

Glyphosate plus Laudis Adjuvant Evaluation - Precision Labs.

Trial ID: 08-WU12-WMN50 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: Assess the efficacy of experimental adjuvants for tank-mixtures of glyphosate plus Laudis.

Crop 1: ZEAMD Dent corn Variety: DKC 61-73 RR2/YGCB
 Planting Method: SEEDED Planting Date: 06-23-08
 Rate, Unit: 29000 S/A Depth, Unit: 1.5 IN
 Row Spacing, Unit: 30 IN

Pest 1 Type: W Code: SETFA Setaria faberi Herrm. foxtail, giant
 Pest 2 Type: W Code: IPOHE Ipomoea hederacea (L.) jacq. morningglory, annual
 Pest 3 Type: W Code: GLXMA Glycine max soybean, volunteer
 Pest 4 Type: W Code: AMASS Amaranthus sp. amaranth, species
 Pest 5 Type: W Code: BRAPP Brachiaria platyphylla (Griseb.) signalgrass, broadleaf

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: 10:00
 Application Method: Spray
 Application Timing: 6-8"W
 Application Placement: BROFOL
 Applied By: DKT
 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: V5
 Height Min, Max (inch): 14 18

Pest Stage At Each Application

Application Date: 07-15-08
 Weed Code: SETFA
 Stage Majority (leaves): 5
 Stage Min, Max: 3 8
 Height Majority: 9 IN
 Height Min, Max: 4 12
 Density, Unit: 0.5 FT2
 Weed Code: IPOHE
 Stage Majority (leaves): 9
 Stage Min, Max: 3 14
 Height Majority: 6 IN
 Height Min, Max: 3 7
 Density, Unit: 3 FT2
 Weed Code: GLXMA
 Stage Majority (leaves): 2
 Stage Min, Max: 2 3
 Height Majority: 7 IN
 Height Min, Max: 6 8
 Density, Unit: 3 FT2
 Weed Code: AMASS
 Stage Majority (leaves): 7
 Stage Min, Max: 4 9
 Height Majority: 5 IN
 Height Min, Max: 1 10
 Density, Unit: 4 FT2
 Weed Code: BRAPP
 Stage Majority (leaves): 5
 Stage Min, Max: 3 8
 Height Majority: 9 IN
 Height Min, Max: 4 12
 Density, Unit: 0.1 FT2

Glyphosate plus Laudis Adjuvant Evaluation - Precision Labs.

Trial ID: 08-WU12-WMN50

Location: Agronomy Res. Center

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

Glyphosate plus Laudis Adjuvant Evaluation - Precision Labs.

Trial ID: 08-WU12-WMN50 Location: Agronomy Res. Center

										SETFA	SETFA	IPOHE	IPOHE	GLXMA	GLXMA	
										ZEAMD	ZEAMD	07-29-08	08-12-08	07-29-08	08-12-08	
										Injury	Injury	Control	Control	Control	Control	
										Percent	Percent	Percent	Percent	Percent	Percent	
										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 Unit	Growth Stage	Appl Code								
1	ROUNDUP P-MAX	4.5 SL		0.25 lb ae/a	7.1 fl oz/a		6-8"W	A	0 a	0 a	99 a	99 a	63 a	67 abc	90 bc	94 abc
1	LAUDIS	3.5 SC		0.0273 lb ai/a	1 fl oz/a		6-8"W	A								
1	AMS	100 SG		1 % w/w	8.5 lb/100 gal		6-8"W	A								
2	ROUNDUP P-MAX	4.5 SL		0.25 lb ae/a	7.1 fl oz/a		6-8"W	A	0 a	0 a	98 a	98 a	72 a	60 bcd	94 ab	97 ab
2	LAUDIS	3.5 SC		0.0273 lb ai/a	1 fl oz/a		6-8"W	A								
2	PX 71500	100 SL		0.5 % v/v	0.5 % v/v		6-8"W	A								
3	ROUNDUP P-MAX	4.5 SL		0.25 lb ae/a	7.1 fl oz/a		6-8"W	A	0 a	0 a	98 a	98 a	73 a	63 a-d	96 a	98 a
3	LAUDIS	3.5 SC		0.0273 lb ai/a	1 fl oz/a		6-8"W	A								
3	PX 71501	100 SL		0.5 % v/v	0.5 % v/v		6-8"W	A								
4	ROUNDUP P-MAX	4.5 SL		0.25 lb ae/a	7.1 fl oz/a		6-8"W	A	0 a	0 a	99 a	99 a	67 a	59 bcd	94 ab	97 ab
4	LAUDIS	3.5 SC		0.0273 lb ai/a	1 fl oz/a		6-8"W	A								
4	PX 08012	100 SL		0.5 % v/v	0.5 % v/v		6-8"W	A								
5	ROUNDUP P-MAX	4.5 SL		0.25 lb ae/a	7.1 fl oz/a		6-8"W	A	0 a	0 a	99 a	99 a	75 a	70 ab	93 abc	97 ab
5	LAUDIS	3.5 SC		0.0273 lb ai/a	1 fl oz/a		6-8"W	A								
5	PX 08012	100 SL		1 % v/v	1 % v/v		6-8"W	A								
6	ROUNDUP P-MAX	4.5 SL		0.25 lb ae/a	7.1 fl oz/a		6-8"W	A	0 a	0 a	99 a	99 a	73 a	75 a	92 abc	92 cd
6	LAUDIS	3.5 SC		0.0273 lb ai/a	1 fl oz/a		6-8"W	A								
6	PX 74802	100 SL		0.125 % v/v	0.125 % v/v		6-8"W	A								
6	AMS	100 SG		1 % w/w	8.5 lb/100 gal		6-8"W	A								
7	ROUNDUP P-MAX	4.5 SL		0.25 lb ae/a	7.1 fl oz/a		6-8"W	A	0 a	0 a	99 a	99 a	70 a	65 a-d	92 abc	96 ab
7	LAUDIS	3.5 SC		0.0273 lb ai/a	1 fl oz/a		6-8"W	A								
7	PEN-A-TRATE II	100 SL		0.25 % v/v	0.25 % v/v		6-8"W	A								
7	AMS	100 SG		1 % w/w	8.5 lb/100 gal		6-8"W	A								
8	ROUNDUP P-MAX	4.5 SL		0.25 lb ae/a	7.1 fl oz/a		6-8"W	A	0 a	0 a	98 a	98 a	72 a	53 d	90 bc	93 bc
8	LAUDIS	3.5 SC		0.0273 lb ai/a	1 fl oz/a		6-8"W	A								
8	PL 33100	100 SL		2.5 % v/v	2.5 % v/v		6-8"W	A								
9	ROUNDUP P-MAX	4.5 SL		0.25 lb ae/a	7.1 fl oz/a		6-8"W	A	0 a	0 a	99 a	99 a	72 a	57 cd	89 c	88 d
9	LAUDIS	3.5 SC		0.0273 lb ai/a	1 fl oz/a		6-8"W	A								
9	PL 71100	100 SL		0.375 % v/v	0.375 % v/v		6-8"W	A								
10	NONTREATED								0 a	0 a	0 b	0 b	0 b	0 e	0 d	0 e
LSD (P=.05)									0.0	0.0	1.1	1.6	13.8	11.7	4.3	4.0
Replicate F									0.000	0.000	0.527	0.487	1.558	0.801	0.567	0.866
Replicate Prob(F)									1.0000	1.0000	0.6000	0.6229	0.2377	0.4642	0.5772	0.4373
Treatment F									0.000	0.000	6596.444	3279.099	23.742	28.394	398.974	491.530
Treatment Prob(F)									1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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

Glyphosate plus Laudis Adjuvant Evaluation - Precision Labs.

Trial ID: 08-WU12-WMN50

Location: Agronomy Res. Center

Pest Code	AMASS	AMASS	BRAPP	BRAPP
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	ROUNDUP P-MAX	4.5	SL	0.25	lb ae/a	7.1	fl oz/a	6-8"W	A	98 a	98 ab	97 ab	97 a
1	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A				
1	AMS	100	SG	1	% w/w	8.5	lb/100 gal	6-8"W	A				
2	ROUNDUP P-MAX	4.5	SL	0.25	lb ae/a	7.1	fl oz/a	6-8"W	A	99 a	99 a	89 c	87 cd
2	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A				
2	PX 71500	100	SL	0.5	% v/v	0.5	% v/v	6-8"W	A				
3	ROUNDUP P-MAX	4.5	SL	0.25	lb ae/a	7.1	fl oz/a	6-8"W	A	98 a	98 ab	89 c	91 bc
3	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A				
3	PX 71501	100	SL	0.5	% v/v	0.5	% v/v	6-8"W	A				
4	ROUNDUP P-MAX	4.5	SL	0.25	lb ae/a	7.1	fl oz/a	6-8"W	A	99 a	98 ab	88 cd	90 cd
4	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A				
4	PX 08012	100	SL	0.5	% v/v	0.5	% v/v	6-8"W	A				
5	ROUNDUP P-MAX	4.5	SL	0.25	lb ae/a	7.1	fl oz/a	6-8"W	A	98 a	99 ab		
5	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A				
5	PX 08012	100	SL	1	% v/v	1	% v/v	6-8"W	A				
6	ROUNDUP P-MAX	4.5	SL	0.25	lb ae/a	7.1	fl oz/a	6-8"W	A	99 a	99 a	98 a	95 ab
6	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A				
6	PX 74802	100	SL	0.125	% v/v	0.125	% v/v	6-8"W	A				
6	AMS	100	SG	1	% w/w	8.5	lb/100 gal	6-8"W	A				
7	ROUNDUP P-MAX	4.5	SL	0.25	lb ae/a	7.1	fl oz/a	6-8"W	A	99 a	99 ab	90 bc	90 cd
7	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A				
7	PEN-A-TRATE II	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A				
7	AMS	100	SG	1	% w/w	8.5	lb/100 gal	6-8"W	A				
8	ROUNDUP P-MAX	4.5	SL	0.25	lb ae/a	7.1	fl oz/a	6-8"W	A	96 a	97 ab	81 d	78 e
8	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A				
8	PL 33100	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
9	ROUNDUP P-MAX	4.5	SL	0.25	lb ae/a	7.1	fl oz/a	6-8"W	A	96 a	97 b	88 cd	85 d
9	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A				
9	PL 71100	100	SL	0.375	% v/v	0.375	% v/v	6-8"W	A				
10	NONTREATED									0 b	0 c	0 e	0 f
LSD (P=.05)										3.4	1.9	7.6	5.3
Replicate F										1.329	1.721	3.254	2.061
Replicate Prob(F)										0.2894	0.2070	0.0776	0.1737
Treatment F										733.265	2452.668	156.590	319.474
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001

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

Trial Comments

1. Protocol: Precision Labs.
2. Ratings: CI/WC at 14 + 28 DAT.
3. At the Agronomy Research Center in Carbondale the above normal rainfall in May 2008 delayed corn and soybean planting.
4. AMASS = Amaranth species including AMARE and AMATA.
5. DA-A = Days after the 6-8"W application.
6. Not harvested.