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MIX, MATCH AND HEDGE

SELECT SEED FOR MAXIMUM RETURN AND MINIMUM RISK

By Jeremy Frie, CCA

Seed selection is the single most important management decision you make on your farm all year — and it involves more than checking off the highest-yielding varieties in the seed catalog.

Your aim in selecting seeds should be to reduce risk and maximize returns. That means selecting:

- a mix of seed genetics that fits your soils and climate,
- matching agronomic traits field by field, and
- hedging weather risk by choosing varieties that have performed well in many environments.

Every variety has a maximum yield potential that's genetically determined. But as we all know, actual performance varies by year and location, depending on weather, disease and insect problems, soil conditions, and other variables. Unfortunately, there's no way to predict what Mother Nature will throw at us next year. But careful seed selection will set the stage for a successful and profitable season.

So spend plenty of time choosing the right varieties for your operation — it's one of the best investments you can make in your business. Here are a few tips to keep in mind as you select seeds for 2009.

Evaluate this season's crop. Soon after harvest, it's helpful to evaluate how your seed selections performed this year. Did you get the germination, seedling vigor, stalk quality, and drydown you expected? Were you satisfied with the package of insect and disease resistance traits you purchased?

Consult reputable variety trials. Study performance data from well-designed, replicated variety trials done by the University of Minnesota or other unbiased sources, says Phil Glogoza, a University of Minnesota Extension crops specialist in Moorhead. Seed company trials can be another good source of performance data.

For links to current and past University of Minnesota variety trials, go to:

<http://www.maes.umn.edu/vartrials/index.asp>

Pick varieties that performed well at many trial locations. The performance of any variety depends on the environmental conditions at that location. But environmental conditions are seldom the same from one place to the next, or one year to the next. Even within individual fields, conditions can vary significantly. That's why seeds that performed well at several locations within your region are more likely to do well on your farm.

Research done by University of Minnesota scientists Dale Hicks and Seth Naeve confirms this. They showed that varieties selected on the basis of average yield across several locations produced higher yields the next year than varieties selected on the basis of just one location.

Identify varieties with high yield potential. It's not unusual for one variety or hybrid to significantly out-yield another in the same field with the same inputs and management. So selecting seeds with high yield potential is essential for maximum returns.

Choose a range of maturities. From within the high-yielding pool, select a range of maturity groups. This lets you "take advantage of higher yield potential if we have good growing conditions," Glogoza says. It also spreads out the risks of yield loss from drought, a late start in the spring, or an early frost.

Match seed agronomics to each field. Detailed written records are essential for choosing the best package of seed traits for a field. Consider each field's soil, fertility, and history of weeds, diseases and insect pests. In soybeans, for example, variety selection plays a key role in managing phytophthora root and stem rot, soybean cyst nematode, iron deficiency chlorosis, and white mold.

Assure genetic diversity. "When you think about seed selection, don't put all your eggs in one basket," Glogoza says. Planting only one genetic type puts your whole crop at risk if the weather is unfavorable. So choose a portfolio of varieties and hybrids with different strengths as a hedge against unpredictable weather. This strategy increases the probability of consistent yields from year to year. Your certified crop adviser can help you get the genetic diversity you need.

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Key Points

- The aim of seed selection is to reduce risk and maximize profits.
- Choose seeds based on replicated, multi-location variety trials from reliable sources.
- Genetic diversification is the best way to hedge weather-related risks.