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Early planting IS important in Iowa

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Early planting IS important in Iowa

Abstract

This winter there has been a lot of information in the media and on the web regarding soybean planting date. In part, the reason is that a paper was published in the Agronomy Journal by two researchers from University of Kentucky stating that there is no consistent advantage for planting soybean early in the United States, but it is first after late May and early June that yields start to drop off. That is NOT correct for Iowa and is not correct for many of the states adjacent to Iowa as well.

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Early planting IS important in Iowa

By **Palle Pedersen, Department of Agronomy**

This winter there has been a lot of information in the media and on the web regarding soybean planting date. In part, the reason is that a paper was published in the Agronomy Journal by two researchers from University of Kentucky stating that there is no consistent advantage for planting soybean early in the United States, but it is first after late May and early June that yields start to drop off. That is NOT correct for Iowa and is not correct for many of the states adjacent to Iowa as well.

I have done a lot of research in cooperation with the Iowa Soybean Association on planting dates – 4 planting date studies in 2003, 14 studies in 2004, 14 studies in 2005, 15 studies in 2006, 18 studies in 2007, and 19 studies in 2008. I have a good idea on the best soybean planting date for Iowa. Thus, I can say with great confidence that early soybean planting IS important to maximize yield in Iowa but early planting requires more management.

With regard to the paper recently published in the Agronomy Journal, nine previously published papers from the Midwest were in this paper and used to assess the response to planting date in the Midwest. Eight of the studies were from 1990 or earlier and one paper, from 2002, specifically reported on bean leaf beetles (BLB) and soybean planting date. My point is that the recent published paper was written based on old data; probably using binrun beans; not using excellent and efficient post emergent weed management systems as we do today; not using fungicide/insecticide seed treatments as we do today; and probably also using excessive high seeding rates as was a norm previously but not today since it will give us more pathogens (eq. white mold). Furthermore, the experiments upon which the conclusion is based were from conditions of much lower yield potential than in Iowa. One thing that we have identified in Iowa is that management decisions often are not that critical when our yield potential is low (30-40 bu/acre). So, the next time you read something on the web or in the media that does not agree with my recommendations in Iowa, please do not hesitate to contact me. I am here to help and my phone is open 24/7.

What do we know about soybean planting dates in Iowa

As mentioned above, we have done, and continue to do, a tremendous amount of research funded by the checkoff and the Iowa Soybean Association regarding soybean planting dates. Based on this research, Iowa recommendations were changed a few years ago. The new recommendations are based on two variables and probably the biggest change is that the new recommendation does not take soil temperature into consideration. Soybean planting date is now based on calendar date and seedbed conditions.

We want to **start planting on April 25 for the southern 2/3 of Iowa and on May 1 for the northern 1/3 of Iowa** if we have good seedbed conditions. Another thing to also watch is the weather forecast for the next couple of days after planting so you do not plant just before a heavy rain. If you plant earlier

than the recommended time period, you increase your risk of having to replant simply because of the chance of getting a late freeze.

Early planting vs. management

It takes more management to achieve higher yields when planting early. Planting early just to plant early and then ignoring everything else is not recommended. Things like variety selection are more critical at early planting since plants are more vulnerable to soilborne pathogens such as sudden death syndrome (SDS). There seems to be more SDS in early planted soybeans but that should not dictate a later planting date. Growers can continue to plant early in Iowa and the yield benefit will outweigh the impact of SDS if resistant varieties are used. Planting a variety without any resistance to both SDS and soybean cyst nematode (SCN) early is like playing roulette!

Another important factor when planting early that should be monitored and that requires weekly scouting is the over-wintering generation of BLB. Frequent scouting is critical to be sure that no yield is lost from them. The bottom line is that farmers should not hold back from planting early, because they can easily manage BLB if they reach threshold and it will only cost a fraction to manage them if needed – compared to the yield loss that occurs due to delayed planting. Today, many farmers are now using a seed treatment to manage the over-wintering generation of BLB if it is a yearly problem on their farm.

Conclusion

No matter where you are in Iowa, early soybean planting will always give you greatest potential to achieve the highest yield. However, there are cases where early planting will yield the same as planting in mid-May. This is mostly associated with establishment problems such as soil crusting if you do too much tillage and planting is done just before a heavy rain. Early planting or the optimum time to plant soybean is the last week of April for the southern 2/3 of Iowa and the first week of May for the northern 1/3 of Iowa.

A target day for producers is to get soybeans planted by May 15. After that day, you start losing a significant amount of yield potential every day no matter where you are in the state. The yield you lose depends on your yield potential. A higher yielding field is losing more yield potential per day than a lower yielding field. At a higher yield potential you are losing a significant amount of yield already after May 8. More information on soybean planting dates can be found at www.soybeanmanagement.info

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