

No-till weed control in Roundup Ready 2 Xtend soybean

Trial ID: NTS02-18 Study Dir.: Sprague, Powell, Stiles
 Conducted: Campus, T-11 Investigator: Christy Sprague

Planting Date: May-8-2018 **Row Spacing:** 30 IN
Variety: AG26X8 **No. of Reps:** 4
Population: 156000 seeds/A **% OM:** 2.2
Soil Type: L loam **pH:** 6.8
Plot Size: 10 X 35 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: No-tilled into standing corn stubble
Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	STEME	chickweed, common	Stellaria media
2	ERICA	horseweed	Conyza canadensis
3	ANGR	mainly foxtail species	Annual grass
4	CHEAL	lambsquarters, common	Chenopodium album
5	AMBEL	ragweed, common	Ambrosia artemisiifolia
6	TAROF	dandelion	Taraxacum officinale
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

A
Application Timing: PRE
Date Treated: May-8-2018
Time Treated: 6:30 PM
% Cloud Cover: 20
Air Temp., Unit: 86 F
% Relative Humidity: 28
Wind Speed/Unit/Dir: 8 mph E
Soil Temp, Unit: 65 F
Leaf Moist/Dew Presence (Y/N): 5
Soil Moist: 3

Crop Stage at Each Application

A
Crop 1 Name: GLXMA
Height:
Stage:

Weed Stage at Each Application

A
Weed 1 Name: STEME
Height: 1 "
Stage: many
Weed 2 Name: ERICA
Height:
Stage:
Weed 3 Name: ANGR
Height: 2 "
Stage: 2-3L
Weed 4 Name: CHEAL
Height: 5-6 " (5)
Stage: 4-8L
Weed 5 Name: AMBEL
Height:
Stage:
Weed 6 Name: TAROF
Height:
Stage:

Weed Density

	1	2	3	4	5	6
Date:	May-8-2018	May-8-2018	May-8-2018	May-8-2018	May-8-2018	May-8-2018
Weed Name:	STEME	ERICA	ANGR	CHEAL	AMBEL	TAROF
Density:	4 FT2	1 FT2	1 FT2	4 FT2	1 FT2	1 FT2

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Appl	Sprayer Type	Ground Speed	Application Equipment							Operation Pressure
			Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	Spray Volume	Carrier	
A	CUB	3.8 mph	TTI	11003	24 "	20 "	100 "	19 GPA	WATER	25 PSI

Comments: Postemergence treatments were not applied due to the effectiveness of the soil-residual herbicides in the burndown herbicide treatments.

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Pest Code	STEME	ERICA	CHEAL	AMBEL	GLXMA
Crop Code					
Rating Date	May-22-2018	May-22-2018	May-22-2018	May-22-2018	Jun-15-2018
Rating Type	control	control	control	control	injury
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	38 DA-A
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	STEME	ERICA	CHEAL	AMBEL	GLXMA
1	XtendiMax	2.9	SL	22 fl oz/a	A		100	100	100	100	1
1	Roundup PowerMax	4.5	SL	32 fl oz/a	A						
1	Induce	L		0.25 % v/v	A						
1	Intact	L		0.5 % v/v	A						
2	Zidua PRO	4.09	L	6 fl oz/a	A		99	100	100	100	4
2	XtendiMax	2.9	SL	22 fl oz/a	A						
2	Roundup PowerMax	4.5	SL	32 fl oz/a	A						
2	Induce	L		0.25 % v/v	A						
2	Intact	L		0.5 % v/v	A						
3	Valor EZ	4	L	2.5 fl oz/a	A		100	100	100	100	4
3	XtendiMax	2.9	SL	22 fl oz/a	A						
3	Roundup PowerMax	4.5	SL	32 fl oz/a	A						
3	Induce	L		0.25 % v/v	A						
3	Intact	L		0.5 % v/v	A						
4	Fierce	76	WG	3 oz/a	A		99	100	100	100	3
4	XtendiMax	2.9	SL	22 fl oz/a	A						
4	Roundup PowerMax	4.5	SL	32 fl oz/a	A						
4	Induce	L		0.25 % v/v	A						
4	Intact	L		0.5 % v/v	A						
5	Fierce	76	WG	3.75 oz/a	A		100	100	100	100	5
5	XtendiMax	2.9	SL	22 fl oz/a	A						
5	Roundup PowerMax	4.5	SL	32 fl oz/a	A						
5	Induce	L		0.25 % v/v	A						
5	Intact	L		0.5 % v/v	A						
6	Fierce MTZ	2.64	L	1 pt/a	A		100	100	100	100	4
6	XtendiMax	2.9	SL	22 fl oz/a	A						
6	Roundup PowerMax	4.5	SL	32 fl oz/a	A						
6	Induce	L		0.25 % v/v	A						
6	Intact	L		0.5 % v/v	A						
7	Untreated						0	0	0	0	0
8	Authority Supreme	4.16	L	7.7 fl oz/a	A		98	100	100	100	4
8	XtendiMax	2.9	SL	22 fl oz/a	A						
8	Roundup PowerMax	4.5	SL	32 fl oz/a	A						
8	Induce	L		0.25 % v/v	A						
8	Intact	L		0.5 % v/v	A						
9	Authority MTZ	45	WG	11 oz/a	A		100	100	100	100	2
9	XtendiMax	2.9	SL	22 fl oz/a	A						
9	Roundup PowerMax	4.5	SL	32 fl oz/a	A						
9	Induce	L		0.25 % v/v	A						
9	Intact	L		0.5 % v/v	A						

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Pest Code	STEME	ERICA	CHEAL	AMBEL	GLXMA
Crop Code					
Rating Date	May-22-2018	May-22-2018	May-22-2018	May-22-2018	Jun-15-2018
Rating Type	control	control	control	control	injury
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	38 DA-A
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code			
10	Fierce EZ	3.04	L	6 fl oz/a	A		100	100	100
10	XtendiMax	2.9	SL	22 fl oz/a	A				
10	Roundup PowerMax	4.5	SL	32 fl oz/a	A				
10	Induce		L	0.25 % v/v	A				
10	Intact		L	0.5 % v/v	A				
	LSD P=.05						1.2	.	.
	Standard Deviation						0.8	0.0	0.0
	CV						0.89	0.0	0.0

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Pest Code	STEME	ERICA	CHEAL	AMBEL	GLXMA	ERICA
Crop Code						
Rating Date	Jun-15-2018	Jun-15-2018	Jun-15-2018	Jun-15-2018	Jul-12-2018	Jul-12-2018
Rating Type	control	control	control	control	injury	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	38 DA-A	38 DA-A	38 DA-A	38 DA-A	65 DA-A	65 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	STEME	ERICA	CHEAL	AMBEL	GLXMA	ERICA
1	XtendiMax	2.9	SL	22 fl oz/a	A		98	100	100	100	0	73
1	Roundup PowerMax	4.5	SL	32 fl oz/a	A							
1	Induce		L	0.25 % v/v	A							
1	Intact		L	0.5 % v/v	A							
2	Zidua PRO	4.09	L	6 fl oz/a	A		100	100	100	100	6	100
2	XtendiMax	2.9	SL	22 fl oz/a	A							
2	Roundup PowerMax	4.5	SL	32 fl oz/a	A							
2	Induce		L	0.25 % v/v	A							
2	Intact		L	0.5 % v/v	A							
3	Valor EZ	4	L	2.5 fl oz/a	A		100	100	100	100	0	100
3	XtendiMax	2.9	SL	22 fl oz/a	A							
3	Roundup PowerMax	4.5	SL	32 fl oz/a	A							
3	Induce		L	0.25 % v/v	A							
3	Intact		L	0.5 % v/v	A							
4	Fierce	76	WG	3 oz/a	A		100	100	100	100	1	100
4	XtendiMax	2.9	SL	22 fl oz/a	A							
4	Roundup PowerMax	4.5	SL	32 fl oz/a	A							
4	Induce		L	0.25 % v/v	A							
4	Intact		L	0.5 % v/v	A							
5	Fierce	76	WG	3.75 oz/a	A		100	100	100	100	8	100
5	XtendiMax	2.9	SL	22 fl oz/a	A							
5	Roundup PowerMax	4.5	SL	32 fl oz/a	A							
5	Induce		L	0.25 % v/v	A							
5	Intact		L	0.5 % v/v	A							
6	Fierce MTZ	2.64	L	1 pt/a	A		100	100	100	100	6	100
6	XtendiMax	2.9	SL	22 fl oz/a	A							
6	Roundup PowerMax	4.5	SL	32 fl oz/a	A							
6	Induce		L	0.25 % v/v	A							
6	Intact		L	0.5 % v/v	A							
7	Untreated						0	0	0	0	0	0
8	Authority Supreme	4.16	L	7.7 fl oz/a	A		100	100	100	100	8	100
8	XtendiMax	2.9	SL	22 fl oz/a	A							
8	Roundup PowerMax	4.5	SL	32 fl oz/a	A							
8	Induce		L	0.25 % v/v	A							
8	Intact		L	0.5 % v/v	A							
9	Authority MTZ	45	WG	11 oz/a	A		100	100	100	100	0	100
9	XtendiMax	2.9	SL	22 fl oz/a	A							
9	Roundup PowerMax	4.5	SL	32 fl oz/a	A							
9	Induce		L	0.25 % v/v	A							
9	Intact		L	0.5 % v/v	A							

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Pest Code	STEME	ERICA	CHEAL	AMBEL	GLXMA	ERICA
Crop Code						
Rating Date	Jun-15-2018	Jun-15-2018	Jun-15-2018	Jun-15-2018	Jul-12-2018	Jul-12-2018
Rating Type	control	control	control	control	injury	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	38 DA-A	38 DA-A	38 DA-A	38 DA-A	65 DA-A	65 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code							
10	Fierce EZ	3.04	L	6 fl oz/a	A		100	100	100	100	4	100	
10	XtendiMax	2.9	SL	22 fl oz/a	A								
10	Roundup PowerMax	4.5	SL	32 fl oz/a	A								
10	Induce		L	0.25 % v/v	A								
10	Intact		L	0.5 % v/v	A								
LSD P=.05							1.1	.	.	.	4.1	14.7	
Standard Deviation							0.7	0.0	0.0	0.0	0.0	2.8	10.1
CV							0.83	0.0	0.0	0.0	0.0	87.33	11.6

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Pest Code	ANGR	CHEAL	AMBEL	TAROF	ANGR	CHEAL
Crop Code						
Rating Date	Jul-12-2018	Jul-12-2018	Jul-12-2018	Jul-12-2018	Oct-9-2018	Oct-9-2018
Rating Type	control	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	65 DA-A	58 DA-A	65 DA-A	65 DA-A	65 DA-A	58 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	ANGR	CHEAL	AMBEL	TAROF	ANGR	CHEAL
1	XtendiMax	2.9	SL	22 fl oz/a	A		8	43	40	85	66	82
1	Roundup PowerMax	4.5	SL	32 fl oz/a	A							
1	Induce		L	0.25 % v/v	A							
1	Intact		L	0.5 % v/v	A							
2	Zidua PRO	4.09	L	6 fl oz/a	A		100	100	100	98	100	100
2	XtendiMax	2.9	SL	22 fl oz/a	A							
2	Roundup PowerMax	4.5	SL	32 fl oz/a	A							
2	Induce		L	0.25 % v/v	A							
2	Intact		L	0.5 % v/v	A							
3	Valor EZ	4	L	2.5 fl oz/a	A		99	100	95	99	99	100
3	XtendiMax	2.9	SL	22 fl oz/a	A							
3	Roundup PowerMax	4.5	SL	32 fl oz/a	A							
3	Induce		L	0.25 % v/v	A							
3	Intact		L	0.5 % v/v	A							
4	Fierce	76	WG	3 oz/a	A		100	100	100	99	99	100
4	XtendiMax	2.9	SL	22 fl oz/a	A							
4	Roundup PowerMax	4.5	SL	32 fl oz/a	A							
4	Induce		L	0.25 % v/v	A							
4	Intact		L	0.5 % v/v	A							
5	Fierce	76	WG	3.75 oz/a	A		100	100	100	100	100	100
5	XtendiMax	2.9	SL	22 fl oz/a	A							
5	Roundup PowerMax	4.5	SL	32 fl oz/a	A							
5	Induce		L	0.25 % v/v	A							
5	Intact		L	0.5 % v/v	A							
6	Fierce MTZ	2.64	L	1 pt/a	A		100	100	100	99	100	100
6	XtendiMax	2.9	SL	22 fl oz/a	A							
6	Roundup PowerMax	4.5	SL	32 fl oz/a	A							
6	Induce		L	0.25 % v/v	A							
6	Intact		L	0.5 % v/v	A							
7	Untreated						0	0	0	0	0	0
8	Authority Supreme	4.16	L	7.7 fl oz/a	A		100	100	96	98	96	100
8	XtendiMax	2.9	SL	22 fl oz/a	A							
8	Roundup PowerMax	4.5	SL	32 fl oz/a	A							
8	Induce		L	0.25 % v/v	A							
8	Intact		L	0.5 % v/v	A							
9	Authority MTZ	45	WG	11 oz/a	A		91	100	99	99	95	100
9	XtendiMax	2.9	SL	22 fl oz/a	A							
9	Roundup PowerMax	4.5	SL	32 fl oz/a	A							
9	Induce		L	0.25 % v/v	A							
9	Intact		L	0.5 % v/v	A							

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Pest Code	ANGR	CHEAL	AMBEL	TAROF	ANGR	CHEAL
Crop Code						
Rating Date	Jul-12-2018	Jul-12-2018	Jul-12-2018	Jul-12-2018	Oct-9-2018	Oct-9-2018
Rating Type	control	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	65 DA-A	58 DA-A	65 DA-A	65 DA-A	65 DA-A	58 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code						
10	Fierce EZ	3.04	L	6 fl oz/a	A		100	100	100	89	100	100
10	XtendiMax	2.9	SL	22 fl oz/a	A							
10	Roundup PowerMax	4.5	SL	32 fl oz/a	A							
10	Induce		L	0.25 % v/v	A							
10	Intact		L	0.5 % v/v	A							
	LSD P=.05						9.4	16.1	15.3	13.2	6.7	2.6
	Standard Deviation						6.5	11.1	10.6	9.1	4.6	1.8
	CV						8.09	13.14	12.72	10.54	5.41	2.05

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Pest Code	AMBEL	ERICA	GLXMA	GLXMA
Crop Code				
Rating Date	Oct-9-2018	Oct-9-2018	Oct-24-2018	Oct-24-2018
Rating Type	control	control	moisture	yield
Rating Unit	percent	percent	percent	bu/acre
Trt-Eval Interval	65 DA-A	65 DA-A	169 DA-A	at 13% M
Number of Decimals	0	0	1	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code				
1	XtendiMax	2.9	SL	22 fl oz/a	A		81	65	13.9	55.4
1	Roundup PowerMax	4.5	SL	32 fl oz/a	A					
1	Induce		L	0.25 % v/v	A					
1	Intact		L	0.5 % v/v	A					
2	Zidua PRO	4.09	L	6 fl oz/a	A		100	100	13.2	50.1
2	XtendiMax	2.9	SL	22 fl oz/a	A					
2	Roundup PowerMax	4.5	SL	32 fl oz/a	A					
2	Induce		L	0.25 % v/v	A					
2	Intact		L	0.5 % v/v	A					
3	Valor EZ	4	L	2.5 fl oz/a	A		98	100	14.0	56.6
3	XtendiMax	2.9	SL	22 fl oz/a	A					
3	Roundup PowerMax	4.5	SL	32 fl oz/a	A					
3	Induce		L	0.25 % v/v	A					
3	Intact		L	0.5 % v/v	A					
4	Fierce	76	WG	3 oz/a	A		100	100	13.8	54.1
4	XtendiMax	2.9	SL	22 fl oz/a	A					
4	Roundup PowerMax	4.5	SL	32 fl oz/a	A					
4	Induce		L	0.25 % v/v	A					
4	Intact		L	0.5 % v/v	A					
5	Fierce	76	WG	3.75 oz/a	A		100	100	13.5	54.4
5	XtendiMax	2.9	SL	22 fl oz/a	A					
5	Roundup PowerMax	4.5	SL	32 fl oz/a	A					
5	Induce		L	0.25 % v/v	A					
5	Intact		L	0.5 % v/v	A					
6	Fierce MTZ	2.64	L	1 pt/a	A		100	100	13.1	54.9
6	XtendiMax	2.9	SL	22 fl oz/a	A					
6	Roundup PowerMax	4.5	SL	32 fl oz/a	A					
6	Induce		L	0.25 % v/v	A					
6	Intact		L	0.5 % v/v	A					
7	Untreated						0	0	15.1	35.4
8	Authority Supreme	4.16	L	7.7 fl oz/a	A		100	91	13.6	51.4
8	XtendiMax	2.9	SL	22 fl oz/a	A					
8	Roundup PowerMax	4.5	SL	32 fl oz/a	A					
8	Induce		L	0.25 % v/v	A					
8	Intact		L	0.5 % v/v	A					
9	Authority MTZ	45	WG	11 oz/a	A		92	100	14.0	62.1
9	XtendiMax	2.9	SL	22 fl oz/a	A					
9	Roundup PowerMax	4.5	SL	32 fl oz/a	A					
9	Induce		L	0.25 % v/v	A					
9	Intact		L	0.5 % v/v	A					

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Pest Code	AMBEL	ERICA	GLXMA	GLXMA
Crop Code				
Rating Date	Oct-9-2018	Oct-9-2018	Oct-24-2018	Oct-24-2018
Rating Type	control	control	moisture	yield
Rating Unit	percent	percent	percent	bu/acre
Trt-Eval Interval	65 DA-A	65 DA-A	169 DA-A	at 13% M
Number of Decimals	0	0	1	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code				
10	Fierce EZ	3.04	L	6 fl oz/a	A		100	100	13.5	57.0
10	XtendiMax	2.9	SL	22 fl oz/a	A					
10	Roundup PowerMax	4.5	SL	32 fl oz/a	A					
10	Induce		L	0.25 % v/v	A					
10	Intact		L	0.5 % v/v	A					
	LSD P=.05						3.7	5.2	1.08	6.34
	Standard Deviation						2.6	3.6	0.74	4.37
	CV						2.94	4.16	5.39	8.23