

# Selection

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bu./acre in order to make up for the added drying costs. Many farmers don't know what it costs to dry a bushel of corn on their own farm but they do know what it costs when they take it to the elevator. For years, growers have looked too strongly at yield and not enough at the energy costs involved in drying down those high yielding wet varieties.

# Crosses

There are many types of crosses that are available. The most common is the single cross where one inbred is bred to another inbred and the resulting hybrid takes on the characteristics of the whichever parent the seed company determines. The single cross is used the most because with good isolation in the seed field the offspring should be totally uniform and since it is uniform, should have the greatest high end yield potential.

The problem seed companies have is getting isolation in the seed field. You see, if a seed producer has a seed field next to regular field corn some pollen may drift into the seed field and contaminate the seed field. Thus, it is imperative that you keep your eye open and question sales representatives about their isolation. Also, check in your field if it is a single cross and see if the hybrids show the same characteristics, is the ear height the same, kernels the same, plant height the same etc. They should be identical. If not you might have gotten contaminated seed.

# Pennsylvania Corn Hybrid Test

The test of commercially available hybrids are conducted each year at several locations in each of the maturity zones in Pa. The tests include both the grain and silage results. If you need a copy of the test, please stop by the extension office and pick one up. Again, they are free and add an unbiased source of information to further research a variety you may be looking at to plant.

The Pennsylvania Hybrid

Day 1 Day 2 Day 3 Day 4 Day 5 Day 6 Day 7 Total GDD Test includes moisture percent, bushels/acre, percent erect (this means percent of stand that did not lodge or fall down), ear and plant height and its rating of resistance to gray and northern leaf spot. Although this is not a complete listing of the traits of different varieties, it does give what is needed to make a decision on varieties. One should review information in the seed guides various companies publish. They give good information on the specific traits of hybrids, growing degree days/maturity days, nitrogen requirement etc.

**Other Considerations** 

1. Is the variety adapted to your area? Check maturity zones in Pa. Lebanon county is in zone 3 and 4. Zone 3 would probably break at the line of highway 422. You can determine your own zone by looking at the Yield Test.

2. What are you using the crop for- silage, grain or both? If for grain, you must be concerned with fall frost to maximize yield and test weight. If silage, then you are concerned with tonnage through green leaf and stalk growth. For both

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High	Low	AVG	-50	GDD
65	50	57.5	7.5	7.5
75	60	67.5	17.5	17.5
77	63	70	20	20
80	55	67.5	17.5	17.5
86	61	73.5	23.5	23.5
80	60	70	20	20
70	50	60	10	10
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Your corn should be at spike or out of the ground at 110 GDD.

You would use this system to track your corn throughout the season. But, also use it to select varieties to fit into your specific area by heat units (GDD). Researchers have established that corn will not grow under 50 degrees and will not grow any faster at temperatures above 86. So if its 90 degrees for the high in the day put 86 degrees for the high and if its below 46 degrees during the day insert 50 for the low.

4. Spread your risk of serious stress damage to your corn by selecting hybrids that flower at different times. Most seed companies can supply you with the flowering times. I would split my acres into early, mid, and late, flowering type hybrids. The reason to avoid planting the exact same variety is that if stress such as drought hits at the pollen silking time (flowering) then you could lose some serious yield whereas if you spread the pollen silking times over more weeks you can prolong the risk of stress.

5. Look at dry down, is it going to be wet when you want to harvest? Never select a variety without at least three year data meaning three years of testing for yield, moisture, test weight etc. Most companies can obtain that varieties test results before it hits the market so ask for it. Basically, drydown is effected by the hybrids husk whether its open or closed. The more open husk should dry more rapidly.

6. Going no-till? Then don't plant the same variety you used last year. Think about it, the same stover is there harboring disease organisms and if you put the same hybrid in the field those disease organisms are right there ready to jump on the new plant. So, switch to a different hybrid.

7. What size kernel should I plant? Probably plateless planter(pp) type. Normally, you get an extra 10,000 kernels in a bag with (pp) and most planters will take them as long as you don't need plates in them. Check with your sales representative to see if they have plateless type seed available or give me a call and I'll find out.

## Conclusion

These are only some thoughts on what questions to raise when selecting a variety. Please call me if you need additional information, if the information is unclear, or would like to discuss your particular situation.

We looked at some areas to be considered when buying hybrids and found that the cost of the bag is not as important as whats in the bag. Do some research - check Penn State Yields, seed company technical sheets, and three-year performance data.

