

Phoenix and Select Tankmixtures.

02-2C-E-Grass

OBJECTIVE: Evaluate Phoenix for crop tolerance and weed control in soybean when tankmixed with Select with an emphasis on barnyardgrass control.

SUMMARY: The primary objective of this study was to determine if tank mixing Phoenix with Select reduced control of barnyardgrass. Soybean injury was 22 to 30% from Phoenix at 3 days after treatment (DAT). Soybean injury from Phoenix was increased when the rate of Activator-90 was increased from 0.125 to 0.25% v/v. Soybean injury ranging from 10 to 15% was still observed at 21 DAT. Tank mixing Phoenix or Phoenix plus FirstRate with Select did not reduce barnyardgrass control compared to Select plus Prime Oil.

HERBICIDES

FIRSTRATE 84 WG
FLEXSTAR 1.88 EC
FUSION 2.56 EC
PHOENIX 2 EC
SELECT 2 EC

WEEDS

barnyardgrass
waterhemp, common

CROP

soybean

Bryan Young

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

Phoenix and Select Tankmixtures.

Project Code: 02-2C-E-Grass Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
 Trial Status: Final Updated: 10-31-02

Objective:

Evaluate Phoenix for crop tolerance and weed control in soybean when tankmixed with Select with an emphasis on barnyardgrass control.

Weed Code	Common Name	Scientific Name
1. ECHCG	barnyardgrass	Echinochloa crus-galli (L.) Beauv.
2. AMATA	waterhemp, common	Amaranthus rudis Sauer

Crop 1:	GLXMA soybean	Variety:	Asgrow 4602 RR
Planting Method:	Seeded	Planting Date:	6-21-02
Rate:	75 lb/A	Depth:	1.0 IN
Row Spacing:	30 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	28 FT	Reps:	3
Tillage Type:	No-Till	Study Design:	Randomized complete block		
Previous Crop, Year:	TRAZW, 2002				

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

Soil Name:	Weir	% OM:	1.5	pH:	6.5	CEC:	8
Texture:	Silt loam	Fert. Level:	P1: 88 LB/A, K: 265 LB/A				

APPLICATION DESCRIPTION

A

Application Date:	7-1-02
Time of Day:	16:45
Application Method:	Spray
Application Timing:	4-6"W
Applic. Placement:	BROFOL
Air Temp., Unit:	96 F
% Relative Humidity:	36
Wind Velocity, Unit:	3-5 MPH
Dew Presence (Y/N):	N
Soil Moisture:	BELNOR
% Cloud Cover:	5

CROP STAGE AT EACH APPLICATION

A

Crop 1 Code, Stage:	GLXMA VC
Height, Unit:	1-2 IN

WEED STAGE AT EACH APPLICATION

A

Weed 1 Code:	ECHCG
Stage(leaves):	4-6
Height(inches):	4-10
Density:	Medium
Weed 2 Code:	AMATA
Stage(leaves):	5-12
Height(inches):	3-7
Density:	Medium

APPLICATION EQUIPMENT

A

Appl. Equipment: CO2 sprayer
Operating Pressure: 40 PSI
Nozzle Type: Flat fan
Nozzle Size: 8002
Boom Length, Unit: 7.5 FT
Spray Volume, Unit: 15 GPA

NOTES:

This study was not harvested.

Phoenix and Select Tankmixtures.

Project Code: 02-2C-E-Grass Location: Belleville Research Center

Weed Code	GLXMA	GLXMA	GLXMA	GLXMA	ECHCG	ECHCG	ECHCG	AMATA	AMATA	AMATA
Crop Code	Injury	Injury	Injury	Injury	Control	Control	Control	Control	Control	Control
Rating Data Type	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit	7-4-02	7-8-02	7-15-02	7-22-02	7-8-02	7-15-02	7-22-02	7-8-02	7-15-02	7-22-02
Rating Date	3 DA-A	7 DA-A	14 DA-A	21 DA-A	7 DA-A	14 DA-A	21 DA-A	7 DA-A	14 DA-A	21 DA-A
Trt-Eval Interval										

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code										
1	PHOENIX	2	EC	0.15	LB A/A	9.6	OZ/A	4-6"	W A	22	17	14	10	68	90	87	99	96	92
1	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	W A										
1	ACTIVATOR 90	100	LIQ	0.125	% V/V	0.125	%V/V	4-6"	W A										
2	PHOENIX	2	EC	0.15	LB A/A	9.6	OZ/A	4-6"	W A	28	18	16	12	70	93	89	99	93	90
2	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	W A										
2	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"	W A										
3	PHOENIX	2	EC	0.15	LB A/A	9.6	OZ/A	4-6"	W A	23	19	17	12	70	91	87	99	96	93
3	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	W A										
3	ACTIVATOR 90	100	LIQ	0.125	% V/V	0.125	%V/V	4-6"	W A										
3	AMS	100	DRY	2.5	LB/A	2.5	LB/A	4-6"	W A										
4	PHOENIX	2	EC	0.15	LB A/A	9.6	OZ/A	4-6"	W A	30	18	18	15	72	90	86	99	99	99
4	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	W A										
4	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"	W A										
4	AMS	100	DRY	2.5	LB/A	2.5	LB/A	4-6"	W A										
5	PHOENIX	2	EC	0.15	LB A/A	9.6	OZ/A	4-6"	W A	25	17	17	12	68	92	88	99	98	95
5	SELECT	2	EC	0.125	LB A/A	8	OZ/A	4-6"	W A										
5	FIRSTRATE	84	WG	0.0158	LB A/A	0.3	OZ/A	4-6"	W A										
5	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"	W A										
5	AMS	100	DRY	2.5	LB/A	2.5	LB/A	4-6"	W A										
6	PHOENIX	2	EC	0.15	LB A/A	9.6	OZ/A	4-6"	W A	29	20	19	15	70	90	87	99	99	98
6	SELECT	2	EC	0.125	LB A/A	8	OZ/A	4-6"	W A										
6	FIRSTRATE	84	WG	0.0158	LB A/A	0.3	OZ/A	4-6"	W A										
6	ACTIVATOR 90	100	LIQ	0.125	% V/V	0.125	%V/V	4-6"	W A										
6	AMS	100	DRY	2.5	LB/A	2.5	LB/A	4-6"	W A										
7	FLEXSTAR	1.88	EC	0.19	LB A/A	13	OZ/A	4-6"	W A	17	10	6	3	77	93	92	99	99	99
7	FUSION	2.56	EC	0.16	LB A/A	8	OZ/A	4-6"	W A										
7	PRIME OIL COC	100	LIQ	1.0	PT/A	1	PT/A	4-6"	W A										
7	AMS	100	DRY	2.5	LB/A	2.5	LB/A	4-6"	W A										
8	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	W A	0	0	0	0	65	90	88	0	0	0
8	PRIME OIL COC	100	LIQ	1.0	% V/V	1	%V/V	4-6"	W A										
8	AMS	100	DRY	2.5	LB/A	2.5	LB/A	4-6"	W A										
9	SELECT	2	EC	0.094	LB A/A	6	OZ/A	4-6"	W A	0	0	0	0	60	87	83	0	0	0
9	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	4-6"	W A										
9	AMS	100	DRY	2.5	LB/A	2.5	LB/A	4-6"	W A										
10	NONTREATED									0	0	0	0	0	0	0	0	0	0

Weed Code					ECHCG	ECHCG	ECHCG	AMATA	AMATA	AMATA
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA						
Rating Data Type	Injury	Injury	Injury	Injury	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date	7-4-02	7-8-02	7-15-02	7-22-02	7-8-02	7-15-02	7-22-02	7-8-02	7-15-02	7-22-02
Trt-Eval Interval	3 DA-A	7 DA-A	14 DA-A	21 DA-A	7 DA-A	14 DA-A	21 DA-A	7 DA-A	14 DA-A	21 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Prod Rate	Prod Unit	Grow Stg	Appl Code									
LSD (P=.05)				3.3					2.5	3.3	5.2	4.3	4.9	7.7	0.0	6.2	7.6
Replicate F				0.445					0.626	0.335	0.091	0.403	4.318	1.691	0.000	2.943	2.142
Replicate Prob(F)				0.6477					0.5461	0.7195	0.9135	0.6742	0.0294	0.2124	1.0000	0.0784	0.1464
Treatment F				130.839					105.604	54.511	12.939	238.448	303.835	115.853	0.000	499.644	322.352
Treatment Prob(F)				0.0001					0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	1.0000	0.0001	0.0001

Phoenix and Select Tankmixtures.

Project Code: 02-2C-E-Grass Location: Belleville Research Center

Trial Comments

1. Protocol: Valent.
2. DA-A = days after 4-6"W application.