

Project Code: 04-10C-MW80 Location: Belleville Research Center
 Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
 Trial Status: Final Updated: 8-30-04

Objective:

Evaluate various experimental adjuvants for use with
 Option and Callisto tank-mixtures.

Weed Code	Common Name	Scientific Name
1. SETFA	foxtail, giant	Setaria faberi Herrm.
2. CYPES	nutsedge, yellow	Cyperus esculentus L.
3. XANST	cocklebur, common	Xanthium strumarium L.
4. AMBEL	ragweed, common	Ambrosia artemisiifolia L.

Crop 1: ZEAMX corn, field Variety: DKC 60-17 RR
 Planting Method: Seeded Planting Date: 5-11-04
 Rate: 28000 S/A Depth: 1.5 IN
 Row Spacing: 30 IN

Plot Width, Unit: 10 FT Plot Length, Unit: 24 FT Reps: 3
 Tillage Type: Reduced-Till Study Design: Randomized complete block
 Previous Crop, Year: GLXMA, 2003

Field Prep./Maintenance: N 150 LB/A, P205 50 LB/A, K2O 100 LB/A

Soil Name: Weir % OM: 2.1 pH: 5.6 CEC: 12
 Texture: Silt loam Fert. Level: P1: 80 LB/A, K: 435 LB/A

APPLICATION DESCRIPTION

A

Application Date: 6-8-04
 Time of Day: 8:30
 Application Method: Spray
 Application Timing: 4-6"W
 Applic. Placement: BROFOL
 Air Temp., Unit: 76 F
 % Relative Humidity: 98
 Wind Velocity, Unit: 7 MPH
 Dew Presence (Y/N): Y
 Soil Moisture: ABONOR

CROP STAGE AT EACH APPLICATION

A

Crop 1 Code, Stage: ZEAMX V4
 Height, Unit: 8-10 IN

WEED STAGE AT EACH APPLICATION

A

Weed 1 Code: SETFA
 Stage(leaves): 4-8
 Height(inches): 4-6
 Density: Medium

Weed 2 Code: CYPES
 Stage(leaves): 4-8
 Height(inches): 4-6
 Density: High

Weed 3 Code: XANST
 Stage(leaves): 4-6
 Height(inches): 4-6
 Density: High

Weed 4 Code: AMBEL
 Stage(leaves): 4-6
 Height(inches): 4-6
 Density: Low

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:

Option Plus Callisto Adjuvant Study.

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Weed Code									SETFA	SETFA	XANST	AMBEL	AMBEL
Crop Code									ZEAMX	ZEAMX			
Rating Data Type									Injury	Injury	Control	Control	Control
Rating Unit									Percent	Percent	Percent	Percent	Percent
Rating Date									6-22-04	7-6-04	6-22-04	6-22-04	7-6-04
Trt-Eval Interval									14 DA-A	28 DA-A	14 DA-A	14 DA-A	28 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code						
1	NONTREATED									0	0	0	0	0	0
2	CALLISTO	4	SC	0.047	LB A/A	1.5	FL OZ/A	4-6"	W A	0	0	53	53	73	50
2	OPTION	35	WG	0.0164	LB A/A	0.75	OZ/A	4-6"	W A						
3	CALLISTO	4	SC	0.047	LB A/A	1.5	FL OZ/A	4-6"	W A	0	0	90	88	86	85
3	OPTION	35	WG	0.0164	LB A/A	0.75	OZ/A	4-6"	W A						
3	DESTINY MSO	100	LIQ	1.0	% V/V	1	% V/V	4-6"	W A						
3	N-PAK AMS	100	LIQ	2.5	% V/V	2.5	% V/V	4-6"	W A						
4	CALLISTO	4	SC	0.047	LB A/A	1.5	FL OZ/A	4-6"	W A	0	0	85	83	85	81
4	OPTION	35	WG	0.0164	LB A/A	0.75	OZ/A	4-6"	W A						
4	PRIME OIL COC	100	LIQ	1.0	% V/V	1	% V/V	4-6"	W A						
4	N-PAK AMS	100	LIQ	2.5	% V/V	2.5	% V/V	4-6"	W A						
5	CALLISTO	4	SC	0.047	LB A/A	1.5	FL OZ/A	4-6"	W A	0	0	87	84	89	83
5	OPTION	35	WG	0.0164	LB A/A	0.75	OZ/A	4-6"	W A						
5	HI-PER-OIL	100	LIQ	0.5	% V/V	0.5	% V/V	4-6"	W A						
5	N-PAK AMS	100	LIQ	2.5	% V/V	2.5	% V/V	4-6"	W A						
6	CALLISTO	4	SC	0.047	LB A/A	1.5	FL OZ/A	4-6"	W A	0	0	86	83	88	79
6	OPTION	35	WG	0.0164	LB A/A	0.75	OZ/A	4-6"	W A						
6	AG 01023	100	LIQ	0.5	% V/V	0.5	% V/V	4-6"	W A						
6	N-PAK AMS	100	LIQ	2.5	% V/V	2.5	% V/V	4-6"	W A						
7	CALLISTO	4	SC	0.047	LB A/A	1.5	FL OZ/A	4-6"	W A	0	0	86	86	88	84
7	OPTION	35	WG	0.0164	LB A/A	0.75	OZ/A	4-6"	W A						
7	AG 01023	100	LIQ	0.5	% V/V	0.5	% V/V	4-6"	W A						
7	ALLIANCE	100	LIQ	1.25	% V/V	1.25	% V/V	4-6"	W A						
8	CALLISTO	4	SC	0.047	LB A/A	1.5	FL OZ/A	4-6"	W A	0	0	88	85	90	86
8	OPTION	35	WG	0.0164	LB A/A	0.75	OZ/A	4-6"	W A						
8	RIVET	100	LIQ	0.5	% V/V	0.5	% V/V	4-6"	W A						
8	N-PAK AMS	100	LIQ	2.5	% V/V	2.5	% V/V	4-6"	W A						
9	CALLISTO	4	SC	0.047	LB A/A	1.5	FL OZ/A	4-6"	W A	0	0	87	88	85	81
9	OPTION	35	WG	0.0164	LB A/A	0.75	OZ/A	4-6"	W A						
9	AG 01034	100	LIQ	0.25	% V/V	0.25	% V/V	4-6"	W A						
9	N-PAK AMS	100	LIQ	2.5	% V/V	2.5	% V/V	4-6"	W A						
10	CALLISTO	4	SC	0.047	LB A/A	1.5	FL OZ/A	4-6"	W A	0	0	81	77	86	82
10	OPTION	35	WG	0.0164	LB A/A	0.75	OZ/A	4-6"	W A						
10	AG 03002	100	LIQ	1.0	% V/V	1	% V/V	4-6"	W A						
11	CALLISTO	4	SC	0.047	LB A/A	1.5	FL OZ/A	4-6"	W A	0	0	90	86	88	87
11	OPTION	35	WG	0.0164	LB A/A	0.75	OZ/A	4-6"	W A						
11	AG 03002	100	LIQ	2.0	% V/V	2	% V/V	4-6"	W A						
12	CALLISTO	4	SC	0.047	LB A/A	1.5	FL OZ/A	4-6"	W A	0	0	86	90	90	85
12	OPTION	35	WG	0.0164	LB A/A	0.75	OZ/A	4-6"	W A						
12	DESTINY MSO	100	LIQ	1.0	% V/V	1	% V/V	4-6"	W A						
12	ALLIANCE	100	LIQ	1.25	% V/V	1.25	% V/V	4-6"	W A						

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Crop Code															
Rating Data Type															
Rating Unit															
Rating Date															
Trt-Eval Interval															

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	ZEAMX Injury Percent	ZEAMX Injury Percent	SETFA Control Percent	SETFA Control Percent	XANST Control Percent	AMBEL Control Percent	AMBEL Control Percent
13	CALLISTO	4	SC	0.094	LB A/A	3	FL OZ/A	4-6"W	A	0	0	93	91	93	90	98
13	OPTION	35	WG	0.0328	LB A/A	1.5	OZ/A	4-6"W	A							
13	DESTINY MSO	100	LIQ	1.0	% V/V	1	% V/V	4-6"W	A							
13	N-PAK AMS	100	LIQ	2.5	% V/V	2.5	% V/V	4-6"W	A							
LSD (P=.05)										0.0	0.0	5.0	8.9	3.6	4.6	10.7
Replicate F										0.000	0.000	4.310	1.349	0.117	1.776	7.174
Replicate Prob(F)										1.0000	1.0000	0.0252	0.2784	0.8899	0.1908	0.0036
Treatment F										0.000	0.000	221.778	66.981	392.021	238.640	51.783
Treatment Prob(F)										1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001

Trial Comments

1. Agrilience.
2. Ratings: CI and WC 14 and 28 DAT.
3. DA-A = Days after 4-6"W application.