2016

Soybean Date of Planting and Maturity in Southwest Iowa

Mark A. Licht  
*Iowa State University*, lichtma@iastate.edu

Dan Schaben  
*Iowa State University*, dschaben@iastate.edu

Follow this and additional works at: [https://lib.dr.iastate.edu/farmprogressreports](https://lib.dr.iastate.edu/farmprogressreports)

Part of the [Agricultural Science Commons](https://lib.dr.iastate.edu/agsciences), [Agriculture Commons](https://lib.dr.iastate.edu/agriculture), and the [Agronomy and Crop Sciences Commons](https://lib.dr.iastate.edu/agronomy)

Recommended Citation
Licht, Mark A. and Schaben, Dan (2016) "Soybean Date of Planting and Maturity in Southwest Iowa," *Farm Progress Reports*: Vol. 2015 : Iss. 1 , Article 33.
DOI: [https://doi.org/10.31274/farmprogressreports-180814-1444](https://doi.org/10.31274/farmprogressreports-180814-1444)
Available at: [https://lib.dr.iastate.edu/farmprogressreports/vol2015/iss1/33](https://lib.dr.iastate.edu/farmprogressreports/vol2015/iss1/33)
Soybean Date of Planting and Maturity in Southwest Iowa

RFR-A1565

Mark Licht, cropping systems agronomist
Department of Agronomy
Dan Schaben, ag specialist

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 is always the question of what maturity group 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 Armstrong Research Farm as well as six additional Iowa State University research farms across Iowa in 2014 and 2015. In both years, three varieties (P25T51, P35T58, P39T67R) were planted at four target planting dates (May 1, May 20, June 10, and July 1). 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 140,000 seeds/acre was used. Data collection included growth staging, grain yield, and grain moisture.

Results and Discussion
In both years, the late April to early May dates of planting (DOP) had higher yields than subsequent DOP (Table 1 and Figure 1). A yield potential of 85 percent or greater was achieved when planting prior to May 19 or 21. 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 2014, the highest yield was achieved with the 2.5 maturity and in 2015 the highest yield was achieved with the 3.9 maturity (Table 1). 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 and moisture of three varieties at four planting dates at the ISU Armstrong Research Farm, Lewis, Iowa, in 2014 and 2015.

<table>
<thead>
<tr>
<th>Actual date of planting</th>
<th>Grain yield (bu/ac)</th>
<th>Grain moisture (%)</th>
<th>Grain yield (bu/ac)</th>
<th>Grain moisture (%)</th>
<th>Grain yield (bu/ac)</th>
<th>Grain moisture (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/5/14</td>
<td>P25T51 (2.5 MG)</td>
<td>61.8</td>
<td>P35T58R (3.5 MG)</td>
<td>69.6</td>
<td>P39T67 (3.9 MG)</td>
<td>75.2</td>
</tr>
<tr>
<td>5/19/14</td>
<td>64.3</td>
<td>11.0</td>
<td>68.9</td>
<td>12.0</td>
<td>76.5</td>
<td>10.8</td>
</tr>
<tr>
<td>6/3/14</td>
<td>54.2</td>
<td>10.9</td>
<td>61.0</td>
<td>11.2</td>
<td>60.3</td>
<td>10.4</td>
</tr>
<tr>
<td>7/3/14</td>
<td>32.9</td>
<td>11.2</td>
<td>35.0</td>
<td>11.6</td>
<td>32.9</td>
<td>13.4</td>
</tr>
<tr>
<td>5/1/15</td>
<td>74.6</td>
<td>16.6</td>
<td>67.8</td>
<td>16.2</td>
<td>70.8</td>
<td>16.0</td>
</tr>
<tr>
<td>5/21/15</td>
<td>76.2</td>
<td>16.1</td>
<td>50.9</td>
<td>16.0</td>
<td>65.5</td>
<td>15.6</td>
</tr>
<tr>
<td>6/2/15</td>
<td>60.9</td>
<td>15.7</td>
<td>60.7</td>
<td>15.7</td>
<td>58.0</td>
<td>15.5</td>
</tr>
<tr>
<td>7/1/15</td>
<td>43.1</td>
<td>15.6</td>
<td>48.2</td>
<td>15.6</td>
<td>44.8</td>
<td>16.3</td>
</tr>
</tbody>
</table>

Figure 1. Soybean grain yield loss associated with delays in planting at the ISU Armstrong Research Farm, Lewis, Iowa, in 2014 and 2015.