Hardin County Extension News Release
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Corn Planting Date

*Hardin County* – Corn needs to be planted during suitable conditions and not by a calendar date. For northwestern Ohio, the probability for optimal yields occurs when corn is planted between April 25 and May 10. After this date, yields generally decline because of a shorter growing season. Corn planted before this time period will often have weakened or poor stands because of extended cool, wet conditions.

This optimal planting date window allows plants to take advantage of longer periods of daylight, pollinate earlier, and mature before a killing frost. Daylight lengthens from the first day of spring (March 21st) until the first day of summer (June 21st). After the first day of summer, day length gradually becomes shorter. Photosynthesis will be more active during these longer days, gathering more energy to put in grain. This stored energy will allow for more kernels per ear to develop - thus the sooner the plant gets started the greater chance to accumulate more energy.

Pollination is a critical time for corn production. If there is an extended hot, dry period during pollination, fertilization may not occur causing barren ears or ears only partially filled with kernels. Corn planted during the optimal time has a greater chance of pollinating before the hot dry weather of summer begins. In order for corn to mature in time, pollination should occur before the first part of August.

Traditionally, fuller season hybrids have tended to yield more than shorter season hybrids, but not always. Fuller season corn tends to get hurt by hot, dry weather at pollination. Early maturing corn planted at the same time as the fuller season corn yields the same or better in 5 of the last 10 years. Optimum planting date allows plenty of time for most hybrids to mature. A farmer may use an earlier maturing hybrid and plant at a later date, which then has a lower yield potential.
So why not plant before April 25? Because in many years there is still too great of risk that an extended cold, wet period will occur before seedlings become established - causing stand loss, uneven plant height, and lower yields. Corn is most vulnerable at germination time. Once it germinates, growth must occur before seed food reserves are exhausted and before disease organisms invade the vulnerable seed tissue. If the seed sprouts after an early planting date, but then conditions turn dry before it emerges, it may die. It also may rot or die from disease if it sprouts and conditions turn cold and wet before emergence.

Young plants from an early April planting may starve or succumb to disease if an extended cold, wet weather pattern sets in before the first permanent roots develop. Stands may become reduced and the field may need to be replanted. Planting date is not necessarily an easy decision and the decision may greatly affect farm income. To minimize the risk of making the wrong decision; farmers should consider present field conditions, extended weather forecasts, hybrid availability, replant policies of seed suppliers, crop insurance policies, acres to plant, grain prices, and gut instinct.

In March, farmers thought we would have an early planting date because temperatures were 5 - 10 degrees above normal, but the below normal temperatures in early April changed everything. Now farmers must wait for fields to dry and soil temperatures to rise. Soil temperatures should be above 50 degrees before planting corn. Farmers may plant at a lower soil temperature if the forecast is for warmer soils the week ahead. What farmers do not want to happen is for soil temperatures to drop and become colder several weeks after planting.

Farmers may have a tough choice if soil conditions are dry enough for planting the end of April but temperatures are below 50 degrees. They then have to decide whether temperatures will warm up soon enough for germination and good emergence. If soils do not warm up, uneven emergence may occur and stands may be reduced. The worst-case scenario is to plant in cold soils followed by an extended wet period.

Farmers may be anxious the next several weeks until crop planting begins. They know that the highest yielding corn for the past two years was in fields planted early. However, three years ago, the early-planted corn had the lowest yields. Be aware that we will be sharing the roads with farm equipment the next 2-4 weeks. Be safe, enjoy the spring weather, and remember it is planting time.

Written by Ed Lentz, OSU Extension Educator-Hancock County and revised by Jim Hoorman, OSU Extension Educator-Putnam County.