

AMS Replacements - So-il Service Inc.

Project Code: 04-2C-M70 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: 10-28-04

Objective:

Determine the performance of Soil Boost Plus and Landoil applied with glyphosate compared with ammonium sulfate.

Weed Code	Common Name	Scientific Name
1. GGGAN	grasses, annual	
2. AMBEL	ragweed, common	Ambrosia artemisiifolia L.
3. AMATA	waterhemp, common	Amaranthus rudis Sauer
4. IPOSS	morningglory, species	Ipomoea sp.
5. POLPY	smartweed, Pennsylvania	Polygonum pensylvanicum L.
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:	28 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:	1.6	pH:	6.4	CEC:	8
Texture:	Silt loam	Fert. Level:	P1: 92 LB/A, K: 365 LB/A				

APPLICATION DESCRIPTION

APPLICATION DESCRIPTION		A
Application Date:	7-9-04	
Time of Day:	16:30	
Application Method:	Spray	
Application Timing:	8-12"W	
Applic. Placement:	BROFOL	
Air Temp., Unit:	89 F	
% Relative Humidity:	60	
Wind Velocity, Unit:	3 MPH	
Soil Moisture:	ABONOR	

CROP STAGE AT EACH APPLICATION

CROP STAGE AT EACH APPLICATION		A
Crop 1 Code, Stage:	GLXMA V4-V5	
Height, Unit:	10-12 IN	

WEED STAGE AT EACH APPLICATION

WEED STAGE AT EACH APPLICATION		A
Weed 1 Code:	GGGAN	
Stage(leaves):	5-12	
Height(inches):	6-14	
Density:	Medium	
Weed 2 Code:	AMBEL	
Stage(leaves):	6-10	
Height(inches):	6-10	
Density:	Medium	
Weed 3 Code:	AMATA	
Stage(leaves):	6-30	
Height(inches):	4-21	
Density:	Medium	

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Weed 4 Code: IPOSS
 Stage (leaves): 2-8
 Height (inches): 2-5
 Density: Medium

Weed 5 Code: POLPY
 Stage (leaves): 7-27
 Height (inches): 6-18
 Density: Low

Weed 6 Code: SETFA
 Stage (leaves): 5-9
 Height (inches): 6-10
 Density: Medium

Weed 7 Code: PANDI
 Stage (leaves): 5-12
 Height (inches): 6-14
 Density: Medium

APPLICATION EQUIPMENT

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

NOTES:

Harvested 10-17-04, (2) 30 inch rows x 25 ft.

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Weed Code																			
Crop Code																			
Rating Data Type																			
Rating Unit																			
Rating Date																			
Trt-Eval Interval																			

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	GLXMA Yield bu/A	GLXMA Injury Percent	GLXMA Injury Percent	GGGAN Control Percent	GGGAN Control Percent	AMBEL Control Percent	AMBEL Control Percent	AMATA Control Percent	AMATA Control Percent	IPOSS Control Percent	IPOSS Control Percent	POLPY Control Percent	POLPY Control Percent
										10-17-04	7-23-04	8-6-04	7-23-04	8-6-04	7-23-04	8-6-04	7-23-04	8-6-04	7-23-04	8-6-04	7-23-04	8-6-04
										100 DA-A	14 DA-A	28 DA-A	14 DA-A	28 DA-A	14 DA-A	28 DA-A	14 DA-A	28 DA-A	14 DA-A	28 DA-A	14 DA-A	28 DA-A
1	NONTREATED									10	0	0	0	0	0	0	0	0	0	0	0	0
2	GLY STAR PLUS	3	SL	0.75	LB AE/A	32	FL OZ/A	8-12"	W A	56	0	0	99	99	99	99	98	95	89	95	99	99
2	SOIL BOOST PLUS	100	LIQ	2.5	% V/V	2.5	% V/V	8-12"	W A													
3	GLY STAR PLUS	3	SL	0.375	LB AE/A	16	FL OZ/A	8-12"	W A	56	0	0	99	96	99	99	95	87	78	91	93	93
3	SOIL BOOST PLUS	100	LIQ	2.5	% V/V	2.5	% V/V	8-12"	W A													
4	GLY STAR PLUS	3	SL	0.187	LB AE/A	8	FL OZ/A	8-12"	W A	55	0	0	92	77	93	82	82	63	62	82	80	78
4	SOIL BOOST PLUS	100	LIQ	2.5	% V/V	2.5	% V/V	8-12"	W A													
5	GLY STAR PLUS	3	SL	0.75	LB AE/A	32	FL OZ/A	8-12"	W A	55	0	0	99	99	99	99	99	95	85	95	98	97
5	SOIL BOOST PLUS	100	LIQ	2.5	% V/V	2.5	% V/V	8-12"	W A													
5	LANDOIL	100	LIQ	32	FL OZ/A	32	FL OZ/A	8-12"	W A													
6	GLY STAR PLUS	3	SL	0.375	LB AE/A	16	FL OZ/A	8-12"	W A	59	0	0	99	99	98	99	98	87	79	93	96	99
6	SOIL BOOST PLUS	100	LIQ	2.5	% V/V	2.5	% V/V	8-12"	W A													
6	LANDOIL	100	LIQ	16	FL OZ/A	16	FL OZ/A	8-12"	W A													
7	GLY STAR PLUS	3	SL	0.187	LB AE/A	8	FL OZ/A	8-12"	W A	51	0	0	95	85	92	85	73	55	68	83	83	80
7	SOIL BOOST PLUS	100	LIQ	2.5	% V/V	2.5	% V/V	8-12"	W A													
7	LANDOIL	100	LIQ	16	FL OZ/A	16	FL OZ/A	8-12"	W A													
8	GLY STAR PLUS	3	SL	0.75	LB AE/A	32	FL OZ/A	8-12"	W A	54	0	0	99	99	99	99	98	96	96	96	96	99
8	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	8-12"	W A													
9	GLY STAR PLUS	3	SL	0.375	LB AE/A	16	FL OZ/A	8-12"	W A	54	0	0	99	99	98	96	97	91	80	90	90	93
9	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	8-12"	W A													
10	GLY STAR PLUS	3	SL	0.187	LB AE/A	8	FL OZ/A	8-12"	W A	52	0	0	96	80	92	90	80	60	72	87	83	73
10	AMS	100	DRY	2.0	% W/W	17	LB/100 GAL	8-12"	W A													
11	GLY STAR PLUS	3	SL	0.75	LB AE/A	32	FL OZ/A	8-12"	W A	52	0	0	99	99	99	99	98	95	88	95	97	99
11	SOIL BOOST PLUS	100	LIQ	1.25	% V/V	1.25	% V/V	8-12"	W A													
11	LANDOIL	100	LIQ	32	FL OZ/A	32	FL OZ/A	8-12"	W A													
12	GLY STAR PLUS	3	SL	0.375	LB AE/A	16	FL OZ/A	8-12"	W A	57	0	0	99	99	98	94	98	83	78	95	95	93
12	SOIL BOOST PLUS	100	LIQ	1.25	% V/V	1.25	% V/V	8-12"	W A													
12	LANDOIL	100	LIQ	16	FL OZ/A	16	FL OZ/A	8-12"	W A													
13	GLY STAR PLUS	3	SL	0.187	LB AE/A	8	FL OZ/A	8-12"	W A	57	0	0	93	85	85	86	67	62	65	78	80	77
13	SOIL BOOST PLUS	100	LIQ	1.25	% V/V	1.25	% V/V	8-12"	W A													
13	LANDOIL	100	LIQ	16	FL OZ/A	16	FL OZ/A	8-12"	W A													
14	NONTREATED									13	0	0	0	0	0	0	0	0	0	0	0	0
LSD (P=.05)										7.3	0.0	0.0	2.7	5.8	4.0	8.8	7.3	10.2	9.3	12.5	5.7	15.3
Replicate F										1.312	0.000	0.000	1.315	0.298	0.829	4.269	2.771	0.224	2.218	4.871	1.319	1.678
Replicate Prob(F)										0.2886	1.0000	1.0000	0.2858	0.7447	0.4477	0.0249	0.0811	0.8011	0.1290	0.0160	0.2847	0.2064
Treatment F										39.609	0.000	0.000	1443.739	299.406	665.162	130.953	187.962	86.772	87.318	59.385	295.245	41.503
Treatment Prob(F)										0.0001	1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Trial Comments

1. Protocol: So-il Service Inc.
2. Ratings: CI and WC 14 and 28 DAT; Take photos if major differences.
3. Yield if possible.
4. DA-A = Days after 8-12"W application.
5. Harvested 10-17-04, (2) 30 inch rows x 25 ft.