

Enhance Foliar Fertilizer in Soybean.

Project Code: 03-22-MN20 Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
 Trial Status: Final Updated: 10-27-03

Objective:

Determine the yield benefit associated with Enhance foliar applications in soybean.

Weed Code	Common Name	Scientific Name
1.	SETFA foxtail, giant	Setaria faberi Herrm.
2.	IPOHE morningglory, ivyleaf	Ipomoea hederacea (L.) Jacq.
3.	CYPES nutsedge, yellow	Cyperus esculentus L.
4.	AMATA waterhemp, common	Amaranthus rudis Sauer

Crop 1: GLXMA soybean Variety: Asgrow 4403 RR
 Planting Method: Seeded Planting Date: 6-19-03
 Rate: 75 lb/A Depth: 1.0 IN
 Row Spacing: 30 IN

Plot Width, Unit: 10 FT Plot Length, Unit: 27 FT Reps: 6
 Tillage Type: Reduced-Till Study Design: Randomized complete block
 Previous Crop, Year: ZEAMX, 2002

Field Prep./Maintenance: N 0 LB/A, P205 50 LB/A, K2O 200 LB/A

Soil Name: Clarksdale % OM: 1.7 pH: 5.8 CEC: 12
 Texture: Silt loam Fert. Level: P1: 67 LB/A, K: 235 LB/A

APPLICATION DESCRIPTION

	A	B
Application Date:	7-8-03	8-4-03
Time of Day:	10:00	13:00
Application Method:	Spray	Spray
Application Timing:	4-6"W	R1
Applic. Placement:	BROFOL	BROFOL
Air Temp., Unit:	90 F	84 F
% Relative Humidity:	48	54
Wind Velocity, Unit:	5 MPH	3 MPH
Soil Moisture:	NORMAL	ABONOR

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	GLXMA V2	GLXMA R1
Height, Unit:	5 IN	14-16 IN

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code:	SETFA	
Stage(leaves):	1-4	
Height(inches):	3-6	
Density:	High	
Weed 2 Code:	IPOHE	IPOHE
Stage(leaves):	2-5	4-8
Height(inches):	3-6	2-4
Density:	Medium	Medium
Weed 3 Code:		CYPES
Stage(leaves):		5-6
Height(inches):		4-5
Density:		Low

Weed 4 Code: AMATA
Stage(leaves): 3-12
Height(inches): 2-6
Density: High

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Operating Pressure:	40 PSI	40 PSI
Nozzle Type:	Flat fan	Flat fan
Nozzle Size:	8002	8002
Boom Length, Unit:	10 FT	10 FT
Spray Volume, Unit:	15 GPA	15 GPA

NOTES:
Harvested Oct-18-03, (2) 30 inch rows by 24 ft.

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Weed Code																						
Crop Code		GLXMA	GLXMA	GLXMA	GLXMA	SETFA	SETFA	IPOHE	IPOHE	CYPES	CYPES	AMATA	AMATA									
Rating Data Type		Moisture	Yield	Injury	Injury	Control	Control	Control	Control	Control	Control	Control	Control									
Rating Unit		Percent	bu/A	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent									
Rating Date		10-18-03	10-18-03	8-18-03	9-1-03	8-18-03	9-1-03	8-18-03	9-1-03	8-18-03	9-1-03	8-18-03	9-1-03									
Trt-Eval Interval		14 DA-B 28 DA-B 14 DA-B 28 DA-B 14 DA-B 28 DA-B 14 DA-B 28 DA-B																				
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code													
1	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	FL OZ/A	4-6"	W A	12.8	50	0	0	99	99	91	92	94	99	99	99	99
1	AMS	100	DRY	2.0	% W/W	2	% W/W	4-6"	W A													
1	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	FL OZ/A	R1	B													
1	AMS	100	DRY	2.0	% W/W	2	% W/W	R1	B													
2	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	FL OZ/A	4-6"	W A	13.0	51	0	0	99	99	89	93	92	98	99	99	99
2	AMS	100	DRY	2.0	% W/W	2	% W/W	4-6"	W A													
2	ROUNDUP W-MAX	4.5	SL	0.75	LB AE/A	21.3	FL OZ/A	R1	B													
2	AMS	100	DRY	2.0	% W/W	2	% W/W	R1	B													
2	ENHANCE	100	LIQ	2.0	QT/A	2	QT/A	R1	B													
LSD (P=.05)		0.53	2.7	0.0	0.0	0.0	0.0	7.2	4.0	2.7	1.7	0.0	0.0									
Replicate F		1.885	0.640	0.000	0.000	0.000	0.000	1.814	1.000	5.700	1.000	0.000	0.000									
Replicate Prob(F)		0.2518	0.6820	1.0000	1.0000	1.0000	1.0000	0.2646	0.5000	0.0395	0.5000	1.0000	1.0000									
Treatment F		0.429	0.126	0.000	0.000	0.000	0.000	0.789	0.294	2.500	1.000	0.000	0.000									
Treatment Prob(F)		0.5414	0.7367	1.0000	1.0000	1.0000	1.0000	0.4150	0.6109	0.1747	0.3632	1.0000	1.0000									

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Trial Comments

- 1. Protocol: AgConcepts.
- 2. Ratings: CI and WC 14 DAT.
- 3. Grain yield.
- 4. DA-B = days after R1 application.