

Nozzle by Adjuvant Interaction - Halex GT.

Trial ID: 10-9B

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: 06-24-10

Objectives: Determine the influence and interaction of nozzle type and adjuvant on the efficacy of Halex GT in corn.

Crop 1: ZEAMD Dent corn Variety: P1184HR Description: LL/RR2
 Planting Method: SEEDED Planting Date: 06-24-10
 Rate, Unit: 28000 S/A Depth, Unit: 1.5 IN
 Row Spacing, Unit: 30 IN

Pest 1 Type: W Code: IPOHE Ipomoea hederacea (L.) Jacq. morningglory, ivyleaf
 Pest 2 Type: W Code: AMASS Amaranthus species amaranthus species

Plot Width, Unit: 10 FT Site Type: FIELD
 Plot Length, Unit: 45 FT Tillage Type: REDUCED-TILL
 Replications: 3 Study Design: Randomized Complete Block

Prior Crops, Year
 1. GLXMA 2009

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

% OM: 1.9 Texture: SILT LOAM
 pH: 6.4 Soil Name: BETHALTO
 CEC: 11 Fert. Level: P1: 68 LB/A, K: 349 LB/A

Application Description

A
 Application Date: 07-16-10
 Time of Day: 13:00
 Application Method: Spray
 Application Timing: 6-8"W
 Application Placement: BROFOL
 Applied By: JRK
 Air Temperature, Unit: 86 F
 % Relative Humidity: 68
 Wind Velocity, Unit: 3 MPH
 Wind Direction: NE
 Dew Presence (Y/N): N
 Soil Moisture: ABONOR
 % Cloud Cover: 5

07-16-10
 Crop stage at application: V5-V6
 Height Min, Max (inch): 15 19

Pest Stage At Each Application

Application Date: 07-16-10
 Weed Code: IPOHE
 Stage Majority (leaves): 6
 Stage Min, Max: 2 12
 Height Majority: 6 IN
 Height Min, Max: 1 12
 Density, Unit: 2 FT2
 Weed Code: AMASS
 Stage Majority (leaves): 14
 Stage Min, Max: 4 34
 Height Majority: 9 IN
 Height Min, Max: 4 32
 Density, Unit: 10 FT2

Application Equipment

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

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Pest Code										ZEAMD		ZEAMD		IPOHE		IPOHE		AMASS		AMASS	
Crop Code										07-30-10		08-13-10		07-30-10		08-13-10		07-30-10		08-13-10	
Rating Date										Injury		Injury		Control		Control		Control		Control	
Rating Data Type										Percent		Percent		Percent		Percent		Percent		Percent	
Rating Unit																					
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	XR 11004 at 40 PSI									0 a		0 a		94 ab		96 abc		97 abc		97 a-e	
1	HALEX GT	4.38	CS	1.97	lb ai/a	3.6	pt/a	6-8"W	A												
1	PL 334	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A												
2	TT 11004 at 40 PSI									0 a		0 a		89 b		93 b-e		98 ab		96 c-f	
2	HALEX GT	4.38	CS	1.97	lb ai/a	3.6	pt/a	6-8"W	A												
2	PL 334	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A												
3	AIXR 11003 at 70 PSI									0 a		0 a		89 b		94 a-e		97 abc		96 b-f	
3	HALEX GT	4.38	CS	1.97	lb ai/a	3.6	pt/a	6-8"W	A												
3	PL 334	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A												
4	GA 110-03 at 70 PSI									0 a		0 a		89 b		92 de		94 cd		93 g	
4	HALEX GT	4.38	CS	1.97	lb ai/a	3.6	pt/a	6-8"W	A												
4	PL 334	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A												
5	XR 11004 at 40 PSI									0 a		0 a		91 ab		92 e		96 abc		97 a-e	
5	HALEX GT	4.38	CS	1.97	lb ai/a	3.6	pt/a	6-8"W	A												
5	PL 711	100	SL	0.375	% v/v	0.375	% v/v	6-8"W	A												
6	TT 11004 at 40 PSI									0 a		0 a		94 ab		95 a-e		95 a-d		97 a-e	
6	HALEX GT	4.38	CS	1.97	lb ai/a	3.6	pt/a	6-8"W	A												
6	PL 711	100	SL	0.375	% v/v	0.375	% v/v	6-8"W	A												
7	AIXR 11003 at 70 PSI									0 a		0 a		93 ab		96 abc		99 a		98 ab	
7	HALEX GT	4.38	CS	1.97	lb ai/a	3.6	pt/a	6-8"W	A												
7	PL 711	100	SL	0.375	% v/v	0.375	% v/v	6-8"W	A												
8	GA 110-03 at 70 PSI									0 a		0 a		92 ab		97 ab		98 ab		98 abc	
8	HALEX GT	4.38	CS	1.97	lb ai/a	3.6	pt/a	6-8"W	A												
8	PL 711	100	SL	0.375	% v/v	0.375	% v/v	6-8"W	A												
9	XR 11004 at 40 PSI									0 a		0 a		95 ab		97 a		98 ab		98 abc	
9	HALEX GT	4.38	CS	1.97	lb ai/a	3.6	pt/a	6-8"W	A												
9	PX 6259	100	SL	1.25	% v/v	1.25	% v/v	6-8"W	A												
10	TT 11004 at 40 PSI									0 a		0 a		91 ab		95 a-e		97 abc		98 abc	
10	HALEX GT	4.38	CS	1.97	lb ai/a	3.6	pt/a	6-8"W	A												
10	PX 6259	100	SL	1.25	% v/v	1.25	% v/v	6-8"W	A												
11	AIXR 11003 at 70 PSI									0 a		0 a		92 ab		93 cde		97 abc		97 a-d	
11	HALEX GT	4.38	CS	1.97	lb ai/a	3.6	pt/a	6-8"W	A												
11	PX 6259	100	SL	1.25	% v/v	1.25	% v/v	6-8"W	A												
12	GA 110-03 at 70 PSI									0 a		0 a		94 ab		95 a-e		98 ab		97 a-e	
12	HALEX GT	4.38	CS	1.97	lb ai/a	3.6	pt/a	6-8"W	A												
12	PX 6259	100	SL	1.25	% v/v	1.25	% v/v	6-8"W	A												
13	XR 11004 at 40 PSI									0 a		0 a		96 a		96 a-d		97 abc		97 a-d	
13	HALEX GT	4.38	CS	1.97	lb ai/a	3.6	pt/a	6-8"W	A												
13	PL 714	100	SL	1	% v/v	1	% v/v	6-8"W	A												
14	TT 11004 at 40 PSI									0 a		0 a		96 a		96 abc		98 ab		98 a	
14	HALEX GT	4.38	CS	1.97	lb ai/a	3.6	pt/a	6-8"W	A												
14	PL 714	100	SL	1	% v/v	1	% v/v	6-8"W	A												
15	AIXR 11003 at 70 PSI									0 a		0 a		97 a		97 a		99 a		98 abc	
15	HALEX GT	4.38	CS	1.97	lb ai/a	3.6	pt/a	6-8"W	A												
15	PL 714	100	SL	1	% v/v	1	% v/v	6-8"W	A												
16	GA 110-03 at 70 PSI									0 a		0 a		96 a		96 a-d		99 a		97 a-d	
16	HALEX GT	4.38	CS	1.97	lb ai/a	3.6	pt/a	6-8"W	A												
16	PL 714	100	SL	1	% v/v	1	% v/v	6-8"W	A												
17	XR 11004 at 40 PSI									0 a		0 a		92 ab		97 ab		96 abc		96 def	
17	HALEX GT	4.38	CS	1.97	lb ai/a	3.6	pt/a	6-8"W	A												
17	PL 325	100	SL	1.25	% v/v	1.25	% v/v	6-8"W	A												
18	TT 11004 at 40 PSI									0 a		0 a		92 ab		93 cde		96 abc		95 fg	
18	HALEX GT	4.38	CS	1.97	lb ai/a	3.6	pt/a	6-8"W	A												
18	PL 325	100	SL	1.25	% v/v	1.25	% v/v	6-8"W	A												

Location: Belleville Res. Center

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

Trial Comments

1. Protocol: Precision Labs.
2. CI/WC at 14 and 28 DAT.
3. Nozzle size and type and spray pressure are per treatment, see treatment list. All applications made at 12 MPH.
4. AMASS = Amaranth species including AMATA (common waterhemp) and AMAPA (Palmer amaranth).
5. Not harvested.