

Option and Equip Tankmixtures.

Project Code: 03-50E-MS90 Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
 Trial Status: Final Updated: 9-3-03

Objective:

Determine the benefit of various herbicides in combination with Option and Equip for different weeds or ALS resistant weeds.

Weed Code	Common Name	Scientific Name
1. SETFA	foxtail, giant	Setaria faberi Herrm.
2. AMBTR	ragweed, giant	Ambrosia trifida L.
3. XANST	cocklebur, common	Xanthium strumarium L.
4. AMATA	waterhemp, common	Amaranthus rudis Sauer

Crop 1: ZEAMX corn, field Variety: Pioneer 33P69LL
 Planting Method: Seeded Planting Date: 6-19-03
 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, 2002

Field Prep./Maintenance: N 0 LB/A, P205 50 LB/A, K2O 200 LB/A

Soil Name: Weir % OM: 1.4 pH: 6.9 CEC: 12
 Texture: Silt loam Fert. Level: P1: 83 LB/A, K: 181 LB/A

APPLICATION DESCRIPTION

A

Application Date: 6-23-03
 Time of Day: 13:00
 Application Method: Spray
 Application Timing: 1-3"W
 Applic. Placement: BROFOL
 Air Temp., Unit: 82 F
 % Relative Humidity: 38
 Wind Velocity, Unit: 2 MPH
 Soil Moisture: NORMAL
 % Cloud Cover: 0

CROP STAGE AT EACH APPLICATION

A

Crop 1 Code, Stage: ZEAMX NA
 Height, Unit: NA NA

WEED STAGE AT EACH APPLICATION

A

Weed 1 Code: SETFA
 Stage(leaves): 1-3
 Height(inches): 0-3
 Density: Low

Weed 2 Code: AMBTR
 Stage(leaves): 0-4
 Height(inches): 1-4
 Density: High

Weed 3 Code: XANST
 Stage(leaves): 0-3
 Height(inches): 1-3
 Density: High

Weed 4 Code: AMATA
Stage(leaves): 0-4
Height(inches): 1-3
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	AMBTR	AMBTR	XANST	XANST	AMATA	AMATA
Crop Code									ZEAMX	ZEAMX	ZEAMX					
Rating Data Type									Injury	Injury	Injury					
Rating Unit									Percent	Percent	Percent					
Rating Date									6-30-03	7-7-03	7-21-03					
Trt-Eval Interval									7 DA-A	14 DA-A	28 DA-A					
									Control	Control	Control	Control	Control	Control	Control	Control
									Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
									7-7-03	7-21-03	7-7-03	7-21-03	7-7-03	7-21-03	7-7-03	7-21-03
									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	OPTION	35	WG	0.0328	LB A/A	1.5	OZ/A	1-3"	W A	0	0	0	99	99	63	70	60
2	MSO CONCENTRATE	100	LIQ	1.5	PT/A	1.5	PT/A	1-3"	W A								
2	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	1-3"	W A								
3	EQUIP	32	WG	0.03	LB A/A	1.5	OZ/A	1-3"	W A	0	0	0	99	98	88	85	73
3	MSO CONCENTRATE	100	LIQ	1.5	PT/A	1.5	PT/A	1-3"	W A								
3	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	1-3"	W A								
4	OPTION	35	WG	0.0328	LB A/A	1.5	OZ/A	1-3"	W A	0	0	0	99	99	92	72	98
4	DISTINCT	70	WG	0.0875	LB A/A	2	OZ/A	1-3"	W A								
4	MSO CONCENTRATE	100	LIQ	1.5	PT/A	1.5	PT/A	1-3"	W A								
4	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	1-3"	W A								
5	EQUIP	32	WG	0.03	LB A/A	1.5	OZ/A	1-3"	W A	0	0	0	99	99	92	82	96
5	DISTINCT	70	WG	0.0875	LB A/A	2	OZ/A	1-3"	W A								
5	MSO CONCENTRATE	100	LIQ	1.5	PT/A	1.5	PT/A	1-3"	W A								
5	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	1-3"	W A								
6	OPTION	35	WG	0.0328	LB A/A	1.5	OZ/A	1-3"	W A	0	0	0	99	99	95	93	98
6	YUKON	67.5	WG	0.127	LB A/A	3	OZ/A	1-3"	W A								
6	MSO CONCENTRATE	100	LIQ	1.5	PT/A	1.5	PT/A	1-3"	W A								
6	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	1-3"	W A								
7	EQUIP	32	WG	0.03	LB A/A	1.5	OZ/A	1-3"	W A	0	0	0	99	99	94	98	99
7	YUKON	67.5	WG	0.127	LB A/A	3	OZ/A	1-3"	W A								
7	MSO CONCENTRATE	100	LIQ	1.5	PT/A	1.5	PT/A	1-3"	W A								
7	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	1-3"	W A								
8	OPTION	35	WG	0.0328	LB A/A	1.5	OZ/A	1-3"	W A	0	0	0	99	99	87	67	98
8	CALLISTO	4	SC	0.047	LB A/A	1.5	FL OZ/A	1-3"	W A								
8	MSO CONCENTRATE	100	LIQ	1.5	PT/A	1.5	PT/A	1-3"	W A								
8	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	1-3"	W A								
9	EQUIP	32	WG	0.03	LB A/A	1.5	OZ/A	1-3"	W A	0	0	0	99	99	95	87	96
9	CALLISTO	4	SC	0.047	LB A/A	1.5	FL OZ/A	1-3"	W A								
9	MSO CONCENTRATE	100	LIQ	1.5	PT/A	1.5	PT/A	1-3"	W A								
9	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	1-3"	W A								
10	OPTION	35	WG	0.0328	LB A/A	1.5	OZ/A	1-3"	W A	0	0	0	98	96	91	75	99
10	CALLISTO	4	SC	0.047	LB A/A	1.5	FL OZ/A	1-3"	W A								
10	PRIME OIL COC	100	LIQ	1.5	PT/A	1.5	PT/A	1-3"	W A								
10	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	1-3"	W A								

Weed Code													SETFA	SETFA	AMBTR	AMBTR	XANST	XANST	AMATA	AMATA			
Crop Code													ZEAMX	ZEAMX	ZEAMX								
Rating Data Type													Injury	Injury	Injury	Control	Control	Control	Control	Control	Control		
Rating Unit													Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent		
Rating Date													6-30-03	7-7-03	7-21-03	7-7-03	7-21-03	7-7-03	7-21-03	7-7-03	7-21-03		
Trt-Eval Interval													7 DA-A	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														
11	EQUIP	32	WG	0.03	LB A/A	1.5	OZ/A	1-3"	W A	0	0	0	99	99	92	78	99	98	98	83			
11	CALLISTO	4	SC	0.047	LB A/A	1.5	FL OZ/A	1-3"	W A														
11	PRIME OIL COC	100	LIQ	1.5	PT/A	1.5	PT/A	1-3"	W A														
11	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	1-3"	W A														
12	OPTION	35	WG	0.0328	LB A/A	1.5	OZ/A	1-3"	W A	0	0	0	99	99	90	92	99	99	67	48			
12	NORTHSTAR	47.4	WG	0.089	LB A/A	3	OZ/A	1-3"	W A														
12	MSO CONCENTRATE	100	LIQ	1.5	PT/A	1.5	PT/A	1-3"	W A														
12	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	1-3"	W A														
13	EQUIP	32	WG	0.03	LB A/A	1.5	OZ/A	1-3"	W A	0	0	0	99	99	95	96	99	99	58	25			
13	NORTHSTAR	47.4	WG	0.089	LB A/A	3	OZ/A	1-3"	W A														
13	MSO CONCENTRATE	100	LIQ	1.5	PT/A	1.5	PT/A	1-3"	W A														
13	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	1-3"	W A														
14	OPTION	35	WG	0.0328	LB A/A	1.5	OZ/A	1-3"	W A	0	0	0	99	98	98	96	99	98	95	91			
14	AATREX	90	WG	1.0	LB A/A	1.11	LB/A	1-3"	W A														
14	MSO CONCENTRATE	100	LIQ	1.5	PT/A	1.5	PT/A	1-3"	W A														
14	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	1-3"	W A														
15	EQUIP	32	WG	0.03	LB A/A	1.5	OZ/A	1-3"	W A	0	0	0	98	98	99	99	99	99	91	83			
15	AATREX	90	WG	1.0	LB A/A	1.11	LB/A	1-3"	W A														
15	MSO CONCENTRATE	100	LIQ	1.5	PT/A	1.5	PT/A	1-3"	W A														
15	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	1-3"	W A														
16	OPTION	35	WG	0.0328	LB A/A	1.5	OZ/A	1-3"	W A	0	0	0	99	99	63	80	99	99	13	7			
16	DEFINE	4	SC	0.3	LB A/A	9.6	FL OZ/A	1-3"	W A														
16	MSO CONCENTRATE	100	LIQ	1.5	PT/A	1.5	PT/A	1-3"	W A														
16	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	1-3"	W A														
17	EQUIP	32	WG	0.03	LB A/A	1.5	OZ/A	1-3"	W A	0	0	0	99	99	91	87	99	99	0	10			
17	DEFINE	4	SC	0.3	LB A/A	9.6	FL OZ/A	1-3"	W A														
17	MSO CONCENTRATE	100	LIQ	1.5	PT/A	1.5	PT/A	1-3"	W A														
17	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	1-3"	W A														
18	STEADFAST	75	WG	0.035	LB A/A	0.75	OZ/A	1-3"	W A	0	0	0	99	99	95	87	99	99	98	95			
18	CALLISTO	4	SC	0.047	LB A/A	1.5	FL OZ/A	1-3"	W A														
18	PRIME OIL COC	100	LIQ	1	QT/A	1	QT/A	1-3"	W A														
18	28% UAN	100	LIQ	2.0	QT/A	2	QT/A	1-3"	W A														
LSD (P=.05)										0.0	0.0	0.0	1.2	2.6	8.5	10.7	19.2	17.4	24.3	26.1			
Replicate F										0.000	0.000	0.000	2.125	1.016	0.424	0.419	1.975	4.051	1.677	3.437			
Replicate Prob(F)										1.0000	1.0000	1.0000	0.1350	0.3727	0.6580	0.6608	0.1544	0.0264	0.2021	0.0437			
Treatment F										0.000	0.000	0.000	2920.533	668.638	63.377	36.306	13.712	15.130	18.841	16.217			
Treatment Prob(F)										1.0000	1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001			

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Trial Comments

1. Protocol: Bayer.
2. Ratings: CI 7, 14 and 28 DAT; WC 14 and 28 DAT.
3. DA-A = days after 1-3"W application.