

Multi-system comparison of XtendFlex and Enlist E3 soybean - I

Trial ID: SOY01-22 Study Dir.: Sprague, Stiles, Powell
 Conducted: SVREC Investigator:

Planting Date: May-19-2022 **Row Spacing:** 30 "
Variety: See comments **No. of Reps:** 1
Population: 150000 seeds/A **% OM:** 2.4
Soil Type: CL clay loam **pH:** 7.9
Plot Size: 10 X 255 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plow; spring soil finish twice.
Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	CHEAL	common lambsquarters	Chenopodium album
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

	A	B	C
Application Timing:	PRE	POST	LPOS
Date Treated:	May-19-2022	Jun-24-2022	Jul-7-2022
Time Treated:	5:23 PM	2:30 PM	11:45 AM
% Cloud Cover:	95	30	100
Air Temp., Unit:	73 F	80 F	72 F
% Relative Humidity:	58	31	60
Wind Speed/Unit/Dir:	11 MPH SW	7 MPH W	1.5 MPH NW
Soil Temp, Unit:	69 F	73 F	73 F
Leaf Moist/Dew Presence (Y/N):		N	N
Soil Moist:	4	5	5

Crop Stage at Each Application

	A	B	C
Crop 1 Name:	GLXMA	GLXMA	GLXMA
Height:		6 "	14 "
Stage:		V3	V6-V7 (V6)

Weed Stage at Each Application

	A	B	C
Weed 1 Name:	CHEAL	CHEAL	CHEAL
Height:		4 "	
Stage:		8L	

Weed Density

Date:	1 Jun-24-2022
Weed Name:	CHEAL
Density:	2 FT2

Application Equipment

Appl	Sprayer Type	Ground Speed	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	Spray Volume	Carrier	Operation Pressure
A	CUB	3.8 MPH	AIXR/TTI	11003	20.0 "	20.0 "	120.0 "	19 GAL/AC	WATER	
B	CUB	3.8 MPH	AIXR/TTI	11003	24.0 "	20.0 "	120.0 "	19 GAL/AC	WATER	
C	CUB	3.8 MPH	AIXR	11003	32.0 "	20.0 "	120.0 "	19 GAL/AC	WATER	

Comments:

Soybean varieties include: XtendFlex soybean - AG18XF21, AG21XF1, AG24XF1 Enlist E3 soybean - P19A66E, P21A53E, P24T35E Nozzles: XtendiMax treatments = TTI nozzles at 25 PSI; all others were AIXR nozzles at 30 PSI Injury on the Enlist soybean was from vapor drift from the dicamba treatments 40' over.

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Study Director: Sprague, Stiles, Powell Sponsor Contact:

Investigator (Creator): Christy Sprague

Pest Code	CHEAL		CHEAL		CHEAL	
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
Rating Date	Jun-2-2022	Jun-2-2022	Jun-24-2022	Jun-24-2022	Jun-30-2022	Jun-30-2022
Rating Type	injury	control	injury	control	injury	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Trt-Eval Interval	14 DA-A	14 DA-A	36 DA-A	36 DA-A	6 DA-B	6 DA-B
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Appl Timing	Code				
1	'Asgrow 18XF1' XtendFlex	0	100	0	95	3	100		
	TTI Nozzles							A	
	Mauler	8 fl oz/a	PRE	A					
	Warrant	3 pt/a	PRE	A					
	XtendiMax	22 fl oz/a	PRE	A					
	Vapor Grip	20 fl oz/a	PRE	A					
	Intact	0.5 % v/v	PRE	A					
	XtendiMax	22 fl oz/a	POST	B					
	Roundup PowerMax 3	30 fl oz/a	POST	B					
	Warrant	3 pt/a	POST	B					
	Class Act Ridion	1 % v/v	POST	B					
	Vapor Grip	20 fl oz/a	POST	B					
	Intact	0.5 % v/v	POST	B					
	Liberty	32 fl oz/a	LPOS	C					
	N-PAK AMS Liquid	2.5 % v/v	LPOS	C					
2	'Asgrow 21XF1' XtendFlex	0	100	0	93	3	100		
	TTI Nozzles							A	
	Mauler	8 fl oz/a	PRE	A					
	Warrant	3 pt/a	PRE	A					
	XtendiMax	22 fl oz/a	PRE	A					
	Vapor Grip	20 fl oz/a	PRE	A					
	Intact	0.5 % v/v	PRE	A					
	XtendiMax	22 fl oz/a	POST	B					
	Roundup PowerMax 3	30 fl oz/a	POST	B					
	Warrant	3 pt/a	POST	B					
	Class Act Ridion	1 % v/v	POST	B					
	Vapor Grip	20 fl oz/a	POST	B					
	Intact	0.5 % v/v	POST	B					
	Liberty	32 fl oz/a	LPOS	C					
	N-PAK AMS Liquid	2.5 % v/v	LPOS	C					
3	'Asgrow 24XF1' XtendFlex	0	100	0	95	3	100		
	TTI Nozzles							A	
	Mauler	8 fl oz/a	PRE	A					
	Warrant	3 pt/a	PRE	A					
	XtendiMax	22 fl oz/a	PRE	A					
	Vapor Grip	20 fl oz/a	PRE	A					
	Intact	0.5 % v/v	PRE	A					
	XtendiMax	22 fl oz/a	POST	B					
	Roundup PowerMax 3	30 fl oz/a	POST	B					
	Warrant	3 pt/a	POST	B					
	Class Act Ridion	1 % v/v	POST	B					
	Vapor Grip	20 fl oz/a	POST	B					
	Intact	0.5 % v/v	POST	B					
	Liberty	32 fl oz/a	LPOS	C					
	N-PAK AMS Liquid	2.5 % v/v	LPOS	C					

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Pest Code											
Crop Type, Code											
Rating Date											
Rating Type											
Rating Unit/Min/Max											
Trt-Eval Interval											
Number of Decimals											
Trt No.	Treatment Name	Rate	Appl Unit	Appl Timing	Code						
4	'Pioneer 19A66E' Enlist E3					0	100	0	95	7	100
	Enlist One	32 fl oz/a	PRE	A							
	Kyber	1 pt/a	PRE	A							
	Enlist One	32 fl oz/a	POST	B							
	Durango DMA	36 fl oz/a	POST	B							
	Dual II Magnum	1 pt/a	POST	B							
	N-PAK AMS Liquid	2.5 % v/v	POST	B							
	Liberty	32 fl oz/a	LPOS	C							
	N-PAK AMS Liquid	2.5 % v/v	LPOS	C							
5	'Pioneer 21A53E' Enlist E3					0	100	0	95	5	100
	Enlist One	32 fl oz/a	PRE	A							
	Kyber	1 pt/a	PRE	A							
	Enlist One	32 fl oz/a	POST	B							
	Durango DMA	36 fl oz/a	POST	B							
	Dual II Magnum	1 pt/a	POST	B							
	N-PAK AMS Liquid	2.5 % v/v	POST	B							
	Liberty	32 fl oz/a	LPOS	C							
	N-PAK AMS Liquid	2.5 % v/v	LPOS	C							
6	'Pioneer 24T35E' Enlist E3					0	100	0	95	5	100
	Enlist One	32 fl oz/a	PRE	A							
	Kyber	1 pt/a	PRE	A							
	Enlist One	32 fl oz/a	POST	B							
	Durango DMA	36 fl oz/a	POST	B							
	Dual II Magnum	1 pt/a	POST	B							
	N-PAK AMS Liquid	2.5 % v/v	POST	B							
	Liberty	32 fl oz/a	LPOS	C							
	N-PAK AMS Liquid	2.5 % v/v	LPOS	C							
	LSD P=.05				
	Standard Deviation				
	CV				

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Pest Code	CHEAL		CHEAL		CHEAL		C, GLXMA
	C, GLXMA	Jul-7-2022	C, GLXMA	Jul-19-2022	C, GLXMA	Jul-25-2022	
Crop Type, Code							
Rating Date	Jul-7-2022	Jul-7-2022	Jul-19-2022	Jul-19-2022	Jul-25-2022	Jul-25-2022	Oct-6-2022
Rating Type	injury	control	injury	control	injury	control	injury
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Trt-Eval Interval	13 DA-B	13 DA-B	12 DA-C	12 DA-C	18 DA-C	18 DA-C	91 DA-C
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Appl Timing	Code					
1	'Asgrow 18XF1' XtendFlex	4	100	0	100	0	100	0	100	0
	TTI Nozzles					A				
	Mauler	8 fl oz/a	PRE			A				
	Warrant	3 pt/a	PRE			A				
	XtendiMax	22 fl oz/a	PRE			A				
	Vapor Grip	20 fl oz/a	PRE			A				
	Intact	0.5 % v/v	PRE			A				
	XtendiMax	22 fl oz/a	POST			B				
	Roundup PowerMax 3	30 fl oz/a	POST			B				
	Warrant	3 pt/a	POST			B				
	Class Act Ridion	1 % v/v	POST			B				
	Vapor Grip	20 fl oz/a	POST			B				
	Intact	0.5 % v/v	POST			B				
	Liberty	32 fl oz/a	LPOS			C				
	N-PAK AMS Liquid	2.5 % v/v	LPOS			C				
2	'Asgrow 21XF1' XtendFlex	7	100	0	100	0	100	0	100	0
	TTI Nozzles					A				
	Mauler	8 fl oz/a	PRE			A				
	Warrant	3 pt/a	PRE			A				
	XtendiMax	22 fl oz/a	PRE			A				
	Vapor Grip	20 fl oz/a	PRE			A				
	Intact	0.5 % v/v	PRE			A				
	XtendiMax	22 fl oz/a	POST			B				
	Roundup PowerMax 3	30 fl oz/a	POST			B				
	Warrant	3 pt/a	POST			B				
	Class Act Ridion	1 % v/v	POST			B				
	Vapor Grip	20 fl oz/a	POST			B				
	Intact	0.5 % v/v	POST			B				
	Liberty	32 fl oz/a	LPOS			C				
	N-PAK AMS Liquid	2.5 % v/v	LPOS			C				
3	'Asgrow 24XF1' XtendFlex	5	100	0	100	0	100	0	100	0
	TTI Nozzles					A				
	Mauler	8 fl oz/a	PRE			A				
	Warrant	3 pt/a	PRE			A				
	XtendiMax	22 fl oz/a	PRE			A				
	Vapor Grip	20 fl oz/a	PRE			A				
	Intact	0.5 % v/v	PRE			A				
	XtendiMax	22 fl oz/a	POST			B				
	Roundup PowerMax 3	30 fl oz/a	POST			B				
	Warrant	3 pt/a	POST			B				
	Class Act Ridion	1 % v/v	POST			B				
	Vapor Grip	20 fl oz/a	POST			B				
	Intact	0.5 % v/v	POST			B				
	Liberty	32 fl oz/a	LPOS			C				
	N-PAK AMS Liquid	2.5 % v/v	LPOS			C				

Michigan State University

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Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
Rating Date	Jul-7-2022	Jul-7-2022	Jul-19-2022	Jul-19-2022	Jul-25-2022	Jul-25-2022	Oct-6-2022	
Rating Type	injury	control	injury	control	injury	control	injury	
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Trt-Eval Interval	13 DA-B	13 DA-B	12 DA-C	12 DA-C	18 DA-C	18 DA-C	91 DA-C	
Number of Decimals	0	0	0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Appl Unit	Appl Timing	Code			
4	'Pioneer 19A66E' Enlist E3	25	100	25	100	10	100	0
	Enlist One	32 fl oz/a	PRE	A				
	Kyber	1 pt/a	PRE	A				
	Enlist One	32 fl oz/a	POST	B				
	Durango DMA	36 fl oz/a	POST	B				
	Dual II Magnum	1 pt/a	POST	B				
	N-PAK AMS Liquid	2.5 % v/v	POST	B				
	Liberty	32 fl oz/a	LPOS	C				
	N-PAK AMS Liquid	2.5 % v/v	LPOS	C				
5	'Pioneer 21A53E' Enlist E3	20	100	20	100	5	100	0
	Enlist One	32 fl oz/a	PRE	A				
	Kyber	1 pt/a	PRE	A				
	Enlist One	32 fl oz/a	POST	B				
	Durango DMA	36 fl oz/a	POST	B				
	Dual II Magnum	1 pt/a	POST	B				
	N-PAK AMS Liquid	2.5 % v/v	POST	B				
	Liberty	32 fl oz/a	LPOS	C				
	N-PAK AMS Liquid	2.5 % v/v	LPOS	C				
6	'Pioneer 24T35E' Enlist E3	15	100	18	100	2	100	0
	Enlist One	32 fl oz/a	PRE	A				
	Kyber	1 pt/a	PRE	A				
	Enlist One	32 fl oz/a	POST	B				
	Durango DMA	36 fl oz/a	POST	B				
	Dual II Magnum	1 pt/a	POST	B				
	N-PAK AMS Liquid	2.5 % v/v	POST	B				
	Liberty	32 fl oz/a	LPOS	C				
	N-PAK AMS Liquid	2.5 % v/v	LPOS	C				
	LSD P=.05	.	.	.	.	.	.	.
	Standard Deviation	.	.	.	.	.	.	.
	CV	.	.	.	.	.	.	.

Could not calculate LSD (% mean diff) for columns 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16 because error mean square = 0.

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Pest Code	CHEAL		
Crop Type, Code	C, GLXMA	C, GLXMA	
Rating Date	Oct-6-2022	Oct-11-2022	Oct-11-2022
Rating Type	control	moisture	yield
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	bu/A, -, -
Trt-Eval Interval	91 DA-C	96 DA-C	96 DA-C
Number of Decimals	0	1	1

Trt No.	Treatment Name	Rate	Appl Unit	Appl Timing	Code			
1	'Asgrow 18XF1' XtendFlex	100				14.2	62.0	
	TTI Nozzles				A			
	Mauler	8 fl oz/a	PRE		A			
	Warrant	3 pt/a	PRE		A			
	XtendiMax	22 fl oz/a	PRE		A			
	Vapor Grip	20 fl oz/a	PRE		A			
	Intact	0.5 % v/v	PRE		A			
	XtendiMax	22 fl oz/a	POST		B			
	Roundup PowerMax 3	30 fl oz/a	POST		B			
	Warrant	3 pt/a	POST		B			
	Class Act Ridion	1 % v/v	POST		B			
	Vapor Grip	20 fl oz/a	POST		B			
	Intact	0.5 % v/v	POST		B			
	Liberty	32 fl oz/a	LPOS		C			
	N-PAK AMS Liquid	2.5 % v/v	LPOS		C			
2	'Asgrow 21XF1' XtendFlex	100				14.6	62.2	
	TTI Nozzles				A			
	Mauler	8 fl oz/a	PRE		A			
	Warrant	3 pt/a	PRE		A			
	XtendiMax	22 fl oz/a	PRE		A			
	Vapor Grip	20 fl oz/a	PRE		A			
	Intact	0.5 % v/v	PRE		A			
	XtendiMax	22 fl oz/a	POST		B			
	Roundup PowerMax 3	30 fl oz/a	POST		B			
	Warrant	3 pt/a	POST		B			
	Class Act Ridion	1 % v/v	POST		B			
	Vapor Grip	20 fl oz/a	POST		B			
	Intact	0.5 % v/v	POST		B			
	Liberty	32 fl oz/a	LPOS		C			
	N-PAK AMS Liquid	2.5 % v/v	LPOS		C			
3	'Asgrow 24XF1' XtendFlex	100				14.6	62.1	
	TTI Nozzles				A			
	Mauler	8 fl oz/a	PRE		A			
	Warrant	3 pt/a	PRE		A			
	XtendiMax	22 fl oz/a	PRE		A			
	Vapor Grip	20 fl oz/a	PRE		A			
	Intact	0.5 % v/v	PRE		A			
	XtendiMax	22 fl oz/a	POST		B			
	Roundup PowerMax 3	30 fl oz/a	POST		B			
	Warrant	3 pt/a	POST		B			
	Class Act Ridion	1 % v/v	POST		B			
	Vapor Grip	20 fl oz/a	POST		B			
	Intact	0.5 % v/v	POST		B			
	Liberty	32 fl oz/a	LPOS		C			
	N-PAK AMS Liquid	2.5 % v/v	LPOS		C			

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Pest Code	CHEAL		
Crop Type, Code	C, GLXMA	C, GLXMA	
Rating Date	Oct-6-2022	Oct-11-2022	Oct-11-2022
Rating Type	control	moisture	yield
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	bu/A, -, -
Trt-Eval Interval	91 DA-C	96 DA-C	96 DA-C
Number of Decimals	0	1	1

Trt No.	Treatment Name	Rate	Appl Unit	Appl Timing	Appl Code			
4	'Pioneer 19A66E' Enlist E3					100	13.4	68.0
	Enlist One	32 fl oz/a		PRE	A			
	Kyber	1 pt/a		PRE	A			
	Enlist One	32 fl oz/a		POST	B			
	Durango DMA	36 fl oz/a		POST	B			
	Dual II Magnum	1 pt/a		POST	B			
	N-PAK AMS Liquid	2.5 % v/v		POST	B			
	Liberty	32 fl oz/a		LPOS	C			
	N-PAK AMS Liquid	2.5 % v/v		LPOS	C			
5	'Pioneer 21A53E' Enlist E3					100	14.1	62.8
	Enlist One	32 fl oz/a		PRE	A			
	Kyber	1 pt/a		PRE	A			
	Enlist One	32 fl oz/a		POST	B			
	Durango DMA	36 fl oz/a		POST	B			
	Dual II Magnum	1 pt/a		POST	B			
	N-PAK AMS Liquid	2.5 % v/v		POST	B			
	Liberty	32 fl oz/a		LPOS	C			
	N-PAK AMS Liquid	2.5 % v/v		LPOS	C			
6	'Pioneer 24T35E' Enlist E3					100	14.6	61.0
	Enlist One	32 fl oz/a		PRE	A			
	Kyber	1 pt/a		PRE	A			
	Enlist One	32 fl oz/a		POST	B			
	Durango DMA	36 fl oz/a		POST	B			
	Dual II Magnum	1 pt/a		POST	B			
	N-PAK AMS Liquid	2.5 % v/v		POST	B			
	Liberty	32 fl oz/a		LPOS	C			
	N-PAK AMS Liquid	2.5 % v/v		LPOS	C			
	LSD P=.05					.	.	.
	Standard Deviation					.	.	.
	CV					.	.	.