

Influence of additives on weed control with Enlist One

Trial ID: SOY12-19 Study Dir.: Sprague, Powell, Stiles
 Conducted: Campus, C-18 Investigator: Christy Sprague

Planting Date: May-15-2019 **Row Spacing:** 30 IN
Variety: Stine 24EA12 Enlist E3 **No. of Reps:** 4
Population: 160000 seeds/A **% OM:** 2.5
Soil Type: L loam **pH:** 7.2
Plot Size: 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: 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	lambquarters, common	Chenopodium album
3	AMBEL	ragweed, common	Ambrosia artemisiifolia
4	SINAR	mustard, wild	Sinapis arvensis
5	LAMAM	henbit	Lamium amplexicaule
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

A
Application Timing: POST
Date Treated: Jun-18-2019
Time Treated: 1:40 PM
% Cloud Cover: 90
Air Temp., Unit: 72 F
% Relative Humidity: 64
Wind Speed/Unit/Dir: 3 mph E
Soil Temp, Unit: 67 F
Leaf Moist/Dew Presence (Y/N): 3
Soil Moist: 2

Crop Stage at Each Application

A
Crop 1 Name: GLXMA
Height: 6 "
Stage: V2

Weed Stage at Each Application

A
Weed 1 Name: ANGR
Height: 1-6 " (3.5)
Stage: 2-6L
Weed 2 Name: CHEAL
Height: 1-4 " (4)
Stage: 4-8L
Weed 3 Name: AMBEL
Height: 1-3 " (3)
Stage: 2-6L
Weed 4 Name: SINAR
Height: 1-12 " (6.5)
Stage: 4-12L
Weed 5 Name: LAMAM
Height: 1 "
Stage: 5L

Weed Density

	1	2	3	4	5
Date:	Jun-18-2019	Jun-18-2019	Jun-18-2019	Jun-18-2019	Jun-18-2019
Weed Name:	ANGR	CHEAL	AMBEL	SINAR	LAMAM
Density:	58 ft2	5 ft2	40 ft2	15 ft2	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	AIXR	11003	29 "	20 "	100 "	19 GPA	WATER	30 psi

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Pest Code		ANGR	CHEAL	AMAPO	AMBEL
Crop Type, Code	GLXMA				
Rating Date	Jun-25-2019	Jun-25-2019	Jun-25-2019	Jun-25-2019	Jun-25-2019
Rating Type	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	7 DA-A	7 DA-A	7 DA-A	7 DA-A	7 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	Untreated							0	0	0	0	0
2	Enlist One	3.8	SL	0.75	pt/a	POST	A	3	99	100	100	82
2	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A					
3	Enlist One	3.8	SL	0.75	pt/a	POST	A	3	98	100	100	85
3	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A					
3	Class Act NG		L	2.5	% v/v	POST	A					
4	Enlist One	3.8	SL	0.75	pt/a	POST	A	3	100	100	100	93
4	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A					
4	Class Act NG		L	2.5	% v/v	POST	A					
4	Interlock		L	4	fl oz/a	POST	A					
5	Enlist One	3.8	SL	0.75	pt/a	POST	A	3	100	100	100	89
5	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A					
5	Class Act NG		L	2.5	% v/v	POST	A					
5	Strikelock		L	8	fl oz/a	POST	A					
6	Enlist One	3.8	SL	0.75	pt/a	POST	A	3	97	100	100	80
6	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A					
6	Class Act Ridion		L	1	% v/v	POST	A					
7	Enlist One	3.8	SL	0.75	pt/a	POST	A	3	99	100	100	84
7	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A					
7	Class Act Ridion		L	1	% v/v	POST	A					
7	Interlock		L	4	fl oz/a	POST	A					
8	Enlist One	3.8	SL	0.75	pt/a	POST	A	3	97	100	100	76
8	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A					
8	Class Act Ridion		L	1	% v/v	POST	A					
8	Strikelock		L	8	fl oz/a	POST	A					
9	Enlist One	3.8	SL	0.75	pt/a	POST	A	3	95	100	100	75
9	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A					
9	Double X		L	0.5	% v/v	POST	A					
10	Enlist One	3.8	SL	0.75	pt/a	POST	A	3	98	100	100	86
10	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A					
10	Double X		L	0.5	% v/v	POST	A					
10	Interlock		L	4	fl oz/a	POST	A					
	LSD P=.05							.	3.0	.	.	9.5
	Standard Deviation							0.0	2.1	0.0	0.0	6.5
	CV							0.0	2.35	0.0	0.0	8.72

Could not calculate LSD (% mean diff) for columns 1,3,4,8,10,11,15 because error mean square = 0.

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Pest Code	SINAR	LAMAM	GLXMA	ANGR	CHEAL	AMAPO
Crop Type, Code						
Rating Date	Jun-25-2019	Jun-25-2019	Jul-2-2019	Jul-2-2019	Jul-2-2019	Jul-2-2019
Rating Type	control	control	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	7 DA-A	7 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Timing	Appl Code	SINAR	LAMAM	GLXMA	ANGR	CHEAL	AMAPO
1	Untreated							0	0	0	0	0	0
2	Enlist One	3.8	SL	0.75	pt/a	POST	A	81	29	0	99	100	100
2	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A						
3	Enlist One	3.8	SL	0.75	pt/a	POST	A	86	25	0	99	100	100
3	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A						
3	Class Act NG		L	2.5	% v/v	POST	A						
4	Enlist One	3.8	SL	0.75	pt/a	POST	A	91	28	0	100	100	100
4	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A						
4	Class Act NG		L	2.5	% v/v	POST	A						
4	Interlock		L	4	fl oz/a	POST	A						
5	Enlist One	3.8	SL	0.75	pt/a	POST	A	88	25	0	99	100	100
5	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A						
5	Class Act NG		L	2.5	% v/v	POST	A						
5	Strikelock		L	8	fl oz/a	POST	A						
6	Enlist One	3.8	SL	0.75	pt/a	POST	A	78	20	0	100	100	100
6	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A						
6	Class Act Ridion		L	1	% v/v	POST	A						
7	Enlist One	3.8	SL	0.75	pt/a	POST	A	83	20	0	99	100	100
7	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A						
7	Class Act Ridion		L	1	% v/v	POST	A						
7	Interlock		L	4	fl oz/a	POST	A						
8	Enlist One	3.8	SL	0.75	pt/a	POST	A	78	18	0	95	100	100
8	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A						
8	Class Act Ridion		L	1	% v/v	POST	A						
8	Strikelock		L	8	fl oz/a	POST	A						
9	Enlist One	3.8	SL	0.75	pt/a	POST	A	81	18	0	100	100	100
9	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A						
9	Double X		L	0.5	% v/v	POST	A						
10	Enlist One	3.8	SL	0.75	pt/a	POST	A	88	21	0	99	100	100
10	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A						
10	Double X		L	0.5	% v/v	POST	A						
10	Interlock		L	4	fl oz/a	POST	A						
	LSD P=.05							9.9	9.7	.	2.9	.	.
	Standard Deviation							6.9	6.7	0.0	2.0	0.0	0.0
	CV							9.11	33.13	0.0	2.23	0.0	0.0

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Pest Code	AMBEL	SINAR	LAMAM	GLXMA	ANGR	CHEAL
Crop Type, Code						
Rating Date	Jul-2-2019	Jul-2-2019	Jul-2-2019	Jul-9-2019	Jul-9-2019	Jul-9-2019
Rating Type	control	control	control	injury	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	21 DA-A	21 DA-A
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	Untreated							0	0	0	0	0
2	Enlist One	3.8	SL	0.75	pt/a	POST	A	100	93	31	0	95
2	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A					100
3	Enlist One	3.8	SL	0.75	pt/a	POST	A	96	98	24	0	93
3	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A					100
3	Class Act NG		L	2.5	% v/v	POST	A					
4	Enlist One	3.8	SL	0.75	pt/a	POST	A	100	99	31	0	95
4	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A					100
4	Class Act NG		L	2.5	% v/v	POST	A					
4	Interlock		L	4	fl oz/a	POST	A					
5	Enlist One	3.8	SL	0.75	pt/a	POST	A	96	98	26	0	91
5	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A					99
5	Class Act NG		L	2.5	% v/v	POST	A					
5	Strikelock		L	8	fl oz/a	POST	A					
6	Enlist One	3.8	SL	0.75	pt/a	POST	A	97	93	18	0	95
6	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A					100
6	Class Act Ridion		L	1	% v/v	POST	A					
7	Enlist One	3.8	SL	0.75	pt/a	POST	A	100	95	24	0	93
7	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A					100
7	Class Act Ridion		L	1	% v/v	POST	A					
7	Interlock		L	4	fl oz/a	POST	A					
8	Enlist One	3.8	SL	0.75	pt/a	POST	A	96	93	18	0	90
8	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A					100
8	Class Act Ridion		L	1	% v/v	POST	A					
8	Strikelock		L	8	fl oz/a	POST	A					
9	Enlist One	3.8	SL	0.75	pt/a	POST	A	98	96	15	0	91
9	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A					99
9	Double X		L	0.5	% v/v	POST	A					
10	Enlist One	3.8	SL	0.75	pt/a	POST	A	95	95	23	0	91
10	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A					100
10	Double X		L	0.5	% v/v	POST	A					
10	Interlock		L	4	fl oz/a	POST	A					
	LSD P=.05							6.7	6.1	13.6	.	4.5
	Standard Deviation							4.6	4.2	9.3	0.0	3.1
	CV							5.27	4.9	44.76	0.0	3.72

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Pest Code	AMAPO	AMBEL	SINAR	LAMAM
Crop Type, Code				
Rating Date	Jul-9-2019	Jul-9-2019	Jul-9-2019	Jul-9-2019
Rating Type	control	control	control	control
Rating Unit	percent	percent	percent	percent
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	21 DA-A
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Timing	Appl Code				
1	Untreated							0	0	0	0
2	Enlist One	3.8	SL	0.75	pt/a	POST	A	100	99	99	44
2	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A				
3	Enlist One	3.8	SL	0.75	pt/a	POST	A	100	88	100	58
3	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A				
3	Class Act NG		L	2.5	% v/v	POST	A				
4	Enlist One	3.8	SL	0.75	pt/a	POST	A	100	100	100	46
4	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A				
4	Class Act NG		L	2.5	% v/v	POST	A				
4	Interlock		L	4	fl oz/a	POST	A				
5	Enlist One	3.8	SL	0.75	pt/a	POST	A	100	95	100	43
5	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A				
5	Class Act NG		L	2.5	% v/v	POST	A				
5	Strikelock		L	8	fl oz/a	POST	A				
6	Enlist One	3.8	SL	0.75	pt/a	POST	A	100	98	99	33
6	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A				
6	Class Act Ridion		L	1	% v/v	POST	A				
7	Enlist One	3.8	SL	0.75	pt/a	POST	A	100	99	100	28
7	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A				
7	Class Act Ridion		L	1	% v/v	POST	A				
7	Interlock		L	4	fl oz/a	POST	A				
8	Enlist One	3.8	SL	0.75	pt/a	POST	A	98	91	100	25
8	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A				
8	Class Act Ridion		L	1	% v/v	POST	A				
8	Strikelock		L	8	fl oz/a	POST	A				
9	Enlist One	3.8	SL	0.75	pt/a	POST	A	100	99	98	33
9	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A				
9	Double X		L	0.5	% v/v	POST	A				
10	Enlist One	3.8	SL	0.75	pt/a	POST	A	100	98	99	34
10	Roundup PowerMax	4.5	SL	11	fl oz/a	POST	A				
10	Double X		L	0.5	% v/v	POST	A				
10	Interlock		L	4	fl oz/a	POST	A				
	LSD P=.05							2.4	7.2	2.5	18.1
	Standard Deviation							1.6	5.0	1.7	12.5
	CV							1.81	5.77	1.92	36.65

Could not calculate LSD (% mean diff) for columns 1,3,4,8,10,11,15 because error mean square = 0.