

Control of Volunteer RR/LL Corn with Ignite and Select.

Trial ID: 10-5D-S100

Location: Belleville Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
City State Zip Country: Belleville IL 62221 USA
Trial Status: FINAL **Initiation Date:** 06-14-10

Objectives: Determine the efficacy of various adjuvants for use in combinations of Ignite plus Select for control of broadleaf and grass weeds, volunteer Roundup Ready corn and volunteer Liberty Link corn.

Crop 1: GLXMA Soybean **Variety:** FS HS 48L90 **Description:** LL
Planting Method: SEEDED **Planting Date:** 06-14-10
Rate, Unit: 75 LB/A **Depth, Unit:** 1.0 IN
Row Spacing, Unit: 30 IN

Pest 1 Type: W	Code: ZEAMX	Zea mays L.	corn, volunteer
Pest 2 Type: W	Code: DIGSA	Digitaria sanguinalis (L.) Scop.	crabgrass, large
Pest 3 Type: W	Code: AMBTR	Ambrosia trifida L.	ragweed, giant
Pest 4 Type: W	Code: XANST	Xanthium strumarium L.	cocklebur, common
Pest 5 Type: W	Code: AMBEL	Ambrosia artemisiifolia L.	ragweed, common
Pest 6 Type: W	Code: AMATA	Amaranthus rudis Sauer	waterhemp, common

Plot Width, Unit: 10 FT **Site Type:** FIELD
Plot Length, Unit: 28 FT **Tillage Type:** REDUCED-TILL
Replications: 3 **Study Design:** Randomized Complete Block

Prior Crops, Year
 1. ZEAMD 2009
 2. GLXMA 2009

Field Prep./Maintenance: N 0 LB/A, P2O5 0 LB/A, K2O 150 LB/A

% OM: 1.7	Texture: SILT LOAM
pH: 6.9	Soil Name: WINFIELD
CEC: 6	Fert. Level: P1: 96 LB/A, K: 304 LB/A

Application Description A

Application Date: 07-16-10
Time of Day: 16:00
Application Method: Spray
Application Timing: 12-18"CN
Application Placement: BROFOL
Applied By: NVH
Air Temperature, Unit: 90 F
% Relative Humidity: 60
Wind Velocity, Unit: 1 MPH
Wind Direction: S
Dew Presence (Y/N): N
Soil Moisture: NORMAL
% Cloud Cover: 0

Crop stage at application: 07-16-10 V5-V6
Height Min, Max (inch): 10 14

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Pest Stage At Each Application

Application Date: 07-16-10
 Weed Code: ZEAMX
 Stage Majority (leaves): 3
 Stage Min, Max: 3 4
 Height Majority: 13 IN
 Height Min, Max: 11 18
 Density, Unit: 2 FT2
 Weed Code: DIGSA
 Stage Majority (leaves): 7
 Stage Min, Max: 2 12
 Height Majority: 3 IN
 Height Min, Max: 1 5
 Density, Unit: 3 FT2
 Weed Code: AMBTR
 Stage Majority (leaves): 8
 Stage Min, Max: 3 12
 Height Majority: 7 IN
 Height Min, Max: 4 10
 Density, Unit: 0.1 FT2
 Weed Code: XANST
 Stage Majority (leaves): 4
 Stage Min, Max: 1 7
 Height Majority: 6 IN
 Height Min, Max: 3 10
 Density, Unit: 0.4 FT2
 Weed Code: AMBEL
 Stage Majority (leaves): 5
 Stage Min, Max: 3 7
 Height Majority: 6 IN
 Height Min, Max: 2 7
 Density, Unit: 0.1 FT2
 Weed Code: AMATA
 Stage Majority (leaves): 12
 Stage Min, Max: 4 16
 Height Majority: 7 IN
 Height Min, Max: 4 8
 Density, Unit: 0.1 FT2

Application Equipment

Appl. Equipment: CO2 sprayer
 Operating Pressure: 30 PSI
 Nozzle Type: Flat fan
 Nozzle Size: XR 8002
 Boom Length, Unit: 10 FT
 Spray Volume, Unit: 15 GPA

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Pest Code Crop Code Rating Date Rating Data Type Rating Unit Rating Timing Trt-Eval Interval									GLXMA		ZEAMX		ZEAMX		ZEAMX		ZEAMX			
									07-30-10		08-13-10		DKC 6169		DKC 6169		P1184HR		P1184HR	
									Injury		Injury		Control		Control		Control		Control	
									Percent		Percent		Percent		Percent		Percent		Percent	
									14 DA-A		28 DA-A		14 DA-A		28 DA-A		14 DA-A		28 DA-A	
									14 DA-A		28 DA-A		14 DA-A		28 DA-A		14 DA-A		28 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code											
1	NONTREATED									0 b	0 a	0 e	0 d	0 d	0 f					
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A	0 b	0 a	67 bc	53 bc	41 c	28 e					
2	AMS 34-PLUS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A											
3	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A	0 b	0 a	73 a	74 a	43 c	29 e					
3	CHEMPRO S-180	100	SL	1.5	% v/v	1.5	% v/v	12-18"CN	A											
4	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A	0 b	0 a	70 ab	80 a	70 ab	73 a					
4	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	12-18"CN	A											
4	AMS 34-PLUS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A											
5	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A	0 b	0 a	68 bc	74 a	69 ab	65 b					
5	CHEMPRO S-180	100	SL	1.5	% v/v	1.5	% v/v	12-18"CN	A											
6	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A	0 b	0 a	69 abc	60 b	71 a	58 c					
6	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A											
6	CHEMPRO S-180	100	SL	1.5	% v/v	1.5	% v/v	12-18"CN	A											
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A	5 a	0 a	69 abc	58 b	68 ab	51 d					
7	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A											
7	AMS 34-PLUS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A											
8	IGNITE 280	2.34	EC	0.201	lb ai/a	11	fl oz/a	12-18"CN	A	0 b	0 a	68 bc	58 b	71 a	63 bc					
8	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A											
8	CHEMPRO S-180	100	SL	1.5	% v/v	1.5	% v/v	12-18"CN	A											
9	IGNITE 280	2.34	EC	0.201	lb ai/a	11	fl oz/a	12-18"CN	A	0 b	0 a	60 d	48 c	65 b	57 cd					
9	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A											
9	AMS 34-PLUS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A											
10	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A	0 b	0 a	65 c	58 b	69 ab	59 c					
10	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A											
10	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	12-18"CN	A											
10	AMS 34-PLUS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A											
LSD (P=.05)										0.0	0.0	4.8	8.3	5.0	6.3					
Replicate F										0.000	0.000	0.268	2.768	0.955	5.401					
Replicate Prob(F)										1.0000	1.0000	0.7680	0.0895	0.4034	0.0145					
Treatment F										0.000	0.000	179.142	63.427	181.870	111.104					
Treatment Prob(F)										1.0000	1.0000	0.0001	0.0001	0.0001	0.0001					

Means followed by same letter do not significantly differ (P=.05, LSD)

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									DIGSA	DIGSA	AMBTR	AMBTR	XANST	XANST	AMBEL	AMBEL
Pest Code									07-30-10	08-13-10	07-30-10	08-13-10	07-30-10	08-13-10	07-30-10	08-13-10
Crop Code									Control	Control	Control	Control	Control	Control	Control	Control
Rating Date									Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Data Type																
Rating Unit																
Rating Timing																
Trt-Eval Interval									14 DA-A	28 DA-A	14 DA-A	28 DA-A	14 DA-A	28 DA-A	14 DA-A	28 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
1	NONTREATED									0 c	0 d	0 d	0 c	0 d	0 d	0 b
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A	62 ab	60 abc	95 a	96 a	97 a	98 a	94 a
2	AMS 34-PLUS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A							
3	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A	60 ab	58 abc	93 a	95 a	96 a	98 a	99 a
3	CHEMPRO S-180	100	SL	1.5	% v/v	1.5	% v/v	12-18"CN	A							
4	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A	57 ab	55 bc	0 d	0 c	0 d	0 d	0 b
4	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	12-18"CN	A							
4	AMS 34-PLUS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A							
5	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A	58 ab	65 ab	0 d	0 c	0 d	0 d	0 b
5	CHEMPRO S-180	100	SL	1.5	% v/v	1.5	% v/v	12-18"CN	A							
6	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A	67 a	68 a	93 a	96 a	96 a	97 a	99 a
6	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A							
6	CHEMPRO S-180	100	SL	1.5	% v/v	1.5	% v/v	12-18"CN	A							
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A	60 ab	58 abc	93 a	95 a	96 a	97 a	99 a
7	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A							
7	AMS 34-PLUS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A							
8	IGNITE 280	2.34	EC	0.201	lb ai/a	11	fl oz/a	12-18"CN	A	53 ab	57 abc	70 c	73 b	72 c	75 c	93 a
8	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A							
8	CHEMPRO S-180	100	SL	1.5	% v/v	1.5	% v/v	12-18"CN	A							
9	IGNITE 280	2.34	EC	0.201	lb ai/a	11	fl oz/a	12-18"CN	A	55 ab	50 c	68 c	78 b	78 b	85 b	99 a
9	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A							
9	AMS 34-PLUS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A							
10	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A	42 b	62 abc	88 b	90 a	95 a	95 a	99 a
10	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A							
10	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	12-18"CN	A							
10	AMS 34-PLUS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A							
LSD (P=.05)										22.2	12.5	3.8	6.2	2.9	4.0	11.6
Replicate F										1.270	6.447	0.580	0.443	0.151	0.839	2.045
Replicate Prob(F)										0.3048	0.0077	0.5730	0.6506	0.8613	0.4483	0.1583
Treatment F										6.580	21.401	1153.831	463.198	2040.973	1103.235	143.217
Treatment Prob(F)										0.0004	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

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Location: Belleville Res. Center

Pest Code	AMATA	AMATA
Crop Code		
Rating Date	07-30-10	08-13-10
Rating Data Type	Control	Control
Rating Unit	Percent	Percent
Rating Timing		
Trt-Eval Interval	14 DA-A	28 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	NONTREATED									0 d	0 d
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A	47 bc	57 bc
2	AMS 34-PLUS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A		
3	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A	37 c	65 a
3	CHEMPRO S-180	100	SL	1.5	% v/v	1.5	% v/v	12-18"CN	A		
4	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A	0 d	0 d
4	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	12-18"CN	A		
4	AMS 34-PLUS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A		
5	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A	0 d	0 d
5	CHEMPRO S-180	100	SL	1.5	% v/v	1.5	% v/v	12-18"CN	A		
6	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A	67 a	68 a
6	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A		
6	CHEMPRO S-180	100	SL	1.5	% v/v	1.5	% v/v	12-18"CN	A		
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A	63 ab	65 a
7	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A		
7	AMS 34-PLUS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A		
8	IGNITE 280	2.34	EC	0.201	lb ai/a	11	fl oz/a	12-18"CN	A	60 ab	55 c
8	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A		
8	CHEMPRO S-180	100	SL	1.5	% v/v	1.5	% v/v	12-18"CN	A		
9	IGNITE 280	2.34	EC	0.201	lb ai/a	11	fl oz/a	12-18"CN	A	53 abc	55 c
9	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A		
9	AMS 34-PLUS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A		
10	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A	58 ab	63 ab
10	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A		
10	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	12-18"CN	A		
10	AMS 34-PLUS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A		
LSD (P=.05)										19.4	7.5
Replicate F										0.957	4.851
Replicate Prob(F)										0.4029	0.0215
Treatment F										18.228	143.204
Treatment Prob(F)										0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

Trial Comments

1. Protocol: Chemorse.
2. Ratings: CI/WC at 14 and 28 DAT; rate volunteer corn individually by hybrid.
3. Planting instructions: Volunteer corn rows;
Row 1 = P1184HR
Row 2 = DKC 6169
Row 3 = P1184HR
4. Not harvested.