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Kixor herbicide formulations in corn

Trial ID: 09S-THP=CTC-42 Protocol ID: 09S-THP-CTC-42
 Location: Throckmorton Study Director: Paul Marquardt/Melissa Kruger
 Project ID: Investigator: Dr. Bill Johnson
 Sponsor Contact: Troy Klingaman

General Trial Information

Study Director: Melissa Kruger/Paul Marquardt **Title:** Lab Tech VIII/Research Assoc.
Investigator: Dr. William G. Johnson **Title:** Associate Professor

Discipline: H herbicide
Trial Status: E established

Trial Location

City: Lafayette
State/Prov.: Indiana
Postal Code: 47909-9049
Country: USA
Directions:
 TPAC Field 4B

Objectives:

To demonstrate efficacy and crop tolerance of KIXOR based brands, Integrity and Sharpen, in one-pass and two-pass weed control programs in corn.

Personnel

Study Director: Melissa Kruger/Paul Marquardt **Title:** Lab Tech VIII/Research Assoc.
Affiliation: Purdue University
Address: 915 W. State St.
Location: West Lafayette, IN USA
Postal Code: 47907 **E-mail:** mmkruger@purdue.edu/pmarquar@purdue.edu
Phone No.: 765-494-4621
Investigator: Dr. William G. Johnson **Title:** Associate Professor
Affiliation: Purdue University
Address: 915 W. State St.
Location: West Lafayette, IN USA
Postal Code: 47907 **E-mail:** wgj@purdue.edu
Phone No.: 765-494-4656

Cooperator/Landowner

Cooperator: Throckmorton-Purdue Ag Center
Organization: Purdue University
Address 1: 8343 US 231 South
City: Lafayette
State/Prov: Indiana
Postal Code: 47909-9049 **E-mail:** jayyoung@purdue.edu
Country: USA United States

Crop Description

Crop 1: ZEAMX Zea mays	Corn	Description: Roundup Ready
Variety: DKC 60-18		Planting Date: 5/22/09
BBCH Scale: BCOR		Rate, Unit: 32000 S/A
Planting Method: DIRDRI direct drilled		
Depth, Unit: 2 IN		
Row Spacing, Unit: 30 IN		
Seed Bed: MEDIUM medium	Soil Temperature, Unit: 72	F
Soil Moisture: DRY dry		
Harvested Width, Unit: 10 FT	Harvested Length, Unit: 25	FT

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Pest Description

- Pest 1 Type:** W **Code:** SETFA *Setaria faberi*
Common Name: Giant foxtail
- Pest 2 Type:** W **Code:** AMBTR *Ambrosia trifida*
Common Name: Giant ragweed
- Pest 3 Type:** W **Code:** ABUTH *Abutilon theophrasti*
Common Name: Velvetleaf
- Pest 4 Type:** W **Code:** IPOHE *Ipomoea hederacea*
Common Name: Ivyleaf morningglory
- Pest 5 Type:** W **Code:** CHEAL *Chenopodium album*
Common Name: Common lambsquarters
- Pest 6 Type:** W **Code:** AMARE *Amaranthus retroflexus*
Common Name: Redroot pigweed
- Pest 7 Type:** W **Code:** CYPES *Cyperus esculentus*
Common Name: Yellow nutsedge
- Pest 8 Type:** W **Code:** APCCA *Apocynum cannabinum*
Common Name: Hemp dogbane

Site and Design

Plot Width, Unit: 10 FT **Site Type:** FIELD field
Plot Length, Unit: 30 FT
Plot Area, Unit: 300 FT² **Tillage Type:** CONTIL conventional-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)

Soil Description

Description Name: TPAC Field 4B
% OM: 2.9 **Texture:** SIL silt loam
pH: 6.2 **Soil Name:** Toronto-Milbrook
CEC: 13.3

Analyzed By:
A&L Great Lakes Laboratories, Inc. Report #: F04048-0006

Additional Measured Elements

Element	Quantity	Unit
Ca	1400	ppm
Mg	430	ppm
P	34	ppm
K	124	ppm

Application Description

	A	B
Application Date:	5/22/09	6/18/09
Time of Day:	3:30-4:15	2.30-3
Application Method:	SPRAY	SPRAY
Application Timing:	PREPRE	POSPOS
Application Placement:	BROSOL	BROFOL
Applied By:	RH	RH
Air Temperature, Unit:	85 F	74 F
% Relative Humidity:	26	72
Wind Velocity, Unit:	1.1 MPH	2.5 MPH
Wind Direction:	W	W
Dew Presence (Y/N):	N no	N no
Soil Temperature, Unit:	78 F	74 F
Soil Moisture:	DRY	DRY
% Cloud Cover:	60	60

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Crop Stage At Each Application		
	A	B
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:	BBCH	BBCH
Stage Majority, Percent:	00 100	14
Stage Minimum, Percent:		14
Stage Maximum, Percent:		15
Height, Unit:		21 IN
Height Minimum, Maximum:		18 24

Pest Stage At Each Application		
	A	B
Pest 1 Code, Type, Scale:	SETFA W	SETFA W
Stage Minimum, Percent:		12
Stage Maximum, Percent:		24
Height, Unit:		4 IN
Height Minimum, Maximum:		0 8
Density, Unit:		21 FT2
Pest 2 Code, Type, Scale:	AMBTR W	AMBTR W
Stage Minimum, Percent:		10
Stage Maximum, Percent:		35
Height, Unit:		6 IN
Height Minimum, Maximum:		0 12
Density, Unit:		3 M2
Pest 3 Code, Type, Scale:	ABUTH W	ABUTH W
Stage Minimum, Percent:		10
Stage Maximum, Percent:		34
Height, Unit:		6 IN
Height Minimum, Maximum:		0 12
Density, Unit:		3.5 YD2
Pest 4 Code, Type, Scale:	IPOHE W	IPOHE W
Stage Minimum, Percent:		10
Stage Maximum, Percent:		31
Height, Unit:		3.5 IN
Height Minimum, Maximum:		2 5
Density, Unit:		2 YD2
Pest 5 Code, Type, Scale:	CHEAL W	CHEAL W
Stage Majority, Percent:		10
Height, Unit:		1 IN
Height Minimum, Maximum:		0 2
Density, Unit:		2 YD2
Pest 6 Code, Type, Scale:	AMARE W	AMARE W
Stage Minimum, Percent:		10
Stage Maximum, Percent:		32
Height, Unit:		2 IN
Height Minimum, Maximum:		0 4
Density, Unit:		1 YD2
Pest 7 Code, Type, Scale:	CYPES W	CYPES W
Stage Majority, Percent:		15
Height, Unit:		3 IN
Height Minimum, Maximum:		2 4
Density, Unit:		0.5 M2
Pest 8 Code, Type, Scale:	APCCA W	APCCA W
Stage Minimum, Percent:		10
Stage Maximum, Percent:		34
Height, Unit:		6.5 IN
Height Minimum, Maximum:		1 12
Density, Unit:		0.5 YD2

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Application Equipment		
	A	B
Appl. Equipment:	CO2 Backpack	CO2 BACKPACK
Equipment Type:		SPRBAC
Operating Pressure, Unit:	17 PSI	17 psi
Nozzle Type:		FLAT FAN
Nozzle Size:	XR11002	XR11002
Nozzle Spacing, Unit:	15 IN	15 IN
Nozzles/Row:	8	6
Boom Length, Unit:	10 FT	7.5 FT
Boom Height, Unit:	18 IN	18 IN
Ground Speed, Unit:	3 MPH	3 MPH
Carrier:	H20	H20
Water Hardness (ppm CaCO3):	Meigs	150
Spray Volume, Unit:	15 GPA	15 gal/ac
Mix Size, Unit:	1.8 Liters	1.8 liters
Propellant:	CO2	CO2
Tank Mix (Y/N):		N no

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 Location: Throckmorton Study Director: Paul Marquardt/Melissa Kruger
 Project ID: Investigator: Dr. Bill Johnson
 Sponsor Contact: Troy Klingaman

Pest Type	W Weed AMBTR	W Weed SETFA	W Weed IPOSS	W Weed ABUTH	W Weed AMBTR				
Pest Code									
Pest Scientific Name	Ambrosia trifi>	Setaria faberi	Ipomoea sp.	Abutilon theop>	Ambrosia trifi>				
Pest Name	Giant ragweed	Giant foxtail	Morning glory	Velvetleaf	Giant ragweed				
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX				
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR				
Crop Scientific Name	Zea mays								
Crop Name	Corn	Corn	Corn	Corn	Corn				
Crop Variety	DKC 60-18								
Description									
Rating Date	6/15/09	6/15/09	6/15/09	6/15/09	7/8/09				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN				
Rating Unit	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1				
Crop Stage Majority	V3	V3	V3	V3	V10/V11				
Pest Stage Majority	1-4"	1-5"	1-4"	1-5"	8-60"				
Pest Stage Minimum/Maximum	COTY-2N	1-3NODE	COTY-2L	1-2NODE	5-10NOD				
Pest Density, Unit	1.5 YD2	8 YD2	3 YD2	1 YD2	6 YD2				
Assessed By	CB/CS	CB/CS	CB/CS	CB/CS	CB				
Rating Timing	CB/CS	CB/CS	CB/CS	CB/CS	CB				
Days After First/Last Applic.	24 24	24 24	24 24	24 24	47 20				
Trt-Eval Interval	24 DA-A	24 DA-A	24 DA-A	24 DA-A	47 DA-A				
Plant-Eval Interval	24 DP-1	24 DP-1	24 DP-1	24 DP-1	47 DP-1				
ARM Action Codes									
Number of Decimals									
Trt Treatment	Rate	Unit	Appl						
No. Name	Rate	Unit	Code	1	2	3	4	5	6
1 UNTREATED	0.0	c		0.0	0.0	0.0	0.0	0.0	0.0
2 Lexar	3100	g ai/ha	A	98.0	99.0	97.3	100.0	0.3	99.8
3 Harness Xtra	3920	g ai/ha	A	93.3	98.8	95.0	99.8	0.3	93.0
4 Integrity	975	g ai/ha	A	80.8	95.8	97.5	92.5	0.0	82.5
5 Corvus	127	g ai/ha	A	92.5	87.0	85.3	100.0	0.0	98.3
Atrazine	1120	g ai/ha	A						
6 Sharpen	75	g ai/ha	A	77.5	92.5	98.8	98.8	0.8	82.5
Prowl H20	1600	g ai/ha	A						
7 Integrity	634	g ai/ha	A	67.5	90.3	96.3	93.5	0.0	98.0
Roundup PowerMax	870	g ai/ha	B						
NIS	0.25	% v/v	B						
Ammonium Sulfate	2	% w/w	B						
8 Sharpen	62.4	g ai/ha	A	78.8	89.8	88.5	98.8	0.0	99.3
Prowl H20	1600	g ai/ha	A						
Roundup PowerMax	870	g ai/ha	B						
NIS	0.25	% v/v	B						
Ammonium Sulfate	2	% w/w	B						
9 Harness Xtra	2350	g ai/ha	A	87.0	100.0	95.8	93.8	0.0	99.3
Roundup PowerMax	870	g ai/ha	B						
NIS	0.25	% v/v	B						
Ammonium Sulfate	2	% w/w	B						
10 Sharpen	62.4	g ai/ha	A	98.0	93.8	95.0	99.0	0.0	99.3
Harness Xtra	2350	g ai/ha	A						
Roundup PowerMax	870	g ai/ha	B						
NIS	0.25	% v/v	B						
Ammonium Sulfate	2	% w/w	B						
11 Surestart	1040	g ai/ha	A	80.0	98.0	87.0	87.8	0.0	99.5
Roundup PowerMax	870	g ai/ha	B						
NIS	0.25	% v/v	B						
Ammonium Sulfate	2	% w/w	B						

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Pest Type	W Weed	W Weed	W Weed	W Weed		W Weed
Pest Code	AMBTR	SETFA	IPOSS	ABUTH		AMBTR
Pest Scientific Name	Ambrosia trifi>	Setaria faberi	Ipomoea sp.	Abutilon theop>		Ambrosia trifi>
Pest Name	Giant ragweed	Giant foxtail	Morning glory	Velvetleaf		Giant ragweed
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn
Crop Variety	DKC 60-18	DKC 60-18	DKC 60-18	DKC 60-18	DKC 60-18	DKC 60-18
Description						
Rating Date	6/15/09	6/15/09	6/15/09	6/15/09	7/8/09	7/8/09
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO
Rating Unit	%	%	%	%	%	%
Number of Subsamples	1	1	1	1	1	1
Crop Stage Majority	V3	V3	V3	V3	V10/V11	V10/V11
Pest Stage Majority	1-4"	1-5"	1-4"	1-5"		8-60"
Pest Stage Minimum/Maximum	COTY-2N	1-3NODE	COTY-2L	1-2NODE		5-10NOD
Pest Density, Unit	1.5 YD2	8 YD2	3 YD2	1 YD2		6 YD2
Assessed By	CB/CS	CB/CS	CB/CS	CB/CS	CB	CB
Rating Timing	CB/CS	CB/CS	CB/CS	CB/CS	CB	CB
Days After First/Last Applic.	24 24	24 24	24 24	24 24	47 20	47 20
Trt-Eval Interval	24 DA-A	24 DA-A	24 DA-A	24 DA-A	47 DA-A	47 DA-A
Plant-Eval Interval	24 DP-1	24 DP-1	24 DP-1	24 DP-1	47 DP-1	47 DP-1
ARM Action Codes						
Number of Decimals						
Trt No.						
Treatment Name						
Rate						
Unit						
Appl Code						
1	48.8 b	94.0 a	92.0 a	94.3 ab	0.3 a	99.5 a
12 Integrity	634 g ai/ha A					
Status	98 g ai/ha B					
Roundup PowerMax	870 g ai/ha B					
NIS	0.25 % v/v B					
Ammonium Sulfate	2 % w/w B					
LSD (P=.05)	22.31	11.11	11.34	5.98	0.48	9.70
Standard Deviation	15.45	7.69	7.85	4.14	0.33	6.72
CV	20.56	8.89	9.17	4.7	263.62	7.68
Bartlett's X2	28.656	39.546	36.562	24.044	2.157	70.129
P(Bartlett's X2)	0.001*	0.001*	0.001*	0.002*	0.54	0.001*
Replicate F	1.988	0.418	2.564	5.986	4.349	1.085
Replicate Prob(F)	0.1348	0.7411	0.0714	0.0023	0.0109	0.3689
Treatment F	12.622	51.369	48.476	183.169	1.884	70.957
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001	0.0788	0.0001

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Pest Type	W Weed	W Weed	W Weed		W Weed	W Weed		
Pest Code	SETFA	IPOSS	ABUTH		AMBTR	SETFA		
Pest Scientific Name	Setaria faberi	Ipomoea sp.	Abutilon theop>		Ambrosia trifid>	Setaria faberi		
Pest Name	Giant foxtail	Morning glory	Velvetleaf		Giant ragweed	Giant foxtail		
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX		
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR		
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays		
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn		
Crop Variety	DKC 60-18	DKC 60-18	DKC 60-18	DKC 60-18	DKC 60-18	DKC 60-18		
Description				10-12'	10-12'	10-12'		
Rating Date	7/8/09	7/8/09	7/8/09	7/30/09	7/30/09	7/30/09		
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO		
Rating Unit	%	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1	1		
Crop Stage Majority	V10/V11	V10/V11	V10/V11	BLISTER	BLISTER	BLISTER		
Pest Stage Majority	24-48"	6-24"	6-36"		48"-8'	36"-60"		
Pest Stage Minimum/Maximum	2-10NOD	2-8NODE	2-5NODE					
Pest Density, Unit	13 YD2	1.5 YD2	1 YD2		7.5 YD2	75 YD2		
Assessed By	CB	CB	CB	PM	PM	PM		
Rating Timing	CB	CB	CB					
Days After First/Last Applic.	47 20	47 20	47 20	69 42	69 42	69 42		
Trt-Eval Interval	47 DA-A	47 DA-A	47 DA-A					
Plant-Eval Interval	47 DP-1	47 DP-1	47 DP-1	69 DP-1	69 DP-1	69 DP-1		
ARM Action Codes								
Number of Decimals								
Trt Treatment	Rate	Appl						
No. Name	Rate Unit	Code	7	8	9	10	11	12
1 UNTREATED			0.0 d	0.0 b	0.0 b	0.0 a	0.0 b	0.0 c
2 Lexar	3100 g ai/ha A		80.0 bc	99.5 a	100.0 a	0.0 a	99.8 a	94.0 a
3 Harness Xtra	3920 g ai/ha A		99.5 a	97.3 a	97.5 a	0.0 a	93.8 a	95.8 a
4 Integrity	975 g ai/ha A		71.3 c	93.5 a	90.0 a	0.0 a	92.8 a	88.0 a
5 Corvus	127 g ai/ha A		93.8 a	94.3 a	100.0 a	0.0 a	99.3 a	97.5 a
Atrazine	1120 g ai/ha A							
6 Sharpen	75 g ai/ha A		84.5 ab	99.3 a	100.0 a	0.0 a	72.8 a	53.3 b
Prowl H20	1600 g ai/ha A							
7 Integrity	634 g ai/ha A		99.8 a	99.8 a	100.0 a	0.0 a	99.5 a	99.0 a
Roundup PowerMax	870 g ai/ha B							
NIS	0.25 % v/v B							
Ammonium Sulfate	2 % w/w B							
8 Sharpen	62.4 g ai/ha A		100.0 a	99.5 a	100.0 a	0.0 a	100.0 a	99.3 a
Prowl H20	1600 g ai/ha A							
Roundup PowerMax	870 g ai/ha B							
NIS	0.25 % v/v B							
Ammonium Sulfate	2 % w/w B							
9 Harness Xtra	2350 g ai/ha A		100.0 a	97.5 a	99.8 a	0.0 a	99.0 a	99.3 a
Roundup PowerMax	870 g ai/ha B							
NIS	0.25 % v/v B							
Ammonium Sulfate	2 % w/w B							
10 Sharpen	62.4 g ai/ha A		100.0 a	99.8 a	100.0 a	0.0 a	99.0 a	98.3 a
Harness Xtra	2350 g ai/ha A							
Roundup PowerMax	870 g ai/ha B							
NIS	0.25 % v/v B							
Ammonium Sulfate	2 % w/w B							
11 Surestart	1040 g ai/ha A		99.5 a	98.5 a	100.0 a	0.0 a	99.0 a	99.0 a
Roundup PowerMax	870 g ai/ha B							
NIS	0.25 % v/v B							
Ammonium Sulfate	2 % w/w B							

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Pest Type	W Weed	W Weed	W Weed		W Weed	W Weed			
Pest Code	SETFA	IPOSS	ABUTH		AMBTR	SETFA			
Pest Scientific Name	Setaria faberi	Ipomoea sp.	Abutilon theop>		Ambrosia trifi>	Setaria faberi			
Pest Name	Giant foxtail	Morning glory	Velvetleaf		Giant ragweed	Giant foxtail			
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX			
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR			
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays			
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn			
Crop Variety	DKC 60-18	DKC 60-18	DKC 60-18	DKC 60-18	DKC 60-18	DKC 60-18			
Description				10-12'	10-12'	10-12'			
Rating Date	7/8/09	7/8/09	7/8/09	7/30/09	7/30/09	7/30/09			
Rating Type	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO			
Rating Unit	%	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1	1			
Crop Stage Majority	V10/V11	V10/V11	V10/V11	BLISTER	BLISTER	BLISTER			
Pest Stage Majority	24-48"	6-24"	6-36"		48"-8'	36"-60"			
Pest Stage Minimum/Maximum	2-10NOD	2-8NODE	2-5NODE						
Pest Density, Unit	13 YD2	1.5 YD2	1 YD2		7.5 YD2	75 YD2			
Assessed By	CB	CB	CB	PM	PM	PM			
Rating Timing	CB	CB	CB						
Days After First/Last Applic.	47 20	47 20	47 20	69 42	69 42	69 42			
Trt-Eval Interval	47 DA-A	47 DA-A	47 DA-A						
Plant-Eval Interval	47 DP-1	47 DP-1	47 DP-1	69 DP-1	69 DP-1	69 DP-1			
ARM Action Codes									
Number of Decimals									
Trt No.	Treatment Name	Rate	Appl Code	7	8	9	10	11	12
12	Integrity	634 g ai/ha A		100.0 a	100.0 a	99.3 a	0.0 a	99.8 a	98.5 a
	Status	98 g ai/ha B							
	Roundup PowerMax	870 g ai/ha B							
	NIS	0.25 % v/v B							
	Ammonium Sulfate	2 % w/w B							
LSD (P=.05)		10.93		5.12	6.26	0.00		20.74	21.37
Standard Deviation		7.57		3.55	4.34	0.00		14.37	14.80
CV		8.83		3.95	4.79	0.0		16.35	17.39
Bartlett's X2		42.68		44.837	26.372	0.0		109.388	120.854
P(Bartlett's X2)		0.001*		0.001*	0.001*	.		0.001*	0.001*
Replicate F		1.167		0.730	1.033	0.000		1.401	1.120
Replicate Prob(F)		0.3371		0.5413	0.3907	1.0000		0.2599	0.3552
Treatment F		57.428		256.292	174.769	0.000		15.989	16.180
Treatment Prob(F)		0.0001		0.0001	0.0001	1.0000		0.0001	0.0001

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Pest Type	W Weed	W Weed		
Pest Code	IPOSS	ABUTH		
Pest Scientific Name	Ipomoea sp.	Abutilon theop>		
Pest Name	Morning glory	Velvetleaf		
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn
Crop Variety	DKC 60-18	DKC 60-18	DKC 60-18	DKC 60-18
Description	10-12'	10-12'		
Rating Date	7/30/09	7/30/09	11/13/09	11/13/09
Rating Type	CONTRO	CONTRO	YIELD	YIELD
Rating Unit	%	%	LB	BU
Number of Subsamples	1	1	1	1
Crop Stage Majority	BLISTER	BLISTER		
Pest Stage Majority	6-24"	12-48"		
Pest Stage Minimum/Maximum				
Pest Density, Unit	1.5 YD2	3 YD2		
Assessed By	PM	PM	PM	PM
Rating Timing				
Days After First/Last Applic.	69 42	69 42	175 148	175 148
Trt-Eval Interval				
Plant-Eval Interval	69 DP-1	69 DP-1	175 DP-1	175 DP-1
ARM Action Codes				TY1
Number of Decimals				1
Trt No.	Treatment Name	Rate	Appl Unit	Code
1	UNTREATED			
2	Lexar	3100 g ai/ha	A	
3	Harness Xtra	3920 g ai/ha	A	
4	Integrity	975 g ai/ha	A	
5	Corvus	127 g ai/ha	A	
	Atrazine	1120 g ai/ha	A	
6	Sharpen	75 g ai/ha	A	
	Prowl H20	1600 g ai/ha	A	
7	Integrity	634 g ai/ha	A	
	Roundup PowerMax	870 g ai/ha	B	
	NIS	0.25 % v/v	B	
	Ammonium Sulfate	2 % w/w	B	
8	Sharpen	62.4 g ai/ha	A	
	Prowl H20	1600 g ai/ha	A	
	Roundup PowerMax	870 g ai/ha	B	
	NIS	0.25 % v/v	B	
	Ammonium Sulfate	2 % w/w	B	
9	Harness Xtra	2350 g ai/ha	A	
	Roundup PowerMax	870 g ai/ha	B	
	NIS	0.25 % v/v	B	
	Ammonium Sulfate	2 % w/w	B	
10	Sharpen	62.4 g ai/ha	A	
	Harness Xtra	2350 g ai/ha	A	
	Roundup PowerMax	870 g ai/ha	B	
	NIS	0.25 % v/v	B	
	Ammonium Sulfate	2 % w/w	B	
11	Surestart	1040 g ai/ha	A	
	Roundup PowerMax	870 g ai/ha	B	
	NIS	0.25 % v/v	B	
	Ammonium Sulfate	2 % w/w	B	

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Pest Type	W Weed	W Weed		
Pest Code	IPOSS	ABUTH		
Pest Scientific Name	Ipomoea sp.	Abutilon theop>		
Pest Name	Morning glory	Velvetleaf		
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn
Crop Variety	DKC 60-18	DKC 60-18	DKC 60-18	DKC 60-18
Description	10-12'	10-12'		
Rating Date	7/30/09	7/30/09	11/13/09	11/13/09
Rating Type	CONTRO	CONTRO	YIELD	YIELD
Rating Unit	%	%	LB	BU
Number of Subsamples	1	1	1	1
Crop Stage Majority	BLISTER	BLISTER		
Pest Stage Majority	6-24"	12-48"		
Pest Stage Minimum/Maximum				
Pest Density, Unit	1.5 YD2	3 YD2		
Assessed By	PM	PM	PM	PM
Rating Timing				
Days After First/Last Applic.	69 42	69 42	175 148	175 148
Trt-Eval Interval				
Plant-Eval Interval	69 DP-1	69 DP-1	175 DP-1	175 DP-1
ARM Action Codes				TY1
Number of Decimals				1
Trt Treatment				
No. Name	Rate Unit	Appl Code	13	14
12 Integrity	634 g ai/ha A		99.5 a	99.5 a
Status	98 g ai/ha B			81.15 ab
Roundup PowerMax	870 g ai/ha B			245.0 ab
NIS	0.25 % v/v B			
Ammonium Sulfate	2 % w/w B			
LSD (P=.05)	21.43	1.42	9.379	28.32
Standard Deviation	14.84	0.99	6.495	19.61
CV	16.94	1.08	7.86	7.86
Bartlett's X2	103.287	5.711	17.907	17.908
P(Bartlett's X2)	0.001*	0.574	0.084	0.084
Replicate F	0.844	1.737	2.171	2.171
Replicate Prob(F)	0.4798	0.1791	0.1100	0.1100
Treatment F	14.720	3391.853	2.688	2.688
Treatment Prob(F)	0.0001	0.0001	0.0138	0.0138

Purdue University

Kixor herbicide formulations in corn

Trial ID: 09S-THP=CTC-42 Protocol ID: 09S-THP-CTC-42
 Location: Throckmorton Study Director: Paul Marquardt/Melissa Kruger
 Project ID: Investigator: Dr. Bill Johnson
 Sponsor Contact: Troy Klingaman

Pest Type

W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, = US

SETFA, Setaria faberi, = US

IPOSS, Ipomoea sp., = US

ABUTH, Abutilon theophrasti, = US

Crop Code

ZEAMX, BCOR, Zea mays, = US

Rating Type

CONTRO = control / burndown or knockdown

PHYGEN = phytotoxicity - general / injury

YIELD = yield

Rating Unit

% = percent

LB = pound

BU = bushel

YD2 = per square yard

Plant-Eval Interval

24 DP-1 = 1 5/22/09

47 DP-1 = 1 5/22/09

69 DP-1 = 1 5/22/09

175 DP-1 = 1 5/22/09

ARM Action Codes

TY1 = 3.019374*15