

Capreno Adjuvant Study - Precision Labs.

Trial ID: 09-52-E30

Location: Belleville Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
 City State Zip Country: Belleville IL 62221 USA
 Trial Status: FINAL Initiation Date: 05-24-09

Objectives: Evaluate experimental oil-based adjuvants for use
 with Capreno in corn.

Crop 1: ZEAMD	Dent corn	Variety: P33K44	Description: RR/LL
Planting Method:	SEEDED	Planting Date:	05-24-09
Rate, Unit:	28000 S/A	Depth, Unit:	1.5 IN
Row Spacing, Unit:	30 IN		

Pest 1 Type: W	Code: SETFA	Setaria faberi Herrm.	foxtail, giant
Pest 2 Type: W	Code: AMBTR	Ambrosia trifida L.	ragweed, giant
Pest 3 Type: W	Code: AMATA	Amaranthus rudis Sauer	waterhemp, common
Pest 4 Type: W	Code: ABUTH	Abutilon theophrasti Medicus	velvetleaf

Plot Width, Unit:	10 FT	Site Type:	FIELD
Plot Length, Unit:	25 FT	Tillage Type:	REDUCED-TILL
Replications:	3	Study Design:	Randomized Complete Block

Prior Crops, Year
 1. GLXMA 2008

Field Prep./Maintenance: N 150 LB/A, P2O5 0 LB/A, K2O 100 LB/A

% OM:	2.2	Texture:	SILT LOAM
pH:	6.9	Soil Name:	PIERRON
CEC:	9	Fert. Level:	P1: 107 LB/A, K: 420 LB/A

Application Description

A
 Application Date: 06-18-09
 Time of Day: 9:00
 Application Method: Spray
 Application Timing: 4-6"W
 Application Placement: BROFOL
 Applied By: DKP
 Air Temperature, Unit: 80 F
 % Relative Humidity: 92
 Wind Velocity, Unit: 4 MPH
 Wind Direction: W
 Dew Presence (Y/N): N
 Soil Moisture: ABONOR
 % Cloud Cover: 5

06-18-09
 Crop stage at application: V2-V3
 Height Min, Max (inch): 10 18

Pest Stage At Each Application

Application Date:	06-18-09
Weed Code:	SETFA
Stage Majority (leaves):	2
Stage Min, Max:	1 4
Height Majority:	6 IN
Height Min, Max:	2 12
Density, Unit:	4 FT2
Weed Code:	AMBTR
Stage Majority (leaves):	8
Stage Min, Max:	3 12
Height Majority:	5 IN
Height Min, Max:	3 10
Density, Unit:	3 FT2
Weed Code:	AMATA
Stage Majority (leaves):	6
Stage Min, Max:	3 8
Height Majority:	3 IN
Height Min, Max:	2 6
Density, Unit:	1 FT2
Weed Code:	ABUTH
Stage Majority (leaves):	2
Stage Min, Max:	1 4
Height Majority:	4 IN
Height Min, Max:	3 6
Density, Unit:	0.75 FT2

Application Equipment

Appl. Equipment: CO2 sprayer
 Operating Pressure: 30 PSI
 Nozzle Type: Flat fan
 Nozzle Size: XR 8002
 Boom Length, Unit: 7.5 FT
 Spray Volume, Unit: 15 GPA

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Pest Code										SETFA	SETFA	AMBTR	AMBTR	AMATA	AMATA
Crop Code										ZEAMD	ZEAMD				
Rating Date										07-02-09	07-16-09	07-02-09	07-16-09	07-02-09	07-16-09
Rating Data Type										Injury	Injury	Control	Control	Control	Control
Rating Unit										Percent	Percent	Percent	Percent	Percent	Percent
Rating Timing															
Trt-Eval Interval										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	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	CAPRENO	3.45	SC	0.027	lb ai/a	1	fl oz/a	4-6"W	A	0 a	0 a	18 ab	22 ab	89 b	85 bc
1	COC	100	SL	1	% v/v	1	% v/v	4-6"W	A					23 c	23 c
1	LIQUID AMS	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	A						
2	CAPRENO	3.45	SC	0.027	lb ai/a	1	fl oz/a	4-6"W	A	0 a	0 a	20 ab	18 bc	93 ab	94 a
2	PERSIST ULTRA	100	SL	1	% v/v	1	% v/v	4-6"W	A					27 abc	35 ab
2	LIQUID AMS	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	A						
3	CAPRENO	3.45	SC	0.027	lb ai/a	1	fl oz/a	4-6"W	A	0 a	0 a	22 a	25 a	96 a	94 a
3	MSO ULTRA	100	SL	1	% v/v	1	% v/v	4-6"W	A					32 a	35 ab
3	LIQUID AMS	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	A						
4	CAPRENO	3.45	SC	0.027	lb ai/a	1	fl oz/a	4-6"W	A	0 a	0 a	18 ab	22 ab	84 c	78 e
4	HSO/MSO	100	SL	0.375	% v/v	0.375	% v/v	4-6"W	A					28 abc	25 bc
4	LIQUID AMS	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	A						
5	CAPRENO	3.45	SC	0.027	lb ai/a	1	fl oz/a	4-6"W	A	0 a	0 a	22 a	25 a	91 b	88 b
5	HSO/MSO	100	SL	0.5	% v/v	0.5	% v/v	4-6"W	A					30 ab	42 a
5	LIQUID AMS	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	A						
6	CAPRENO	3.45	SC	0.027	lb ai/a	1	fl oz/a	4-6"W	A	0 a	0 a	22 a	15 cd	91 b	83 cd
6	HSO/COC	100	SL	0.375	% v/v	0.375	% v/v	4-6"W	A					25 bc	20 c
6	LIQUID AMS	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	A						
7	CAPRENO	3.45	SC	0.027	lb ai/a	1	fl oz/a	4-6"W	A	0 a	0 a	17 b	12 d	91 b	80 de
7	HSO/COC	100	SL	0.5	% v/v	0.5	% v/v	4-6"W	A					28 abc	28 bc
7	LIQUID AMS	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	A						
8	NONTREATED									0 a	0 a	0 c	0 e	0 d	0 f
LSD (P=.05)										0.0	0.0	4.3	6.2	4.4	4.5
Replicate F										0.000	0.000	1.195	1.565	1.525	3.936
Replicate Prob(F)										1.0000	1.0000	0.3317	0.2436	0.2516	0.0440
Treatment F										0.000	0.000	25.732	16.741	499.482	441.692
Treatment Prob(F)										1.0000	1.0000	0.0001	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

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Pest Code	ABUTH	ABUTH
Crop Code		
Rating Date	07-02-09	07-16-09
Rating Data Type	Control	Control
Rating Unit	Percent	Percent
Rating Timing		
Trt-Eval Interval	14 DA-A	28 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	CAPRENO	3.45	SC	0.027	lb ai/a	1	fl oz/a	4-6"W	A	70 b	43 a
1	COC	100	SL	1	% v/v	1	% v/v	4-6"W	A		
1	LIQUID AMS	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	A		
2	CAPRENO	3.45	SC	0.027	lb ai/a	1	fl oz/a	4-6"W	A	80 a	45 a
2	PERSIST ULTRA	100	SL	1	% v/v	1	% v/v	4-6"W	A		
2	LIQUID AMS	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	A		
3	CAPRENO	3.45	SC	0.027	lb ai/a	1	fl oz/a	4-6"W	A	72 b	48 a
3	MSO ULTRA	100	SL	1	% v/v	1	% v/v	4-6"W	A		
3	LIQUID AMS	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	A		
4	CAPRENO	3.45	SC	0.027	lb ai/a	1	fl oz/a	4-6"W	A	70 b	45 a
4	HSO/MSO	100	SL	0.375	% v/v	0.375	% v/v	4-6"W	A		
4	LIQUID AMS	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	A		
5	CAPRENO	3.45	SC	0.027	lb ai/a	1	fl oz/a	4-6"W	A	73 b	48 a
5	HSO/MSO	100	SL	0.5	% v/v	0.5	% v/v	4-6"W	A		
5	LIQUID AMS	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	A		
6	CAPRENO	3.45	SC	0.027	lb ai/a	1	fl oz/a	4-6"W	A	75 ab	43 a
6	HSO/COC	100	SL	0.375	% v/v	0.375	% v/v	4-6"W	A		
6	LIQUID AMS	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	A		
7	CAPRENO	3.45	SC	0.027	lb ai/a	1	fl oz/a	4-6"W	A	80 a	48 a
7	HSO/COC	100	SL	0.5	% v/v	0.5	% v/v	4-6"W	A		
7	LIQUID AMS	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	A		
8	NONTREATED									0 c	0 b
LSD (P=.05)										5.2	10.2
Replicate F										3.529	0.970
Replicate Prob(F)										0.0739	0.4120
Treatment F										262.429	25.416
Treatment Prob(F)										0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

Trial Comments

1. Protocol: Precision Labs.
2. Ratings: CI/WC at 14 + 28 DAT.
3. A dense mat of grass choked out most broadleaf weeds by 14 DAT.
4. Not harvested.