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Thoughts on Corn Planting Dates

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As the end of March approaches, the anticipation of the start of another planting season is mounting among the faithful patrons of the Chat 'n Chew Café. Even the excitement of NCAA basketball doesn't hold a candle to the enthusiasm of the speculation about who will be the first to actually put corn in the ground instead of just pulling the planter around the neighborhood and agitating those trying to be patient about the whole thing.

Can you plant too early? Yes. Can you plant too late? Yes. Do you always know ahead of time when the 'right' time was to plant? Not always. What are the risks and benefits to early planting of corn?

Benefits of Early Planted Corn.

- More days available to plant compared to starting later.
- More days available to develop the crop compared to later planted corn.
- Pollination occurs earlier in the summer when temperatures and soil moisture are typically more favorable for growth and development.
- The shorter plant height of early-planted corn improves the standability of the crop nearer to harvest.
- Maturity occurs earlier in the season and grain dry down occurs more quickly due to the relatively warmer temperatures.

Risks of Early Planted Corn.

Typically cool soils from late March through mid-April often result in lengthy germination and emergence periods, as well as lengthy periods for early seedling development until the crop is established. It is not uncommon for emergence to take from two to three weeks after planting to occur, rather than a more desirable five to seven days. Uneven soil temperatures within the seed zone may result in uneven germination and emergence, causing potential yield losses of eight to ten percent.

Successful establishment of the plants' permanent root systems (nodal roots) may also be delayed when soil temperatures are sub-optimal for root development. Until a plant's permanent root system is established, the young seedling is very susceptible to damage to the kernel or mesocotyl. Such lengthy periods for early crop growth and development increase the young seedlings' exposure to disease, insect and weather (especially frost) stresses. Plant death or stunting from such stresses can result in potential yield loss when ensuing stands of corn are less than optimum.

Hedging Your Bets.

- Within reason, avoid planting extensive acreages when soil temperatures are not conducive to rapid germination, emergence and early seedling development. The definition of 'conducive' basically means average soil temperatures consistently greater than 50 degrees F. For central Indiana, such soil temperatures typically occur beginning about the third week of April.
- Within reason, avoid tilling or planting when soil moisture conditions are 'ripe' for the creation of soil compaction. Root development, especially depth of rooting, can be dramatically restricted when compacted tillage layers exist and lessen the crop's ability to tolerate drier soil conditions later in the summer.
- For early plantings, plant your best quality seed with the greatest seedling vigor ratings. Save poorer quality seed lots and/or hybrids with lesser seedling vigor ratings for later plantings when temperatures should be more favorable for germination, emergence and early seedling development.
- For early plantings, consider using one of several available planter-box seed treatments to obtain additional protection from soil-borne insects during the critical early development stages. If a portion of your purchased seed corn is pretreated with Gaucho™ or Prescribe™ insecticides, use those seed lots first in your planting schedule and plant your normally treated seed last.

Don't forget, this and other timely information about corn can be viewed at the Chat 'n Chew Café on the World Wide Web at <http://www.kingcorn.org/cafe> . For other information about corn, take a look at the Corn Growers' Guidebook on the World Wide Web at <http://www.kingcorn.org/>

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