

REVISITING HYBRID MATURITY ISSUES

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Many growers throughout Pennsylvania were plagued by com that dried down slowly last year and resulted in late harvest, high drying costs, and sometimes low test weight com.

This has caused many producers to wonder if they are growing hybrids that are too late for their region. This is a very valid question. But we need to realize that the slow drydown last year was also related to a cool season and drought stress.

In many areas of the state, the growing degree days available for corn growth and development were less than normal. Growing degree accumulations from May 1 to October 1 for State College, for example, were about 2,150, about 300 GDDs less than normal for our area. To compound the problem, when corn experiences

drought stress, silking is often delayed.

Last year we noticed about a 4-5 day delay in silking at Rockspring because of the drought. Basically, the complants went dormant and we effectively lost another 100 GDDs or so. So, we had about 2,050 GDDs to mature a 2,400 GDD hybrid in. It was not surprising that even our early planted hybrids failed to reach black layer and dried down slowly.

In our area, we have found that it generally takes about 2,400 GDDs to get a 105-day hybrid to black layer. Frequently, this is about all of the GDDs we get. We can grow longer season hybrids, say 110-day maturity, that need about 2,600 GDDs, but they often only reach half milk line. If we are harvesting for high moisture com, or want to harvest in December, we can utilize these hybrids.

If we get a cool season, though, then the 105-day hybrid takes until December to dry down and the 110-day hybrids can sometimes result in wet corn and poor quality grain. These seasons are especially tough on grain producers who need to dry this corn or those who want to utilize it for ear

We could also grow 100-day hybrids that mature in 2,200 GDDs or so and very rarely encounter maturity problems, but in warm years we may sacrifice some yield potential. Also consider, though, these early hybrids have other advantages: opportunities for planting wheat after harvest, drying corn under warmer conditions, and harvesting under generally drier soil conditions resulting in less soil compaction.

Several other factors complicate the hybrid maturity question. Probably more than any other state we have wide maturity difference within many counties. So on one side of the county you might be able to get away with a hybrid 5 to 10 days longer than on the other side.

Another factor is lack of standardization on corn hybrid maturity — a 105-day hybrid in one company is not the same as a 105-day hybrid in another company. Another factor is that we rarely get a normal year — and it is easy to let what happened last year dictate your decision too heavily.

A fourth factor to add to the confusion is that seed company ratings for hybrid GDD requirements are often higher than their actual requirement by 200 GDDs or so — many of the 105-day hybrids have a GDD rating of 2,600.

So how can we try to make a better decision on the maturity of hybrids we grow? First, decide if this is an issue for you. If you have not had trouble with slow drydown or test weight in the past few years, then you're probably all right. If you have, then consider evaluating some earlier hybrids in your mix.

One good way would be to estimate the GDDs available in your area. Next try to match your real hybrids GDD needs with the available GDDs. Also consider a spread of maturities to help offset the risk associated with warm or cool seasons. A good suggestion might be 20 percent that always mature (early season), 60 percent that usually mature (medium season), and maybe 20 percent that sometimes mature (full season). Then adjust that based on your own operation. If you harvest all grain and test weight is a critical issue, move more toward the early hybrids. If you sell high moisture grain and can tolerate more risk, perhaps you can move toward the fuller season hybrids.

Also start to do a little maturity monitoring on your own. Are the hybrids you are growing reaching black layer regularly? If not, then you are likely near or past your limit on maturity for shelled or ear corn harvest. Are you encountering other problems associated with late harvest --- soil compaction, late-planted wheat, or difficulty completing harvest before the snow flies? Are you not seeing a yield advantage to the longer hybrids? If so, these signal a move toward an earlier maturity.

Corn maturity decisions are not always as simple as they should be. Take time to re-evaluate your situation. Don't make knee-jerk reactions. Base your decisions on sound observations and long-term weather data.



