

Comparison of MON 119144 with XtendiMax for weed control in XtendFlex soybean

Trial ID: SOY06-21 Study Dir.: Sprague, Stiles, Powell
 Conducted: Campus, C-14 Investigator: Christy Sprague

Planting Date: 5-10-21 **Row Spacing:** 30 IN
Variety: AG24XF1 **No. of Reps:** 4
Population: 155000 seeds/A **% OM:** 2.7
Soil Type: CL clay loam **pH:** 6.8
Plot Size: 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plow; 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
Application Timing:	EPOS	POST
Date Treated:	6-11-21	6-23-21
Time Treated:	11:30 AM	2:20 PM
% Cloud Cover:	25	100
Air Temp., Unit:	80 F	77 F
% Relative Humidity:	64	61
Wind Speed/Unit/Dir:	2 MPH SE	2 MPH SW
Soil Temp, Unit:	70 F	69 F
Leaf Moist/Dew Presence (Y/N):	N	Y
Soil Moist:	5	2

Crop Stage at Each Application

	A	B
Crop 1 Name:	GLXMA	GLXMA
Height:	3-5 " (4)	10-12 " (11)
Stage:	V2	V4

Weed Stage at Each Application

	A	B
Weed 1 Name:	ANGR	ANGR
Height:	2-12 " (7)	10-15 " (12.5)
Stage:	2L-6L (4L)	6L-8L (7L)
Weed 2 Name:	CHEAL	CHEAL
Height:	2-6 " (4)	4-16 " (10)
Stage:	2L-14L (7L)	20L
Weed 3 Name:	AMAPO	AMAPO
Height:	2 "	4-6 " (5)
Stage:	2L-4L (3L)	4L-6L (5L)
Weed 4 Name:	AMBEL	AMBEL
Height:	0.5-3 " (1.5)	4-10 " (8)
Stage:	2L-6L (4L)	6L-12L (9L)
Weed 5 Name:	ABUTH	ABUTH
Height:	2 "	1-6 " (2.5)
Stage:	2L-4L (3L)	4L-6L (5L)

Weed Density

	1	2	3	4	5
Date:	6-11-21	6-11-21	6-11-21	6-11-21	6-11-21
Weed Name:	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Density:	9 FT2	4 FT2	4 FT2	10 FT2	0.5 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	26.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	25 PSI
B	CUB	3.8 MPH	TTI	11003	28.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	25 PSI

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

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Study Director: Sprague, Stiles, Powell

Pest Code	ANGR	CHEAL	AMAPO	AMBEL	ABUTH	C, GLXMA	ANGR	CHEAL	AMAPO	AMBEL
Crop Type, Code	C, GLXMA					C, GLXMA				
Rating Date	6-25-21	6-25-21	6-25-21	6-25-21	6-25-21	7-2-21	7-2-21	7-2-21	7-2-21	7-2-21
Rating Type	injury	control	control	control	control	injury	control	control	control	control
Rating Unit	%	%	%	%	%	%	%	%	%	%
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A

Trt No.	Treatment Name	Rate	Appl Unit	Code	ANGR	CHEAL	AMAPO	AMBEL	ABUTH	C, GLXMA	ANGR	CHEAL	AMAPO	AMBEL	
13	MON 301668	30 fl oz/a	B		0	0	0	0	0	2	73	73	78	76	
13	MON 119144	16 fl oz/a	B												
13	Roundup PowerMax 3	30 fl oz/a	B												
13	VaporGrip	20 fl oz/a	B												
13	Intact	0.5 % v/v	B												
13	Class Act Ridion	0.5 % v/v	B												
LSD	P=.05				0.7	2.9	2.6	2.9	4.2	7.8	1.1	8.5	5.5	7.0	4.3
	Standard Deviation				0.5	2.1	1.8	2.0	2.9	5.5	0.8	5.9	3.9	4.9	3.0
	CV				40.51	6.68	4.1	4.34	6.81	12.55	48.57	10.83	4.98	5.97	3.89

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Pest Code	ABUTH		ANGR	CHEAL	AMAPO	AMBEL	ABUTH		ANGR	CHEAL	AMAPO
Crop Type, Code	C, GLXMA							C, GLXMA			
Rating Date	7-2-21	7-7-21	7-7-21	7-7-21	7-7-21	7-7-21	7-7-21	7-14-21	7-14-21	7-14-21	7-14-21
Rating Type	control	injury	control	control	control	control	control	injury	control	control	control
Rating Unit	%	%	%	%	%	%	%	%	%	%	%
Trt-Eval Interval	21 DA-A	14 DA-B	14 DA-B	14 DA-B	14 DA-B	14 DA-B	14 DA-B	21 DA-B	21 DA-B	21 DA-B	21 DA-B

Trt No.	Treatment Name	Rate	Appl Unit	Code											
13	MON 301668	30 fl oz/a	B		45	2	89	73	100	86	68	0	88	75	100
13	MON 119144	16 fl oz/a	B												
13	Roundup PowerMax 3	30 fl oz/a	B												
13	VaporGrip	20 fl oz/a	B												
13	Intact	0.5 % v/v	B												
13	Class Act Ridion	0.5 % v/v	B												
LSD	P=.05				10.2	1.5	10.1	7.9	5.4	6.2	9.7	.	10.6	10.2	4.0
Standard Deviation					7.1	1.0	7.0	5.5	3.8	4.4	6.8	0.0	7.4	7.1	2.8
CV					11.5	125.97	11.99	6.84	4.12	5.39	8.79	0.0	13.15	8.7	3.05

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Pest Code	AMBEL	ABUTH
Crop Type, Code		
Rating Date	7-14-21	7-14-21
Rating Type	control	control
Rating Unit	%	%
Trt-Eval Interval	21 DA-B	21 DA-B

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code		
1	Untreated				0	0
2	Roundup PowerMax 3	30 fl oz/a	A		72	96
	2 VaporGrip	20 fl oz/a	A			
	2 Intact	0.5 % v/v	A			
	2 Class Act Ridion	0.5 % v/v	A			
3	XtendiMax	22 fl oz/a	A		95	96
	3 VaporGrip	20 fl oz/a	A			
	3 Intact	0.5 % v/v	A			
	3 Class Act Ridion	0.5 % v/v	A			
4	MON 119144	16 fl oz/a	A		96	100
	4 VaporGrip	20 fl oz/a	A			
	4 Intact	0.5 % v/v	A			
	4 Class Act Ridion	0.5 % v/v	A			
5	Roundup PowerMax 3	30 fl oz/a	A		89	100
	5 XtendiMax	22 fl oz/a	A			
	5 VaporGrip	20 fl oz/a	A			
	5 Intact	0.5 % v/v	A			
	5 Class Act Ridion	0.5 % v/v	A			
6	MON 119144	16 fl oz/a	A		89	100
	6 Roundup PowerMax 3	30 fl oz/a	A			
	6 VaporGrip	20 fl oz/a	A			
	6 Intact	0.5 % v/v	A			
	6 Class Act Ridion	0.5 % v/v	A			
7	MON 301668	30 fl oz/a	A		95	99
	7 MON 119144	16 fl oz/a	A			
	7 Roundup PowerMax 3	30 fl oz/a	A			
	7 VaporGrip	20 fl oz/a	A			
	7 Intact	0.5 % v/v	A			
	7 Class Act Ridion	0.5 % v/v	A			
8	Roundup PowerMax 3	30 fl oz/a	B		81	78
	8 VaporGrip	20 fl oz/a	B			
	8 Intact	0.5 % v/v	B			
	8 Class Act Ridion	0.5 % v/v	B			
9	XtendiMax	22 fl oz/a	B		88	75
	9 VaporGrip	20 fl oz/a	B			
	9 Intact	0.5 % v/v	B			
	9 Class Act Ridion	0.5 % v/v	B			
10	MON 119144	16 fl oz/a	B		90	79
	10 VaporGrip	20 fl oz/a	B			
	10 Intact	0.5 % v/v	B			
	10 Class Act Ridion	0.5 % v/v	B			
11	Roundup PowerMax 3	30 fl oz/a	B		96	80
	11 XtendiMax	22 fl oz/a	B			
	11 VaporGrip	20 fl oz/a	B			
	11 Intact	0.5 % v/v	B			
	11 Class Act Ridion	0.5 % v/v	B			
12	MON 119144	16 fl oz/a	B		91	80
	12 Roundup PowerMax 3	30 fl oz/a	B			
	12 VaporGrip	20 fl oz/a	B			
	12 Intact	0.5 % v/v	B			
	12 Class Act Ridion	0.5 % v/v	B			

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Pest Code AMBEL ABUTH
 Crop Type, Code
 Rating Date 7-14-21 7-14-21
 Rating Type control control
 Rating Unit % %
 Trt-Eval Interval 21 DA-B 21 DA-B

Trt No.	Treatment Name	Rate	Unit	Appl Code
13	MON 301668	30 fl oz/a	B	91 77
13	MON 119144	16 fl oz/a	B	
13	Roundup PowerMax 3	30 fl oz/a	B	
13	VaporGrip	20 fl oz/a	B	
13	Intact	0.5 % v/v	B	
13	Class Act Ridion	0.5 % v/v	B	

LSD P=.05 7.3 7.1
 Standard Deviation 5.1 4.9
 CV 6.2 6.05