jul-23-2020	Jul-23-2020	Jul-23-2020	Oct-13-2020	Oct-13-2020				
Rating Type		control	control	control	control	control	control				
Rating Unit		percent	percent	percent	percent	percent	percent				
Trt-Eval Interval		28 DA-C	28 DA-C	28 DA-C	28 DA-C	110 DA-C	110 DA-C				
Number of Decimals		0	0	0	0	0	0				
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Appl Timing	Appl Code					
10	Prefix	5.29	L	2 pt/a	PRE	A	100	100	100	100	100
	Metribuzin	75	WG	6 oz/a	PRE	A					
	TTI Nozzle				POST	C					
	Tavium	3.4	L	56.5 fl oz/a	POST	C					
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C					
	Class Act Ridion		L	1 % v/v	POST	C					
	Intact		L	0.5 % v/v	POST	C					
11	Prefix	5.29	L	2 pt/a	PRE	A	100	100	100	100	100
	FirstRate	84	WG	0.5 oz/a	PRE	A					
	TTI Nozzle				POST	C					
	Tavium	3.4	L	56.5 fl oz/a	POST	C					
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C					
	Class Act Ridion		L	1 % v/v	POST	C					
	Intact		L	0.5 % v/v	POST	C					
12	Sonic	70	WG	5 oz/a	PRE	A	100	100	100	100	99
	TTI Nozzle				POST	C					
	FeXapan	2.9	SL	22 fl oz/a	POST	C					
	EverpreX	7.62	L	16 fl oz/a	POST	C					
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C					
	Induce		L	0.25 % v/v	POST	C					
	Intact		L	0.5 % v/v	POST	C					
13	Fierce XLT	62.41	WG	4 oz/a	PRE	A	100	100	100	100	100
	TTI Nozzle				POST	C					
	XtendiMax	2.9	SL	22 fl oz/a	POST	C					
	Warrant	3	L	3 pt/a	POST	C					
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C					
	Induce		L	0.25 % v/v	POST	C					
	Intact		L	0.5 % v/v	POST	C					
	LSD P=.05						1.3	0.6	.	.	2.7
	Standard Deviation						0.9	0.4	0.0	0.0	1.9
	CV						1.01	0.43	0.0	0.0	2.15

Could not calculate LSD (% mean diff) for columns 10,11,14,17,18,20,21,24,27,28,30,31,32 because error mean square = 0.

Overlapping residuals for weed control in XtendFlex soybean - "Stewarded"

Trial ID: SOY08-20 Location: Campus, T-12 Trial Year: 2020
 Protocol ID: SOY08-20 Investigator (Creator): Christy Sprague
 Project ID: Study Director: Sprague, Powell, Stiles
 Sponsor Contact:

Pest Code	AMAPO	AMBEL	ABUTH	C GLXMA	C GLXMA
Crop Type, Code				Oct-13-2020	Oct-13-2020
Rating Date	Oct-13-2020	Oct-13-2020	Oct-13-2020	Oct-13-2020	Oct-13-2020
Rating Type	control	control	control	moisture	yield
Rating Unit	percent	percent	percent	percent	bu/acre
Trt-Eval Interval	110 DA-C	110 DA-C	110 DA-C	110 DA-C	at 13% M
Number of Decimals	0	0	0	1	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Appl Timing	Appl Code					
1	TTI Nozzle						100	100	100	20.9	31.2
	Engenia Prime	5.23	L	16 fl oz/a	EPOS	B					
	Induce		L	0.25 % v/v	EPOS	B					
	Intact		L	0.5 % v/v	EPOS	B					
2	TTI Nozzle						100	100	100	16.2	55.5
	Engenia PRO	4.54	L	16 fl oz/a	EPOS	B					
	Induce		L	0.25 % v/v	EPOS	B					
	Intact		L	0.5 % v/v	EPOS	B					
	AIXR Nozzle				LPOS	D					
	Liberty	2.34	L	32 fl oz/a	LPOS	D					
	Outlook	6	L	16 fl oz/a	LPOS	D					
	AMS		WG	8.5 lb/100 gal	LPOS	D					
3	Untreated						0	0	0	25.7	10.6
4	Zidua PRO	4.09	L	4.5 fl oz/a	PRE	A	100	100	100	15.0	57.4
	AIXR Nozzle				POST	C					
	Liberty	2.34	L	32 fl oz/a	POST	C					
	Outlook	6	L	16 fl oz/a	POST	C					
	AMS		WG	8.5 lb/100 gal	POST	C					
5	Engenia Prime	5.23	L	16 fl oz/a	PRE	A	100	100	98	14.3	58.9
	AIXR Nozzle				POST	C					
	Liberty	2.34	L	32 fl oz/a	POST	C					
	Outlook	6	L	16 fl oz/a	POST	C					
	AMS		WG	8.5 lb/100 gal	POST	C					
6	Engenia PRO	4.54	L	16 fl oz/a	PRE	A	100	100	100	14.5	60.5
	AIXR Nozzle				POST	C					
	Liberty	2.34	L	32 fl oz/a	POST	C					
	Outlook	6	L	16 fl oz/a	POST	C					
	AMS		WG	8.5 lb/100 gal	POST	C					
7	XtendiMax	2.9	SL	44 fl oz/a	PRE	A	100	100	100	13.5	61.0
	Warrant	3	L	3 pt/a	PRE	A					
	AIXR Nozzle				POST	C					
	Warrant Ultra	3.45	L	50 fl oz/a	POST	C					
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C					
	AMS		WG	17 lb/100 gal	POST	C					
8	Zidua PRO	4.09	L	4.5 fl oz/a	PRE	A	100	100	100	13.8	60.5
	TTI Nozzle				POST	C					
	Engenia PRO	4.54	L	16 fl oz/a	POST	C					
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C					
	Induce		L	0.25 % v/v	POST	C					
	Intact		L	0.5 % v/v	POST	C					
9	Boundary	6.5	L	2 pt/a	PRE	A	100	100	100	14.1	54.5
	TTI Nozzle				POST	C					
	Tavium	3.4	L	56.5 fl oz/a	POST	C					
	Roundup PowerMax	4.5	SL	32 fl oz/a	POST	C					
	Class Act Ridion		L	1 % v/v	POST	C					
	Intact		L	0.5 % v/v	POST	C					

Overlapping residuals for weed control in XtendFlex soybean - "Stewarded"

Trial ID: SOY08-20 Location: Campus, T-12 Trial Year: 2020
 Protocol ID: SOY08-20 Investigator (Creator): Christy Sprague
 Project ID: Study Director: Sprague, Powell, Stiles
 Sponsor Contact:

Pest Code		AMAPO	AMBEL	ABUTH	C GLXMA	C GLXMA					
Crop Type, Code					Oct-13-2020	Oct-13-2020					
Rating Date		Oct-13-2020	Oct-13-2020	Oct-13-2020	Oct-13-2020	Oct-13-2020					
Rating Type		control	control	control	moisture	yield					
Rating Unit		percent	percent	percent	percent	bu/acre					
Trt-Eval Interval		110 DA-C	110 DA-C	110 DA-C	110 DA-C	at 13% M					
Number of Decimals		0	0	0	1	1					
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Appl Timing	Appl Code					
10	Prefix	5.29 L		2 pt/a	PRE	A	100	100	100	13.9	54.9
	Metribuzin	75 WG		6 oz/a	PRE	A					
	TTI Nozzle				POST	C					
	Tavium	3.4 L		56.5 fl oz/a	POST	C					
	Roundup PowerMax	4.5 SL		32 fl oz/a	POST	C					
	Class Act Ridion	L		1 % v/v	POST	C					
	Intact	L		0.5 % v/v	POST	C					
11	Prefix	5.29 L		2 pt/a	PRE	A	100	100	100	13.5	59.1
	FirstRate	84 WG		0.5 oz/a	PRE	A					
	TTI Nozzle				POST	C					
	Tavium	3.4 L		56.5 fl oz/a	POST	C					
	Roundup PowerMax	4.5 SL		32 fl oz/a	POST	C					
	Class Act Ridion	L		1 % v/v	POST	C					
	Intact	L		0.5 % v/v	POST	C					
12	Sonic	70 WG		5 oz/a	PRE	A	100	100	100	13.8	59.6
	TTI Nozzle				POST	C					
	FeXapan	2.9 SL		22 fl oz/a	POST	C					
	EverpreX	7.62 L		16 fl oz/a	POST	C					
	Roundup PowerMax	4.5 SL		32 fl oz/a	POST	C					
	Induce	L		0.25 % v/v	POST	C					
	Intact	L		0.5 % v/v	POST	C					
13	Fierce XLT	62.41 WG		4 oz/a	PRE	A	100	100	100	13.9	56.0
	TTI Nozzle				POST	C					
	XtendiMax	2.9 SL		22 fl oz/a	POST	C					
	Warrant	3 L		3 pt/a	POST	C					
	Roundup PowerMax	4.5 SL		32 fl oz/a	POST	C					
	Induce	L		0.25 % v/v	POST	C					
	Intact	L		0.5 % v/v	POST	C					
	LSD P=.05								1.4	3.22	9.80
	Standard Deviation						0.0	0.0	1.0	2.24	6.82
	CV						0.0	0.0	1.07	14.36	13.08

Could not calculate LSD (% mean diff) for columns 10,11,14,17,18,20,21,24,27,28,30,31,32 because error mean square = 0.