

Grass Control with Select Combinations.

00-21N-W160

OBJECTIVE: Evaluate grass control with different formulations of Select and other tank-mix partners.

SUMMARY: Soybean injury 7 days after treatment (DAT) ranged from 35 to 33% from Cobra treatments and 12 to 15% from Pursuit treatments. By 28 DAT, soybean injury was 0 to 2% for all herbicide treatments.

Select alone at 6 and 8 oz/A, respectively, controlled 95 and 96% of giant foxtail at 28 DAT. Tank mixing Synchrony STS with Select at 6 or 8 oz/A decreased giant foxtail control to 88%. Giant foxtail control was reduced to 68 and 77% when Pursuit was tank mixed with Select at 6 and 8 oz/A, respectively. Tank mixing Cobra or FirstRate with Select did not reduce control of giant foxtail. Treatments that included FirstRate or Cobra plus FirstRate provided the greatest control of broadleaf weed species in this study.

HERBICIDES

COBRA 2 EC
 FIRSTRATE 84 WG
 PURSUIT 70 WG
 SELECT 2 EC
 SYNCHRONY STS 42 WG

WEEDS

COCKLEBUR, COMMON
 FOXTAIL, GIANT
 MORNINGGLORY, IVYLEAF
 RAGWEED, COMMON

CROP

SOYBEAN

Bryan Young

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

Grass Control with Select Combinations.

Project Code: 00-21N-W160 Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

Weed Code	Common Name	Scientific Name
1. SETFA	FOXTAIL, GIANT	SETARIA FABERI HERRM.
2. AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISIIFOLIA L.
3. XANST	COCKLEBUR, COMMON	XANTHIUM STRUMARIUM L. SSP. STRUMARIUM
4. IPOHE	MORNINGGLORY, IVYLEAF	IPOMOEA HEDERACEA (L.) JACQ.

Crop 1:	GLXMA SOYBEAN	Variety:	AG 4301 RR/STS
Planting Method:	SEEDED	Planting Date:	May-5-00
Rate:	75 LB/A	Depth:	1.0 IN
Row Spacing:	30 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	30 FT	Reps:	3
Tillage Type:	REDUCED-TILL	Study Design:	RCB		
Previous Crop, Year:	ZEAMX, 1999	Fertilizer applied:	N 0 LB/A,	P ₂ O ₅ 50 LB/A,	K ₂ O 150 LB/A

Soil Name:	EBBERT	% OM: 2.6	pH: 5.7	CEC: 14
Texture:	SILT LOAM	P ₁ : 72 LB/A,	K: 351 LB/A	

APPLICATION DESCRIPTION

	A
Application Date:	Jun-1-00
Time of Day:	10:00
Application Method:	SPRAY
Application Timing:	4-6"GR
Applic. Placement:	BROFOL
Air Temp., Unit:	81 F
% Relative Humidity:	70
Wind Velocity, Unit:	4-6 MPH
Soil Moisture:	NORMAL
% Cloud Cover:	0

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	GLXMA V1
Height, Unit:	4-6 IN

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code:	SETFA
Stage(leaves):	2-4
Height(inches):	4-6
Density:	HIGH
Weed 2 Code:	AMBEL
Stage(leaves):	4-5
Height(inches):	2-4
Density:	LOW
Weed 3 Code:	XANST
Stage(leaves):	COTL-5
Height(inches):	4-6
Density:	HIGH

APPLICATION EQUIPMENT

	A
Appl. Equipment:	CO ₂ SPRAY
Operating Pressure:	40 PSI
Nozzle Type:	FLAT FAN
Nozzle Size:	8002
Boom Length, Unit:	7.33 FT
Spray Volume, Unit:	20 GPA

NOTES:

Not harvested.

TABLE. GRASS CONTROL WITH SELECT COMBINATIONS. PROJECT CODE:00-21N-W160

TREATMENT	FORM.	RATE	UNIT	PROD RATE	APPL TIME	APPL CODE	GLXMA INJURY			CONTROL, DAYS AFTER 4-6"GR											
							DA 4-6"GR			SETFA			AMBEL			IPOHE			XANST		
							7	14	28	7	14	28	7	14	28	7	14	28	7	14	28
% % %			% % %			% % %			% % %			% % %									
1 NONTREATED							0	0	0	0	0	0	0	0	0	0	0	0	0		
2 SELECT	2 EC	0.094	LB A/A	6.0	OZ/A	4-6"GR	A	0	0	0	63	85	95	0	0	0	0	0	0		
2 PRIME OIL COC	100 LIQ	1.0	PT/A	1.0	PT/A	4-6"GR	A														
3 SELECT	2 EC	0.094	LB A/A	6.0	OZ/A	4-6"GR	A	0	0	0	63	92	97	0	0	0	0	0	0		
3 PRIME OIL COC	100 LIQ	1.0	PT/A	1.0	PT/A	4-6"GR	A														
3 AMS	100 DRY	2.5	LB/A	2.5	LB/A	4-6"GR	A														
4 SELECT	2 EC	0.094	LB A/A	6.0	OZ/A	4-6"GR	A	28	18	0	77	90	96	99	99	99	93	77	52		
4 COBRA	2 EC	0.125	LB A/A	8.0	OZ/A	4-6"GR	A														
4 PRIME OIL COC	100 LIQ	1.0	PT/A	1.0	PT/A	4-6"GR	A														
4 AMS	100 DRY	2.5	LB/A	2.5	LB/A	4-6"GR	A														
5 SELECT	2 EC	0.094	LB A/A	6.0	OZ/A	4-6"GR	A	25	18	0	72	92	97	99	99	99	92	93	92		
5 FIRSTRATE	84 WG	0.0158	LB A/A	0.3	OZ/A	4-6"GR	A														
5 COBRA	2 EC	0.125	LB A/A	8.0	OZ/A	4-6"GR	A														
5 PRIME OIL COC	100 LIQ	1.0	PT/A	1.0	PT/A	4-6"GR	A														
5 AMS	100 DRY	2.5	LB/A	2.5	LB/A	4-6"GR	A														
6 SELECT	2 EC	0.125	LB A/A	8.0	OZ/A	4-6"GR	A	30	18	0	75	90	96	99	99	99	90	77	47		
6 COBRA	2 EC	0.094	LB A/A	6.0	OZ/A	4-6"GR	A														
6 PRIME OIL COC	100 LIQ	1.0	PT/A	1.0	PT/A	4-6"GR	A														
6 AMS	100 DRY	2.5	LB/A	2.5	LB/A	4-6"GR	A														
7 SELECT	2 EC	0.125	LB A/A	8.0	OZ/A	4-6"GR	A	33	17	2	73	93	96	99	96	99	92	92	77		
7 FIRSTRATE	84 WG	0.0158	LB A/A	0.3	OZ/A	4-6"GR	A														
7 COBRA	2 EC	0.125	LB A/A	8.0	OZ/A	4-6"GR	A														
7 PRIME OIL COC	100 LIQ	1.0	PT/A	1.0	PT/A	4-6"GR	A														
7 AMS	100 DRY	2.5	LB/A	2.5	LB/A	4-6"GR	A														
8 SELECT	2 EC	0.094	LB A/A	6.0	OZ/A	4-6"GR	A	5	7	0	40	78	88	77	99	86	77	78	67		
8 SYNCHRONY STS	42 WG	0.00656	LB A/A	0.25	OZ/A	4-6"GR	A														
8 PRIME OIL COC	100 LIQ	1.0	PT/A	1.0	PT/A	4-6"GR	A														
8 AMS	100 DRY	2.5	LB/A	2.5	LB/A	4-6"GR	A														
9 SELECT	2 EC	0.125	LB A/A	8.0	OZ/A	4-6"GR	A	5	7	0	47	82	88	77	94	96	82	83	62		
9 SYNCHRONY STS	42 WG	0.00656	LB A/A	0.25	OZ/A	4-6"GR	A														
9 PRIME OIL COC	100 LIQ	1.0	PT/A	1.0	PT/A	4-6"GR	A														
9 AMS	100 DRY	2.5	LB/A	2.5	LB/A	4-6"GR	A														

(CONTINUED)

TABLE. GRASS CONTROL WITH SELECT COMBINATIONS. PROJECT CODE:00-21N-W160 (CONTINUED)

TREATMENT	FORM.	RATE	UNIT	PROD RATE	APPL TIME	APPL CODE	GLXMA INJURY			CONTROL, DAYS AFTER 4-6"GR												
							DA 4-6"GR			SETFA			AMBEL			IPOHE			XANST			
							7	14	28	7	14	28	7	14	28	7	14	28	7	14	28	
%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%							
10 SELECT	2 EC	0.094	LB A/A	6.0	OZ/A	4-6"GR	A	15	13	0	43	77	68	55	81	81	70	67	60	90	82	87
10 PURSUIT	70 WG	0.063	LB A/A	1.44	OZ/A	4-6"GR	A															
10 PRIME OIL COC	100 LIQ	1.0	PT/A	1.0	PT/A	4-6"GR	A															
10 AMS	100 DRY	2.5	LB/A	2.5	LB/A	4-6"GR	A															
11 SELECT	2 EC	0.125	LB A/A	8.0	OZ/A	4-6"GR	A	12	13	2	57	80	77	53	90	86	70	73	68	87	80	90
11 PURSUIT	70 WG	0.063	LB A/A	1.44	OZ/A	4-6"GR	A															
11 PRIME OIL COC	100 LIQ	1.0	PT/A	1.0	PT/A	4-6"GR	A															
11 AMS	100 DRY	2.5	LB/A	2.5	LB/A	4-6"GR	A															
12 SELECT	2 EC	0.125	LB A/A	8.0	OZ/A	4-6"GR	A	0	0	0	57	87	96	0	0	0	0	0	0	0	0	0
12 PRIME OIL COC	100 LIQ	1.0	PT/A	1.0	PT/A	4-6"GR	A															
12 AMS	100 DRY	2.5	LB/A	2.5	LB/A	4-6"GR	A															
13 SELECT	2 EC	0.094	LB A/A	6.0	OZ/A	4-6"GR	A	0	0	0	40	83	95	83	93	95	83	87	93	90	83	95
13 FIRSTRATE	84 WG	0.0158	LB A/A	0.3	OZ/A	4-6"GR	A															
13 PRIME OIL COC	100 LIQ	1.0	PT/A	1.0	PT/A	4-6"GR	A															
13 AMS	100 DRY	2.5	LB/A	2.5	LB/A	4-6"GR	A															
14 SELECT	2 EC	0.125	LB A/A	8.0	OZ/A	4-6"GR	A	0	0	0	63	90	96	0	0	0	0	0	0	0	0	0
14 PRIME OIL COC	100 LIQ	1.0	PT/A	1.0	PT/A	4-6"GR	A															
15 SELECT	2 EC	0.125	LB A/A	8.0	OZ/A	4-6"GR	A	0	0	0	63	90	94	0	0	0	0	0	0	0	0	0
15 PRIME OIL COC	100 LIQ	1.0	PT/A	1.0	PT/A	4-6"GR	A															
15 AMS	100 DRY	2.5	LB/A	2.5	LB/A	4-6"GR	A															
16 SELECT	2 EC	0.125	LB A/A	8.0	OZ/A	4-6"GR	A	5	12	0	57	82	96	75	98	99	80	82	90	90	87	95
16 FIRSTRATE	84 WG	0.0158	LB A/A	0.3	OZ/A	4-6"GR	A															
16 PRIME OIL COC	100 LIQ	1.0	PT/A	1.0	PT/A	4-6"GR	A															
16 AMS	100 DRY	2.5	LB/A	2.5	LB/A	4-6"GR	A															
LSD								3	4	2	10	7	7	10	9	10	4	8	14	3	4	4
P								0.01	0.01	0.5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

1. PROTOCOL: VALENT (MD01.30 AND MD01.11).
2. APPLIED BASAGRAN AT 0.5 LBAI/A PLUS COC AT 1% V/V TO TRTS 2,3,14, & 15 ONE WEEK AFTER GRASS APPLICATION ON JUN-21-00.
3. RATING DATES
7 DAT, 14 DAT, AND 28 DAT ON JUN-8-00, JUN-15-00, AND JUN-29-00, RESPECTIVELY.