

## Select Adjuvant Study.

01-22-S70

**OBJECTIVE:** Evaluate 60:40 oil:surfactant blend adjuvants with Select compared to a COC and NIS standard.

**SUMMARY:** Giant foxtail control 14 and 28 days after treatment was greatest when COC-PL plus AMS or Exchange plus AMS was added to Select. Adding Activator 90 to Select resulted in significantly less giant foxtail control compared to other adjuvant combinations.

### HERBICIDE / ADJUVANTS

SELECT 2 EC  
 ACTIVATOR 90 100 LIQ  
 AMS 100 DRY  
 BETWEEN 100 LIQ  
 COC-PL 100 LIQ  
 DESTINY MSO 100 LIQ  
 EX 105 100 LIQ  
 EXCHANGE 100 LIQ  
 HI-PER-OIL 100 LIQ  
 PREFERENCE 100 LIQ  
 PREMIUM COC 100 LIQ  
 PX403 100 LIQ

### WEEDS

foxtail, giant

### CROP

soybean

Bryan Young

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

## Select Adjuvant Study.

Project Code: 01-22-S70      Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country:            Belleville            IL 62221 USA  
 Trial Status: Final                    Initiation Date: 5-8-01

**Objective:**

Evaluate 60:40 oil:surfactant blend adjuvants with Select compared to a COC and NIS standard.

**Weed Code    Common Name            Scientific Name**  
 1. SETFA foxtail, giant Setaria faberi Herrm.

Crop 1:                    GLXMA soybean                    Variety:                    B-T 398CR  
 Planting Method: Seeded                    Planting Date: 5-16-01  
 Rate:                      75            lb/A                                  Depth:                      1.0 IN  
 Row Spacing:                30            IN

Plot Width, Unit: 10            FT                                  Plot Length, Unit: 27            FT                    Reps: 3  
 Tillage Type: Reduced-Till                    Study Design: Randomized complete block  
 Previous Crop, Year: ZEAMX, 2000  
 Field Prep./Maintenance: N 0 LB/A, P205 50 LB/A, K20 150 LB/A

Soil Name: Clarksdale                                  % OM: 1.7                    pH: 5.8                    CEC: 12  
 Texture:    Silt loam                                  Fert. Level:    P1: 67 LB/A, K: 235 LB/A

**APPLICATION DESCRIPTION**

A

Application Date:            6-15-01  
 Time of Day:                    9:00  
 Application Method:            Spray  
 Application Timing:            6"GRASS  
 Applic. Placement:            BROFOL  
 Air Temp., Unit:                72            F  
 % Relative Humidity:            84  
 Wind Velocity, Unit:            7-10 MPH  
 Soil Moisture:                    NORMAL  
 % Cloud Cover:                    90

**CROP STAGE AT EACH APPLICATION**

A

Crop 1 Code, Stage:            GLXMA V2  
 Height, Unit:                    6            IN

**WEED STAGE AT EACH APPLICATION**

A

Weed 1 Code:                    SETFA  
 Stage(leaves):                    4-6  
 Height(inches):                    4-6  
 Density:                            High

**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:            20            GPA

NOTES: NOT HARVESTED.

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Weed Code									SETFA	SETFA
Crop Code									GLXMA	GLXMA
Rating Data Type									Injury	Injury
Rating Unit									Percent	Percent
Rating Date									6-29-01	7-13-01
Tri-Eval Interval									14 DA-A	28 DA-A

Tri No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code				
1	NONTREATED									0	0	0	0
2	SELECT	2	EC	0.047	LB A/A	3	OZ/A	6"GRASS	A	0	0	53	47
2	ACTIVATOR 90	100	LIQ	0.25	% V/V	0.25	%V/V	6"GRASS	A				
3	SELECT	2	EC	0.047	LB A/A	3	OZ/A	6"GRASS	A	0	0	74	72
3	PREMIUM COC	100	LIQ	1.0	% V/V	1	%V/V	6"GRASS	A				
4	SELECT	2	EC	0.047	LB A/A	3	OZ/A	6"GRASS	A	0	0	71	68
4	BETWEEN	100	LIQ	0.5	% V/V	0.5	%V/V	6"GRASS	A				
5	SELECT	2	EC	0.047	LB A/A	3	OZ/A	6"GRASS	A	0	0	73	68
5	HI-PER-OIL	100	LIQ	0.5	% V/V	0.5	%V/V	6"GRASS	A				
6	SELECT	2	EC	0.047	LB A/A	3	OZ/A	6"GRASS	A	0	0	68	62
6	EX 105	100	LIQ	0.5	% V/V	0.5	%V/V	6"GRASS	A				
7	SELECT	2	EC	0.047	LB A/A	3	OZ/A	6"GRASS	A	0	0	63	57
7	DESTINY MSO	100	LIQ	0.67	% V/V	0.67	%V/V	6"GRASS	A				
7	PREFERENCE	100	LIQ	0.33	% V/V	0.33	%V/V	6"GRASS	A				
8	SELECT	2	EC	0.047	LB A/A	3	OZ/A	6"GRASS	A	0	0	78	73
8	DESTINY MSO	100	LIQ	0.5	% V/V	0.5	%V/V	6"GRASS	A				
8	PREFERENCE	100	LIQ	0.25	% V/V	0.25	%V/V	6"GRASS	A				
9	SELECT	2	EC	0.047	LB A/A	3	OZ/A	6"GRASS	A	0	0	75	70
9	COC-PL	100	LIQ	1.0	% V/V	1	%V/V	6"GRASS	A				
10	SELECT	2	EC	0.047	LB A/A	3	OZ/A	6"GRASS	A	0	0	72	67
10	PX403	100	LIQ	0.375	% V/V	0.375	%V/V	6"GRASS	A				
11	SELECT	2	EC	0.047	LB A/A	3	OZ/A	6"GRASS	A	0	0	72	65
11	EXCHANGE	100	LIQ	0.375	% V/V	0.375	%V/V	6"GRASS	A				
12	SELECT	2	EC	0.047	LB A/A	3	OZ/A	6"GRASS	A	0	0	79	77
12	COC-PL	100	LIQ	1.0	% V/V	1	%V/V	6"GRASS	A				
12	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	6"GRASS	A				
13	SELECT	2	EC	0.047	LB A/A	3	OZ/A	6"GRASS	A	0	0	73	73
13	PX403	100	LIQ	0.375	% V/V	0.375	%V/V	6"GRASS	A				
13	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	6"GRASS	A				
14	SELECT	2	EC	0.047	LB A/A	3	OZ/A	6"GRASS	A	0	0	80	78
14	EXCHANGE	100	LIQ	0.375	% V/V	0.375	%V/V	6"GRASS	A				
14	AMS	100	DRY	2.5	LB A/A	2.5	LB/A	6"GRASS	A				
LSD (P=.05)										0.0	0.0	9.3	9.1
Replicate F										0.000	0.000	5.326	2.802
Replicate Prob(F)										1.0000	1.0000	0.0115	0.0791
Treatment F										0.000	0.000	40.124	39.926
Treatment Prob(F)										1.0000	1.0000	0.0001	0.0001

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#### Trial Comments

1. Protocol: United Suppliers (trts 3-4); Agrilliance (trt 5); Precision Labs (trts 9-14); Miller Chemical (trt 6); SIU - BGY ( trts 2, 7 + 8).
2. Blanket application of Basagran + COC at 1.5 pt/A + 1% v/v at 2 inch broadleaf weeds (but at least 5 days before 6"GRASS application), to entire study using 10 ft boom, applied 6-5-01.
3. DA-A = days after 6"GRASS application.