

Oil Adjuvant Comparison with Option.

Project Code: 05-ARC-3-W110 Location: Agronomy Research Center
 Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Carbondale IL 62901 USA
 Trial Status: Final Updated: 11-14-05

Objective:

Determine the effectiveness of experimental oil-based adjuvants for use with Option.

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

Crop 1: ZEAMX corn, field Variety: 33P70
 Planting Method: Seeded Planting Date: 5-10-05
 Rate: 28000 S/A Depth: 1.5 IN
 Row Spacing: 30 IN

Plot Width, Unit: 10 FT Plot Length, Unit: 20 FT Reps: 3
 Tillage Type: Reduced-Till Study Design: Randomized complete block
 Previous Crop, Year: GLXMA, 2004

Field Prep./Maintenance: N 150 LB/A, P205 0 LB/A, K20 0 LB/A

Soil Name: Weir % OM: 1.6 pH: 6.5 CEC: 8.7
 Texture: Silt loam Fert. Level: P1: 84 LB/A, K: 306 LB/A

APPLICATION DESCRIPTION

A
 Application Date: 06-16-05
 Time of Day: 17:30
 Application Method: Spray
 Application Timing: 6"W
 Applic. Placement: BROFOL
 Air Temp., Unit: 85 F
 % Relative Humidity: 32
 Wind Velocity, Unit: 1 MPH

CROP STAGE AT EACH APPLICATION

A
 Crop 1 Code, Stage: ZEAMX V5-V6
 Height, Unit: 16 IN

WEED STAGE AT EACH APPLICATION

A
 Weed 1 Code: SETFA
 Stage (leaves): 12-14
 Height (inches): 4-6
 Density: Medium
 Weed 2 Code: XANST
 Stage (leaves): 10-12
 Height (inches): 14-16
 Density: High
 Weed 3 Code: AMBEL
 Stage (leaves): 12-14
 Height (inches): 14-16
 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:

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Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	ZEAMX		SETFA		XANST		AMBEL					
						Injury Percent	Injury Percent	Control Percent	Control Percent	Control Percent	Control Percent	Control Percent	Control Percent				
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	06-30-05	07-14-05	06-30-05	07-14-05				
1	OPTION	35	WG	0.0328	lb ai/a	1.5	oz/a	6"W	A	0	0	51	46	47	43	46	43
2	OPTION	35	WG	0.0328	lb ai/a	1.5	oz/a	6"W	A	0	0	47	44	46	44	42	42
2	DESTINY MSO	100	LIQ	1.0	% v/v	1	% v/v	6"W	A								
2	N-PAK AMS	100	LIQ	2.5	% v/v	2.5	% v/v	6"W	A								
3	OPTION	35	WG	0.0328	lb ai/a	1.5	oz/a	6"W	A	0	0	52	49	48	47	48	48
3	AG 04041	100	LIQ	1.0	% v/v	1	% v/v	6"W	A								
3	N-PAK AMS	100	LIQ	2.5	% v/v	2.5	% v/v	6"W	A								
4	OPTION	35	WG	0.0328	lb ai/a	1.5	oz/a	6"W	A	0	0	46	44	40	39	40	39
4	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	6"W	A								
4	N-PAK AMS	100	LIQ	2.5	% v/v	2.5	% v/v	6"W	A								
5	OPTION	35	WG	0.0328	lb ai/a	1.5	oz/a	6"W	A	0	0	48	42	46	43	45	42
5	SUPERB HC	100	LIQ	0.5	% v/v	0.5	% v/v	6"W	A								
5	N-PAK AMS	100	LIQ	2.5	% v/v	2.5	% v/v	6"W	A								
6	OPTION	35	WG	0.0328	lb ai/a	1.5	oz/a	6"W	A	0	0	49	43	49	45	47	44
6	AG 05005	100	LIQ	0.5	% v/v	0.5	% v/v	6"W	A								
6	N-PAK AMS	100	LIQ	2.5	% v/v	2.5	% v/v	6"W	A								
7	OPTION	35	WG	0.0328	lb ai/a	1.5	oz/a	6"W	A	0	0	47	43	52	48	50	47
7	AG 04029	100	LIQ	0.5	% v/v	0.5	% v/v	6"W	A								
7	N-PAK AMS	100	LIQ	2.5	% v/v	2.5	% v/v	6"W	A								
8	OPTION	35	WG	0.0328	lb ai/a	1.5	oz/a	6"W	A	0	0	50	49	51	48	49	45
8	AG 05006	100	LIQ	0.5	% v/v	0.5	% v/v	6"W	A								
8	N-PAK AMS	100	LIQ	2.5	% v/v	2.5	% v/v	6"W	A								
9	OPTION	35	WG	0.0328	lb ai/a	1.5	oz/a	6"W	A	0	0	48	48	51	47	48	46
9	AG 05006	100	LIQ	1.0	% v/v	1	% v/v	6"W	A								
9	N-PAK AMS	100	LIQ	2.5	% v/v	2.5	% v/v	6"W	A								
10	OPTION	35	WG	0.0328	lb ai/a	1.5	oz/a	6"W	A	0	0	52	49	51	49	50	39
10	AG 05007	100	LIQ	1.5	% v/v	1.5	% v/v	6"W	A								
11	OPTION	35	WG	0.0328	lb ai/a	1.5	oz/a	6"W	A	0	0	49	46	51	48	50	43
11	AG 05043	100	LIQ	1.5	% v/v	1.5	% v/v	6"W	A								
12	OPTION	35	WG	0.0328	lb ai/a	1.5	oz/a	6"W	A	0	0	51	48	50	48	49	46
12	AG 05009	100	LIQ	1.5	% v/v	1.5	% v/v	6"W	A								
13	OPTION	35	WG	0.0328	lb ai/a	1.5	oz/a	6"W	A	0	0	51	48	49	43	47	40
13	AG 03002	100	LIQ	1.5	% v/v	1.5	% v/v	6"W	A								
14	OPTION	35	WG	0.0328	lb ai/a	1.5	oz/a	6"W	A	0	0	50	47	46	33	45	37
14	AG 03002	100	LIQ	2.0	% v/v	2	% v/v	6"W	A								
15	OPTION	35	WG	0.0328	lb ai/a	1.5	oz/a	6"W	A	0	0	51	47	52	49	49	46
15	AG 04032	100	LIQ	0.5	% v/v	0.5	% v/v	6"W	A								
15	N-PAK AMS	100	LIQ	2.5	% v/v	2.5	% v/v	6"W	A								
16	OPTION	35	WG	0.0328	lb ai/a	1.5	oz/a	6"W	A	0	0	49	47	51	50	50	52
16	DESTINY MSO	100	LIQ	1.0	% v/v	1	% v/v	6"W	A								
16	AG 05017	100	LIQ	2.0	fl oz/a	2	fl oz/a	6"W	A								
16	N-PAK AMS	100	LIQ	2.5	% v/v	2.5	% v/v	6"W	A								
17	OPTION	35	WG	0.0328	lb ai/a	1.5	oz/a	6"W	A	0	0	48	44	47	45	43	42
17	DESTINY MSO	100	LIQ	1.0	% v/v	1	% v/v	6"W	A								
17	AG 05017	100	LIQ	4.0	fl oz/a	4	fl oz/a	6"W	A								
17	N-PAK AMS	100	LIQ	2.5	% v/v	2.5	% v/v	6"W	A								
18	NONTREATED									0	0	0	0	0	0	0	0
LSD (P=0.05)										0.0	0.0	5.8	5.5	6.8	8.0	6.1	8.4
Replicate F										0.000	0.000	0.609	1.648	1.906	0.299	1.672	0.029
Replicate Prob(F)										1.0000	1.0000	0.5498	0.2074	0.1643	0.7434	0.2030	0.9717
Treatment F										0.000	0.000	34.316	34.421	25.057	17.106	29.486	14.217
Treatment Prob(F)										1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Trial Comments

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