



Manganese Study – 2009

Planted: May 26, 2009
Harvested: October 13, 2009
Rows: Eight 30" rows
Seeding Rate: 165,000 seeds/A.

Previous Crop: Corn
Tillage: Chisel / Field Cultivator
Herbicide: 32 oz. Glyphos Extra
Product Tested: BECK 322NR™*

RAINFALL	
April	10.0 in.
May	4.9 in.
June	4.6 in.
July	4.0 in.
August	<u>3.6 in.</u>
Total	27.1 in.

Purpose: To evaluate a foliar manganese application on soybeans. In this trial we are foliar applying MAN-GRO DF foliar manganese at a rate of 3 lbs./A. MAN-GRO DF, from Tetra Micro-Nutrients, is a highly concentrated water soluble manganese powder designed for foliar application to treat Glyphosate Induced Manganese Deficiency (GMID). Man-Gro in this study was applied as a tank mix with normal glyphosate applications and then evaluated as an additional stand alone treatment 10 days after the glyphosate application.

Treatment	Bushels Per Acre [†]	Bu./A. +/- Control	Cost of Treatment	Net \$ Return [^]	+/- Control
Roundup	67.4		-----	\$643.67	
Roundup + MAN-GRO DF	68.2	0.8	\$6.30	\$645.01	\$1.34
MAN-GRO DF 10 Days after Roundup Application	68.8	1.4	\$11.80	\$645.24	\$1.57

[†]Bushels per acre corrected to 13% moisture.

*XL Brand is distributed by Beck's Superior Hybrids, Inc.

[^]Soybean price used is \$9.55/Bu. Man-Gro cost = \$2.10/lb. Application Cost = \$5.50/A.

Summary: MAN-GRO foliar applications tank-mixed with glyphosate increased yield by less than 1 Bu./A. Treatments 10 days after the glyphosate application resulted in increased yields of 1.4 Bu./A. After the cost of the foliar manganese and/or application, manganese treatments resulted in minimal returns.



Optimize® Study on Soybeans – 2009

Planted: May 25, 2009
Harvested: October 1, 2009
Rows: Eight 30" rows
Seeding Rate: 150,000 seeds/A.
Replications: Three (averaged)

Previous Crop: Corn
Tillage: Chisel / Field Cultivator
Herbicide: 32 oz. Credit Extra
Product Tested: BECK 287NR™*

RAINFALL	
April	10.0 in.
May	4.9 in.
June	4.6 in.
July	4.0 in.
August	<u>3.6 in.</u>
Total	27.1 in.

Purpose: To study the performance of Optimize seed treatment on soybeans. Optimize is a unique seed applied product that enhances natural growth processes essentially enabling soybeans to achieve full genetic potential by maximizing crop performance all season long. Optimize contains a Bradyrhizobium japonicum inoculant along with a LCO Promoter Technology that is a naturally occurring molecule (Lipo-chitoligosaccharide) that advances both root and shoot development and improves plant health independently of soil conditions. The result of this is healthier soybean plants that can withstand environmental stresses throughout the season.

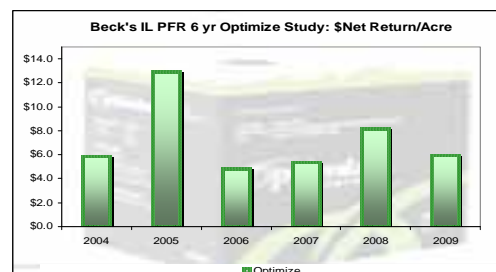
	Bushels [†] Per Acre	Net Return [^]	+/- Control
Control	66.1	\$631.26	
Optimize®	<u>67.1</u>	\$636.89	+\$5.64
AVERAGE	1.0		

[†]Bushels per acre corrected to 13% moisture.

[^]Net return based on \$9.55 per bushel soybeans and Optimize Treatment cost at \$3.39/unit

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Summary: Optimize seed treatments increased yield by 1.0 Bu./A. which led to an increased net return of \$5.96/A. This is the sixth year in a row that Optimize seed treatments have increased net return. The six year average net return increase is \$7.20/A.