

Soybean Date of Planting and Maturity in South Central Iowa

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Introduction

Inevitably, every year soybean planting is delayed or needs to be replanted because of weather. Even if soybean planting starts and progresses in a timely manner, there is always the question of what maturity group should be planted. This trial was setup to determine what maturities are well suited for a given geographic location, but also how maturity selection should be adjusted as planting dates get pushed into late spring.

Materials and Methods

This project was conducted at the McNay Memorial Research Farm, Chariton, Iowa, as well as six additional Iowa State University research and demonstration farms across Iowa in 2014, 2015, and 2016 with the same varieties (P25T51, P35T58, P39T67R), in 2017 (CZ2915LL, CZ3601LL, CZ3841LL), and 2018 (P31A22X, P36A18X, P38T20X). In the first three years of this study, the four target planting dates were May 1, May 20, June 10, and July 1.

In the last two years of the study, the target planting dates were April 20, May 1, May 15, and May 30. The plots were setup in a split plot arrangement with four replications. Target planting date was the whole plot and hybrid was the split plot. A target seeding rate of 140,000 seeds/acre was used. Data collection included growth staging, grain yield, and grain moisture.

Results and Discussion

Soybean relative yield was highest when planted from late April to mid-May (Figure 1). Yield levels began to drop more substantially as planting date was delayed into June. Due to drift, the 2017 Credenz soybeans were burned and the data was discarded. Overall, yield potential was not improved by switching to shorter season varieties at later planting dates.

These results support the ISU Extension and Outreach planting date recommendations of planting in late April or early May, as long as soil temperature and the weather forecast are favorable.

Acknowledgements

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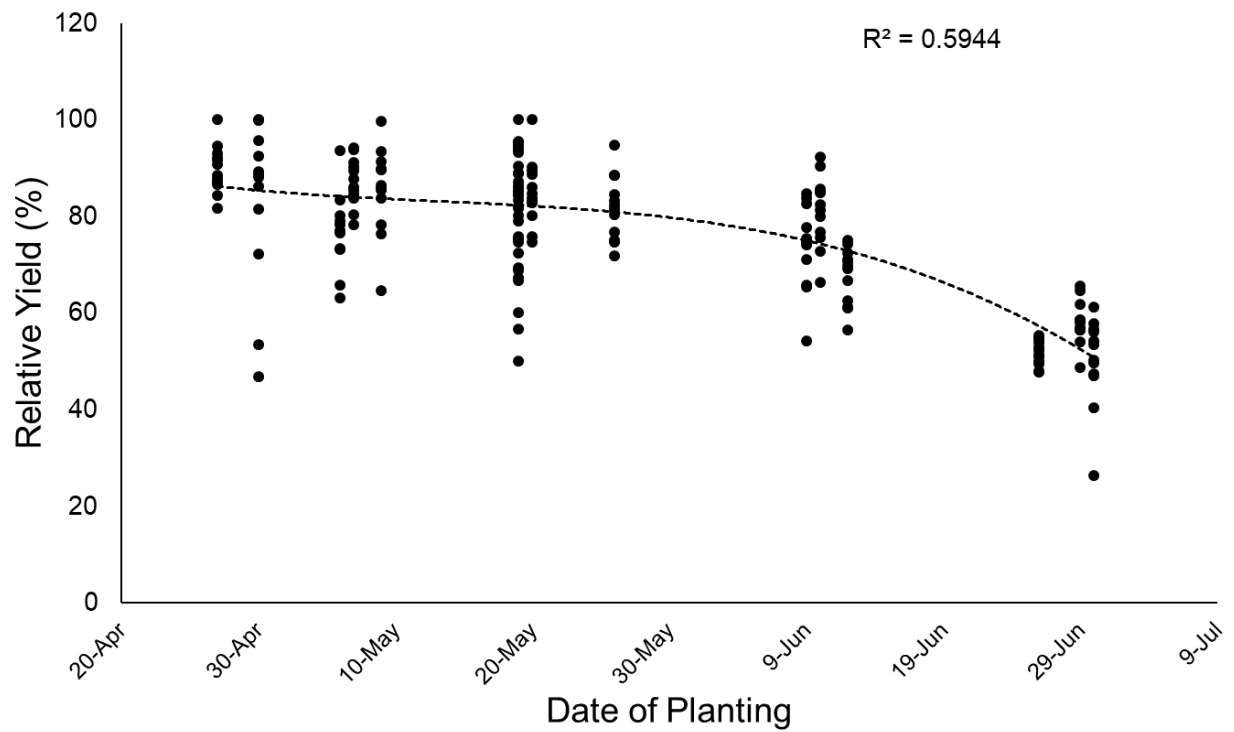


Figure 1. Soybean relative yield from 2014 through 2018 as affected by planting date across a range of soybean maturity groups at the ISU McNay Research Farm, Chariton, IA.