

Oil Adjuvants for Glyphosate plus Atrazine - Winfield Solutions.

Trial ID: 09-T3-MS50

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: 06-26-09

Objectives: Determine the efficacy of oil adjuvants in combination with glyphosate and atrazine in corn.

Crop 1: ZEAMD	Dent corn	Variety: P33K44	Description: RR/LL
Planting Method:	SEEDED	Planting Date:	06-26-09
Rate, Unit:	28000 S/A	Depth, Unit:	1.5 IN
Row Spacing, Unit:	30 IN		

Pest 1 Type: W	Code: AMATA	Amaranthus rudis Sauer	waterhemp, common
Pest 2 Type: W	Code: IPOHE	Ipomoea hederacea (L.) Jacq.	morningglory, ivyleaf
Pest 3 Type: W	Code: PANDI	Panicum dichotomiflorum Michx.	panicum, fall

Plot Width, Unit:	10 FT	Site Type:	FIELD
Plot Length, Unit:	27 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 100 LB/A

% OM:	2.8	Texture:	SILT LOAM
pH:	6.4	Soil Name:	BETHALTO
CEC:	14	Fert. Level:	P1: 118 LB/A, K: 466 LB/A

Application Description A

Application Date: 07-27-09
 Time of Day: 9:00
 Application Method: Spray
 Application Timing: 6-8"W
 Application Placement: BROFOL
 Applied By: DKP
 Air Temperature, Unit: 72 F
 % Relative Humidity: 90
 Wind Velocity, Unit: 0 MPH
 Dew Presence (Y/N): Y
 Soil Moisture: NORMAL
 % Cloud Cover: 10

Crop stage at application: 07-27-09
 V8-V9
 Height Min, Max (inch): 36 42

Pest Stage At Each Application

Application Date:	07-27-09		
Weed Code:	AMATA		
Stage Majority (leaves):	10		
Stage Min, Max:	6	14	
Height Majority:	8	IN	
Height Min, Max:	4	12	
Density, Unit:	20	FT2	
Weed Code:	IPOSS		
Stage Majority (leaves):	8		
Stage Min, Max:	8	12	
Height Majority:	7	IN	
Height Min, Max:	6	8	
Density, Unit:	0.1	FT2	
Weed Code:	PANDI		
Stage Majority (leaves):	3		
Stage Min, Max:	3	6	
Height Majority:	5	IN	
Height Min, Max:	2	7	
Density, Unit:	0.01	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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												AMATA	AMATA	IPOHE	IPOHE	PANDI	PANDI
Pest Code												ZEAMD	ZEAMD	08-10-09	08-24-09	08-10-09	08-24-09
Crop Code												08-10-09	08-24-09	08-10-09	08-24-09	08-10-09	08-24-09
Rating Date												Injury	Injury	Control	Control	Control	Control
Rating Data Type												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
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code								
1	ROUNDUP POWERMAX	4.5	SL	0.387	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	63 d	77 d	70 d	78 e	65 b	82 c
1	AATREX	4	SC	0.5	lb ai/a	16	fl oz/a	6-8"W	A								
2	ROUNDUP POWERMAX	4.5	SL	0.387	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	75 c	90 bc	78 c	89 cd	77 a	83 bc
2	AATREX	4	SC	0.5	lb ai/a	16	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	ROUNDUP POWERMAX	4.5	SL	0.387	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	86 ab	92 abc	78 c	88 d	83 a	87 abc
3	AATREX	4	SC	0.5	lb ai/a	16	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	ROUNDUP POWERMAX	4.5	SL	0.387	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	88 a	94 ab	81 bc	91 bcd	80 a	86 abc
4	AATREX	4	SC	0.5	lb ai/a	16	fl oz/a	6-8"W	A								
4	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A								
4	INTERLOCK	100	SL	4	fl oz/a	4	fl oz/a	6-8"W	A								
5	ROUNDUP POWERMAX	4.5	SL	0.387	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	85 ab	90 bc	83 ab	93 abc	83 a	92 ab
5	AATREX	4	SC	0.5	lb ai/a	16	fl oz/a	6-8"W	A								
5	COC (PRIME OIL)	100	SL	1	% v/v	1	% 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	ROUNDUP POWERMAX	4.5	SL	0.387	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	83 ab	95 a	78 c	93 ab	83 a	95 a
6	AATREX	4	SC	0.5	lb ai/a	16	fl oz/a	6-8"W	A								
6	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	6-8"W	A								
6	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A								
7	ROUNDUP POWERMAX	4.5	SL	0.387	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	88 a	94 ab	86 a	95 a	83 a	96 a
7	AATREX	4	SC	0.5	lb ai/a	16	fl oz/a	6-8"W	A								
7	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	6-8"W	A								
7	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A								
7	INTERLOCK	100	SL	4	fl oz/a	4	fl oz/a	6-8"W	A								
8	ROUNDUP POWERMAX	4.5	SL	0.387	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	86 ab	94 ab	81 bc	95 a	82 a	95 a
8	AATREX	4	SC	0.5	lb ai/a	16	fl oz/a	6-8"W	A								
8	HSOC (DESTINY HC)	100	SL	0.5	% v/v	0.5	% v/v	6-8"W	A								
8	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A								
9	ROUNDUP POWERMAX	4.5	SL	0.387	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	89 a	93 ab	85 ab	93 ab	80 a	92 ab
9	AATREX	4	SC	0.5	lb ai/a	16	fl oz/a	6-8"W	A								
9	HSOC (DESTINY HC)	100	SL	0.5	% v/v	0.5	% v/v	6-8"W	A								
9	CLASS ACT NG	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A								
9	INTERLOCK	100	SL	4	fl oz/a	4	fl oz/a	6-8"W	A								
10	ROUNDUP POWERMAX	4.5	SL	0.387	lb ae/a	11	fl oz/a	6-8"W	A	0 a	0 a	80 bc	87 c	82 abc	91 bcd	80 a	94 a
10	AATREX	4	SC	0.5	lb ai/a	16	fl oz/a	6-8"W	A								
10	MSO (DESTINY)	100	SL	1	% v/v	1	% v/v	6-8"W	A								
10	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A								
LSD (P=.05)										0.0	0.0	6.9	5.0	4.6	4.2	8.7	9.9
Replicate F										0.000	0.000	1.036	0.084	16.949	1.112	7.462	8.448
Replicate Prob(F)										1.0000	1.0000	0.3750	0.9198	0.0001	0.3506	0.0044	0.0026
Treatment F										0.000	0.000	11.412	10.723	8.722	12.073	3.661	2.391
Treatment Prob(F)										1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	0.0092	0.0552

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

Trial Comments

1. Protocol: Winfield Solutions.
2. Ratings: CI/WC 14 and 28 DAT.
3. Not harvested.