

Liberty Adjuvant Study in Corn.

Project Code: 05-51W-N60 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:** 11-14-05

Objective:

Evaluate the efficacy of Liberty with various adjuvants as AMS replacements.

Weed Code	Common Name	Scientific Name
1.	SETFA foxtail, giant	Setaria faberi Herrm.
2.	CYPES nutsedge, yellow	Cyperus esculentus L.
3.	AMBTR ragweed, giant	Ambrosia trifida L.
4.	ABUTH velvetleaf	Abutilon theophrasti Medicus

Crop 1: ZEAMX corn, field **Variety:** 33P69 LL
Planting Method: Seeded **Planting Date:** 5-6-05
Rate: 28000 S/A **Depth:** 1.5 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: GLXMA, 2004

Field Prep./Maintenance: N 150 LB/A, P205 50 LB/A, K20 100 LB/A

Soil Name: Weir **% OM:** 2.2 **pH:** 6.5 **CEC:** 11
Texture: Silt loam **Fert. Level:** P1: 94 LB/A, K: 396 LB/A

APPLICATION DESCRIPTION**A**

Application Date: 06-01-05
Time of Day: 9:30
Application Method: Spray
Application Timing: 6-8"W
Applic. Placement: BROFOL
Air Temp., Unit: 70 F
% Relative Humidity: 50
Wind Velocity, Unit: 5 MPH
Soil Moisture: BELNOR

CROP STAGE AT EACH APPLICATION**A**

Crop 1 Code, Stage: ZEAMX V5
Height, Unit: 11-12 IN

WEED STAGE AT EACH APPLICATION**A**

Weed 1 Code: SETFA
Stage (leaves): 2-4
Height (inches): 5-7
Density: High

Weed 2 Code: CYPES
Stage (leaves): 4-6
Height (inches): 5-7
Density: Medium

Weed 3 Code: AMBTR
Stage (leaves): 6-8
Height (inches): 6-9
Density: Medium

Weed 4 Code: ABUTH
Stage (leaves): 4-5
Height (inches): 5-8
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:

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Weed Code		Crop Code		Rating Data Type		Rating Unit		Rating Date		Trt-Eval Interval		ZEAMX	ZEAMX	SETFA	SETFA	CYPES	CYPES	AMBTR	AMBTR
												Injury	Injury	Control	Control	Control	Control	Control	Control
												Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
												06-15-05	06-29-05	06-15-05	06-29-05	06-15-05	06-29-05	06-15-05	06-29-05
												14 DA-A	28 DA-A	14 DA-A	28 DA-A	14 DA-A	28 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	0	0
2	LIBERTY	1.67	EC	0.287	lb ai/a	22	fl oz/a	6-8"	W A			0	0	93	67	40	40	91	90
3	LIBERTY	1.67	EC	0.287	lb ai/a	22	fl oz/a	6-8"	W A			0	0	95	70	45	42	93	89
3	AMS	100	DRY	3.0	lb/a	3	lb/a	6-8"	W A										
4	LIBERTY	1.67	EC	0.287	lb ai/a	22	fl oz/a	6-8"	W A			0	0	95	72	40	40	87	83
4	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	6-8"	W A										
5	LIBERTY	1.67	EC	0.287	lb ai/a	22	fl oz/a	6-8"	W A			0	0	95	72	42	43	87	80
5	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	6-8"	W A										
5	AG 05017	100	LIQ	2.0	fl oz/a	2	fl oz/a	6-8"	W A										
6	LIBERTY	1.67	EC	0.287	lb ai/a	22	fl oz/a	6-8"	W A			0	0	95	68	32	38	84	75
6	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	6-8"	W A										
6	AG 05017	100	LIQ	4.0	fl oz/a	4	fl oz/a	6-8"	W A										
7	LIBERTY	1.67	EC	0.287	lb ai/a	22	fl oz/a	6-8"	W A			0	0	95	72	32	40	87	83
7	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	6-8"	W A										
7	PLACEMENT	100	LIQ	5.0	fl oz/a	5	fl oz/a	6-8"	W A										
8	LIBERTY	1.67	EC	0.287	lb ai/a	22	fl oz/a	6-8"	W A			0	0	95	72	38	40	87	87
8	AG 03002	100	LIQ	2.5	% v/v	2.5	% v/v	6-8"	W A										
9	LIBERTY	1.67	EC	0.287	lb ai/a	22	fl oz/a	6-8"	W A			0	0	95	72	42	40	82	82
9	REPLACE	100	LIQ	0.25	% v/v	2	pt/100 gal	6-8"	W A										
10	LIBERTY	1.67	EC	0.287	lb ai/a	22	fl oz/a	6-8"	W A			0	0	95	68	35	42	75	72
10	REPLACE	100	LIQ	0.375	% v/v	3	pt/100 gal	6-8"	W A										
LSD (P=.05)											0.0	0.0	1.6	7.6	4.8	5.1	5.4	9.4	
Replicate F											0.000	0.000	1.000	0.673	2.928	0.278	2.005	4.819	
Replicate Prob(F)											1.0000	1.0000	0.3874	0.5226	0.0793	0.7602	0.1637	0.0211	
Treatment F											0.000	0.000	3237.334	75.089	64.831	55.557	232.113	71.533	
Treatment Prob(F)											1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	ABUTH Control Percent 06-15-05 14 DA-A	ABUTH Control Percent 06-29-05 28 DA-A
1	NONTREATED									0	0
2	LIBERTY	1.67	EC	0.287	lb ai/a	22	fl oz/a	6-8"W	A	62	67
3	LIBERTY	1.67	EC	0.287	lb ai/a	22	fl oz/a	6-8"W	A	92	88
3	AMS	100	DRY	3.0	lb/a	3	lb/a	6-8"W	A		
4	LIBERTY	1.67	EC	0.287	lb ai/a	22	fl oz/a	6-8"W	A	85	78
4	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	6-8"W	A		
5	LIBERTY	1.67	EC	0.287	lb ai/a	22	fl oz/a	6-8"W	A	90	83
5	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	6-8"W	A		
5	AG 05017	100	LIQ	2.0	fl oz/a	2	fl oz/a	6-8"W	A		
6	LIBERTY	1.67	EC	0.287	lb ai/a	22	fl oz/a	6-8"W	A	83	83
6	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	6-8"W	A		
6	AG 05017	100	LIQ	4.0	fl oz/a	4	fl oz/a	6-8"W	A		
7	LIBERTY	1.67	EC	0.287	lb ai/a	22	fl oz/a	6-8"W	A	79	87
7	CLASS ACT NG	100	LIQ	2.5	% v/v	2.5	% v/v	6-8"W	A		
7	PLACEMENT	100	LIQ	5.0	fl oz/a	5	fl oz/a	6-8"W	A		
8	LIBERTY	1.67	EC	0.287	lb ai/a	22	fl oz/a	6-8"W	A	83	87
8	AG 03002	100	LIQ	2.5	% v/v	2.5	% v/v	6-8"W	A		
9	LIBERTY	1.67	EC	0.287	lb ai/a	22	fl oz/a	6-8"W	A	75	77
9	REPLACE	100	LIQ	0.25	% v/v	2	pt/100 gal	6-8"W	A		
10	LIBERTY	1.67	EC	0.287	lb ai/a	22	fl oz/a	6-8"W	A	58	73
10	REPLACE	100	LIQ	0.375	% v/v	3	pt/100 gal	6-8"W	A		
LSD (P=.05)										11.3	11.3
Replicate F										5.648	1.985
Replicate Prob(F)										0.0125	0.1663
Treatment F										50.806	48.017
Treatment Prob(F)										0.0001	0.0001

Trial Comments

1. Protocol: Agrilience.
2. Ratings: CI/WC 14 and 28 DAT.
3. DA-A = Days after 6-8"W application.