


2017

Soybean Date of Planting and Maturity in Southeast Iowa

Mark Licht
Iowa State University, lichtma@iastate.edu

Myron Rees
Iowa State University, mrees@iastate.edu

Follow this and additional works at: <https://lib.dr.iastate.edu/farmprogressreports>

 Part of the [Agriculture Commons](#), and the [Agronomy and Crop Sciences Commons](#)

Recommended Citation

Licht, Mark and Rees, Myron (2017) "Soybean Date of Planting and Maturity in Southeast Iowa," *Farm Progress Reports*: Vol. 2016 : Iss. 1 , Article 150.

DOI: <https://doi.org/10.31274/farmprogressreports-180814-1713>

Available at: <https://lib.dr.iastate.edu/farmprogressreports/vol2016/iss1/150>

This Southeast Research and Demonstration Farm is brought to you for free and open access by the Extension and Experiment Station Publications at Iowa State University Digital Repository. It has been accepted for inclusion in Farm Progress Reports by an authorized editor of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.

Soybean Date of Planting and Maturity in Southeast Iowa

RFR-A16112

Mark Licht, assistant professor and extension cropping systems specialist
Department of Agronomy
Myron Rees, farm superintendent

Introduction

Inevitably, every year soybean planting gets delayed or needs to be replanted because of weather somewhere in Iowa. Even if soybean planting starts and progresses in a timely manner, there always is 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 ISU Southeast Research Farm as well as six additional Iowa State University research farms across Iowa in 2014, 2015, and 2016. Every year the same three varieties (P25T51, P35T58, P39T67R) were planted at four target planting dates (May 1, May 20, June 10, and July 1). 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

In all three years, the early to mid-May dates of planting (DOP) had higher yields than subsequent DOP (Table 1). 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.

In all years, the highest yield was achieved with the 3.9 maturity (Table 1). In 2014 and 2016, the yield was significantly different between the early maturing variety and later maturing varieties. Yield potential was not improved by switching to shorter season varieties at later planting dates.

Acknowledgements

This project was supported by the ISU Research and Demonstration Farms and the Iowa Agriculture and Home Economics Experiment Station. Seed was provided by DuPont-Pioneer.

Table 1. Soybean grain yield of three varieties at four planting dates at the ISU Southeast Research Farm, Crawfordsville, IA, in 2014, 2015, and 2016.

Actual date of planting	P25T51R (2.5 MG)	P35T58R (3.5 MG)	P39T67R (3.9 MG)	Average yield (bu/ac)
grain yield (bu/ac)				
5/5/2014	65.1	71.3	74.2	70.2
5/19/2014	59.3	70.5	70.5	66.8
6/12/2014	54.4	56.7	61.8	57.6
6/27/2014	44.7	43.2	47.0	45.0
Average yield (bu/ac)	55.9	60.4	63.4	P < 0.0001
P = 0.0010				
5/4/2015	60.4	63.2	63.9	62.5
5/19/2015	50.8	60.3	57.1	56.0
6/10/2015	48.3	51.1	50.9	50.1
7/1/2015	44.9	47.8	44.9	45.8
Average yield (bu/ac)	51.1	55.6	54.2	P < 0.0001
P = 0.1618				
5/9/2016	60.9	69.8	70.9	67.2
5/22/2016	58.2	68.8	66.1	64.4
6/9/2016	46.4	55.7	59.9	54.0
6/29/2016	34.3	32.6	37.7	34.9
Average yield (bu/ac)	49.9	56.7	58.7	P = 0.0001
P = 0.0001				

*The P-values below the columns indicate the main effect of variety on yield. The P-values to the right of the table refer to the main effect of planting date on yield. P-values for the interaction effect between planting date and variety are as follows 2014, P = 0.3326; 2015, P = 0.9220; 2016, P = 0.0683.