

**Residual control of glyphosate-resistant horseweed in RR2 Xtend soybean**

Trial ID: NTS08-18 Study Dir.: Sprague, Powell, Stiles  
 Conducted: Isabella Co. Investigator: Christy Sprague

**Planting Date:** May-21-2018 **Row Spacing:** 30 IN  
**Variety:** AG26X8 **No. of Reps:** 4  
**Population:** 152000 seeds/A **% OM:** 1.4  
**Soil Type:** LS loamy sand **pH:** 4.9  
**Plot Size:** 10 X 25 FT **Study Design:** Randomized Complete Block (RCB)

**Tillage/Previous Crops:** Soybean was no-tilled into soybean stubble.

**Fertilizer:**

**Crop and Weed Description**

Weed	Code	Common Name	Scientific Name
1	ERICA	horseweed	Conyza canadensis
Crop	Code	Common Name	
1	GLXMA	Soybean	

**Application Description**

	A	B
<b>Application Timing:</b>	PRE	POST
<b>Date Treated:</b>	May-22-2018	Jul-10-2018
<b>Time Treated:</b>	2:00 PM	12:30 PM
<b>% Cloud Cover:</b>	97	10
<b>Air Temp., Unit:</b>	60 F	81 F
<b>% Relative Humidity:</b>	85	31
<b>Wind Speed/Unit/Dir:</b>	6 mph NW	7 mph N
<b>Soil Temp, Unit:</b>	59 F	82 F
<b>Leaf Moist/Dew Presence (Y/N):</b>	3	5
<b>Soil Moist:</b>	4	5

**Crop Stage at Each Application**

	A	B
<b>Crop 1 Name:</b>	GLXMA	GLXMA
<b>Height:</b>		10-14 " (12)
<b>Stage:</b>		R1

**Weed Stage at Each Application**

	A	B
<b>Weed 1 Name:</b>	ERICA	ERICA
<b>Height:</b>	0.125-1 " (1)	1-30 " (15.5)
<b>Stage:</b>	3-8L	5-50L

**Weed Density**

	1
<b>Date:</b>	Jul-10-2018
<b>Weed Name:</b>	ERICA
<b>Density:</b>	14 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	23 "	20 "	100 "	19 GPA	WATER	25 PSI
B	CUB	3.8 mph	AIXR	11003	27 "	20 "	100 "	19 GPA	WATER	30 PSI

**Comments:** The horseweed (marestalk) in this trial is glyphosate-resistant (Group 9).

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Pest Code	ERICA		ERICA		ERICA	
Crop Code	GLXMA	ERICA	GLXMA	ERICA	GLXMA	ERICA
Rating Date	Jun-6-2018	Jun-6-2018	Jun-21-2018	Jun-21-2018	Jul-9-2018	Jul-9-2018
Rating Type	injury	control	injury	control	injury	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	15 DA-A	15 DA-A	30 DA-A	30 DA-A	48 DA-A	48 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code					
1	Roundup PowerMax	4.5	SL	32 fl oz/a		A	0	3	0	0	0
1	AMS		WG	17 lb/100 gal		A					
1	Roundup PowerMax	4.5	SL	32 fl oz/a		B					
1	AMS		WG	17 lb/100 gal		B					
2	XtendiMax	2.9	SL	22 fl oz/a		A	0	88	1	93	0
2	Roundup PowerMax	4.5	SL	32 fl oz/a		A					
2	Intact		L	0.5 % v/v		A					
2	Roundup PowerMax	4.5	SL	32 fl oz/a		B					
2	AMS		WG	17 lb/100 gal		B					
3	XtendiMax	2.9	SL	44 fl oz/a		A	0	93	1	100	0
3	Roundup PowerMax	4.5	SL	32 fl oz/a		A					
3	Intact		L	0.5 % v/v		A					
3	Roundup PowerMax	4.5	SL	32 fl oz/a		B					
3	AMS		WG	17 lb/100 gal		B					
4	Metribuzin	75	WG	8 oz/a		A	3	94	0	96	0
4	XtendiMax	2.9	SL	22 fl oz/a		A					
4	Roundup PowerMax	4.5	SL	32 fl oz/a		A					
4	Intact		L	0.5 % v/v		A					
4	Roundup PowerMax	4.5	SL	32 fl oz/a		B					
4	AMS		WG	17 lb/100 gal		B					
5	Valor	51	WG	2 oz/a		A	6	80	1	93	0
5	XtendiMax	2.9	SL	22 fl oz/a		A					
5	Roundup PowerMax	4.5	SL	32 fl oz/a		A					
5	Intact		L	0.5 % v/v		A					
5	Roundup PowerMax	4.5	SL	32 fl oz/a		B					
5	AMS		WG	17 lb/100 gal		B					
6	Valor	51	WG	2 oz/a		A	11	92	0	96	0
6	Metribuzin	75	WG	8 oz/a		A					
6	XtendiMax	2.9	SL	22 fl oz/a		A					
6	Roundup PowerMax	4.5	SL	32 fl oz/a		A					
6	Intact		L	0.5 % v/v		A					
6	Roundup PowerMax	4.5	SL	32 fl oz/a		B					
6	AMS		WG	17 lb/100 gal		B					
7	Spartan	4	L	8 fl oz/a		A	15	79	2	80	0
7	XtendiMax	2.9	SL	22 fl oz/a		A					
7	Roundup PowerMax	4.5	SL	32 fl oz/a		A					
7	Intact		L	0.5 % v/v		A					
7	Roundup PowerMax	4.5	SL	32 fl oz/a		B					
7	AMS		WG	17 lb/100 gal		B					

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Rating Type	injury	control	injury	control	injury	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	15 DA-A	15 DA-A	30 DA-A	30 DA-A	48 DA-A	48 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Appl Code						
8	Spartan	4	L	8 fl oz/a	A	9	99	0	94	0	86
8	Metribuzin	75	WG	8 oz/a	A						
8	XtendiMax	2.9	SL	22 fl oz/a	A						
8	Roundup PowerMax	4.5	SL	32 fl oz/a	A						
8	Intact		L	0.5 % v/v	A						
8	Roundup PowerMax	4.5	SL	32 fl oz/a	B						
8	AMS		WG	17 lb/100 gal	B						
9	Authority MTZ	45	WG	16 oz/a	A	12	92	5	96	0	90
9	XtendiMax	2.9	SL	22 fl oz/a	A						
9	Roundup PowerMax	4.5	SL	32 fl oz/a	A						
9	Intact		L	0.5 % v/v	A						
9	Roundup PowerMax	4.5	SL	32 fl oz/a	B						
9	AMS		WG	17 lb/100 gal	B						
10	Fierce MTZ	2.64	L	16 fl oz/a	A	23	95	13	95	7	88
10	XtendiMax	2.9	SL	22 fl oz/a	A						
10	Roundup PowerMax	4.5	SL	32 fl oz/a	A						
10	Intact		L	0.5 % v/v	A						
10	Roundup PowerMax	4.5	SL	32 fl oz/a	B						
10	AMS		WG	17 lb/100 gal	B						
11	Zidua PRO	4.09	L	6 fl oz/a	A	27	98	20	97	4	85
11	XtendiMax	2.9	SL	22 fl oz/a	A						
11	Roundup PowerMax	4.5	SL	32 fl oz/a	A						
11	MSO		L	1 % v/v	A						
11	Intact		L	0.5 % v/v	A						
11	Roundup PowerMax	4.5	SL	32 fl oz/a	B						
11	AMS		WG	17 lb/100 gal	B						
12	Sharpen	2.85	L	1 fl oz/a	A	3	83	1	73	0	62
12	Roundup PowerMax	4.5	SL	32 fl oz/a	A						
12	MSO		L	1 % v/v	A						
12	AMS		WG	17 lb/100 gal	A						
12	Roundup PowerMax	4.5	SL	32 fl oz/a	B						
12	AMS		WG	17 lb/100 gal	B						
LSD P=.05						10.3	9.5	3.2	6.0	3.1	10.0
Standard Deviation						7.1	6.6	2.2	4.1	2.1	6.9
CV						78.23	7.96	61.19	4.88	225.99	8.92

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Pest Code		ERICA	ERICA	ERICA
Crop Code	GLXMA			
Rating Date	Jul-24-2018	Jul-24-2018	Aug-9-2018	Sep-21-2018
Rating Type	injury	control	control	control
Rating Unit	percent	percent	percent	percent
Trt-Eval Interval	14 DA-B	14 DA-B	30 DA-B	73 DA-B
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code				
1	Roundup PowerMax	4.5	SL	32 fl oz/a		A	0	24	20	0
1	AMS		WG	17 lb/100 gal		A				
1	Roundup PowerMax	4.5	SL	32 fl oz/a		B				
1	AMS		WG	17 lb/100 gal		B				
2	XtendiMax	2.9	SL	22 fl oz/a		A	1	83	81	65
2	Roundup PowerMax	4.5	SL	32 fl oz/a		A				
2	Intact		L	0.5 % v/v		A				
2	Roundup PowerMax	4.5	SL	32 fl oz/a		B				
2	AMS		WG	17 lb/100 gal		B				
3	XtendiMax	2.9	SL	44 fl oz/a		A	1	92	89	74
3	Roundup PowerMax	4.5	SL	32 fl oz/a		A				
3	Intact		L	0.5 % v/v		A				
3	Roundup PowerMax	4.5	SL	32 fl oz/a		B				
3	AMS		WG	17 lb/100 gal		B				
4	Metribuzin	75	WG	8 oz/a		A	0	96	96	86
4	XtendiMax	2.9	SL	22 fl oz/a		A				
4	Roundup PowerMax	4.5	SL	32 fl oz/a		A				
4	Intact		L	0.5 % v/v		A				
4	Roundup PowerMax	4.5	SL	32 fl oz/a		B				
4	AMS		WG	17 lb/100 gal		B				
5	Valor	51	WG	2 oz/a		A	1	85	78	86
5	XtendiMax	2.9	SL	22 fl oz/a		A				
5	Roundup PowerMax	4.5	SL	32 fl oz/a		A				
5	Intact		L	0.5 % v/v		A				
5	Roundup PowerMax	4.5	SL	32 fl oz/a		B				
5	AMS		WG	17 lb/100 gal		B				
6	Valor	51	WG	2 oz/a		A	0	92	88	87
6	Metribuzin	75	WG	8 oz/a		A				
6	XtendiMax	2.9	SL	22 fl oz/a		A				
6	Roundup PowerMax	4.5	SL	32 fl oz/a		A				
6	Intact		L	0.5 % v/v		A				
6	Roundup PowerMax	4.5	SL	32 fl oz/a		B				
6	AMS		WG	17 lb/100 gal		B				
7	Spartan	4	L	8 fl oz/a		A	2	75	74	76
7	XtendiMax	2.9	SL	22 fl oz/a		A				
7	Roundup PowerMax	4.5	SL	32 fl oz/a		A				
7	Intact		L	0.5 % v/v		A				
7	Roundup PowerMax	4.5	SL	32 fl oz/a		B				
7	AMS		WG	17 lb/100 gal		B				

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Rating Date	Jul-24-2018	Jul-24-2018	Aug-9-2018	Sep-21-2018
Rating Type	injury	control	control	control
Rating Unit	percent	percent	percent	percent
Trt-Eval Interval	14 DA-B	14 DA-B	30 DA-B	73 DA-B
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Appl Code				
8	Spartan	4	L	8 fl oz/a	A	0	90	91	91
8	Metribuzin	75	WG	8 oz/a	A				
8	XtendiMax	2.9	SL	22 fl oz/a	A				
8	Roundup PowerMax	4.5	SL	32 fl oz/a	A				
8	Intact		L	0.5 % v/v	A				
8	Roundup PowerMax	4.5	SL	32 fl oz/a	B				
8	AMS		WG	17 lb/100 gal	B				
9	Authority MTZ	45	WG	16 oz/a	A	1	91	94	92
9	XtendiMax	2.9	SL	22 fl oz/a	A				
9	Roundup PowerMax	4.5	SL	32 fl oz/a	A				
9	Intact		L	0.5 % v/v	A				
9	Roundup PowerMax	4.5	SL	32 fl oz/a	B				
9	AMS		WG	17 lb/100 gal	B				
10	Fierce MTZ	2.64	L	16 fl oz/a	A	5	89	90	91
10	XtendiMax	2.9	SL	22 fl oz/a	A				
10	Roundup PowerMax	4.5	SL	32 fl oz/a	A				
10	Intact		L	0.5 % v/v	A				
10	Roundup PowerMax	4.5	SL	32 fl oz/a	B				
10	AMS		WG	17 lb/100 gal	B				
11	Zidua PRO	4.09	L	6 fl oz/a	A	1	87	89	84
11	XtendiMax	2.9	SL	22 fl oz/a	A				
11	Roundup PowerMax	4.5	SL	32 fl oz/a	A				
11	MSO		L	1 % v/v	A				
11	Intact		L	0.5 % v/v	A				
11	Roundup PowerMax	4.5	SL	32 fl oz/a	B				
11	AMS		WG	17 lb/100 gal	B				
12	Sharpen	2.85	L	1 fl oz/a	A	0	65	63	62
12	Roundup PowerMax	4.5	SL	32 fl oz/a	A				
12	MSO		L	1 % v/v	A				
12	AMS		WG	17 lb/100 gal	A				
12	Roundup PowerMax	4.5	SL	32 fl oz/a	B				
12	AMS		WG	17 lb/100 gal	B				
LSD P=.05						2.1	9.3	9.0	8.8
Standard Deviation						1.5	6.5	6.2	6.1
CV						150.34	8.01	7.79	8.21