

Seeding Rates for Roundup Ready Soybeans

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Objective

To evaluate the effect of seeding rate on yield of Roundup Ready Soybeans.

Background

Cooperator:	Tom Weiler	Fertilizer:	None
County:	Morrow	Herbicide:	
Nearest Town:	Chesterville	PRE:	Valor 1.25 oz/A
Drainage:	Systematically tiled	POST:	Roundup Ultra Max 26 oz/A
Soil type:	Sleeth silt loam	Planting Date:	May 22
Tillage:	Conventional	Planting Rate:	See table
Previous Crop:	Corn	Row Width:	10-inch
Variety:	Pioneer 93B72RR	Harvest Date:	October 11
Soil Test:	pH 7.0, P 23 ppm, K 154 ppm		

Methods

Three seeding rates were used to determine the effect of seeding rate on yields. They were 120,000, 162,500, and 227,500 seeds per acre. The seed had a germination percentage of 90%. The treatments were replicated four times in a randomized complete block design. Plot size was approximately 4/ 10 acre. The soybeans were planted in 30-foot wide strips, and a 20-foot wide strip was harvested and weighed using a weigh wagon. Harvest population was calculated by counting plants in 1/ 1000 of one acre in each plot.

Results

Table 1. Harvest Population and Soybean Yield.^a

Planted Population (seeds/A)	Harvest Population (plants/A)	Yield (bu/A)
120,000	92,000 a	54.4 a
162,500	120,000 b	57.2 a
227,500	171,000 c	56.0 a
LSD (0.05)	17,329	NS
F-test	46.7	1.5

^a Means followed by the same letter in the same column are not significantly different. NS = Not Significant

Summary

For 2002 the seeding rates did not have a significant effect on yields in this study. Similar results were found the previous year on the same farm with a different variety (Pioneer 93B01RR). The results support other studies indicating soybeans will compensate for thinner stands. The moisture levels were nearly uniform across the plots. They tested in a narrow range of 11.6% to 11.8%. Thus, yields reported were not adjusted to a standard moisture level.

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