

Effect of Micronutrients on Glyphosate Activity

Trial ID: SB11-08
 Conducted: H6-H8 Campus

Study Dir.: Sprague, Powell
 Investigator: Christy Sprague

Date Planted: 4/29/08
 Variety: Hillshog 9027RR
 Population: 4 3/8" seed spacing
 Soil Type: Sandy Loam
 Plot Size: 10 X 30 FT

Row Spacing: 30 IN
 No. of Reps: 4
 % OM: 2.5
 pH: 6.9
 Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel plow
 Fall soil finish
 Spring soil finish x2 on 4/29/08
 Fertilizer: 200#/Acre Urea (92# N) broadcast on 3/16/08
 100#/Acre 19-19-19 applied with planter

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	AMASS	REDROOT PIGWEED, POWELL AMARANTH	AMARANTHUS SP.
2.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
3.	POLPE	LADYSTHUMB	POLYGONUM PERSICARIA L.
4.	STEME	CHICKWEED, COMMON	STELLARIA MEDIA (L.)
5.	CAPBP	SHEPHERDSPURSE	CAPSELLA BURSA-PASTORIS (L.)
Crop	Code	Common Name	
1.	BETVU	BEET, SUGAR	

Application Description

A
 Application Timing: 4" weeds
 Date Treated: 6/17/08
 Time Treated: 9:15 AM
 % Cloud Cover: 70
 Air Temp., Unit: 58 F
 % Relative Humidity: 70
 Wind Speed/Unit/Dir: 5 mph NW
 Soil Temp., Unit: 62 F
 Soil/Leaf Surface M: 5 5
 Soil Moist (1=w 5=d): 3

Crop Stage at Each Application

A
 Crop Name: BETVU
 Height (In.): 4-8
 Stage (L): 6-10

Weed Stage at Each Application

A
 Weed 1 Name: AMASS
 Height (In.): 4-16
 Stage (L): many
 Weed 2 Name: CHEAL
 Height (In.): 7-15
 Stage (L): many
 Weed 3 Name: POLPE
 Height (In.): 5-7
 Stage (L): many-flwr
 Weed 4 Name: STEME
 Height (In.): 1-4
 Stage (L): veg
 Weed 5 Name: CAPBP
 Height (In.): 7-10
 Stage (L): flowering

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		Weed Density (plants/sq. ft.)						
		1	2	3	4	5	6	7
Date:		7/25/08	7/25/08	7/25/08	7/25/08	7/25/08	7/25/08	7/25/08
Weed Name:		CHEAL	THLAR	POROL	POLPE	STEME	POLPE	LAMAM
Density:		1.125	0.125	3.75	1.375	0.75	0.25	0.5

Application Equipment											
Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom	GPA	Carrier	PSI	
	Type	MPH	Type	Size	Height	Spacing	Width				
A	Cub	3.8	AirMix	11003	26	20	100	19	water	28	

Comments: 6/12/08: Applied Select 6 oz/A + COC 1% to entire study to control volunteer corn.

Previous Crop: soybean

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								BETVU	CHEAL	POLPE	CAPBP
								injury	control	control	control
								percent	percent	percent	percent
								6/30/08	6/30/08	6/30/08	6/30/08
								13 DA-A	13 DA-A	13 DA-A	13 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	0	99	95	98
1	AMS		DF	17	lb/100 gal	POST	A				
2	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	0	83	91	99
2	Ele-Max		L	3	pt/a	POST	A				
2	AMS		DF	17	lb/100 gal	POST	A				
3	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	0	99	95	99
3	Coron		L	2	qt/a	POST	A				
3	AMS		DF	17	lb/100 gal	POST	A				
4	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	1	99	85	99
4	Tracite		L	2	qt/a	POST	A				
4	AMS		DF	17	lb/100 gal	POST	A				
5	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	5	89	64	96
5	Techmangam		DF	6	lb/a	POST	A				
5	AMS		DF	17	lb/100 gal	POST	A				
6	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	3	89	82	99
6	Ele-Max		L	3	pt/a	POST	A				
6	Tracite		L	2	qt/a	POST	A				
6	AMS		DF	17	lb/100 gal	POST	A				
7	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	1	97	91	98
7	Ele-Max		L	3	pt/a	POST	A				
7	Coron		L	2	qt/a	POST	A				
7	AMS		DF	17	lb/100 gal	POST	A				
8	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	3	84	63	88
8	Techmangam		DF	6	lb/a	POST	A				
8	Coron		L	2	qt/a	POST	A				
8	AMS		DF	17	lb/100 gal	POST	A				
LSD (P=.10)								4.0	7.6	8.1	3.4
Standard Deviation								3.3	6.2	6.7	2.8
CV								210.94	6.79	8.05	2.85

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								ABUTH	STEME	AMAPO	ANGR
Weed Code											
Crop Code											
Rating Data Type								control	control	control	control
Rating Unit								percent	percent	percent	percent
Rating Date								6/30/08	6/30/08	6/30/08	7/15/08
Trt-Eval Interval								13 DA-A	13 DA-A	13 DA-A	28 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	96	99	99	99
1	AMS		DF	17	lb/100 gal	POST	A				
2	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	99	99	99	99
2	Ele-Max		L	3	pt/a	POST	A				
2	AMS		DF	17	lb/100 gal	POST	A				
3	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	99	99	99	99
3	Coron		L	2	qt/a	POST	A				
3	AMS		DF	17	lb/100 gal	POST	A				
4	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	99	99	99	99
4	Tracite		L	2	qt/a	POST	A				
4	AMS		DF	17	lb/100 gal	POST	A				
5	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	90	97	99	99
5	Techmangam		DF	6	lb/a	POST	A				
5	AMS		DF	17	lb/100 gal	POST	A				
6	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	99	99	99	99
6	Ele-Max		L	3	pt/a	POST	A				
6	Tracite		L	2	qt/a	POST	A				
6	AMS		DF	17	lb/100 gal	POST	A				
7	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	99	99	99	99
7	Ele-Max		L	3	pt/a	POST	A				
7	Coron		L	2	qt/a	POST	A				
7	AMS		DF	17	lb/100 gal	POST	A				
8	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	99	86	99	99
8	Techmangam		DF	6	lb/a	POST	A				
8	Coron		L	2	qt/a	POST	A				
8	AMS		DF	17	lb/100 gal	POST	A				
LSD (P=.10)								5.6	7.9	0.0	0.6
Standard Deviation								4.6	6.5	0.0	0.5
CV								4.69	6.68	0.0	0.52

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								CHEAL	AMAPO	ABUTH	POLPE
Weed Code											
Crop Code											
Rating Data Type								control	control	control	control
Rating Unit								percent	percent	percent	percent
Rating Date								7/15/08	7/15/08	7/15/08	7/15/08
Trt-Eval Interval								28 DA-A	28 DA-A	28 DA-A	28 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	99	99	98	95
1	AMS		DF	17	lb/100 gal	POST	A				
2	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	83	99	99	99
2	Ele-Max		L	3	pt/a	POST	A				
2	AMS		DF	17	lb/100 gal	POST	A				
3	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	97	99	99	97
3	Coron		L	2	qt/a	POST	A				
3	AMS		DF	17	lb/100 gal	POST	A				
4	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	98	99	99	94
4	Tracite		L	2	qt/a	POST	A				
4	AMS		DF	17	lb/100 gal	POST	A				
5	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	86	99	96	58
5	Techmangam		DF	6	lb/a	POST	A				
5	AMS		DF	17	lb/100 gal	POST	A				
6	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	93	96	99	84
6	Ele-Max		L	3	pt/a	POST	A				
6	Tracite		L	2	qt/a	POST	A				
6	AMS		DF	17	lb/100 gal	POST	A				
7	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	92	98	98	96
7	Ele-Max		L	3	pt/a	POST	A				
7	Coron		L	2	qt/a	POST	A				
7	AMS		DF	17	lb/100 gal	POST	A				
8	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	78	96	99	53
8	Techmangam		DF	6	lb/a	POST	A				
8	Coron		L	2	qt/a	POST	A				
8	AMS		DF	17	lb/100 gal	POST	A				
LSD (P=.10)								8.6	3.5	3.2	10.2
Standard Deviation								7.1	2.9	2.6	8.4
CV								7.81	2.91	2.65	9.94

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Weed Code		
Crop Code	BETVU	BETVU
Rating Data Type	count	yield
Rating Unit	100' row	Ton/acre
Rating Date	10/13/08	10/13/08
Trt-Eval Interval	118 DA-A	118 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		
1	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	228	27.7
1	AMS		DF	17	lb/100 gal	POST	A		
2	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	222	25.4
2	Ele-Max		L	3	pt/a	POST	A		
2	AMS		DF	17	lb/100 gal	POST	A		
3	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	265	30.9
3	Coron		L	2	qt/a	POST	A		
3	AMS		DF	17	lb/100 gal	POST	A		
4	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	245	27.2
4	Tracite		L	2	qt/a	POST	A		
4	AMS		DF	17	lb/100 gal	POST	A		
5	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	245	27.5
5	Techmangam		DF	6	lb/a	POST	A		
5	AMS		DF	17	lb/100 gal	POST	A		
6	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	235	25.9
6	Ele-Max		L	3	pt/a	POST	A		
6	Tracite		L	2	qt/a	POST	A		
6	AMS		DF	17	lb/100 gal	POST	A		
7	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	250	30.5
7	Ele-Max		L	3	pt/a	POST	A		
7	Coron		L	2	qt/a	POST	A		
7	AMS		DF	17	lb/100 gal	POST	A		
8	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	A	233	27.0
8	Techmangam		DF	6	lb/a	POST	A		
8	Coron		L	2	qt/a	POST	A		
8	AMS		DF	17	lb/100 gal	POST	A		
LSD (P=.10)								23.6	4.01
Standard Deviation								19.4	3.30
CV								8.05	11.87