

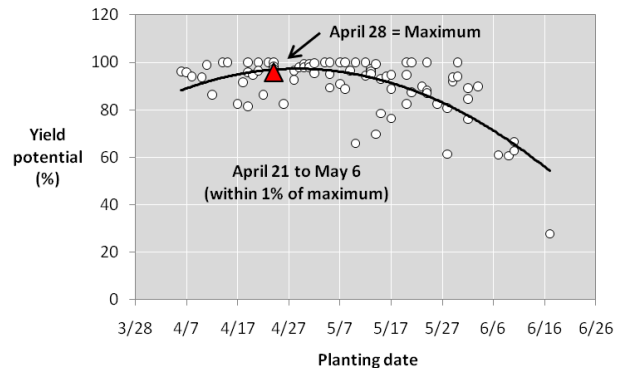
April 20, 2011

## Optimal Planting Dates

The seed has been delivered and the planter is ready, but how do you know what the optimal planting date is?

### CORN

Corn planting date studies from 1988 through 2003 conducted at the University of Minnesota Southwest Research and Outreach Center in Lamberton show that on average grain yield was maximized with an April 28 planting date, but planting dates ranging from April 21 to May 6 produced yields within 1% of the maximum. Yield potential rapidly reduces once planting is delayed to mid-May.



*Figure 1.  
Response  
of corn*

Corn requires soil temperatures of 50° F or higher and must take in about 30% of its weight in water for the seed to germinate. Typically, the earlier you plant the longer it takes for the seed to germinate and emerge. If you plant corn when the soil is 50° F, it could take 20 days for 50% corn emergence from a 2-inch soil depth. If you were to plant at 60° F it would take 10 days and 4-5 days when the soil temperatures are 70° to 80° F. The probability of emergence or stand establishment issues increases with the length of time a seed sits in the soil. Planting in a timely fashion increases the amount of time grain has to drydown in the field. However, getting into the field too early may mean wet, cool soils which may cause “cold shock syndrome”. In general, a field is fit for seedbed preparation if soil from the surface 3 to 4 inches breaks apart when pressed between your fingers rather than forming a ribbon or ball.

### SOYBEANS

Studies show that maximum soybean yield is achieved when planted between May 1 – 15<sup>th</sup>. With later planting, expect some yield reductions, however the soybeans planted later should emerge from the soil much more rapidly with the warmer soil temperatures. Soybeans are sensitive to day length, where the length of dark period at night initiates flowering. When varieties are planted before the middle of June, flowering is triggered by shorter days after June 21. For each three to five day delay in planting, flowering and maturity are delayed only about one day. Therefore if you plant the same variety on May 10 and June 10 the blooming and maturity of the later planting is delayed about 6 to 10 days. This happens regardless of the maturity of the variety. If planting is going to be delayed to June 10, consider changing maturity a half a relative maturity group earlier than full season. Keep in mind that you will lose about 1% of maximum production per day with delayed planting after June 1st.

The two most important keys to keep in mind when planting soybeans are good seed-to-soil contact and treating your soybeans with a quality insecticide/fungicide package, such as CruiserMaxx Plus.