

Prequel in Reduced-Till Corn.

Trial ID: 10-T4-S40

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: 05-30-10

Objectives: Evaluate Prequel for residual control of waterhemp in reduced-till corn.

Crop 1: ZEAMD	Dent corn	Variety: P1184HR	Description: LL/RR2
Planting Method:	SEDED	Planting Date:	05-30-10
Rate, Unit:	28000 S/A	Depth, Unit:	1.5 IN
Row Spacing, Unit:	30 IN		

Pest 1 Type: W	Code: SETFA	Setaria faberi Herrm.	foxtail, giant
Pest 2 Type: W	Code: AMATA	Amaranthus rudis Sauer	waterhemp, common
Pest 3 Type: W	Code: IPOHE	Ipomoea hederacea (L.) Jacq.	morningglory, ivyleaf

Plot Width, Unit:	10 FT	Site Type:	FIELD
Plot Length, Unit:	27 FT	Tillage Type:	REDUCED-TILL
Replications:	3	Study Design:	Randomized Complete Block

Prior Crops, Year

1. GLXMA 2009

Field Prep./Maintenance: N 150 LB/A, P205 50 LB/A, K20 100 LB/A

% OM:	1.9	Texture:	SILT LOAM
pH:	6.3	Soil Name:	BETHALTO
CEC:	12	Fert. Level:	P1: 50 LB/A, K: 374 LB/A

Application Description

	A	B
Application Date:	05-31-10	06-28-10
Time of Day:	14:00	11:00
Application Method:	Spray	Spray
Application Timing:	PRE	28-35DAP
Application Placement:	BROSOI	BROFOL
Applied By:	NVH	JK
Air Temperature, Unit:	85 F	84 F
% Relative Humidity:	63	78
Wind Velocity, Unit:	5 MPH	2 MPH
Wind Direction:	S	W
Dew Presence (Y/N):	N	N
Soil Moisture:	NORMAL	ABONOR
% Cloud Cover:	10	50

	05-31-10	06-28-10
Crop stage at application:	NA	V7-V8
Height Min, Max (inch):	25	30

Pest Stage At Each Application

	05-31-10	06-28-10
Application Date:	05-31-10	06-28-10
Weed Code:	SETFA	SETFA
Stage Majority (leaves):	NA	6
Stage Min, Max:		2 12
Height Majority:		5 IN
Height Min, Max:		1 8
Density, Unit:		0.1 FT2
Weed Code:	AMATA	AMATA
Stage Majority (leaves):	NA	16
Stage Min, Max:		4 30
Height Majority:		7 IN
Height Min, Max:		1 17
Density, Unit:		0.01 FT2
Weed Code:	IPOHE	IPOHE
Stage Majority (leaves):	NA	10
Stage Min, Max:		COTY 21
Height Majority:		6 IN
Height Min, Max:		0.5 12
Density, Unit:		0.01 FT2

Application Equipment

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

Prequel in Reduced-Till Corn.

Trial ID: 10-T4-S40

Location: Belleville Res. Center

Pest Code										ZEAMD		SETFA		SETFA	
Crop Code										06-13-10	06-27-10	06-13-10	06-27-10	07-26-10	
Rating Date										Injury	Injury	Control	Control	Control	
Rating Data Type										Percent	Percent	Percent	Percent	Percent	
Rating Unit										14 DAP	28 DAP	14 DAP	28 DAP	56 DAP	
Rating Timing										13 DA-A	-1 DA-B	13 DA-A	-1 DA-B	28 DA-B	
Trt-Eval Interval															
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	PREQUEL	45	WG			1.66	oz/a	PRE	A	0 a	0 a	91 a	85 c	92 b	
1	RESOLVE SG	25	SG	0.0156	lb ai/a			PRE	A						
1	ISOXAFLUTOLE	75	WG	0.0313	lb ai/a			PRE	A						
1	ROUNDUP POWERMAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	28-35DAP	B						
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	28-35DAP	B						
2	PREQUEL	45	WG			1.66	oz/a	PRE	A	0 a	0 a	96 a	88 abc	95 ab	
2	RESOLVE SG	25	SG	0.0156	lb ai/a			PRE	A						
2	ISOXAFLUTOLE	75	WG	0.0313	lb ai/a			PRE	A						
2	RESOLVE Q	22.4	WG			1.25	oz/a	28-35DAP	B						
2	RESOLVE SG	25	SG	0.01437	lb ai/a			28-35DAP	B						
2	HARMONY SG	50	SG	0.00313	lb ai/a			28-35DAP	B						
2	DPX-4145	50	WG	0.00719	lb ai/a			28-35DAP	B						
2	ROUNDUP POWERMAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	28-35DAP	B						
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	28-35DAP	B						
3	PREQUEL	45	WG			2.5	oz/a	PRE	A	0 a	0 a	94 a	87 bc	95 ab	
3	RESOLVE SG	25	SG	0.0234	lb ai/a			PRE	A						
3	ISOXAFLUTOLE	75	WG	0.047	lb ai/a			PRE	A						
3	ROUNDUP POWERMAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	28-35DAP	B						
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	28-35DAP	B						
4	PREQUEL	45	WG			1.66	oz/a	PRE	A	0 a	0 a	96 a	90 abc	97 ab	
4	RESOLVE SG	25	SG	0.0156	lb ai/a			PRE	A						
4	ISOXAFLUTOLE	75	WG	0.0313	lb ai/a			PRE	A						
4	AATREX NINE-O	90	WG	1	lb ai/a	1.11	lb/a	PRE	A						
4	ROUNDUP POWERMAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	28-35DAP	B						
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	28-35DAP	B						
5	PREQUEL	45	WG			2.5	oz/a	PRE	A	0 a	0 a	98 a	92 abc	98 a	
5	RESOLVE SG	25	SG	0.0234	lb ai/a			PRE	A						
5	ISOXAFLUTOLE	75	WG	0.047	lb ai/a			PRE	A						
5	AATREX NINE-O	90	WG	1	lb ai/a	1.11	lb/a	PRE	A						
5	ROUNDUP POWERMAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	28-35DAP	B						
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	28-35DAP	B						
6	PREQUEL	45	WG			1.66	oz/a	PRE	A	0 a	0 a	99 a	99 a	99 a	
6	RESOLVE SG	25	SG	0.0156	lb ai/a			PRE	A						
6	ISOXAFLUTOLE	75	WG	0.0313	lb ai/a			PRE	A						
6	CINCH ATZ	5.5	SC	1.37	lb ai/a	1	qt/a	PRE	A						
6	ROUNDUP POWERMAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	28-35DAP	B						
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	28-35DAP	B						
7	PREQUEL	45	WG			2.5	oz/a	PRE	A	0 a	0 a	99 a	97 ab	98 a	
7	RESOLVE SG	25	SG	0.0234	lb ai/a			PRE	A						
7	ISOXAFLUTOLE	75	WG	0.047	lb ai/a			PRE	A						
7	CINCH ATZ	5.5	SC	1.37	lb ai/a	1	qt/a	PRE	A						
7	ROUNDUP POWERMAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	28-35DAP	B						
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	28-35DAP	B						
8	NONTREATED									0 a	0 a	0 b	0 d	0 c	
LSD (P=.05)										0.0	0.0	8.5	10.8	4.5	
Replicate F										0.000	0.000	6.300	9.976	5.284	
Replicate Prob(F)										1.0000	1.0000	0.0112	0.0020	0.0195	
Treatment F										0.000	0.000	146.456	83.445	540.605	
Treatment Prob(F)										1.0000	1.0000	0.0001	0.0001	0.0001	

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

Prequel in Reduced-Till Corn.

Trial ID: 10-T4-S40

Location: Belleville Res. Center

								AMATA	AMATA	AMATA	IPOHE	IPOHE	IPOHE
Pest Code								06-13-10	06-27-10	07-26-10	06-13-10	06-27-10	07-26-10
Crop Code								Control	Control	Control	Control	Control	Control
Rating Date								14 DAP	28 DAP	56 DAP	14 DAP	28 DAP	56 DAP
Rating Data Type								Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit								13 DA-A	-1 DA-B	28 DA-B	13 DA-A	-1 DA-B	28 DA-B
Rating Timing													
Trt-Eval Interval													
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	PREQUEL	45	WG			1.66	oz/a	PRE	A	97 a	89 c	93 c	75 c
1	RESOLVE SG	25	SG	0.0156	lb ai/a			PRE	A				50 c
1	ISOXAFLOTOL	75	WG	0.0313	lb ai/a			PRE	A				57 c
1	ROUNDUP POWERMAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	28-35DAP	B				
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	28-35DAP	B				
2	PREQUEL	45	WG			1.66	oz/a	PRE	A	97 a	88 c	93 c	78 bc
2	RESOLVE SG	25	SG	0.0156	lb ai/a			PRE	A				48 c
2	ISOXAFLOTOL	75	WG	0.0313	lb ai/a			PRE	A				65 bc
2	RESOLVE Q	22.4	WG			1.25	oz/a	28-35DAP	B				
2	RESOLVE SG	25	SG	0.01437	lb ai/a			28-35DAP	B				
2	HARMONY SG	50	SG	0.00313	lb ai/a			28-35DAP	B				
2	DPX-4145	50	WG	0.00719	lb ai/a			28-35DAP	B				
2	ROUNDUP POWERMAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	28-35DAP	B				
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	28-35DAP	B				
3	PREQUEL	45	WG			2.5	oz/a	PRE	A	99 a	92 bc	96 bc	83 ab
3	RESOLVE SG	25	SG	0.0234	lb ai/a			PRE	A				57 c
3	ISOXAFLOTOL	75	WG	0.047	lb ai/a			PRE	A				65 bc
3	ROUNDUP POWERMAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	28-35DAP	B				
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	28-35DAP	B				
4	PREQUEL	45	WG			1.66	oz/a	PRE	A	99 a	96 ab	98 ab	85 ab
4	RESOLVE SG	25	SG	0.0156	lb ai/a			PRE	A				70 b
4	ISOXAFLOTOL	75	WG	0.0313	lb ai/a			PRE	A				68 b
4	AATREX NINE-O	90	WG	1	lb ai/a	1.11	lb/a	PRE	A				
4	ROUNDUP POWERMAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	28-35DAP	B				
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	28-35DAP	B				
5	PREQUEL	45	WG			2.5	oz/a	PRE	A	99 a	98 a	99 a	90 a
5	RESOLVE SG	25	SG	0.0234	lb ai/a			PRE	A				81 a
5	ISOXAFLOTOL	75	WG	0.047	lb ai/a			PRE	A				80 a
5	AATREX NINE-O	90	WG	1	lb ai/a	1.11	lb/a	PRE	A				
5	ROUNDUP POWERMAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	28-35DAP	B				
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	28-35DAP	B				
6	PREQUEL	45	WG			1.66	oz/a	PRE	A	96 a	98 a	99 a	83 ab
6	RESOLVE SG	25	SG	0.0156	lb ai/a			PRE	A				73 ab
6	ISOXAFLOTOL	75	WG	0.0313	lb ai/a			PRE	A				67 bc
6	CINCH ATZ	5.5	SC	1.37	lb ai/a	1	qt/a	PRE	A				
6	ROUNDUP POWERMAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	28-35DAP	B				
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	28-35DAP	B				
7	PREQUEL	45	WG			2.5	oz/a	PRE	A	99 a	99 a	99 a	90 a
7	RESOLVE SG	25	SG	0.0234	lb ai/a			PRE	A				75 ab
7	ISOXAFLOTOL	75	WG	0.047	lb ai/a			PRE	A				80 a
7	CINCH ATZ	5.5	SC	1.37	lb ai/a	1	qt/a	PRE	A				
7	ROUNDUP POWERMAX	4.5	SL	0.56	lb ae/a	16	fl oz/a	28-35DAP	B				
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	28-35DAP	B				
8	NONTREATED									0 b	0 d	0 d	0 d
LSD (P=.05)								3.9	4.4	2.6	7.0	10.9	11.0
Replicate F								0.173	2.839	4.137	2.333	0.475	1.304
Replicate Prob(F)								0.8431	0.0923	0.0387	0.1335	0.6317	0.3024
Treatment F								711.648	540.687	1656.908	167.917	52.375	50.095
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-10-102).
2. Ratings: CI 14 and 28 DAP; WC at 14, 28, and 56 DAP.
3. DAP = Days after planting.
4. Not harvested.