

Dicamba Nozzle by Adjuvants Study - Winfield Solutions.

Trial ID: 12-51E-S130

Location: Belleville Res. Center

Investigator: Bryan Young

General Trial Information

Study Director: Bryan Young
Investigator: Bryan Young **Title:** Professor

Trial Status: F - one-year/final
Initiation Date: 7-4-12

Trial Location

City: Belleville
State/Prov.: IL
Postal Code: 62221
Country: USA

Objectives:

Evaluate different spray droplet size categories and the addition of Interlock on the efficacy of dicamba on broadleaf weeds.

Personnel

Study Director: Bryan Young
Investigator: Bryan Young **Title:** Professor
Affiliation: Southern Illinois University
Address: 1205 Lincoln Drive - AG 176 - MC 4415
Location: Carbondale IL
Postal Code: 62901 **E-mail:** bgyoung@siu.edu
Phone No.: 618-453-7679 **Mobile No.:** 618-713-6471

Crop Description

Crop 1: NONE - Non-crop

Pest Description

Pest 1 Type: W **Code:** ABUTH - Abutilon theophrasti Medik.
Common Name: velvetleaf

Pest 2 Type: W **Code:** IPOSS
Common Name: morningglory, species
Description: Mostly IPOHE, some PHBPU (tall mg.)

Site and Design

Plot Width, Unit: 10 FT **Site Type:** FIELD field
Plot Length, Unit: 40 FT
Plot Area, Unit: 400 FT2 **Tillage Type:** REDTIL reduced-till
Replications: 3 **Study Design:** RACOB� Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	ZEAMD	2011

Maintenance

No.	Maintenance Treatment Name
1.	N 150 LB/A, P205 50 LB/A, K20 100 LB/A

Soil Description

% OM: 1.7 **Texture:** SIL SILT LOAM
pH: 6.6 **Soil Name:** PIERRON
CEC: 10

Additional Measured Elements

Element	Quantity	Unit
P1	75	LB/A
K	347	LB/A

Moisture and Weather Conditions

Overall Moisture Conditions: BELNOR below normal
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

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Application Description

	A
Application Date:	7-4-12
Time of Day:	6:30
Application Method:	Spray
Application Timing:	4-6"W
Application Placement:	BROFOL
Applied By:	JRK
Air Temperature, Unit:	88 F
% Relative Humidity:	55
Wind Velocity, Unit:	0 MPH
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	81 F
Soil Moisture:	BELNOR
% Cloud Cover:	5
Next Rain Occurred On:	7-8-12

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	NONE
Stage Scale Used:	DESC
Stage Majority, Percent:	NA

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	ABUTH W DESC
Stage Majority, Percent:	6
Stage Minimum, Percent:	2
Stage Maximum, Percent:	8
Height, Unit:	5 IN
Height Minimum, Maximum:	1 8
Density, Unit:	0.5 FT2
Pest 2 Code, Type, Scale:	IPOSS W DESC
Stage Majority, Percent:	6
Stage Minimum, Percent:	Coty
Stage Maximum, Percent:	12
Height, Unit:	5 IN
Height Minimum, Maximum:	1 8
Density, Unit:	0.5 FT2

Application Equipment

	A
Appl. Equipment:	CO2 sprayer
Equipment Type:	ALTEVE
Nozzle Type:	See
Nozzle Size:	comment
Boom Length, Unit:	6.67 FT
Spray Volume, Unit:	10 GPA

Southern Illinois University

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Pest Code	ABUTH	ABUTH	ABUTH	IPOSS	IPOSS	IPOSS	
Crop Code	7-11-12	7-18-12	8-1-12	7-11-12	7-18-12	8-1-12	
Rating Date	Control	Control	Control	Control	Control	Control	
Rating Type	Percent	Percent	Percent	Percent	Percent	Percent	
Rating Unit	7 DA-A	14 DA-A	28 DA-A	7 DA-A	14 DA-A	28 DA-A	
Rating Timing							
Trt-Eval Interval							
Trt Treatment No. Name	Form Conc	Form Type	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code
1 FINE TJ60 11003 @ 43.5 PSI 9.4 MPH CLARITY	4 SL		0.125 lb ae/a	4 fl oz/a		4-6"W	A
2 FINE TJ60 11003 @ 43.5 PSI 9.4 MPH CLARITY INTERLOCK	4 SL 100 SL		0.125 lb ae/a 4 fl oz/a	4 fl oz/a 4 fl oz/a		4-6"W 4-6"W	A A
3 MEDIUM XR 11003 @ 43.5 PSI 9.4 MPH CLARITY	4 SL		0.125 lb ae/a	4 fl oz/a		4-6"W	A
4 MEDIUM XR 11003 @ 43.5 PSI 9.4 MPH CLARITY INTERLOCK	4 SL 100 SL		0.125 lb ae/a 4 fl oz/a	4 fl oz/a 4 fl oz/a		4-6"W 4-6"W	A A
5 COARSE AIXR 11004 @ 50 PSI 13.4 MPH CLARITY	4 SL		0.125 lb ae/a	4 fl oz/a		4-6"W	A
6 COARSE AIXR 11004 @ 50 PSI 13.4 MPH CLARITY INTERLOCK	4 SL 100 SL		0.125 lb ae/a 4 fl oz/a	4 fl oz/a 4 fl oz/a		4-6"W 4-6"W	A A
7 VC-XC AI 11004 @ 50 PSI 13.4 MPH CLARITY	4 SL		0.125 lb ae/a	4 fl oz/a		4-6"W	A
8 VC-XC AI 11004 @ 50 PSI 13.4 MPH CLARITY INTERLOCK	4 SL 100 SL		0.125 lb ae/a 4 fl oz/a	4 fl oz/a 4 fl oz/a		4-6"W 4-6"W	A A
9 ULTRA COARSE TTI 11004 @ 43.5 PSI 12.3 MPH CLARITY	4 SL		0.125 lb ae/a	4 fl oz/a		4-6"W	A
10 ULTRA COARSE TTI 11004 @ 43.5 PSI 12.3 MPH CLARITY INTERLOCK	4 SL 100 SL		0.125 lb ae/a 4 fl oz/a	4 fl oz/a 4 fl oz/a		4-6"W 4-6"W	A A
11 NONTREATED							
LSD (P=.05)	9.5	7.0	10.5	3.9	7.6	6.7	
Standard Deviation	5.6	4.1	6.2	2.3	4.5	3.9	
CV	10.45	7.4	10.29	3.76	6.6	5.17	
Replicate F	0.515	1.915	2.147	3.925	4.172	3.008	
Replicate Prob(F)	0.6054	0.1734	0.1430	0.0365	0.0306	0.0721	
Treatment F	33.132	64.017	34.848	236.474	76.391	124.799	
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	

Means followed by same letter do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Trial Comments

1. Protocol: Winfield Solutions.
2. Ratings: CI/WC at 7, 14 and 28 DAT.
3. Nozzle type/size, application PSI, and application speed are per treatment, see treatment list.
4. IPOSS = Morningglory species 80% IPOHE (ivyleaf morningglory) and 20% PHBPU (tall morningglory).
5. Not harvested (non-crop).