

# Choose Carefully

This winter, as you book your seed purchases keep in mind the value of diverse genetics. You never know what the upcoming season will hold—whether it will be weird weather, or some insect or disease outbreak. Since you can't predict these things, the best bet is keeping diversity high in the hybrids and varieties you plant.

We all know the examples. The stripe rust outbreak in the '01 Kansas wheat hit '2137' hard, but didn't bother 'Jagger' much at all. Or the tough winters where Jagger just barely survives (or not). Sometimes early heading varieties do better, sometimes not.

The same is true for the summer crops. In 1970, the new race T of southern leaf blight was very damaging to all corn hybrids possessing one specific gene—other hybrids were fine. Things like this happen, and then the plant breeders have to go back to some of the wild varieties or early domesticated lines to try to find a source of native resistance. However, quite often a degree of resistance is in some of the modern lines, but not all. But you won't know what you've got (or what you need) until it's put to the test during the growing season. And no two seasons are ever the same.

Do you need to plant 10 or 15 different hybrids? No, not at all. Just

plant 2 or 3 of the best, but make sure they are rather different genetically. How will you know if they're different genetically? Well, if they have different physiological characteristics, they are at least somewhat diverse genetically. For instance, a taller variety must not have exactly the same genetics as a shorter one. Physical traits are numerous, such as grain color, earliness, leaf angle, etc. and may be used to help gauge genetic relatedness.

Sometimes information on the actual crosses or genetic group is available, which makes the task a bit easier. For instance, you may have information that wheat variety *x* was created by the crosses of *a/b/c* while *y* came from *c/d/e*. This helps, but you still don't know how related the lines of *a*, *b*, *d*, and *e* are. Similarly, some companies offer codes or groupings for their seed line-up, perhaps designating a product as from their "Genetic Group Q," or being a "Lancaster type," or whatever. This is commendable, but doesn't completely solve the problem, especially if you want to shop around between companies.

The problem gets worse once you realize that a single hybrid or variety may be available from many different companies—you may be able to get that particular corn or milo hybrid from 15 different companies, and they will all be identical except for seed quality, price, etc. You may be able to get the same soybean variety from two dozen companies. The reason this happens is that many companies get either the breeding

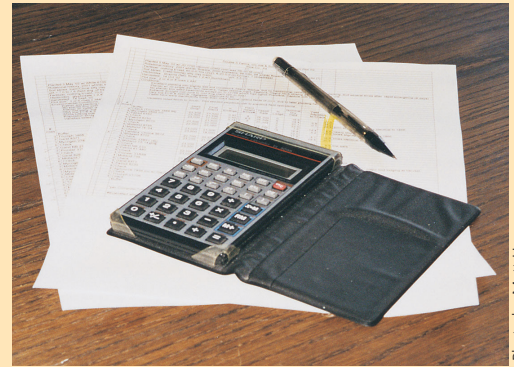


Photo by Matt Hagny.

Making good choices depends on analyzing good data, and lots of it.

material or the finished product (the seed to be marketed) from various 'wholesalers' of ag genetics—Holdens, Stine, Illinois Foundation, Iowa Foundation, Crosbyton, etc. But at the same time, many retailers have their own breeding programs, or (in the case of hybrids) cross the wholesale genetics in unique ways, or make selections from them to 'improve' them slightly.

By now, you may think these companies have been pulling shenanigans at your expense, and perhaps they have. But it is not so different from any other industry. Indeed, you can often buy exactly the same bearing (that came from the same batch off of one assembly line) from two different places, paying anywhere from 30% to 300% more for the one that comes in the shiny plastic wrapper from the implement company. With seed genetics, it's simply a little harder to discern the differences, at least until you grow them out.

While we're on the subject of selecting varieties, it should be noted that people are often overly confident of their choices. They put in a side-by-side test, or look at a nearby test conducted by the university, and say, "Hybrid *x* was 12 bushels better than *y*—guess I will

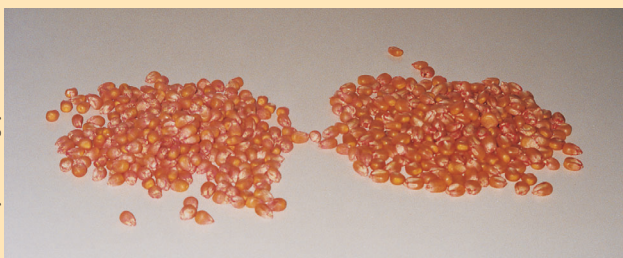


Photo by Matt Hagny.

Diverse seed genetics spreads risk. Are you getting the diversity you need? Seed from two different companies may have identical genetics.