

Control of Volunteer Liberty Link Corn in Liberty Link Soybean.

Trial ID: 10-10C-W70

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: 06-07-10

Objectives: Evaluate Assure II alone and in combination with Ignite for control of volunteer Liberty Link corn.

Crop 1: GLXMA Soybean Variety: Enos Description: LL
 Planting Method: SEEDED Planting Date: 06-07-10
 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
 Code: SETFA Setaria faberi Herrm. foxtail, giant
 Pest 3 Type: W Code: AMATA Amaranthus rudis Sauer waterhemp, common
 Pest 4 Type: W Code: IPOSS morningglory, species
 Pest 5 Type: W Code: ABUTH Abutilon theophrasti Medicus velvetleaf

Plot Width, Unit: 10 FT Site Type: FIELD
 Plot Length, Unit: 30 FT Tillage Type: REDUCED-TILL
 Replications: 3 Study Design: Randomized Complete Block

Prior Crops, Year
 1. ZEAMD 2009

Field Prep./Maintenance: N 0 LB/A, P2O5 0 LB/A, K2O 100 LB/A

% OM: 1.8 Texture: SILT LOAM
 pH: 6.9 Soil Name: PIERRON
 CEC: 9 Fert. Level: P1: 100 LB/A, K: 322 LB/A

Application Description

Application Date: 06-29-10
 Time of Day: 9:30
 Application Method: Spray
 Application Timing: 12-18"CN
 Application Placement: BROFOL
 Applied By: JK
 Air Temperature, Unit: 70 F
 % Relative Humidity: 92
 Wind Velocity, Unit: 1 MPH
 Wind Direction: NE
 Dew Presence (Y/N): N
 Soil Moisture: ABONOR
 % Cloud Cover: 5

06-29-10
 Crop stage at application: V2-V3
 Height Min, Max (inch): 7 9

Pest Stage At Each Application

Application Date: 06-29-10
 Weed Code: ZEAMX
 Stage Majority (leaves): 5
 Stage Min, Max: 4 6
 Height Majority: 15 IN
 Height Min, Max: 12 28
 Density, Unit: 0.5 FT2
 Weed Code: SETFA
 Stage Majority (leaves): 3
 Stage Min, Max: 1 5
 Height Majority: 4 IN
 Height Min, Max: 1 7
 Density, Unit: 0.3 FT2
 Weed Code: AMATA
 Stage Majority (leaves): 8
 Stage Min, Max: 4 12
 Height Majority: 5 IN
 Height Min, Max: 1 10
 Density, Unit: 0.01 FT2
 Weed Code: IPOSS
 Stage Majority (leaves): 8
 Stage Min, Max: 2 10
 Height Majority: 4 IN
 Height Min, Max: 1 6
 Density, Unit: 0.5 FT2
 Weed Code: ABUTH
 Stage Majority (leaves): 6
 Stage Min, Max: 2 6
 Height Majority: 4 IN
 Height Min, Max: 0.5 4
 Density, Unit: 0.01 FT2

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Application Equipment

Appl. Equipment:	CO2 sprayer
Operating Pressure:	30 PSI
Nozzle Type:	Flat fan
Nozzle Size:	XR 8002
Boom Length, Unit:	7.5 FT
Spray Volume, Unit:	15 GPA

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									ZEAMX			ZEAMX			ZEAMX		
Pest Code									GLXMA	GLXMA	GLXMA	07-06-10	07-13-10	07-27-10	07-06-10	07-13-10	07-27-10
Crop Code									07-06-10	07-13-10	07-27-10	07-06-10	07-13-10	07-27-10	07-06-10	07-13-10	07-27-10
Rating Date									Injury	Injury	Injury	Control	Control	Control	Control	Control	Control
Rating Data Type									Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit																	
Rating Timing																	
Trt-Eval Interval									7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A	28 DA-A	7 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	ASSURE II	0.88	EC	0.0344	lb ai/a	5	fl oz/a	12-18"CN	A	6 c	1 bc	0 a	38 a	94 a	99 a		
1	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A								
1	AMS	100	SG	3	lb/a	3	lb/a	12-18"CN	A								
2	ASSURE II	0.88	EC	0.0344	lb ai/a	5	fl oz/a	12-18"CN	A	19 b	3 bc	1 a	38 a	92 a	99 a		
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A								
2	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	12-18"CN	A								
2	AMS	100	SG	3	lb/a	3	lb/a	12-18"CN	A								
3	ASSURE II	0.88	EC	0.0344	lb ai/a	5	fl oz/a	12-18"CN	A	17 b	4 b	1 a	37 a	85 b	99 a		
3	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A								
3	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	12-18"CN	A								
3	AMS	100	SG	3	lb/a	3	lb/a	12-18"CN	A								
4	ASSURE II	0.88	EC	0.0344	lb ai/a	5	fl oz/a	12-18"CN	A	5 c	0 c	0 a	28 b	91 ab	99 a		
4	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	12-18"CN	A								
5	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A	2 c	0 c	0 a	0 d	0 c	33 b		
5	AMS	100	SG	3	lb/a	3	lb/a	12-18"CN	A								
6	SYNCHRONY XP	28.4	WG	0.00666	lb ai/a	0.375	oz/a	12-18"CN	A	35 a	15 a	1 a	25 bc	90 ab	99 a		
6	ASSURE II	0.88	EC	0.0344	lb ai/a	5	fl oz/a	12-18"CN	A								
6	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A								
6	AMS	100	SG	3	lb/a	3	lb/a	12-18"CN	A								
7	SYNCHRONY XP	28.4	WG	0.00666	lb ai/a	0.375	oz/a	12-18"CN	A	35 a	15 a	1 a	18 c	88 ab	96 a		
7	ASSURE II	0.88	EC	0.0344	lb ai/a	5	fl oz/a	12-18"CN	A								
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A								
7	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	12-18"CN	A								
7	AMS	100	SG	3	lb/a	3	lb/a	12-18"CN	A								
8	NONTREATED									0 c	0 c	0 a	0 d	0 c	0 b		
LSD (P=.05)										8.3	3.8	2.1	7.1	6.4	36.0		
Replicate F										1.867	1.082	0.115	0.193	2.678	0.799		
Replicate Prob(F)										0.1911	0.3657	0.8924	0.8269	0.1035	0.4692		
Treatment F										26.847	27.034	0.520	46.743	389.331	10.795		
Treatment Prob(F)										0.0001	0.0001	0.8049	0.0001	0.0001	0.0001		

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

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Pest Code									SETFA	SETFA	SETFA	AMATA	AMATA	AMATA	
Crop Code									07-06-10	07-13-10	07-27-10	07-06-10	07-13-10	07-27-10	
Rating Date									Control	Control	Control	Control	Control	Control	
Rating Data Type									Percent	Percent	Percent	Percent	Percent	Percent	
Rating Unit															
Rating Timing															
Trt-Eval Interval									7 DA-A	14 DA-A	28 DA-A	7 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	ASSURE II	0.88	EC	0.0344	lb ai/a	5	fl oz/a	12-18"CN	A	70 a	92 a	96 ab	78 b	73 ab	72 ab
1	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A						
1	AMS	100	SG	3	lb/a	3	lb/a	12-18"CN	A						
2	ASSURE II	0.88	EC	0.0344	lb ai/a	5	fl oz/a	12-18"CN	A	68 a	92 a	95 abc	83 a	72 ab	50 cd
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A						
2	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	12-18"CN	A						
2	AMS	100	SG	3	lb/a	3	lb/a	12-18"CN	A						
3	ASSURE II	0.88	EC	0.0344	lb ai/a	5	fl oz/a	12-18"CN	A	67 a	88 ab	96 ab	73 c	68 ab	48 d
3	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A						
3	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	12-18"CN	A						
3	AMS	100	SG	3	lb/a	3	lb/a	12-18"CN	A						
4	ASSURE II	0.88	EC	0.0344	lb ai/a	5	fl oz/a	12-18"CN	A	13 b	94 a	99 a	0 e	0 c	0 e
4	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	12-18"CN	A						
5	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A	65 a	83 b	87 bc	72 c	67 b	62 bcd
5	AMS	100	SG	3	lb/a	3	lb/a	12-18"CN	A						
6	SYNCHRONY XP	28.4	WG	0.00666	lb ai/a	0.375	oz/a	12-18"CN	A	67 a	93 a	85 c	63 d	73 ab	65 bc
6	ASSURE II	0.88	EC	0.0344	lb ai/a	5	fl oz/a	12-18"CN	A						
6	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A						
6	AMS	100	SG	3	lb/a	3	lb/a	12-18"CN	A						
7	SYNCHRONY XP	28.4	WG	0.00666	lb ai/a	0.375	oz/a	12-18"CN	A	65 a	93 a	92 abc	75 bc	79 a	85 a
7	ASSURE II	0.88	EC	0.0344	lb ai/a	5	fl oz/a	12-18"CN	A						
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A						
7	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	12-18"CN	A						
7	AMS	100	SG	3	lb/a	3	lb/a	12-18"CN	A						
8	NONTREATED									0 c	0 c	0 d	0 e	0 c	0 e
LSD (P=.05)									9.6	7.2	10.1	4.1	10.7	15.3	
Replicate F									0.724	5.260	0.903	0.568	0.930	1.531	
Replicate Prob(F)									0.5020	0.0198	0.4277	0.5794	0.4178	0.2504	
Treatment F									78.852	185.377	98.762	659.865	90.909	39.467	
Treatment Prob(F)									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									IPOSS	IPOSS	IPOSS	ABUTH	ABUTH	ABUTH	
Crop Code									07-06-10	07-13-10	07-27-10	07-06-10	07-13-10	07-27-10	
Rating Date									Control	Control	Control	Control	Control	Control	
Rating Data Type									Percent	Percent	Percent	Percent	Percent	Percent	
Rating Unit															
Rating Timing															
Trt-Eval Interval									7 DA-A	14 DA-A	28 DA-A	7 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	ASSURE II	0.88	EC	0.0344	lb ai/a	5	fl oz/a	12-18"CN	A	67 a	75 ab	75 a	83 ab	81 a	88 b
1	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A						
1	AMS	100	SG	3	lb/a	3	lb/a	12-18"CN	A						
2	ASSURE II	0.88	EC	0.0344	lb ai/a	5	fl oz/a	12-18"CN	A	67 a	75 ab	78 a	87 a	80 a	90 ab
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A						
2	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	12-18"CN	A						
2	AMS	100	SG	3	lb/a	3	lb/a	12-18"CN	A						
3	ASSURE II	0.88	EC	0.0344	lb ai/a	5	fl oz/a	12-18"CN	A	65 a	75 ab	80 a	83 ab	83 a	92 ab
3	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A						
3	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	12-18"CN	A						
3	AMS	100	SG	3	lb/a	3	lb/a	12-18"CN	A						
4	ASSURE II	0.88	EC	0.0344	lb ai/a	5	fl oz/a	12-18"CN	A	0 c	0 c	0 b	0 d	0 b	0 c
4	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	12-18"CN	A						
5	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A	45 b	68 b	72 a	75 c	82 a	90 ab
5	AMS	100	SG	3	lb/a	3	lb/a	12-18"CN	A						
6	SYNCHRONY XP	28.4	WG	0.00666	lb ai/a	0.375	oz/a	12-18"CN	A	60 ab	77 a	77 a	83 ab	85 a	93 ab
6	ASSURE II	0.88	EC	0.0344	lb ai/a	5	fl oz/a	12-18"CN	A						
6	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A						
6	AMS	100	SG	3	lb/a	3	lb/a	12-18"CN	A						
7	SYNCHRONY XP	28.4	WG	0.00666	lb ai/a	0.375	oz/a	12-18"CN	A	67 a	73 ab	75 a	82 b	87 a	95 a
7	ASSURE II	0.88	EC	0.0344	lb ai/a	5	fl oz/a	12-18"CN	A						
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-18"CN	A						
7	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	12-18"CN	A						
7	AMS	100	SG	3	lb/a	3	lb/a	12-18"CN	A						
8	NONTREATED									0 c	0 c	0 b	0 d	0 b	0 c
LSD (P=.05)									17.6	7.6	8.7	3.9	7.9	6.2	
Replicate F									0.401	0.875	1.195	6.576	1.233	5.145	
Replicate Prob(F)									0.6772	0.4385	0.3317	0.0097	0.3211	0.0211	
Treatment F									25.674	185.219	153.341	891.636	217.428	435.747	
Treatment Prob(F)									0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	

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

Trial Comments

1. Protocol: DuPont (USA-10-294).
2. Ratings: CI/WC at 7, 14, and 28 DAT.
3. Plant P1184 HR (LL/RR2) corn in row splitter units.
4. IPOSS = Morningglory species including IPOHE (ivyleaf morningglory) and IPOLA (pitted morningglory).
5. Not harvested.