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# Soybean Planting Dates and Populations

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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 planting recommendation of April 20 or as soon as soil and weather conditions are suitable at populations of 125,000 to 140,000 seeds/acre. This trial was designed to demonstrate this recommendation on a local site with local conditions.

## **Disciplines**

Agricultural Science | Agriculture

## Soybean Planting Dates and Populations

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### Introduction

Soybean genetics are changing yearly with improved yield and/or resistance capabilities. Additionally, small plot research from Iowa State University indicates a planting recommendation of April 20 or as soon as soil and weather conditions are suitable at populations of 125,000 to 140,000 seeds/acre. This trial was designed to demonstrate this recommendation on a local site with local conditions.

### Materials and Methods

The first year at the Western Research and Demonstration Farm was in 2007. The previous crop was corn. The soil type is Monona silt loam with the majority having 2 to 5% slope.

The trial was replicated three times with four treatments (combination of two planting dates and two seeding rates) of the same soybean variety. Seeding rates chosen were from 125,000 and 140,000 on planting dates of April 30 and May 14. Each plot was 30 ft wide by plot length, which varied from 510 ft to 670 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 phosphorus or potassium was applied. No insecticide was applied.

### Results and Discussion

Grain yields indicated a slight but non-significant yield decrease of 1.1 bushels/acre by dropping the population from 140,000 to 125,000 seeds/acre. The earlier planting date of April 30 yielded slightly more, but not statistically different, than the May 14 planting date.

These results indicate a recommended planting date as early as possible under suitable soil and environmental conditions. And, although grain yields don't show tremendous advantage for planting a higher population, the economic savings of planting fewer seeds may be a more important factor.

### Acknowledgements

Appreciation is extended to Wayne Roush and Don Hummel. Additional thanks goes to Brad Hanson for plot harvest.

**Table 1. Grain moisture and yield results from two planting dates and two seeding rates at the Western Research and Demonstration Farm.**

Planting date	Seeding rate seeds/acre	Grain moisture	Grain yield
		%	bushels/acre
Apr 30	125,000	10.9	47.8
Apr 30	140,000	10.9	48.9
May 14	125,000	10.7	47.2
May 14	140,000	10.8	48.3
LSD <sub>(0.05)</sub>		ns	ns