

Nonionic Surfactants with Glyphosate - Winfield Solutions.

Trial ID: 08-19B-N55 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: 06-18-08

Objectives: Evaluate experimental surfactant-based adjuvants for use with unloaded glyphosate formulations.

Crop 1: GLXMA Soybean Variety: AG 4404 RR/STS
 Planting Method: SEEDS Planting Date: 06-18-08
 Rate, Unit: 75 LB/A Depth, Unit: 1.0 IN
 Row Spacing, Unit: 30 IN

Pest 1 Type: W Code: SETFA Setaria faberi Herrm. foxtail, giant
 Pest 2 Type: W Code: ABUTH Abutilon theophrasti Medicus velvetleaf
 Pest 3 Type: W Code: IPOHE Ipomoea hederacea (L.) jacq. morningglory, annual

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. ZEAMD 2007

Field Prep./Maintenance: N 0 LB/A, P205 50 LB/A, K20 100 LB/A

% OM: 2.9 Texture: SILT LOAM
 pH: 6.2 Soil Name: BETHALTO
 CEC: 14 Fert. Level: P1 79 LB/A, K 557 LB/A

Application Description

A
 Application Date: 07-14-08
 Time of Day: 10:00
 Application Method: Spray
 Application Timing: 6-8"W
 Application Placement: BROFOL
 Applied By: DKT
 Air Temperature, Unit: 79 F
 % Relative Humidity: 71
 Wind Velocity, Unit: 2 MPH
 Dew Presence (Y/N): N
 Soil Temperature, Unit: 87 F
 Soil Moisture: ABONOR

07-14-08
 Crop stage at application: V2
 Height Min, Max (inch): 8 10

Pest Stage At Each Application

Application Date: 07-14-08
 Weed Code: SETFA
 Stage Majority (leaves): 4
 Stage Min, Max: 1 6
 Height Majority: 10 IN
 Height Min, Max: 2 12
 Density, Unit: 6 FT2
 Weed Code: ABUTH
 Stage Majority (leaves): 4
 Stage Min, Max: 1 5
 Height Majority: 6 IN
 Height Min, Max: 2 8
 Density, Unit: 1 FT2
 Weed Code: IPOHE
 Stage Majority (leaves): 6
 Stage Min, Max: COTY 10
 Height Majority: 4 IN
 Height Min, Max: 1 6
 Density, Unit: 2 FT2

Application Equipment

Appl. Equipment: CO2 sprayer
 Operating Pressure: 30 PSI
 Nozzle Type: Flat fan
 Nozzle Size: XR 110015
 Boom Length, Unit: 7.5 FT
 Spray Volume, Unit: 10 GPA

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Pest Code								SETFA	SETFA	ABUTH	ABUTH	IPOHE	IPOHE			
Crop Code								GLXMA	GLXMA							
Rating Date								07-28-08	08-11-08	07-28-08	08-11-08	07-28-08	08-11-08			
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	Other Rate	Other Rate	Growth Stage	Appl Code								
1	NONTREATED								0 a	0 a	0 b	0 b	0 c	0 e	0 c	0 d
2	TOUCHDOWN HI-TECH	5	SL	0.188 lb ae/a	4.8 fl oz/a	6-8"W	A		0 a	0 a	99 a	99 a	70 ab	40 ab	68 ab	50 c
2	PREFERENCE	100	SL	0.25 % v/v	0.25 % v/v	6-8"W	A									
3	TOUCHDOWN HI-TECH	5	SL	0.188 lb ae/a	4.8 fl oz/a	6-8"W	A		0 a	0 a	99 a	99 a	75 a	38 abc	72 a	57 abc
3	AG 03019	100	SL	0.25 % v/v	0.25 % v/v	6-8"W	A									
4	TOUCHDOWN HI-TECH	5	SL	0.188 lb ae/a	4.8 fl oz/a	6-8"W	A		0 a	0 a	99 a	99 a	50 b	22 cd	50 b	47 c
4	AG 03037	100	SL	0.25 % v/v	0.25 % v/v	6-8"W	A									
5	TOUCHDOWN HI-TECH	5	SL	0.188 lb ae/a	4.8 fl oz/a	6-8"W	A		0 a	0 a	99 a	99 a	80 a	52 a	70 ab	57 abc
5	AG 05045	100	SL	0.25 % v/v	0.25 % v/v	6-8"W	A									
6	TOUCHDOWN HI-TECH	5	SL	0.188 lb ae/a	4.8 fl oz/a	6-8"W	A		0 a	0 a	99 a	99 a	70 ab	37 a-d	67 ab	65 a
6	AG 06001	100	SL	0.25 % v/v	0.25 % v/v	6-8"W	A									
7	TOUCHDOWN HI-TECH	5	SL	0.188 lb ae/a	4.8 fl oz/a	6-8"W	A		0 a	0 a	99 a	99 a	68 ab	28 bcd	68 ab	52 bc
7	AG 06011	100	SL	5 fl oz/a	5 fl oz/a	6-8"W	A									
8	TOUCHDOWN HI-TECH	5	SL	0.188 lb ae/a	4.8 fl oz/a	6-8"W	A		0 a	0 a	99 a	99 a	58 ab	20 d	75 a	62 ab
8	AG 06099	100	SL	0.25 % v/v	0.25 % v/v	6-8"W	A									
9	TOUCHDOWN HI-TECH	5	SL	0.188 lb ae/a	4.8 fl oz/a	6-8"W	A		0 a	0 a	99 a	99 a	60 ab	32 bcd	75 a	57 abc
9	AG 07008	100	SL	0.25 % v/v	0.25 % v/v	6-8"W	A									
10	TOUCHDOWN HI-TECH	5	SL	0.188 lb ae/a	4.8 fl oz/a	6-8"W	A		0 a	0 a	99 a	99 a	77 a	40 ab	77 a	62 ab
10	AG 08004	100	SL	0.5 % v/v	0.5 % v/v	6-8"W	A									
LSD (P=.05)									0.0	0.0	0.0	0.0	23.5	17.5	21.1	11.5
Replicate F									0.000	0.000	0.000	0.000	1.138	0.902	0.335	2.296
Replicate Prob(F)									1.0000	1.0000	1.0000	1.0000	0.3424	0.4235	0.7197	0.1293
Treatment F									0.000	0.000	0.000	0.000	8.659	5.962	10.544	23.259
Treatment Prob(F)									1.0000	1.0000	1.0000	1.0000	0.0001	0.0007	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. At the Belleville Research Center the above normal rainfall in spring 2008 (no more than four consecutive rain-free days between March 22 and June 15) delayed corn and soybean planting until mid-June.
4. DA-A = Days after the 6-8"W application.
5. Not harvested.