

Kixor Programs in Corn.

Trial ID: 09-50E-S50

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: 06-29-09

Objectives: Evaluate the efficacy and crop tolerance of Kixor-based brands
 in one- and two-pass weed control programs in corn.

Crop 1: ZEAMD Dent corn Variety: P33K44 Description: RR/LL
 Planting Method: SEEDDED Planting Date: 06-29-09
 Rate, Unit: 28000 S/A Depth, Unit: 1.5 IN
 Row Spacing, Unit: 30 IN

Pest 1 Type: W Code: CYPES Cyperus esculentus L. nutsedge, yellow
 Pest 2 Type: W Code: GGGAN grasses, annual
 Pest 3 Type: W Code: AMBTR Ambrosia trifida L. ragweed, giant
 Pest 4 Type: W Code: AMATA Amaranthus rudis Sauer waterhemp, common
 Pest 5 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 2008

Field Prep./Maintenance: N 150 LB/A, P205 0 LB/A, K2O 100 LB/A

% OM: 2.2 Texture: SILT LOAM
 pH: 6.7 Soil Name: PIERRON
 CEC: 12 Fert. Level: P1: 101 LB/A, K: 388 LB/A

Application Description

	A	B
Application Date:	06-29-09	07-20-09
Time of Day:	20:30	8:00
Application Method:	Spray	Spray
Application Timing:	PRE	10-14"CN
Application Placement:	BROSOI	BROFOL
Applied By:	NVH	DKP
Air Temperature, Unit:	72 F	68 F
% Relative Humidity:	80	92
Wind Velocity, Unit:	3 MPH	2 MPH
Wind Direction:	W	SE
Dew Presence (Y/N):	N	Y
Soil Moisture:	NORMAL	NORMAL
% Cloud Cover:	10	10

	A	B
Crop stage at application:	NA	V5
Height Min, Max (inch):	4	14

Pest Stage At Each Application

	A	B
Application Date:	06-29-09	07-20-09
Weed Code:	CYPES	CYPES
Stage Majority (leaves):	NA	3
Stage Min, Max:		3 6
Height Majority:		3 IN
Height Min, Max:		2 6
Density, Unit:		0.2 FT2
Weed Code:	GGGAN	GGGAN
Stage Majority (leaves):	NA	1
Stage Min, Max:		COTY 4
Height Majority:		0.5 IN
Height Min, Max:		0.25 3
Density, Unit:		0.01 FT2
Weed Code:	AMBTR	AMBTR
Stage Majority (leaves):	NA	2
Stage Min, Max:		COTY 6
Height Majority:		3 IN
Height Min, Max:		1 5
Density, Unit:		0.7 FT2
Weed Code:	AMATA	AMATA
Stage Majority (leaves):	NA	1
Stage Min, Max:		COTY 2
Height Majority:		0.5 IN
Height Min, Max:		0.5 1
Density, Unit:		0.01 FT2
Weed Code:	IPOHE	IPOHE
Stage Majority (leaves):	NA	2
Stage Min, Max:		2 6
Height Majority:		3 IN
Height Min, Max:		1 4
Density, Unit:		0.4 FT2

Kixor Programs in Corn.

Trial ID: 09-50E-S50

Location: Belleville Res. Center

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

Kixor Programs in Corn.

Trial ID: 09-50E-S50

Location: Belleville Res. Center

Pest Code
Crop Code
Rating Date
Rating Data Type
Rating Unit
Rating Timing
Trt-Eval Interval

ZEAMD 01-15-10 Moisture Percent	ZEAMD 01-15-10 Yield bu/A	ZEAMD 07-27-09 Injury Percent 7 DA-B 28 DA-A	ZEAMD 08-24-09 Injury Percent 35 DA-B 56 DA-A	ZEAMD 09-21-09 Injury Percent 63 DA-B 84 DA-A
--	------------------------------------	---	--	--

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	NONTREATED									19.9 a	33 b	0 a	0 a	0 a
2	LEXAR	3.7	SC	2.78	lb ai/a	3	qt/a	PRE	A	21.6 a	104 a	0 a	0 a	0 a
3	HARNESS XTRA 5.6	5.6	EC	3.5	lb ai/a	2.5	qt/a	PRE	A	21.3 a	97 a	0 a	0 a	0 a
4	INTEGRITY	5.57	EC	0.87	lb ai/a	20	fl oz/a	PRE	A	21.6 a	109 a	0 a	0 a	0 a
5	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	A	23.2 a	112 a	0 a	0 a	0 a
5	AATREX	4	SC	1	lb ai/a	1	qt/a	PRE	A					
6	INTEGRITY	5.57	EC	0.566	lb ai/a	13	fl oz/a	PRE	A	21.9 a	101 a	0 a	0 a	0 a
6	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B					
6	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B					
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B					
7	HARNESS XTRA 5.6	5.6	EC	2.1	lb ai/a	1.5	qt/a	PRE	A	23.9 a	95 a	0 a	0 a	0 a
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B					
7	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B					
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B					
8	SHARPEN	2.85	SC	0.0557	lb ai/a	2.5	fl oz/a	PRE	A	22.4 a	97 a	0 a	0 a	0 a
8	HARNESS XTRA 5.6	5.6	EC	2.1	lb ai/a	1.5	qt/a	PRE	A					
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B					
8	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B					
8	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B					
9	SURESTART	4.25	SE	0.93	lb ai/a	1.75	pt/a	PRE	A	23.0 a	99 a	0 a	0 a	0 a
9	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B					
9	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B					
9	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B					
10	INTEGRITY	5.57	EC	0.566	lb ai/a	13	fl oz/a	PRE	A	22.1 a	99 a	0 a	0 a	0 a
10	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B					
10	STATUS	56	WG	0.0875	lb ai/a	2.5	oz/a	10-14"CN	B					
10	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B					
10	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B					
LSD (P=.05)										5.08	36.2	0.0	0.0	0.0
Replicate F										2.643	4.145	0.000	0.000	0.000
Replicate Prob(F)										0.1062	0.0386	1.0000	1.0000	1.0000
Treatment F										0.452	3.475	0.000	0.000	0.000
Treatment Prob(F)										0.8833	0.0184	1.0000	1.0000	1.0000

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

Kixor Programs in Corn.

Trial ID: 09-50E-S50

Location: Belleville Res. Center

										CYPES	CYPES	CYPES	GGGAN	GGGAN	GGGAN
Pest Code										07-27-09	08-24-09	09-21-09	07-27-09	08-24-09	09-21-09
Crop Code										Control	Control	Control	Control	Control	Control
Rating Date										Percent	Percent	Percent	Percent	Percent	Percent
Rating Data Type										7 DA-B	35 DA-B	63 DA-B	7 DA-B	35 DA-B	63 DA-B
Rating Unit										28 DA-A	56 DA-A	84 DA-A	28 DA-A	56 DA-A	84 DA-A
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	NONTREATED									0 d	0 e	0 e	0 c	0 d	0 d
2	LEXAR	3.7	SC	2.78	lb ai/a	3	qt/a	PRE	A	98 a	92 a	92 a	98 a	93 abc	93 abc
3	HARNESS XTRA 5.6	5.6	EC	3.5	lb ai/a	2.5	qt/a	PRE	A	83 b	73 c	73 c	95 b	90 c	90 c
4	INTEGRITY	5.57	EC	0.87	lb ai/a	20	fl oz/a	PRE	A	96 a	94 a	94 a	98 a	94 ab	94 ab
5	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	A	72 c	63 d	63 d	98 a	92 bc	92 bc
5	AATREX	4	SC		1 lb ai/a	1	qt/a	PRE	A						
6	INTEGRITY	5.57	EC	0.566	lb ai/a	13	fl oz/a	PRE	A	99 a	87 ab	87 ab	99 a	96 ab	96 ab
6	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B						
6	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B						
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B						
7	HARNESS XTRA 5.6	5.6	EC	2.1	lb ai/a	1.5	qt/a	PRE	A	93 a	88 ab	88 ab	97 ab	96 a	96 a
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B						
7	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B						
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B						
8	SHARPEN	2.85	SC	0.0557	lb ai/a	2.5	fl oz/a	PRE	A	98 a	93 a	93 a	98 a	97 a	97 a
8	HARNESS XTRA 5.6	5.6	EC	2.1	lb ai/a	1.5	qt/a	PRE	A						
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B						
8	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B						
8	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B						
9	SURESTART	4.25	SE	0.93	lb ai/a	1.75	pt/a	PRE	A	93 a	87 ab	90 ab	98 a	95 ab	95 ab
9	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B						
9	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B						
9	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B						
10	INTEGRITY	5.57	EC	0.566	lb ai/a	13	fl oz/a	PRE	A	94 a	82 b	82 b	97 ab	93 abc	93 abc
10	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B						
10	STATUS	56	WG	0.0875	lb ai/a	2.5	oz/a	10-14"CN	B						
10	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B						
10	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B						
LSD (P=.05)										8.3	8.5	8.7	2.3	3.7	3.7
Replicate F										1.769	6.398	6.493	0.669	1.522	1.522
Replicate Prob(F)										0.1989	0.0080	0.0075	0.5243	0.2450	0.2450
Treatment F										117.940	97.866	95.383	1590.969	562.257	562.257
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)

Kixor Programs in Corn.

Trial ID: 09-50E-S50

Location: Belleville Res. Center

Pest Code	AMBTR	AMBTR	AMBTR	AMATA	AMATA	AMATA
Crop Code						
Rating Date	07-27-09	08-24-09	09-21-09	07-27-09	08-24-09	09-21-09
Rating Data Type	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent
Rating Timing	7 DA-B	35 DA-B	63 DA-B	7 DA-B	35 DA-B	63 DA-B
Trt-Eval Interval	28 DA-A	56 DA-A	84 DA-A	28 DA-A	56 DA-A	84 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 c	0 c
2	LEXAR	3.7	SC	2.78	lb ai/a	3	qt/a	PRE	A	95 ab	80 b	78 bc	99 a	93 a	93 a
3	HARNESS XTRA 5.6	5.6	EC	3.5	lb ai/a	2.5	qt/a	PRE	A	92 b	69 c	69 c	99 a	99 a	99 a
4	INTEGRITY	5.57	EC	0.87	lb ai/a	20	fl oz/a	PRE	A	95 ab	82 ab	82 ab	99 a	94 a	94 a
5	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	A	94 ab	80 b	80 ab	89 b	70 b	70 b
5	AATREX	4	SC	1	lb ai/a	1	qt/a	PRE	A						
6	INTEGRITY	5.57	EC	0.566	lb ai/a	13	fl oz/a	PRE	A	94 ab	87 ab	85 ab	99 a	99 a	99 a
6	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B						
6	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B						
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B						
7	HARNESS XTRA 5.6	5.6	EC	2.1	lb ai/a	1.5	qt/a	PRE	A	96 a	87 ab	87 ab	99 a	96 a	96 a
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B						
7	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B						
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B						
8	SHARPEN	2.85	SC	0.0557	lb ai/a	2.5	fl oz/a	PRE	A	97 a	91 a	91 a	99 a	98 a	98 a
8	HARNESS XTRA 5.6	5.6	EC	2.1	lb ai/a	1.5	qt/a	PRE	A						
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B						
8	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B						
8	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B						
9	SURESTART	4.25	SE	0.93	lb ai/a	1.75	pt/a	PRE	A	96 a	92 a	87 ab	98 a	93 a	93 a
9	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B						
9	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B						
9	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B						
10	INTEGRITY	5.57	EC	0.566	lb ai/a	13	fl oz/a	PRE	A	94 ab	89 ab	89 ab	99 a	98 a	98 a
10	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B						
10	STATUS	56	WG	0.0875	lb ai/a	2.5	oz/a	10-14"CN	B						
10	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B						
10	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B						
LSD (P=.05)										3.9	10.4	10.9	8.9	15.5	15.5
Replicate F										0.086	2.544	3.591	0.901	0.500	0.500
Replicate Prob(F)										0.9183	0.1064	0.0487	0.4236	0.6147	0.6147
Treatment F										532.744	60.782	54.502	108.652	34.684	34.684
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)

Kixor Programs in Corn.

Trial ID: 09-50E-S50

Location: Belleville Res. Center

Pest Code		IPOHE	IPOHE	IPOHE
Crop Code				
Rating Date		07-27-09	08-24-09	09-21-09
Rating Data Type		Control	Control	Control
Rating Unit		Percent	Percent	Percent
Rating Timing		7 DA-B	35 DA-B	63 DA-B
Trt-Eval Interval		28 DA-A	56 DA-A	84 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	NONTREATED									0 c	0 c	0 c
2	LEXAR	3.7	SC	2.78	lb ai/a	3	qt/a	PRE	A	97 a	90 a	90 a
3	HARNESX XTRA 5.6	5.6	EC	3.5	lb ai/a	2.5	qt/a	PRE	A	98 a	92 a	92 a
4	INTEGRITY	5.57	EC	0.87	lb ai/a	20	fl oz/a	PRE	A	93 a	90 a	90 a
5	CORVUS	2.62	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	A	92 a	78 b	78 b
5	AATREX	4	SC	1	lb ai/a	1	qt/a	PRE	A			
6	INTEGRITY	5.57	EC	0.566	lb ai/a	13	fl oz/a	PRE	A	98 a	94 a	94 a
6	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B			
6	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B			
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B			
7	HARNESX XTRA 5.6	5.6	EC	2.1	lb ai/a	1.5	qt/a	PRE	A	97 a	92 a	92 a
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B			
7	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B			
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B			
8	SHARPEN	2.85	SC	0.0557	lb ai/a	2.5	fl oz/a	PRE	A	98 a	91 a	91 a
8	HARNESX XTRA 5.6	5.6	EC	2.1	lb ai/a	1.5	qt/a	PRE	A			
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B			
8	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B			
8	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B			
9	SURESTART	4.25	SE	0.93	lb ai/a	1.75	pt/a	PRE	A	83 b	83 b	83 b
9	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B			
9	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B			
9	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B			
10	INTEGRITY	5.57	EC	0.566	lb ai/a	13	fl oz/a	PRE	A	93 a	91 a	91 a
10	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	10-14"CN	B			
10	STATUS	56	WG	0.0875	lb ai/a	2.5	oz/a	10-14"CN	B			
10	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	10-14"CN	B			
10	N-PAK AMS	100	SL	5	% v/v	5	% v/v	10-14"CN	B			
LSD (P=.05)										6.1	6.4	6.4
Replicate F										0.745	9.230	9.230
Replicate Prob(F)										0.4886	0.0017	0.0017
Treatment F										216.561	175.657	175.657
Treatment Prob(F)										0.0001	0.0001	0.0001

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

Trial Comments

1. Protocol: BASF (C9F-B-02).
2. Ratings: CI/WC at 28, 56 + 84 da A.
3. Yield.
4. GGGAN = Annual grasses including SETFA (giant foxtail) and PANDI (fall panicum).
Stand reduction due to standing water was observed and recorded by plot.
5. Harvested 1-15-10, (2) 30 inch rows by 24 ft.