

Evaluation of Kixor in Tank-mixtures for Early Preplant Burndown in Soybean.

Trial ID: 09-YRC-800TM Location: Young Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
 City State Zip Country: Murphysboro IL 62966 USA
 Trial Status: FINAL Initiation Date: 05-04-09

Objectives: Evaluate tank-mixtures with Sharpen herbicide
 for burndown in no-till soybean.

Crop 1: GLXMA Soybean	Variety: AG 4404	Description: RR/STS
Planting Method: SEED	Planting Date: 05-22-09	
Rate, Unit: 75 LB/A	Depth, Unit: 1.0 IN	
Row Spacing, Unit: 30 IN		

Pest 1 Type: W	Code: ERICA	Conyza canadensis (L.) Crong.	horseweed
Pest Description:		glyphosate-resistant marestail	
Pest 2 Type: W	Code: AMATA	Amaranthus rudis Sauer	waterhemp, common
Pest 3 Type: W	Code: STEME	Stellaria media (L.) Vill.	chickweed, common
Pest 4 Type: W	Code: MEDSS	Medicago species	medicago species

Plot Width, Unit: 10 FT	Site Type: FIELD
Plot Length, Unit: 25 FT	Tillage Type: NO-TILL
Replications: 4	Study Design: Randomized Complete Block

Prior Crops, Year
 1. GLXMA 2008

Field Prep./Maintenance: N 0 LB/A, P205 0 LB/A, K20 0 LB/A

% OM: 2.2	Texture: VERY FINE SANDY LOAM
pH: 6.2	Soil Name: ALVIN
CEC: 9	Fert. Level: P1 82 LB/A, K 91 LB/A

Application Description

A

Application Date:	05-04-09
Time of Day:	11:00
Application Method:	Spray
Application Timing:	7EPP
Application Placement:	BROFOL
Applied By:	NRJ
Air Temperature, Unit:	67 F
% Relative Humidity:	41
Wind Velocity, Unit:	1 MPH
Wind Direction:	SE
Dew Presence (Y/N):	N
Soil Temperature, Unit:	65 F
Soil Moisture:	ABONOR
% Cloud Cover:	50

05-04-09

Crop stage at application: NA

Pest Stage At Each Application

Application Date:	05-04-09
Weed Code:	ERICA
Stage Majority (leaves):	9
Stage Min, Max:	COTY 40
Height Majority:	3 IN
Height Min, Max:	0.5 17
Density, Unit:	3 FT2
Weed Code:	AMATA
Stage Majority (leaves):	3
Stage Min, Max:	COTY 6
Height Majority:	1 IN
Height Min, Max:	0.25 2.5
Density, Unit:	2 FT2
Weed Code:	STEME
Stage Majority (leaves):	NA
Weed Code:	MEDSS
Stage Majority (leaves):	NA

Application Equipment

Appl. Equipment:	CO2 sprayer
Operating Pressure:	30 PSI
Nozzle Type:	Flat fan
Nozzle Size:	XR 8002
Boom Length, Unit:	6.67 FT
Spray Volume, Unit:	15 GPA

Location: Young Res. Center

GLXMA 06-11-09 Moisture Percent	GLXMA 06-11-09 Yield bu/A	GLXMA 06-01-09 Injury Percent	GLXMA 06-05-09 Plants 1m row	GLXMA 06-22-09 Plants 1m row	GLXMA 06-22-09 Height cm
38 DA-A	38 DA-A	28 DA-A	32 DA-A	49 DA-A	49 DA-A

162

Evaluation of Kixor in Tank-mixtures for Early Preplant Burndown in Soybean.

Trial ID: 09-YRC-800TM

Location: Young Res. Center

										ERICA-HR	ERICA-HR	ERICA-HR	ERICA-HR	AMATA	AMATA	AMATA
Pest Code										05-11-09	05-18-09	05-25-09	06-01-09	05-18-09	05-25-09	06-01-09
Crop Code										Control	Control	Control	Control	Control	Control	Control
Rating Date										Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Data Type																
Rating Unit																
Rating Timing																
Trt-Eval Interval										7 DA-A	14 DA-A	21 DA-A	28 DA-A	14 DA-A	21 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	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7 DBP	A	63 d	81 c	89 b	97 a	99 a	73 b-e	40 c-g
1	CLARITY	4	SL	0.25	lb ae/a	8	fl oz/a	7 DBP	A							
2	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7 DBP	A	45 e	50 e	51 c	60 c	96 c	54 fg	25 fgh
3	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7 DBP	A	69 c	59 d	55 c	53 d	99 a	98 a	89 a
3	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	7 DBP	A							
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7 DBP	A	99 a	99 a	99 a	99 a	98 ab	79 bcd	53 bcd
4	SHARPEN	2.85	SC	0.0445	lb ai/a	2	fl oz/a	7 DBP	A							
4	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A							
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7 DBP	A	98 ab	98 a	98 a	98 a	98 ab	82 bc	65 b
5	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	7 DBP	A							
5	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A							
6	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7 DBP	A	98 ab	98 a	94 ab	94 ab	96 bc	55 fg	28 e-h
6	SHARPEN	2.85	SC	0.0111	lb ai/a	0.5	fl oz/a	7 DBP	A							
6	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A							
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7 DBP	A	97 ab	97 a	96 a	95 a	99 a	60 ef	28 e-h
7	SHARPEN	2.85	SC	0.00557	lb ai/a	0.25	fl oz/a	7 DBP	A							
7	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A							
8	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	7 DBP	A	97 ab	97 ab	94 ab	93 ab	71 d	43 g	8 hi
9	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	7 DBP	A	99 a	99 a	99 a	99 a	99 a	73 b-e	45 b-f
9	SHARPEN	2.85	SC	0.0445	lb ai/a	2	fl oz/a	7 DBP	A							
9	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A							
10	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	7 DBP	A	99 a	99 a	97 a	98 a	99 a	68 c-f	20 ghi
10	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	7 DBP	A							
10	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A							
11	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	7 DBP	A	99 a	99 a	97 a	97 a	98 abc	78 bcd	33 d-g
11	SHARPEN	2.85	SC	0.0111	lb ai/a	0.5	fl oz/a	7 DBP	A							
11	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A							
12	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	7 DBP	A	99 a	99 a	97 a	97 a	97 abc	60 ef	30 efg
12	SHARPEN	2.85	SC	0.00557	lb ai/a	0.25	fl oz/a	7 DBP	A							
12	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A							
13	GRAMOXONE INTEON	2	SL	0.625	lb ai/a	2.5	pt/a	7 DBP	A	96 b	94 b	89 b	87 b	99 a	53 fg	23 gh
13	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A							
14	GRAMOXONE INTEON	2	SL	0.625	lb ai/a	2.5	pt/a	7 DBP	A	99 a	99 a	97 a	98 a	99 a	83 ab	56 bc
14	SHARPEN	2.85	SC	0.0445	lb ai/a	2	fl oz/a	7 DBP	A							
14	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A							
15	GRAMOXONE INTEON	2	SL	0.625	lb ai/a	2.5	pt/a	7 DBP	A	98 ab	98 a	96 a	97 a	99 a	73 b-e	48 b-e
15	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	7 DBP	A							
15	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A							
16	GRAMOXONE INTEON	2	SL	0.625	lb ai/a	2.5	pt/a	7 DBP	A	98 ab	98 a	97 a	97 a	99 a	64 def	35 d-g
16	SHARPEN	2.85	SC	0.0111	lb ai/a	0.5	fl oz/a	7 DBP	A							
16	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A							
17	GRAMOXONE INTEON	2	SL	0.625	lb ai/a	2.5	pt/a	7 DBP	A	97 ab	96 ab	95 ab	93 ab	98 ab	68 c-f	30 efg
17	SHARPEN	2.85	SC	0.00557	lb ai/a	0.25	fl oz/a	7 DBP	A							
17	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A							
18	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	7 DBP	A	99 a	99 a	97 a	98 a	99 a	80 bc	60 bc
18	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A							
19	NONTREATED									0 f	0 f	0 d	0 e	0 e	0 h	0 i
LSD (P=.05)										2.7	3.7	6.0	7.5	2.5	15.3	20.9

Evaluation of Kixor in Tank-mixtures for Early Preplant Burndown in Soybean.

Trial ID: 09-YRC-800TM

Location: Young Res. Center

										ERICA-HR	ERICA-HR	ERICA-HR	ERICA-HR	AMATA	AMATA	AMATA
Pest Code																
Crop Code																
Rating Date										05-11-09	05-18-09	05-25-09	06-01-09	05-18-09	05-25-09	06-01-09
Rating Data Type										Control	Control	Control	Control	Control	Control	Control
Rating Unit										Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Timing																
Trt-Eval Interval										7 DA-A	14 DA-A	21 DA-A	28 DA-A	14 DA-A	21 DA-A	28 DA-A
Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl								
No.	Name	Conc	Type	Rate	Unit	Rate	Rate	Unit	Stage	Code						
Replicate F										1.133	2.577	3.573	1.688	1.423	7.100	5.868
Replicate Prob(F)										0.3440	0.0632	0.0197	0.1805	0.2461	0.0004	0.0015
Treatment F										714.546	380.244	136.727	86.999	703.536	14.598	8.118
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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

Evaluation of Kixor in Tank-mixtures for Early Preplant Burndown in Soybean.

Trial ID: 09-YRC-800TM

Location: Young Res. Center

Pest Code	STEME	MEDSS
Crop Code		
Rating Date	05-11-09	05-11-09
Rating Data Type	Control	Control
Rating Unit	Percent	Percent
Rating Timing		
Trt-Eval Interval	7 DA-A	7 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7 DBP	A	91 g	81 g
1	CLARITY	4	SL	0.25	lb ae/a	8	fl oz/a	7 DBP	A		
2	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7 DBP	A	93 fg	80 g
3	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7 DBP	A	94 ef	95 de
3	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	7 DBP	A		
4	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7 DBP	A	97 bc	97 a-d
4	SHARPEN	2.85	SC	0.0445	lb ai/a	2	fl oz/a	7 DBP	A		
4	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A		
5	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7 DBP	A	96 cd	96 bcd
5	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	7 DBP	A		
5	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A		
6	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7 DBP	A	95 de	93 e
6	SHARPEN	2.85	SC	0.0111	lb ai/a	0.5	fl oz/a	7 DBP	A		
6	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A		
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	7 DBP	A	91 g	95 cde
7	SHARPEN	2.85	SC	0.00557	lb ai/a	0.25	fl oz/a	7 DBP	A		
7	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A		
8	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	7 DBP	A	99 a	98 ab
9	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	7 DBP	A	99 ab	99 a
9	SHARPEN	2.85	SC	0.0445	lb ai/a	2	fl oz/a	7 DBP	A		
9	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A		
10	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	7 DBP	A	99 a	99 a
10	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	7 DBP	A		
10	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A		
11	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	7 DBP	A	99 a	99 a
11	SHARPEN	2.85	SC	0.0111	lb ai/a	0.5	fl oz/a	7 DBP	A		
11	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A		
12	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	7 DBP	A	99 ab	99 a
12	SHARPEN	2.85	SC	0.00557	lb ai/a	0.25	fl oz/a	7 DBP	A		
12	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A		
13	GRAMOXONE INTEON	2	SL	0.625	lb ai/a	2.5	pt/a	7 DBP	A	99 a	98 ab
13	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A		
14	GRAMOXONE INTEON	2	SL	0.625	lb ai/a	2.5	pt/a	7 DBP	A	99 a	99 a
14	SHARPEN	2.85	SC	0.0445	lb ai/a	2	fl oz/a	7 DBP	A		
14	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A		
15	GRAMOXONE INTEON	2	SL	0.625	lb ai/a	2.5	pt/a	7 DBP	A	99 a	98 ab
15	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	7 DBP	A		
15	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A		
16	GRAMOXONE INTEON	2	SL	0.625	lb ai/a	2.5	pt/a	7 DBP	A	99 a	98 abc
16	SHARPEN	2.85	SC	0.0111	lb ai/a	0.5	fl oz/a	7 DBP	A		
16	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A		
17	GRAMOXONE INTEON	2	SL	0.625	lb ai/a	2.5	pt/a	7 DBP	A	99 ab	97 a-d
17	SHARPEN	2.85	SC	0.00557	lb ai/a	0.25	fl oz/a	7 DBP	A		
17	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A		
18	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	7 DBP	A	20 h	84 f
18	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	7 DBP	A		
19	NONTREATED									0 i	0 h
LSD (P=.05)										2.0	2.4

Evaluation of Kixor in Tank-mixtures for Early Preplant Burndown in Soybean.

Trial ID: 09-YRC-800TM

Location: Young Res. Center

Pest Code	STEME	MEDSS
Crop Code		
Rating Date	05-11-09	05-11-09
Rating Data Type	Control	Control
Rating Unit	Percent	Percent
Rating Timing		
Trt-Eval Interval	7 DA-A	7 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code
---------	----------------	-----------	-----------	-----------	-----------	------------	-----------------	--------------	-----------

Replicate F									3.252	1.052
Replicate Prob(F)									0.0286	0.3771
Treatment F									1572.249	716.179
Treatment Prob(F)									0.0001	0.0001

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

Trial Comments

1. Protocol: Univ of TN/SIU/BASF.
2. Ratings: CI/WC at 7, 14, 21, and 28 DAT. Soybean stand counts at 21 and 35 DAT.
3. Yield.
4. Target 8-12" horseweed.
5. 1m row = One meter of row. ERICA-HR = Herbicide-resistant marestail (glyphosate).
6. AMATA control at 28 DA-A was a combination of weeds present at application and new emergence.
7. Harvested 11-6-09, (2) 30 inch rows by 22.5 ft.