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Mark A. Licht *Iowa State University,* lichtma@iastate.edu

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Soybean Planting Dates and Populations

Abstract

Soybean genetics are changing yearly with improved yield and/or resistance capabilities. Additionally, small plot research from Iowa State University indicates a seeding rate of 125,000 to 140,000 seeds/acre depending on environmental, weather, and risk of pathogens. This trial was designed to demonstrate this recommendation on a local site with local conditions.

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Soybean Planting Dates and Populations

RFR-A1053

Mark Licht, field agronomist ISU Extension

Introduction

Soybean genetics are changing yearly with improved yield and/or resistance capabilities. Additionally, small plot research from Iowa State University indicates a seeding rate of 125,000 to 140,000 seeds/acre depending on environmental, weather, and risk of pathogens. This trial was designed to demonstrate this recommendation on a local site with local conditions.

Materials and Methods

The soil type is Monona silt loam with the majority having 2 to 5 percent slope. The previous crop was corn. The trial was replicated four times with three seeding rate treatments of the same soybean variety. Seeding rates chosen were from 100,000, 125,000, and 140,000. Each plot was 30 ft

Table 1. Grain yield results from threeseeding rates.

Seeding rate	Grain yield
seeds/acre	bushels/acre
100,000	68.7
125,000	68.2
140,000	66.3
LSD (0.05)	ns

wide by varying plot lengths ranging from 300 to 380 ft.

The trial had no fall or spring tillage and was no-till planted. A preplant burndown herbicide application was used with a second herbicide application in mid-June. No insecticide was applied. The plot was planted on May 5, 2010 and harvested on October 5, 2010.

Results and Discussion

Grain yields indicated a slight but nonsignificant yield increase at the 100,000 and 125,000 seeds/acre treatments (Table 1). Yields ranged from 68.2 down to 66.3 bushels/acre. These results would reinforce the ISU recommendation of a seeding rate of 125,000 to 140,000 seeding rate.

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