

# Corn Date of Planting and Maturity in South Central Iowa

## RFR-A18109

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### Introduction

Inevitably, every year corn planting is delayed or needs to be replanted because of weather somewhere in Iowa. Even if corn planting starts and progresses in a timely manner, there always is the question of what maturity 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 hybrids (P0636, P1151, P1365) and with different hybrids in 2017 and 2018 (P0589AM, P1197AM, P1555CHR). In the first three years of this study, the four target planting dates were April 15, May 10, June 5, and June 30. In the last two years of the study,

the target planting dates were April 10, April 25, May 10, and May 25. 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 35,600 seeds/acre was used. Data collection included growth staging, stand counts, grain yield, and grain moisture.

### Results and Discussion

Relative corn yield was maximized with planting dates from late April to mid-May across all relative maturities (Figure 1). Extreme variation in relative yield is due to animal damage to the plots in 2017. There was a dramatic decrease in yield when the crop was planted after the middle of May, and in some cases late June planting dates (i.e. 2015) did not reach maturity regardless of relative maturity. Overall, yield potential was not improved by switching to shorter season varieties at later planting dates.

### Acknowledgements

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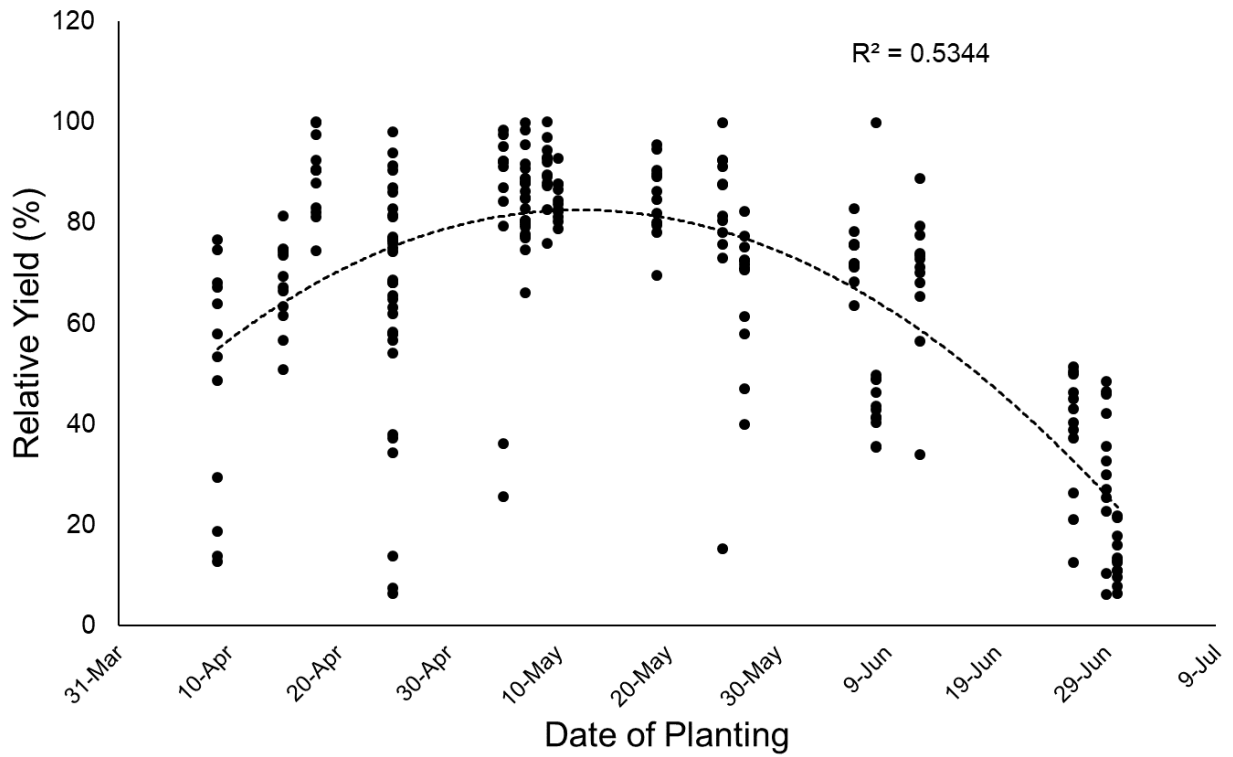


Figure 1. Corn relative yield from 2014 through 2018 as affected by planting date across a range of hybrid maturities at the ISU McNay Research Farm, Chariton, IA.