

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	Tillage:	Conventional
Nearest town:	Chesterville	Herbicides:	Roundup Ultra 1 qt/A + AMS
Soil Type:	Chili loam	Variety:	Pioneer 93B01
Previous Crop:	Corn	Row Width:	10 inches
Drainage:	Naturally well drained	Planting Date:	May 1, 2001
Soil Test:	pH 6.5, P 104 ppm, K 208 ppm	Planting Rate:	See Methods
		Harvest Date:	October 2, 2001

Methods

Three population 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 used was rated at 85 percent germination. The population rates were replicated four times in a randomized complete block design. Individual plot size was approximately 1/4 acre. The soybeans were planted in 30-foot-wide strips for a length of about 360 feet. A 20-foot-wide strip was harvested the length of the strip and weighed using a weigh wagon.

Harvest population was determined by counting the soybean plants in 1/1,000 of one acre between two rows in each individual treatment.

Results

Table 1. Soybean Population and Yield.¹

Planted Population (seeds/A)	Harvested Population (plants/A)	Yield (bu/A)
120,000	95,750 a	42.9 a
162,500	114,000 b	41.8 a
227,500	162,000 c	42.0 a
LSD (0.05)	17,329	NS
F-test	46.7	< 1
CV (%)	8.1	3.4

¹ Means followed by the same letter are not significantly different.

Summary and Notes

A uniform stand was achieved for all the seeding rates. No significant difference in yields was found for any of the three population treatments. Weed control in all the plots was very good. No yield differences may be attributed to excellent growing conditions later in the season and lack of competition with weeds.

Acknowledgment

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