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Low Linolenic Soybean Plots

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Abstract
This project is designed to compare the yields of the new Iowa State low linolenic soybean varieties with soybean varieties commonly grown as food grade soybeans for specialty markets near the Allee Research Farm, Newell, Iowa. The Allee Research Farm is the zone for group 2 maturity range soybeans. The new IA2064 low linolenic soybean variety is adapted to this zone. Producers need performance data to help evaluate the premium offered for growing the new soybeans. Premiums are designed to cover yield drag and identity preservation costs.

Disciplines
Agricultural Science | Agriculture

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Introduction

This project is designed to compare the yields of the new Iowa State low linolenic soybean varieties with soybean varieties commonly grown as food grade soybeans for specialty markets near the Allee Research Farm, Newell, Iowa. The Allee Research Farm is the zone for group 2 maturity range soybeans. The new IA2064 low linolenic soybean variety is adapted to this zone. Producers need performance data to help evaluate the premium offered for growing the new soybeans. Premiums are designed to cover yield drag and identity preservation costs.

Materials and Methods

The study was planted into cornstalks that had been fall chiseled, spring field cultivated, and disked before planting. No fertilizer was applied to the plot area. The plots were planted on May 16 at a rate of 175,000 ppa in 30-in. rows. Weed control consisted of one cultivation and a preemergence application of Pursuit Plus and a postemergence application of Flexstar and Fusion. This study was randomized and replicated three times.

Results and Discussion

The low linolenic soybean variety grown in the plot was compared with the popular varieties of food grade soybeans commonly grown in the area by farmers (Table 1). Average plot yield was 49.7 bushels/acre. The individual variety yield results are shown in Table 2.

This was a good year for soybean yields, especially when compared with the low yields experienced last year. No damage was observed due to weather, disease, or insects. There was a small amount of hail but no measurable damage. The low linolenic IA2064 had a higher yield compared with the plot average yield and was the top yielding food grade soybean variety in the test. The low linolenic soybeans appear to be a good fit for the area.

Table 1. Varieties in the study.

Company	Variety	Maturity	Comments
Iowa State	IA2064	2.7	Low Linolenic
Iowa State	Vinton 81	2.3	Large Seed, High Protein
Iowa State	IA1013	2.2	Large Seed, High Protein
Iowa State	IA2067	2.5	Large Seed, High Protein
Shilling	240FYG	2.5	Large Seed, High Protein
Iowa State	IA2042	2.5	Large Seed, High Protein
Iowa State	IA2025	2.5	Lipoxygenase Free

Table 2. Variety yields.

Variety	Yield	Maturity
IA2064	53.8	2.7
Vinton 81	44.5	2.3
IA1013	46.2	2.2
IA2067	52.2	2.5
240FYG	51.4	2.5
IA2042	49.4	2.5
IA2025	50.4	2.5