

Glyphosate Surfactant Study - Agrilience.

Project Code: 04-52-MW50 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:

Evaluate various surfactants applied with a "non-loaded" adjuvant formulation of glyphosate.

Weed Code	Common Name	Scientific Name
1. GGGAN	grasses, annual	
2. XANST	cocklebur, common	Xanthium strumarium L.
3. AMBTR	ragweed, giant	Ambrosia trifida L.
4. ABUTH	velvetleaf	Abutilon theophrasti Medicus
5. AMATA	waterhemp, common	Amaranthus rudis Sauer
6. SETFA	foxtail, giant	Setaria faberi Herrm.
7. PANDI	panicum, fall	Panicum dichotomiflorum Michx.

Crop 1:	GLXMA soybean	Variety:	AG 4403 RR
Planting Method:	Seeded	Planting Date:	6-11-04
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, P205 50 LB/A, K20 100 LB/A

Soil Name:	Weir	% OM:	2.2	pH:	6.9	CEC:	9
Texture:	Silt loam	Fert. Level:	P1: 107 LB/A, K: 420 LB/A				

APPLICATION DESCRIPTION

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Application Date:	7-12-04
Time of Day:	10:00
Application Method:	Spray
Application Timing:	8-12"W
Applic. Placement:	BROFOL
Air Temp., Unit:	82 F
% Relative Humidity:	79
Wind Velocity, Unit:	2 MPH
Soil Moisture:	ABONOR

CROP STAGE AT EACH APPLICATION

CROP STAGE AT EACH APPLICATION	
Crop 1 Code, Stage:	GLXMA V4
Height, Unit:	13-15 IN

WEED STAGE AT EACH APPLICATION

WEED STAGE AT EACH APPLICATION	
Weed 1 Code:	GGGAN
Stage(leaves):	3-5
Height(inches):	14-16
Density:	Medium
Weed 2 Code:	XANST
Stage(leaves):	5-12
Height(inches):	14-16
Density:	Low
Weed 3 Code:	AMBTR
Stage(leaves):	8-10
Height(inches):	10-16
Density:	Medium

Southern Illinois University

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Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	GLXMA Injury Percent 7-26-04 14 DA-A	GLXMA Injury Percent 8-9-04 28 DA-A	GGGAN Control Percent 7-26-04 14 DA-A	GGGAN Control Percent 8-9-04 28 DA-A	XANST Control Percent 7-26-04 14 DA-A	XANST Control Percent 8-9-04 28 DA-A	AMBTR Control Percent 7-26-04 14 DA-A	AMBTR Control Percent 8-9-04 28 DA-A	ABUTH Control Percent 7-26-04 14 DA-A	ABUTH Control Percent 8-9-04 28 DA-A	AMATA Control Percent 7-26-04 14 DA-A	AMATA Control Percent 8-9-04 28 DA-A				
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code												
1	NONTREATED									0	0	0	0	0	0	0	0				
2	TOUCHDOWN HI-TECH	5	SC	0.375	LB AE/A	9.6	FL OZ/A	8-12"W	A	0	0	96	98	99	99	63	88	27	42	96	97
3	TOUCHDOWN HI-TECH PREFERENCE	5	SC	0.375	LB AE/A	9.6	FL OZ/A	8-12"W	A	0	0	96	98	99	99	63	87	30	40	97	98
		100	LIQ	0.5	% V/V	0.5	% V/V	8-12"W	A												
4	TOUCHDOWN HI-TECH	5	SC	0.375	LB AE/A	9.6	FL OZ/A	8-12"W	A	0	0	98	98	99	99	62	88	30	37	97	98
	4 AG 03019	100	LIQ	0.5	% V/V	0.5	% V/V	8-12"W	A												
5	TOUCHDOWN HI-TECH	5	SC	0.375	LB AE/A	9.6	FL OZ/A	8-12"W	A	0	0	96	98	99	99	63	88	37	38	93	97
	5 AG 03037	100	LIQ	0.5	% V/V	0.5	% V/V	8-12"W	A												
6	TOUCHDOWN HI-TECH	5	SC	0.375	LB AE/A	9.6	FL OZ/A	8-12"W	A	0	0	98	98	99	99	65	85	36	43	98	98
	6 AG 03025	100	LIQ	0.5	% V/V	0.5	% V/V	8-12"W	A												
7	TOUCHDOWN HI-TECH	5	SC	0.375	LB AE/A	9.6	FL OZ/A	8-12"W	A	0	0	97	98	99	99	70	92	37	41	97	98
	7 AG 04025	100	LIQ	0.5	% V/V	0.5	% V/V	8-12"W	A												
8	TOUCHDOWN HI-TECH	5	SC	0.375	LB AE/A	9.6	FL OZ/A	8-12"W	A												
	8 AG 04021	100	LIQ	0.5	% V/V	0.5	% V/V	8-12"W	A												
9	TOUCHDOWN HI-TECH	5	SC	0.375	LB AE/A	9.6	FL OZ/A	8-12"W	A	0	0	98	98	99	99	70	92	37	45	97	98
	9 AG 03030	100	LIQ	0.5	% V/V	0.5	% V/V	8-12"W	A												
10	TOUCHDOWN HI-TECH	5	SC	0.375	LB AE/A	9.6	FL OZ/A	8-12"W	A												
	10 TBA							8-12"W	A												
11	TOUCHDOWN HI-TECH	5	SC	0.375	LB AE/A	9.6	FL OZ/A	8-12"W	A												
	11 TBA							8-12"W	A												
12	TOUCHDOWN HI-TECH	5	SC	0.375	LB AE/A	9.6	FL OZ/A	8-12"W	A												
	12 TBA							8-12"W	A												
13	TOUCHDOWN HI-TECH	5	SC	0.375	LB AE/A	9.6	FL OZ/A	8-12"W	A												
	13 TBA							8-12"W	A												
LSD (P=.05)						0.0	0.0	2.2	1.0	0.4	0.0	6.9	6.7	7.6	3.9	2.4	1.8				
Replicate F						0.000	0.000	0.078	0.860	1.000	0.000	3.330	2.450	0.311	8.559	3.166	2.116				
Replicate Prob(F)						1.0000	1.0000	0.9253	0.4445	0.3927	1.0000	0.0656	0.1224	0.7380	0.0037	0.0734	0.1574				
Treatment F						0.000	0.000	2205.141	10605.315	88125.141	0.000	106.058	199.926	24.675	129.030	1810.905	3490.767				
Treatment Prob(F)						1.0000	1.0000	0.0001	0.0001	0.0001	1.0000	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. DA-A = Days after 8-12"W application.
4. GGGAN = Annual grasses including SETFA and PANDI.
5. Treatments 8, 10, 11, 12, and 13 were not applied.