Update:
"Safe" Hybrid Maturities for Delayed Corn Planting in Indiana

The 2011 planting season continues to drag on slowly across Indiana with only 29% of the state's corn acres estimated to have been planted by May 15 (USDA-NASS, 16 May 2011). One of the biggest agronomic concerns with severely delayed planting is the risk of the crop not reaching physiological maturity before a killing fall freeze and the yield losses that could result. An economic concern with delayed planting is the risk of high grain moistures at harvest and the resulting costs incurred by drying the grain or price discounts by buyers.

The tables that accompany this article list "safe" relative hybrid maturities for corn planted from May 20 to June 10 based on their heat unit requirements (adjusted for planting date) and anticipated "normal" accumulation of heat units between planting and an average date (50% probability) of a killing fall freeze. Because GDD accumulations are generally less and "usual" fall frosts occur earlier in the northern and eastcentral areas of Indiana, delayed planting forces hybrid maturity changes earlier than other areas of the state. However, even for those
areas of Indiana, serious departures from "typical" hybrid maturities need not be considered until later in May.

The maturities listed in Table 1 are those that should reach physiological maturity at least by the week when a killing fall freeze occurs, while Table 2 lists hybrid maturities that should mature at least one week PRIOR to a killing fall freeze. When making a decision to plant hybrid maturities that are unusually early for your area of the state, make the effort to identify hybrids with good disease resistance traits.

Recognize that while the hybrid maturities listed in either table should safely mature by their respective dates, severely delayed plantings will likely mature at a later time in the fall when further grain drying in the field typically occurs at a proverbial snail’s pace. Thus, grain moisture at harvest for delayed plantings may be unacceptably high in terms of both the ease of harvest and the costs of artificially drying the grain.

Farmers can mitigate this aggravation somewhat by planting even earlier maturity hybrids, but recognize that there may not be as great of a difference in grain moisture content as you think. Typically, a one "day" difference in relative maturity rating equals 0.5 percentage point difference in grain moisture content at harvest (Nielsen, 2009). That means there will only be about 2 points difference between, say, a 106-day hybrid and a 110-day hybrid at harvest.

The potential dollar gain from switching from corn to soybean as planting is further delayed is obviously an important consideration for farmers, but one that is difficult to estimate because of the many and varied agronomic and economic assumptions that influence that calculation. Among the challenging assumptions is the expected yield from delayed planting of the corn crop (Nielsen, 2011).

However, if you believe you have good economic estimates to plug into the calculations, then consider an Excel® spreadsheet tool available from the University of Illinois (Schnitkey & Batts, 2011) that will estimate the dollar gain or loss by switching from corn to soybean as planting delayed. This handy Excel spreadsheet offers some assistance in making an economic decision whether to switch from corn to soybean with delayed planting. However, recognize that your choice of yield, grain price, and production costs are critically important to whether the predicted economic results will be close to accurate. My advice: Do not simply use the spreadsheet’s default values, but thoughtfully input your own values. Also, recognize you are limited to selecting geographic areas only within Illinois, so non-Illini farmers should exercise caution with the use of this tool.

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