



AgriGold

The Corn Specialist



SCOUTING YOUR CORN ACRES

Planting Date & Yield

Eastern Iowa Agronomist: Ryan Cline, CCA

What is the effect of planting date on corn yield? It seems this is the question most farmers are asking this spring. Simply put, planting date is not a single predictor of absolute yield in a given field for a given year. We know that early-planted corn will usually yield more than later-planted corn, although the exact yield level is more dependent on a host of other yield-influencing factors. Therefore, it is possible for early-planted corn in one year to yield more than, less than or equal to later-planted corn in another year depending on the exact mix of yield-influencing factors for each year.

The optimum time to plant varies from year to year; however, finishing planting by mid-May is a goal most producers should strive to achieve. Corn can be planted before the threat of freezing temperatures has passed for two reasons: 1) the time delay between planting and emergence, and 2) the growing point remains below the soil surface for some time following emergence. Research shows that the optimum time to plant corn in Iowa is between April 20 and May 10. However, 99% of the crops yield potential can still be realized with a planting date of May 20.

Date	Relative Yield (%)
April 20 - May 10	100
May 13 - May 20	99
May 27 - June 2	90
June 10 - June 16	68
June 24 - June 28	52

Planting dates aside, the best time to start planting corn is when soil conditions are favorable for seedling growth and emergence. Planting in wet soils is not advised. Planting in cool soils with temperatures between 50 – 55 degrees F will cause emergence to take three times longer than corn planted in 70 degree F soils. Both uneven and poor emergence can have a greater negative impact on yield than planting date.

Many farmers have asked the question about when to switch to earlier hybrids. Iowa State University recommends that no changes should be made until May 25th. At that time hybrids should be selected that are a 3-5 days earlier than what's typically considered full-season in your area. If planting is delayed another 7-10 day after May 25th then shorten up your maturities another 3-5 days. The cost of drying and the performance of early season hybrids have most growers planting well within their adapted maturities.

Source: "The Planting Date Paradox" Purdue University
"Corn Planting Guide" Iowa State University