

GlyStar Adjuvant Evaluation in Roundup Ready Corn - United Suppliers.

Trial ID: 09-11A-W45

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: 06-29-09

Objectives: Evaluate the performance of commercial and experimental surfactants for use with glyphosate.

Crop 1: ZEAMD Dent corn Variety: DKC 61-73 Description: RR2/YGCB
 Planting Method: SEEDED Planting Date: 06-29-09
 Rate, Unit: 28000 S/A Depth, Unit: 1.5 IN
 Row Spacing, Unit: 30 IN

Pest 1 Type: W Code: GGGAN grasses, annual
 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: IPOHE Ipomoea hederacea (L.) Jacq. morningglory, ivyleaf

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 150 LB/A

% OM: 2 Texture: SILT LOAM
 pH: 5.6 Soil Name: PIERRON
 CEC: 11 Fert. Level: P1 75 LB/A, K 348 LB/A

Application Description

A
 Application Date: 07-20-09
 Time of Day: 16:00
 Application Method: Spray
 Application Timing: 4-6"W
 Application Placement: BROFOL
 Applied By: NVH
 Air Temperature, Unit: 80 F
 % Relative Humidity: 70
 Wind Velocity, Unit: 5 MPH
 Wind Direction: E
 Dew Presence (Y/N): N
 Soil Moisture: NORMAL
 % Cloud Cover: 20

07-20-09
 Crop stage at application: V5
 Height Min, Max (inch): 8 10

Pest Stage At Each Application

Application Date: 07-20-09
 Weed Code: GGGAN
 Stage Majority (leaves): 5
 Stage Min, Max: 1 10
 Height Majority: 5 IN
 Height Min, Max: 2 10
 Density, Unit: 1 FT2
 Weed Code: AMBTR
 Stage Majority (leaves): 4
 Stage Min, Max: COTY 7
 Height Majority: 5 IN
 Height Min, Max: 0.5 10
 Density, Unit: 0.5 FT2
 Weed Code: AMATA
 Stage Majority (leaves): 5
 Stage Min, Max: 3 8
 Height Majority: 3 IN
 Height Min, Max: 1 4
 Density, Unit: 3 FT2
 Weed Code: IPOHE
 Stage Majority (leaves): 4
 Stage Min, Max: 3 6
 Height Majority: 4.5 IN
 Height Min, Max: 2 6
 Density, Unit: 1 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									ZEAMD		GGGAN	GGGAN	AMBTR	AMBTR	AMATA	AMATA
Crop Code									08-03-09	08-17-09	08-03-09	08-17-09	08-03-09	08-17-09	08-03-09	08-17-09
Rating Date									Injury	Injury	Control	Control	Control	Control	Control	Control
Rating Data Type									Percent	Percent	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	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	GLY STAR ORIGINAL	3	SL	0.75 lb ae/a		32 fl oz/a		4-6"W	A	0 a	0 a	99 a	99 a	96 b	97 a	99 a
1	CHEMSURF 80	100	SL	0.5 % v/v		0.5 % v/v		4-6"W	A							
2	GLY STAR ORIGINAL	3	SL	0.75 lb ae/a		32 fl oz/a		4-6"W	A	0 a	0 a	99 a	99 a	96 ab	97 a	97 ab
2	CHEMSURF 90	100	SL	0.5 % v/v		0.5 % v/v		4-6"W	A							
3	GLY STAR ORIGINAL	3	SL	0.75 lb ae/a		32 fl oz/a		4-6"W	A	0 a	0 a	99 a	99 a	98 ab	97 a	99 a
3	USEX109	100	SL	0.125 % v/v		0.125 % v/v		4-6"W	A							
4	GLY STAR ORIGINAL	3	SL	0.75 lb ae/a		32 fl oz/a		4-6"W	A	0 a	0 a	99 a	99 a	97 ab	97 a	98 a
4	USEX109	100	SL	0.25 % v/v		0.25 % v/v		4-6"W	A							
5	GLY STAR ORIGINAL	3	SL	0.75 lb ae/a		32 fl oz/a		4-6"W	A	0 a	0 a	99 a	99 a	98 a	98 a	99 a
5	USEX209	100	SL	0.125 % v/v		0.125 % v/v		4-6"W	A							
6	GLY STAR ORIGINAL	3	SL	0.75 lb ae/a		32 fl oz/a		4-6"W	A	0 a	0 a	99 a	99 a	97 ab	97 a	95 b
6	USEX209	100	SL	0.25 % v/v		0.25 % v/v		4-6"W	A							
7	GLY STAR ORIGINAL	3	SL	0.75 lb ae/a		32 fl oz/a		4-6"W	A	0 a	0 a	99 a	99 a	96 ab	97 a	98 a
8	NONTREATED									0 a	0 a	0 b	0 b	0 c	0 b	0 c
LSD (P=.05)										0.0	0.0	0.0	0.0	1.9	1.5	3.1
Replicate F										0.000	0.000	0.000	0.000	1.276	0.168	0.524
Replicate Prob(F)										1.0000	1.0000	1.0000	1.0000	0.3097	0.8470	0.6033
Treatment F										0.000	0.000	0.000	0.000	2915.463	4756.480	1159.968
Treatment Prob(F)										1.0000	1.0000	1.0000	1.0000	0.0001	0.0001	0.0001

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

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Pest Code		IPOHE	IPOHE
Crop Code			
Rating Date		08-03-09	08-17-09
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	GLY STAR ORIGINAL	3	SL	0.75	lb ae/a	32	fl oz/a	4-6"W	A	89 a	94 a
1	CHEMSURF 80	100	SL	0.5	% v/v	0.5	% v/v	4-6"W	A		
2	GLY STAR ORIGINAL	3	SL	0.75	lb ae/a	32	fl oz/a	4-6"W	A	86 ab	93 a
2	CHEMSURF 90	100	SL	0.5	% v/v	0.5	% v/v	4-6"W	A		
3	GLY STAR ORIGINAL	3	SL	0.75	lb ae/a	32	fl oz/a	4-6"W	A	87 a	94 a
3	USEX109	100	SL	0.125	% v/v	0.125	% v/v	4-6"W	A		
4	GLY STAR ORIGINAL	3	SL	0.75	lb ae/a	32	fl oz/a	4-6"W	A	80 d	89 c
4	USEX109	100	SL	0.25	% v/v	0.25	% v/v	4-6"W	A		
5	GLY STAR ORIGINAL	3	SL	0.75	lb ae/a	32	fl oz/a	4-6"W	A	87 a	94 a
5	USEX209	100	SL	0.125	% v/v	0.125	% v/v	4-6"W	A		
6	GLY STAR ORIGINAL	3	SL	0.75	lb ae/a	32	fl oz/a	4-6"W	A	84 bc	92 ab
6	USEX209	100	SL	0.25	% v/v	0.25	% v/v	4-6"W	A		
7	GLY STAR ORIGINAL	3	SL	0.75	lb ae/a	32	fl oz/a	4-6"W	A	82 cd	90 bc
8	NONTREATED									0 e	0 d
LSD (P=.05)										3.1	2.3
Replicate F										0.781	2.177
Replicate Prob(F)										0.4770	0.1502
Treatment F										896.368	1800.870
Treatment Prob(F)										0.0001	0.0001

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

Trial Comments

1. Protocol: United Suppliers.
2. Ratings: CI/WC at 14 + 28 DAT.
3. GGGAN = Annual grasses including SETFA (giant foxtail) and PANDI (fall panicum).
4. Not harvested.