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Optimum planting date for soybean

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Abstract

We are getting close to planting now and many of us are anxious to get to the field. Hopefully, this year will be less painful than 2003. We know that the battle with nature is a challenge that we will not always win, but there are positive aspects to consider this year because prices for corn and soybean are currently at one of the highest levels in history.

Keywords

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INTEGRATED CROP MANAGEMENT

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High prices have led a few farmers to consider planting a short-season soybean variety prior to planting corn so they can harvest the soybean earlier in the fall and take advantage of higher prices before other farmers get their combines out of the shed. Because soybean maturity is most influenced by maturity group and not much by planting date, we do not recommend planting soybean before corn.

The various soybean maturity groups differ in the length of time it takes to reach harvest maturity. Once soybean plants have flowered, early-maturity groups progress through each R-stage more quickly than later maturity groups. However, yield and seed quality of early maturity soybean varieties may be significantly reduced if there is a lack of adequate rainfall or soil moisture during seed fill in August. Last year we saw a positive trend line for maturity group versus yield. It is important to remember that half of the seed dry matter accumulation occurs after R6. Again - just think about 2003.

Planting a full-season soybean variety at the optimum planting date is important to maximize your yield and quality. Numerous planting date studies have been conducted in the Midwest with similar results. However, if soil conditions are not suitable, early planting will not be economically feasible for the grower. Preliminary studies by Emerson Nafziger from University of Illinois showed that during three years in northern Illinois that there was on average a 10 percent yield loss for soybean planted in early April as compared with late April. In Iowa, optimum planting dates are the last week of April and first week of May (Table 1).

You still have plenty of time and there is no reason to rush planting. Wait until the last week of April at the earliest. Suitable soil conditions are a must. Full season varieties adapted to your specific area should be planted in an effort to maximize yield. Only if planting is significantly delayed should shorter season cultivars be considered.

Table 1. Effects of planting date on soybean yield (%) in Iowa, 1995-1997.

	Northern Iowa	Central Iowa	Southern Iowa
	Relative yield (percent of potential yield)		

Late April	100 *	96 *	98 *
Early May	96 *	100 *	100 *
Mid May	99 *	96 *	98 *
Early June	81	93	89
Mid June	61	59	82
Early July	33	45	47

Adapted from Soybean Replant Decisions (PM1851) [1], Iowa State University Extension.

* Not statistically different from 100 percent.

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[1] <http://www.extension.iastate.edu/Publications/PM1851.pdf>

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