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Late Soybean Planting Options

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Abstract

This spring's weather conditions may be slowing down corn planting but soybean planting has not yet been impacted. As of May 5, soybean planting progress is estimated at 8% compared to 11% for the 5-year average (USDA-NASS, 2019). However, because of recent rains and corn planting delays there is concern that soybean planting will soon fall behind. In this article, we discuss the soybean yield potential and maturity selection considerations as planting progresses into late May and possibly June.

Disciplines

Agricultural Science | Agriculture

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This spring's weather conditions may be slowing down corn planting but soybean planting has not yet been impacted. As of May 5, soybean planting progress is estimated at 8% compared to 11% for the 5-year average (USDA-NASS, 2019). However, because of recent rains and corn planting delays there is concern that soybean planting will soon fall behind. In this article, we discuss the soybean yield potential and maturity selection considerations as planting progresses into late May and possibly June.

First, to put 2019 in context, we analyzed historical USDA-NASS planting date and yield data at the state level. This analysis showed that if 50% soybean planting occurred before May 31 there is a good chance to obtain high yield. In only 3 of the last 40 years, 50% planting completion occurred after May 31. Among these three years, two were extreme years, 2013 was wet early then dry later in the growing season whereas 1993 was wet throughout the growing season.
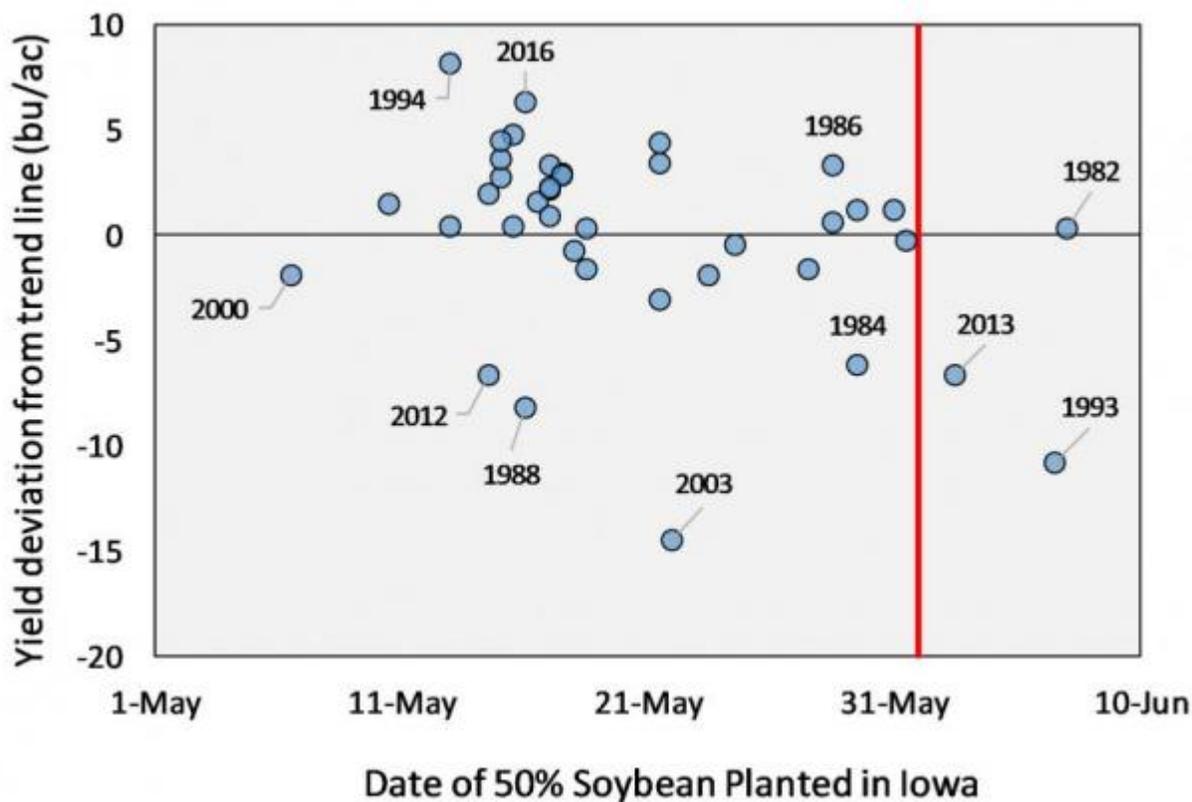
Figure 1. Iowa soybean yield deviation from trend line in response to 50% planting date completion at the state level.

A question that many farmers have is if they need to switch maturities. There is no need to switch soybean maturity group if planting can occur before June 1 in northern Iowa (Figure 2). In southern Iowa well adapted soybean varieties can be planted into June. Soybean have the ability to adjust development caused by late planting because they are photoperiod sensitive. In recent trials conducted at seven research farms over five years, the same soybean variety planted 40 to 60 days apart reached physiological maturity within 7-10 days of each other. Moreover, a 0.5 to 1.0 maturity group spread resulted in a difference of only 3-5 days to reach maturity.

To compare more planting date and maturity combinations and determine risk of fall frost at more specific regions across Iowa, you can explore the Soybean Planting Decision Making Tool at http://agron.iastate.edu/CroppingSystemsTools/soybean-decisions.html.
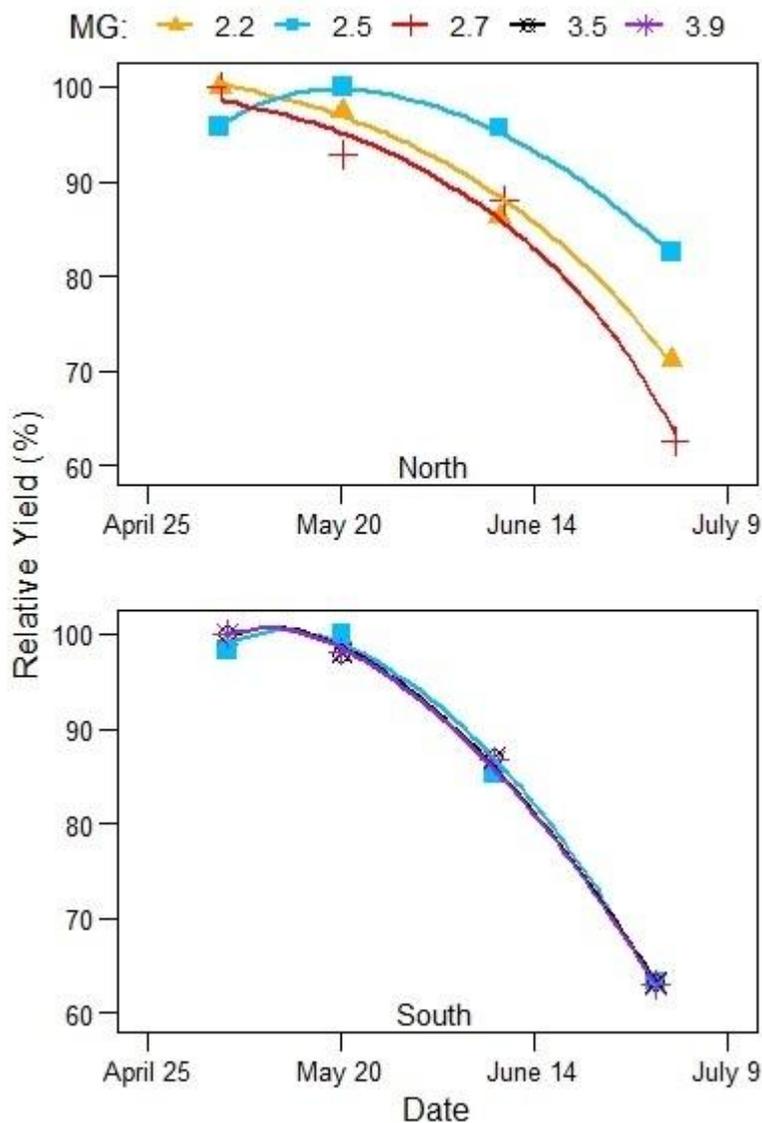
Figure 2. Soybean mean relative yield of 2.2, 2.5 and 2.7 maturity groups for the northern region of Iowa, and mean relative yield of 2.5, 3.5 and 3.9 maturity groups for the southern region of Iowa.

While it may be early at this point, if planting is delayed past June 15, the decision must be made either plant soybean using a shorter maturity group than well adapted for the area or consider Delayed and Prevented Planting crop insurance provisions. Planting soybean after May 20 will likely result in lost yield potential of 10% to 50% or more. For delayed and preventative planting the late coverage decreases each day from June 16 to July 10. In prevented planting situations, crop insurance language states the "cause of loss must be insurable and common to the area."

Bottom line, if planting is delayed past June 15; make a realistic determination of remaining soybean yield potential and feasibility of delayed and preventative planting

options. Talk with crop advisors, extension field agronomists and insurance providers to gather information to make the best decision given the situation.

Category: Crop Production

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Crop:

Soybean

Tags: soybean planted late Soybean planting decision tool maturity group soybean maturity

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