



100 Bushel Soybean Study – 2009

Planted:	May 21, 2009	Previous Crop:	Corn
Harvested:	October 5, 2009	Tillage:	Chisel / Field Cultivator (twice)
Rows:	Eleven 15" rows	Herbicide:	Early Post: 25 oz. Cornerstone
Seeding Rate:	Various		4 oz. Shadow
Product Tested:	BECK 445NR		Post: 32 oz. Cornerstone

RAINFALL	
April	7.0 in.
May	5.9 in.
June	4.1 in.
July	7.2 in.
August	1.4 in.
Total	25.6 in.

Purpose: This is the second year that we have attempted to break our 100 bushel soybean goal at the Southern PFR farm. All of the entries in this year's attempt started with a base seed treatment that contained Beck's standard fungicide and insecticide treatments, Protinus™, (a seed-applied nutrient product containing zinc, manganese, and iron) and Optimize®. The first portion of the study is a population trial to target the optimum seeding rate for maximizing yield. The second portion is a test of various foliar treatments to help increase yield. These treatments include Ultra Blazer®, a diphenyl-ether herbicide, to attempt to shorten the plant, Ele-Max® ENC+Mn (5-4-2 + Mn foliar fertilizer), Headline® fungicide, and Mustang Max™ insecticide. An additional application of Headline® and Mustang Max™ was also applied to each entry in the foliar treatment portion at the R4 growth stage.

Population Test

Average Emerged Population	Additional Treatment	Growth Stage	Rep 1 Bushels Per Acre†	Rep 2 Bushels Per Acre†	Average Bushels Per Acre†
150,000	Headline / Mustang Max	R4	78.1	79.1	78.9
175,000	Headline / Mustang Max	R4	84.9	80.4	82.7
190,000	Headline / Mustang Max	R4	84.0	81.8	82.9

Foliar Application Test

Treatment Number	Additional Foliar Treatments Applied	Growth Stage	160,000 Pop. Bushels Per Acre†	200,000 Pop. Bushels Per Acre†	Average Bushels Per Acre†
1	Headline / Mustang Max	V6	83.6	77.9	80.8
2	Ultra Blazer	V6	80.1	80.1	80.1
3	Ele-Max ENC 5-4-2 + Mn	Pre-Bloom	81.4	83.7	82.6
4	Treatments 1 & 3	V6 / Pre-Bloom	83.2	77.5	80.4
5	Treatments 2 & 3	V6 / Pre-Bloom	<u>81.7</u>	<u>81.1</u>	81.4
			82.0	80.1	

†Bushels per acre corrected to 13% moisture.

Summary: Although this year's attempt fell short of our goal, yields were still very good considering the excessive amount of rain that we received. The population portion of this study provided this year's highest yielding entry. Beck 445NR treated with Headline and Mustang Max at R4 yielded 84.9 Bu./A. planted at 175,000 seeds per acre. The 175,000 and 190,000 seeds per acre provided similar yields, while lower seeding rates produced less. The addition of the Ele-Max ENC foliar fertilizer with manganese also performed well in the foliar application portion of the study and averaged 2 Bu./A. higher than any of the other foliar treatments. Our attempt to shorten the internodes of this year's crop to improve standability by using a diphenyl-ether herbicide did not work as well as expected due to cool weather and low humidity that minimized the anticipated burn. An additional application of Headline and Mustang Max prior to flowering to promote better plant health did not provide additional yield either. Due to the excellent standability of Beck 445NR, lodging was not a significant factor in this year's attempt.