Soybean Seeding Rates in 30-Inch Rows

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Objective

To determine whether there are significant yield differences when seeding rates of soybeans are increased from 110,000 to 165,000 to 220,000 seeds per acre.

Background

Fertilizer: Cooperator: Darke County Farm Broadcast 100 lb/A 0-41-0 County:

Darke County 125 lb/A 0-0-60

Nearest Town: Greenville Planting Date: May 30, 2002 Drainage: Subsurface Planting Rate: See treatment

Soil types: Miami silt loam and Row Width: 30-inch

> Herbicides: Eldean loam

Tillage: No-till PRE: 26 oz/A Roundup Ultra Max

Previous Crop: 1.4 oz/A Sceptor Corn

Variety: Cropland 3276 POST: 26 oz/A Roundup Ultra Max

Soil test: pH 5.9, P 28 ppm, 0.2 oz/A First Rate

> K 150 ppm Harvest Date: October 4, 2002

Methods

Soybeans were planted using a Buffalo slot planter with Kinze brush-type seed meter units. The plots were replicated four times with each plot 30 feet wide and approximately 750 feet in length. One stand count was taken approximately three weeks after emergence in each of the four replications of each population to verify differences in seeding rates.

Results

Table 1. Soybean Stand, Moisture, and Yield.^a

Planted Population (seeds/A)	Stand Count (plants/A)	Harvest Moisture (%)	Yield (bu/A)
110,000	93,573 a	12	12.4
165,000	138,747 b	12	12
220,000	157,551 b	12	13.7
LSD (0.05)	32,263	NS	NS
F-test	16	<1	1.8

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

There were no significant differences in the yields when comparing three different seeding rates of soybeans planted in 30-inch rows. This was not an exceptionally good year for growing soybeans in our area. Expected yields are usually four to five times greater than what was experienced this year. Due to the extremely dry and hot weather, herbicide efficacy was very low, and the canopy was thin. This resulted in significant weed pressure.

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