

Drift Control Adjuvant Study - Agrilience.

Project Code: 04-6A-E100 Location: Belleville Research Center
 Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
 Trial Status: Final Updated: 8-31-04

Objective:

Determine the effect of drift control adjuvants on weed control with glyphosate.

Weed Code	Common Name	Scientific Name
1. SETFA	foxtail, giant	Setaria faberi Herrm.
2. XANST	cocklebur, common	Xanthium strumarium L.
3. AMATA	waterhemp, common	Amaranthus rudis Sauer
4. ABUTH	velvetleaf	Abutilon theophrasti Medicus

Crop 1:	GLXMA soybean	Variety:	AG 4403 RR
Planting Method:	Seeded	Planting Date:	5-21-04
Rate:	75 lb/A	Depth:	1.0 IN
Row Spacing:	30 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	25 FT	Reps:	3
Tillage Type:	Reduced-Till	Study Design:	Randomized complete block		
Previous Crop, Year:	ZEAMX, 2003				

Field Prep./Maintenance: N 0 LB/A, P2O5 50 LB/A, K2O 100 LB/A

Soil Name:	Stoy	% OM:	1.6	pH:	6.3	CEC:	7
Texture:	Silt loam	Fert. Level:	P1: 105 LB/A,	K:	448 LB/A		

APPLICATION DESCRIPTION

A	
Application Date:	6-24-04
Time of Day:	10:30
Application Method:	Spray
Application Timing:	8-12"W
Applic. Placement:	BROFOL
Air Temp., Unit:	77 F
% Relative Humidity:	60
Wind Velocity, Unit:	5 MPH
Soil Moisture:	NORMAL

CROP STAGE AT EACH APPLICATION

A	
Crop 1 Code, Stage:	GLXMA V4
Height, Unit:	8-10 IN

WEED STAGE AT EACH APPLICATION

A	
Weed 1 Code:	SETFA
Stage(leaves):	3-8
Height(inches):	6-10
Density:	High
Weed 2 Code:	XANST
Stage(leaves):	8-14
Height(inches):	10-14
Density:	High
Weed 3 Code:	AMATA
Stage(leaves):	5-26
Height(inches):	1-12
Density:	High
Weed 4 Code:	ABUTH
Stage(leaves):	4-7
Height(inches):	3-10
Density:	Medium

APPLICATION EQUIPMENT

A	
Appl. Equipment:	CO2 sprayer
Operating Pressure:	40 PSI
Nozzle Type:	See note
Nozzle Size:	110015
Boom Length, Unit:	7.5 FT
Spray Volume, Unit:	10 GPA

NOTES:

Nozzle type is listed in treatment list.

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Weed Code								SETFA	SETFA	XANST	XANST	AMATA	AMATA	ABUTH	ABUTH
Crop Code								GLXMA	GLXMA						
Rating Data Type								Injury	Injury	Control	Control	Control	Control	Control	Control
Rating Unit								Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date								7-8-04	7-22-04	7-8-04	7-22-04	7-8-04	7-22-04	7-8-04	7-22-04
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	Prod Rate	Prod Unit	Grow Stg	Appl Code						
1	AI110015									0	0	99	99	99	99
1	ROUNDUP W-MAX	4.5	SL	0.385	LB AE/A	11	FL OZ/A	8-12"W	A						
2	AI110015									0	0	99	99	99	99
2	ROUNDUP W-MAX	4.5	SL	0.385	LB AE/A	11	FL OZ/A	8-12"W	A						
2	ALLIANCE	100	LIQ	1.25	% V/V	5	QT/100 GAL	8-12"W	A						
3	AI110015									0	0	99	99	99	99
3	ROUNDUP W-MAX	4.5	SL	0.385	LB AE/A	11	FL OZ/A	8-12"W	A						
3	INTERLOCK	100	LIQ	2	FL OZ/A	2	FL OZ/A	8-12"W	A						
3	ALLIANCE	100	LIQ	1.25	% V/V	5	QT/100 GAL	8-12"W	A						
4	AI110015									0	0	99	99	99	99
4	ROUNDUP W-MAX	4.5	SL	0.385	LB AE/A	11	FL OZ/A	8-12"W	A						
4	INTERLOCK	100	LIQ	4	FL OZ/A	4	FL OZ/A	8-12"W	A						
4	ALLIANCE	100	LIQ	1.25	% V/V	5	QT/100 GAL	8-12"W	A						
5	AI110015									0	0	99	99	99	99
5	ROUNDUP W-MAX	4.5	SL	0.385	LB AE/A	11	FL OZ/A	8-12"W	A						
5	PLACEMENT	100	LIQ	3	FL OZ/A	3	FL OZ/A	8-12"W	A						
5	PREMIXED														
5	ALLIANCE	100	LIQ	1.25	% V/V	5	QT/100 GAL	8-12"W	A						
6	AI110015									0	0	99	99	99	99
6	ROUNDUP W-MAX	4.5	SL	0.385	LB AE/A	11	FL OZ/A	8-12"W	A						
6	PLACEMENT PROPAK	100	LIQ	1.0	% V/V	1	% V/V	8-12"W	A						
7	XR110015									0	0	99	99	99	99
7	ROUNDUP W-MAX	4.5	SL	0.385	LB AE/A	11	FL OZ/A	8-12"W	A						
7	CORRAL AMS DRY	100	DRY	1.2	% W/W	10	LB/100 GAL	8-12"W	A						
8	XR110015									0	0	99	99	99	99
8	ROUNDUP W-MAX	4.5	SL	0.385	LB AE/A	11	FL OZ/A	8-12"W	A						
8	ARROW FOUR	100	LIQ	0.75	% V/V	3	QT/100 GAL	8-12"W	A						
9	AI110015									0	0	99	99	99	99
9	ROUNDUP W-MAX	4.5	SL	0.385	LB AE/A	11	FL OZ/A	8-12"W	A						
9	AG 04020	100	LIQ	4	FL OZ/A	4	FL OZ/A	8-12"W	A						
9	ALLIANCE	100	LIQ	1.25	% V/V	5	QT/100 GAL	8-12"W	A						
10	AI110015									0	0	99	99	99	99
10	ROUNDUP W-MAX	4.5	SL	0.385	LB AE/A	11	FL OZ/A	8-12"W	A						
10	AG 04021	100	LIQ	0.5	% V/V	0.5	% V/V	8-12"W	A						
10	N-PAK AMS	100	LIQ	2.5	% V/V	2.5	% V/V	8-12"W	A						
11	XR110015									0	0	99	99	99	99
11	ROUNDUP W-MAX	4.5	SL	0.385	LB AE/A	11	FL OZ/A	8-12"W	A						
11	AG 04028	100	DRY	0.6	% W/W	5	LB/100 GAL	8-12"W	A						
12	AI110015									0	0	99	99	99	99
12	ROUNDUP W-MAX	4.5	SL	0.385	LB AE/A	11	FL OZ/A	8-12"W	A						
12	ARRAY	100	DRY	1.08	% W/W	9	LB/100 GAL	8-12"W	A						

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Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	GLXMA Injury Percent	GLXMA Injury Percent	SETFA Control Percent	SETFA Control Percent	XANST Control Percent	XANST Control Percent	AMATA Control Percent	AMATA Control Percent	ABUTH Control Percent	ABUTH Control Percent
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	14 DA-A	28 DA-A	14 DA-A	28 DA-A	14 DA-A	28 DA-A
13	AI110015									0	0	99	99	99	99
13	ROUNDUP W-MAX	4.5	SL	0.385	LB AE/A	11	FL OZ/A	8-12"W	A						
13	FORMULA 1	100	LIQ	0.75	% V/V	3	QT/100 GAL	8-12"W	A						
14	AI110015									0	0	99	99	99	99
14	ROUNDUP W-MAX	4.5	SL	0.385	LB AE/A	11	FL OZ/A	8-12"W	A						
14	DRI GARD	100	DRY	1.08	% W/W	9	LB/100 GAL	8-12"W	A						
15	NONTREATED									0	0	0	0	0	0
LSD (P=.05)						0.0	0.0	0.0	0.4	0.4	0.6	2.0	2.9	6.3	10.5
Replicate F						0.000	0.000	0.000	3.545	1.000	4.333	2.734	0.755	0.869	0.357
Replicate Prob(F)						1.0000	1.0000	1.0000	0.0435	0.3816	0.0238	0.0836	0.4800	0.4311	0.7031
Treatment F						0.000	0.000	0.000	34696.000	29358.154	18146.047	1426.426	694.766	120.628	43.862
Treatment Prob(F)						1.0000	1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Trial Comments

1. Protocol: Agrilience.
2. Ratings: CI and WC 14 and 28 DAT.
3. Premix adjuvants with glyphosate when adjuvants are listed before "PREMIXED".
4. Nozzle type is listed in each treatment.
5. DA-A = Days after 8-12"W application.
6. Treatment 11 was not applied.