

Optimum Soybean Planting Date

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Introduction

Past research by Iowa State University has shown the optimum planting date for soybeans, assuming favorable soil conditions, is the first week in May for the northern third of Iowa. The optimum date for the southern two-thirds of Iowa is the last week of April. Given that rapidly changing soybean genetics have shown improvements in both yield and disease resistance, this trial was designed to demonstrate the planting recommendation under local conditions.

Materials and Methods

The trial was conducted on a Monona silt loam soil type with the majority having a 2 to 5 percent slope. The site was located in Monona County with the last week in April as the recommended target planting date. There were two different planting date treatments; each replicated four times. Planting dates were May 14 and June 3. Plot size was 20 ft wide by approximately 540 ft long. The trials had no fall or spring tillage and were no-till planted into standing corn residue in 30-in. rows. Seed drop for both trials was set at 138,898 per acre.

Dry fertilizer was broadcast spread in the spring as a mixture of 11-52-0 and 0-0-60 yielding an analysis of 17-80-80 per acre. One pre-plant burndown and one post-emerge application of Roundup was used. The burndown also contained 2 oz of Sencor DF

and 0.8 oz of Brawl II. Weed control was rated as excellent.

The seed variety used was Renze 2889RR and had a CruiserMax seed treatment. Yield results were corrected to an industry standard of 13.0 percent moisture.

Results and Discussion

The yield results are displayed in Table 1 and show there was a yield benefit of 2.7 bushels/acre from earlier planting for this year under these conditions. Soil conditions were not “favorable” for planting during the last week of April and planting was delayed until early May, which follows the ISU recommendation. It should be noted that planting soybeans too early has some risks. Early planted soybeans may have more seedling diseases, are at greater risk of sudden death syndrome, and could be damaged if a late spring frost occurs. These risks could even be greater if planting occurs in unfavorable soil conditions.

Acknowledgements

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Table 1. Soybean planting date yields.

<u>Planting date</u>	<u>Yield (bushels/acre)</u>
May 14	61.4
June 3	58.7*

*=statistical difference at a P value of P=0.015.
Yields corrected to 13.0%.