

Adjuvant Evaluation for Volunteer Roundup Ready Corn Control - Winfield Solutions.

Trial ID: 08-WU12-SW70 Location: Agronomy Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
 City State Zip Country: Carbondale IL 62901 USA
 Trial Status: FINAL Initiation Date: 06-23-08

Objectives: Evaluate adjuvants for volunteer Roundup
 Ready corn control.

Crop 1: GLXMA Soybean Variety: AG 4405 RR
 Planting Method: SEEDED Planting Date: 06-23-08
 Rate, Unit: 75 LB/A Depth, Unit: 1.0 IN
 Row Spacing, Unit: 30 IN
 Soil Moisture: NORMAL

Pest 1 Type: W Code: ZEAMX Zea mays L. corn, volunteer
 Pest 2 Type: W Code: XANST Xanthium strumarium L. cocklebur, common
 Pest 3 Type: W Code: IPOLA Ipomoea lacunosa L. morningglory, pitted
 Pest 4 Type: W Code: AMATA Amaranthus rudis Sauer waterhemp, common

Plot Width, Unit: 10 FT Site Type: FIELD
 Plot Length, Unit: 30 FT Tillage Type: REDUCED-TILL
 Replications: 3 Study Design: Randomized Complete Block

Prior Crops, Year
 1. ZEAMD 2007

Field Prep./Maintenance: N 0 LB/A, P205 0 LB/A, K20 0 LB/A

% OM: 2.8 Texture: SILT LOAM
 pH: 6.7
 CEC: 10 Fert. Level: P1: 92 LB/A, K: 334 LB/A

Application Description

A
 Application Date: 07-15-08
 Time of Day: 9:30
 Application Method: Spray
 Application Timing: 12-18"CN
 Application Placement: BROFOL
 Applied By: TGM
 Air Temperature, Unit: 88 F
 % Relative Humidity: 54
 Wind Velocity, Unit: 2 MPH
 Dew Presence (Y/N): N
 Soil Temperature, Unit: 91 F
 Soil Moisture: NORMAL
 % Cloud Cover: 0

07-15-08
 Crop stage at application: V2
 Height Min, Max (inch): 6 8

Pest Stage At Each Application

Application Date: 07-15-08
 Weed Code: ZEAMX
 Stage Majority (leaves): 5
 Stage Min, Max: 4 6
 Height Majority: 15 IN
 Height Min, Max: 14 18
 Density, Unit: 2 FT2
 Weed Code: XANST
 Stage Majority (leaves): 5
 Stage Min, Max: 3 7
 Height Majority: 10 IN
 Height Min, Max: 8 12
 Density, Unit: 2 FT2
 Weed Code: IPOLA
 Stage Majority (leaves): 9
 Stage Min, Max: 3 14
 Height Majority: 6 IN
 Height Min, Max: 3 7
 Density, Unit: 3 FT2
 Weed Code: AMATA
 Stage Majority (leaves): 7
 Stage Min, Max: 4 8
 Height Majority: 5 IN
 Height Min, Max: 1 7
 Density, Unit: 3 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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								ZEAMX	ZEAMX	XANST	XANST
				GLXMA	GLXMA	07-29-08	08-12-08	07-29-08	08-12-08	07-29-08	08-12-08
				Injury	Injury	Control	Control	Control	Control	Control	Control
				Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
				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	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	0 a	0 a
1	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A	0 d	0 e
										99 a	99 a
2	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	0 a	0 a
2	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A	0 d	2 e
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A	99 a	98 a
3	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	0 a	0 a
3	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A	57 c	37 d
3	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	12-18"CN	A	99 a	98 a
3	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A		
4	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	0 a	0 a
4	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A	98 a	96 ab
4	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	12-18"CN	A	99 a	99 a
4	PRIME OIL COC	100	SL	0.25	% v/v	0.25	% v/v	12-18"CN	A		
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A		
5	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	0 a	0 a
5	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A	97 a	94 b
5	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	12-18"CN	A	99 a	99 a
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A		
6	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	0 a	0 a
6	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A	98 a	96 ab
6	AG 05006	100	SL	0.5	% v/v	0.5	% v/v	12-18"CN	A	99 a	99 a
6	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A		
7	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	0 a	0 a
7	SELECT MAX	0.97	EC	0.0303	lb ai/a	4	fl oz/a	12-18"CN	A	92 b	78 c
										99 a	99 a
8	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	0 a	0 a
8	SELECT MAX	0.97	EC	0.0303	lb ai/a	4	fl oz/a	12-18"CN	A	97 a	94 b
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A	99 a	99 a
9	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	0 a	0 a
9	SELECT MAX	0.97	EC	0.0303	lb ai/a	4	fl oz/a	12-18"CN	A	97 a	94 b
9	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	12-18"CN	A	99 a	99 a
9	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A		
10	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	0 a	0 a
10	SELECT MAX	0.97	EC	0.0303	lb ai/a	4	fl oz/a	12-18"CN	A	99 a	97 ab
10	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	12-18"CN	A	99 a	99 a
10	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A		
11	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	0 a	0 a
11	SELECT MAX	0.97	EC	0.0303	lb ai/a	4	fl oz/a	12-18"CN	A	98 a	98 a
11	AG 05006	100	SL	0.5	% v/v	0.5	% v/v	12-18"CN	A	99 a	99 a
11	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A		
12	NONTREATED									0 a	0 b
LSD (P=.05)										0.0	0.8
Replicate F										0.000	0.478
Replicate Prob(F)										1.0000	0.6262
Treatment F										0.000	10521.773
Treatment Prob(F)										1.0000	0.0001

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

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Location: Agronomy Res. Center

Pest Code	IPOLA	IPOLA	AMATA	AMATA
Crop Code				
Rating Date	07-29-08	08-12-08	07-29-08	08-12-08
Rating Data Type	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent
Rating Timing				
Trt-Eval Interval	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	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	60	d	63	bcd
1	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A			91	a
2	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	62	cd	68	abc
2	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A			94	a
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A				
3	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	68	abc	62	cd
3	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A			92	a
3	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	12-18"CN	A				
3	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A				
4	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	70	ab	68	abc
4	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A			93	a
4	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	12-18"CN	A				
4	PRIME OIL COC	100	SL	0.25	% v/v	0.25	% v/v	12-18"CN	A				
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A				
5	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	70	ab	71	ab
5	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A			97	a
5	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	12-18"CN	A				
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A				
6	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	68	abc	73	a
6	SELECT	2	EC	0.0313	lb ai/a	2	fl oz/a	12-18"CN	A			94	a
6	AG 05006	100	SL	0.5	% v/v	0.5	% v/v	12-18"CN	A				
6	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A				
7	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	63	bcd	57	de
7	SELECT MAX	0.97	EC	0.0303	lb ai/a	4	fl oz/a	12-18"CN	A			91	a
8	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	73	a	69	abc
8	SELECT MAX	0.97	EC	0.0303	lb ai/a	4	fl oz/a	12-18"CN	A			96	a
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A				
9	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	68	abc	68	abc
9	SELECT MAX	0.97	EC	0.0303	lb ai/a	4	fl oz/a	12-18"CN	A			95	a
9	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	12-18"CN	A				
9	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A				
10	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	58	d	53	e
10	SELECT MAX	0.97	EC	0.0303	lb ai/a	4	fl oz/a	12-18"CN	A			97	a
10	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	12-18"CN	A				
10	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A				
11	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	12-18"CN	A	72	a	68	abc
11	SELECT MAX	0.97	EC	0.0303	lb ai/a	4	fl oz/a	12-18"CN	A			96	a
11	AG 05006	100	SL	0.5	% v/v	0.5	% v/v	12-18"CN	A				
11	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	12-18"CN	A				
12	NONTREATED									0	e	0	f
	LSD (P=.05)									7.9		7.7	
	Replicate F									0.226		1.034	
	Replicate Prob(F)									0.7997		0.3723	
	Treatment F									54.780		56.895	
	Treatment Prob(F)									0.0001		0.0001	

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

Trial Comments

1. Protocol: Winfield Solutions:
2. Ratings: CI/WC at 14 + 28 DAT.
3. Volunteer corn was planted 6-23-08 and was DKC 61-73 RR.
4. At the Agronomy Research Center in Carbondale the above normal rainfall in May 2008 delayed corn and soybean planting.
5. DA-A = Days after 12-18" CN application.
6. Not harvested.