

Nebraska On-Farm Research Network

Metalosate Big 5 on Soybeans

Study ID: 069023201503

County: Butler

Soil Type: Hastings silt loam;

Planting Date: 6/1/15

Harvest Date: 10/9/15

Population:

Row Spacing (in.) 30

Hybrid: NK S27-J7

Reps: 4

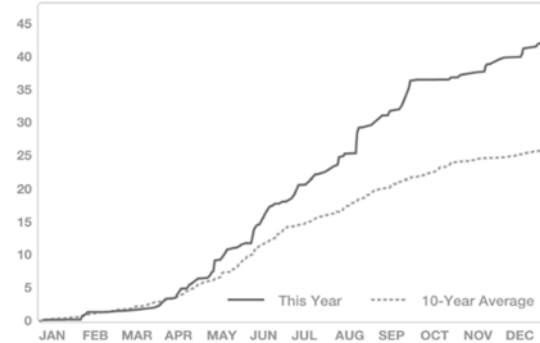
Previous Crop: Corn

Tillage: No-Till

Herbicides: *Pre:* unknown *Post:* 40 oz/ac RoundUp PowerMax, 17 lbs/100 gall AMS, and 4 oz/ac Cadet on 7/9/15

Irrigation: Pivot, Total: unknown

Rainfall (in.):



Introduction: This study was looking at Metalosate Big 5 applied with herbicide. The herbicide only (check) consisted of 40 oz/ac RoundUp PowerMax, 17 lb/100 gal AMS, and 4 oz/ac Cadet. Additionally, 2 rates of Metalosate Big 5 were tested - 16 oz/ac and 32 oz/ac. Products were applied at 10 gpa on 7/9/15 using air induction nozzles, which resulted in spotting of application rather than uniform seen with a flat fan nozzle. Foliar tissue samples were taken 7 days after application. Detailed product information is not available as this is an experimental product.

Results:	N	P	K	Mg	Ca	S	Na	Fe	Na	B	Cu	Zn
	-----%						-----ppm-----					
Herbicide Only (Check)	6.02A*	0.47A	3.08A	0.44A	1.16A	0.35A	0.00020A	153A	102A	49B	12.50A	45B
Herbicide + 16 oz/ac Metalosate Big 5	5.72A	0.47A	3.13A	0.41A	1.11A	0.35A	0.00020A	176A	89A	49B	12.25A	52AB
Herbicide + 32 oz/ac Metalosate Big 5	5.86A	0.47A	3.15A	0.42A	1.10A	0.36A	0.00020A	202A	101A	52A	12.25A	60A
<i>P-Value</i>	0.19	0.71	0.71	0.13	0.11	0.48	0.42	0.28	0.87	0.04	0.77	0.01
	Height (in.)		Pods/plant		Chlorophyll Meter		Trifoliolate Nodes					
	Aug. 4	Aug. 11	Aug. 4	Aug. 11	Aug. 4	Aug. 11	Aug. 4	Aug. 11	Aug. 4	Aug. 11		
Herbicide Only (Check)	23.6 A	31.0 A	31 A	39 A	39.4 A	40.4 A	11 B	14 A				
Herbicide + 16 oz/ac Metalosate Big 5	24.4 A	31.7 A	36 A	35 A	39.5 A	39.9 A	12 A	14 A				
Herbicide + 32 oz/ac Metalosate Big 5	23.7 A	29.5 A	35 A	36 A	40.4 A	40.3 A	12 A	14 A				
<i>P-Value</i>	0.5711	0.1849	0.2352	0.1454	0.2875	0.8123	0.0524	0.8614				
	Yield (bu/ac)†		Protein (%)		Oil (%)		Weight (g/100 seeds)					
Herbicide Only (Check)	69 A		39.7 A		19.1 A		18 A					
Herbicide + 16 oz/ac Metalosate Big 5	67 A		40.0 A		19.0 A		17 A					
Herbicide + 32 oz/ac Metalosate Big 5	69 A		39.7 A		19.7 A		18 A					
<i>P-Value</i>	0.1819		0.5919		0.18		0.88					

†Bushels per acre corrected to 13% moisture.

*Values with the same letter are not significantly different at a 90% confidence level.

Summary: Boron tissue samples were higher for the 32 oz/ac rate of Metalosate when compared to the 16 oz/ac rate and the check. Zinc tissue samples for the 32 oz/ac rate of Metalosate were higher than the check. Both rates of Metalosate had an increase in number of trifoliolate nodes on Aug. 4 when compared to the check. No differences were seen in height, pods/plant, chlorophyll readings, yield, % protein, % oil, or seed weight. No cost information is available for Metalosate Big 5 as it is an experimental product.



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