Maturity Study Helps Farmers Choose Varieties

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One decision farmers made last year was whether or not to change to a shorter maturity corn hybrid as planting was delayed later and later. Data obtained from a corn planting-hybrid maturity study conducted in 2009 at the Northwestern Illinois Agricultural Research and Demonstration Center at Monmouth will help provide answers to those questions in future years. The study consisted of four planting dates (April 3, 23, May 5 and 26) and two hybrids (Pioneer 34K04, 106-day maturity and Pioneer 33R88, 113-day maturity) with and without fungicide application at tassel. The study was harvested on October 16, following killing frosts on October 10 and 11, according to Eric Adee, Research Specialist at the Center.

The yield of the 113-day hybrid was more affected by planting date than the 106-day hybrid. The yield response of the shorter maturity hybrid was fairly constant for planting through the first week of May. The 113-day hybrid yielded higher than the 106-day hybrid at the first three planting dates. Planting at the end of May reduced the yield of the longer maturity hybrid to less than the shorter maturity hybrid.

In addition, grain moisture was about 5 percent higher with the 113-day hybrid planted May 5 and earlier, and more than 6 percent higher at the last planting date. According to Adee, when drying costs were subtracted from the income, the greatest advantage for the 113-day hybrid was when it was planted the last week of April. By the end of May, the income advantage was in favor of the shorter maturity hybrid.

When the killing frost occurred on October 10 and 11, the 113-day hybrid planted at the end of May was less than one-half milk line and the 106-day hybrid planted the end of May had just reached black layer.

This year it did pay to switch to a shorter maturity hybrid when planting was delayed to more than a month later than optimum, according to Adee. In a more "normal" year when the season isn't cut short, the advantage for the shorter maturity hybrid may have been reduced.

There was a trend for increased yield benefit to a fungicide application at the later planting dates. Across all planting dates and hybrids, fungicide application increased yield 9.6 bushels per acre.

Details on the study are available at this web site http://www.cropsci.illinois.edu/research/rdc/monmouth/ or by contacting Adee at adee@illinois.edu . Δ