

## Glyphosate plus Laudis Adjuvant Study - Winfield Solutions.

Trial ID: 08-6B-S120      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: 06-14-08

Objectives: Evaluate the efficacy of commercial and experimental adjuvants with the combination of glyphosate and Laudis.

Crop 1: ZEAMD Dent corn      Variety: P33K44  
 Planting Method: SEEDED      Planting Date: 06-14-08  
 Rate, Unit: 28000 S/A      Depth, Unit: 1.5 IN  
 Row Spacing, Unit: 30 IN

Pest 1 Type: W      Code: PANDI      Panicum dichotomiflorum Michx.      panicum, fall  
 Pest 2 Type: W      Code: AMATA      Amaranthus rudis Sauer      waterhemp, common  
 Pest 3 Type: W      Code: CHEAL      Chenopodium album L.      lambsquarters, common

Plot Width, Unit: 10 FT      Site Type: FIELD  
 Plot Length, Unit: 32 FT      Tillage Type: NO-TILL  
 Replications: 3      Study Design: Randomized Complete Block

Prior Crops, Year  
 1. GLXMA 2007

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

% OM: 1.6      Texture: SILT LOAM  
 pH: 6.4      Soil Name: CASEYVILLE  
 CEC: 8      Fert. Level: P1 81 LB/A, K 414 LB/A

## Application Description

A  
 Application Date: 07-09-08  
 Time of Day: 15:00  
 Application Method: Spray  
 Application Timing: 6-8"W  
 Application Placement: BROFOL  
 Applied By: DKT  
 Air Temperature, Unit: 84 F  
 % Relative Humidity: 56  
 Wind Velocity, Unit: 2 MPH  
 Dew Presence (Y/N): N  
 Soil Temperature, Unit: 85 F  
 Soil Moisture: ABONOR

07-09-08  
 Crop stage at application: V6  
 Height Min, Max (inch): 22 24

## Pest Stage At Each Application

Application Date: 07-09-08  
 Weed Code: PANDI  
 Stage Majority (leaves): 5  
 Stage Min, Max: 2 6  
 Height Majority: 8 IN  
 Height Min, Max: 4 14  
 Density, Unit: 3 FT2  
 Weed Code: AMATA  
 Stage Majority (leaves): 12  
 Stage Min, Max: 6 16  
 Height Majority: 7 IN  
 Height Min, Max: 5 8  
 Density, Unit: 3 FT2  
 Weed Code: CHEAL  
 Stage Majority (leaves): 2  
 Stage Min, Max: COTY 2  
 Height Majority: 2 IN  
 Height Min, Max: 1 3  
 Density, Unit: 0.1 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								PANDI	PANDI	AMATA	AMATA				
Crop Code								ZEAMD	ZEAMD						
Rating Date								07-23-08	08-06-08	07-23-08	08-06-08				
Rating Data Type								Injury	Injury	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	6-8"W	A	0 a	0 a	73 c	72 c		
1	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A						
2	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	77 bc	75 bc		
2	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A						
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A						
3	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	95 a	97 a		
3	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A						
3	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A						
4	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	83 abc	82 abc		
4	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A						
4	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	6-8"W	A						
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A						
5	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	86 abc	89 ab		
5	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A						
5	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	6-8"W	A						
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A						
6	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	89 abc	88 ab		
6	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A						
6	AG 05006	100	SL	0.5	% v/v	0.5	% v/v	6-8"W	A						
6	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A						
7	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	88 abc	94 a		
7	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A						
7	DESTINY MSO	100	SL	1	% v/v	1	% v/v	6-8"W	A						
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A						
8	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	84 abc	83 abc		
8	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A						
8	AG 08040	100	SL	1.5	% v/v	1.5	% v/v	6-8"W	A						
9	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	90 ab	93 a		
9	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A						
9	ALLIANCE	100	SL	1.25	% v/v	1.25	% v/v	6-8"W	A						
9	AG 02013	100	SL	4	fl oz/a	4	fl oz/a	6-8"W	A						
10	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	93 a	94 a		
10	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	6-8"W	A						
10	ALLIANCE	100	SL	1.25	% v/v	1.25	% v/v	6-8"W	A						
10	AG 02013	100	SL	4	fl oz/a	4	fl oz/a	6-8"W	A						
11	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	90 ab	94 a		
11	AG 05006	100	SL	0.5	% v/v	0.5	% v/v	6-8"W	A						
11	ALLIANCE	100	SL	1.25	% v/v	1.25	% v/v	6-8"W	A						
11	AG 02013	100	SL	4	fl oz/a	4	fl oz/a	6-8"W	A						
12	NONTREATED									0 a	0 a	0 d	0 d		
LSD (P=.05)										0.0	0.0	15.8	16.4	9.0	10.9
Replicate F										0.000	0.000	0.059	0.029	0.049	0.701
Replicate Prob(F)										1.0000	1.0000	0.9431	0.9717	0.9527	0.5070
Treatment F										0.000	0.000	22.832	22.339	68.060	48.488
Treatment Prob(F)										1.0000	1.0000	0.0001	0.0001	0.0001	0.0001

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

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Location: Belleville Res. Center

Pest Code	CHEAL	CHEAL
Crop Code		
Rating Date	07-23-08	08-06-08
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 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	6-8"W	A	75	c
1	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A	75	d
2	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	88	b
2	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A	85	c
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A		
3	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	99	a
3	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A	97	a
3	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A		
4	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	94	ab
4	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A	94	ab
4	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	6-8"W	A		
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A		
5	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	96	a
5	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A	98	a
5	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	6-8"W	A		
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A		
6	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	96	a
6	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A	91	b
6	AG 05006	100	SL	0.5	% v/v	0.5	% v/v	6-8"W	A		
6	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A		
7	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	96	a
7	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A	98	a
7	DESTINY MSO	100	SL	1	% v/v	1	% v/v	6-8"W	A		
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A		
8	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	95	a
8	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A	97	a
8	AG 08040	100	SL	1.5	% v/v	1.5	% v/v	6-8"W	A		
9	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	98	a
9	LAUDIS	3.5	SC	0.0273	lb ai/a	1	fl oz/a	6-8"W	A	99	a
9	ALLIANCE	100	SL	1.25	% v/v	1.25	% v/v	6-8"W	A		
9	AG 02013	100	SL	4	fl oz/a	4	fl oz/a	6-8"W	A		
10	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	97	a
10	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	6-8"W	A	99	a
10	ALLIANCE	100	SL	1.25	% v/v	1.25	% v/v	6-8"W	A		
10	AG 02013	100	SL	4	fl oz/a	4	fl oz/a	6-8"W	A		
11	TOUCHDOWN HI-TECH	5	SL	0.43	lb ae/a	11	fl oz/a	6-8"W	A	95	a
11	AG 05006	100	SL	0.5	% v/v	0.5	% v/v	6-8"W	A	98	a
11	ALLIANCE	100	SL	1.25	% v/v	1.25	% v/v	6-8"W	A		
11	AG 02013	100	SL	4	fl oz/a	4	fl oz/a	6-8"W	A		
12	NONTREATED									0	d
										0	e
LSD (P=.05)										6.1	5.7
Replicate F										3.262	0.824
Replicate Prob(F)										0.0575	0.4519
Treatment F										175.384	210.771
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. Blanket burndown application prior to planting, Roundup WeatherMax (22 fl oz/A) + 2,4-D (1 pt/A) on 6-9-08.
4. DA-A = Days after 6-8"W application.
5. 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.
6. Not harvested.