

Corn Date of Planting and Maturity in Northeast Iowa

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Mark Licht, cropping systems agronomist
Department of Agronomy
Ken Pecinovsky, farm superintendent

Introduction

Inevitably, every year corn planting gets 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 set up 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 ISU Northeast Research Farm as well as six additional Iowa State University research farms across Iowa in 2014 and 2015. Each year the same three hybrids (P9526, P0407, and P0987) were planted at four target planting dates (April 15, May 10, June 5, and June 30). The plots were set up 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

35,000 seeds/acre was used. Data collection included growth staging, stand counts, grain yield, and grain moisture.

Results and Discussion

In 2014, the corn yielded the most at the first date of planting (DOP) for each hybrid (Table 1 and Figure 1). In 2015, yields were highest and were similar for the first and second DOP for each hybrid. However, in both 2014 and 2015, the latest DOP (June 28 and June 30, respectively) either did not reach maturity or saw dramatic yield declines. These results suggest mid-April to early May is an ideal planting date window.

In 2014 and 2015, the 109-day P0987 hybrid had the highest yield potential and the 95-day P9526 hybrid was lower yielding at the first two DOP (Table 1). Switching maturity selection to an earlier adapted hybrid may improve yield potential at late DOP.

Acknowledgements

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Table 1. Corn grain yield and moisture of three hybrids at four planting dates at the ISU Northeast Research Farm in 2014 and 2015.

Actual date of planting	P9526 (95-day)		P0407 (104-day)		P0987 (109-day)	
	Grain yield (bu/ac)	Grain moisture (%)	Grain yield (bu/ac)	Grain moisture (%)	Grain yield (bu/ac)	Grain moisture (%)
4/19/14	167.3	17.7	175.4	18.2	193.6	21.0
5/8/14	157.3	17.8	174.2	19.4	188.6	22.1
6/1/14	168.5	20.8	163.3	26.2	148.6	29.0
6/28/14	Did not mature		Did not mature		Did not mature	
4/15/15	218.2	15.2	217.2	15.8	226.1	17.1
5/9/15	215.4	15.3	203.0	16.6	213.4	18.0
6/2/15	189.3	18.4	140.8	19.1	184.1	23.5
6/30/15	98.2	33.0	52.9	36.2	60.2	40.0

The 6/30/15 DOP did not mature but was harvestable.

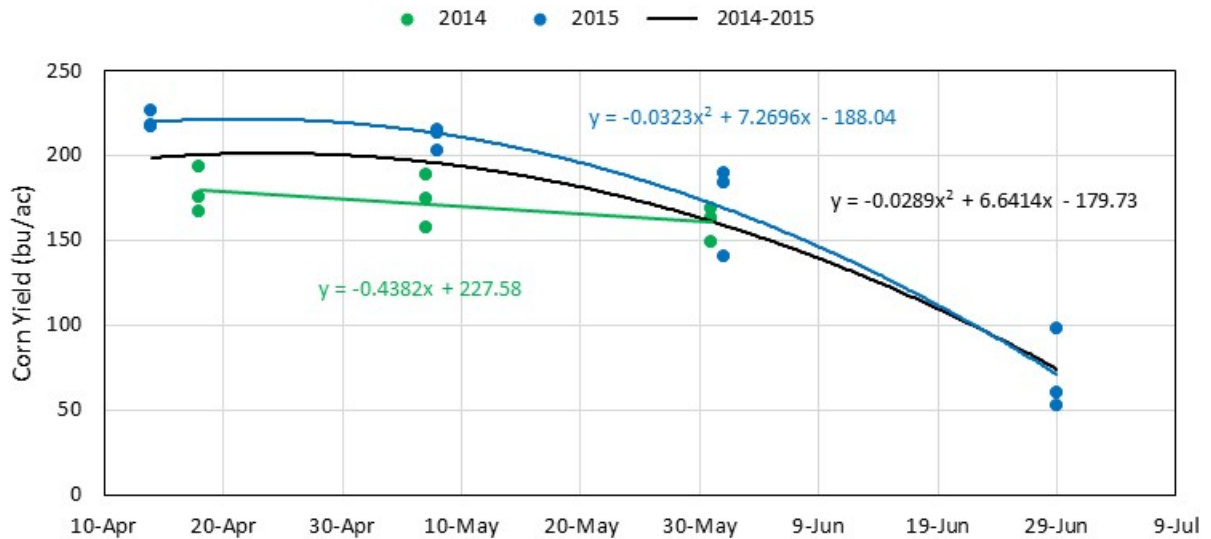


Figure 1. Corn grain yield loss associated with delays in planting at the ISU Northeast Research Farm in 2014 and 2015.