

On-Farm Test Plots Valuable If Correctly Done

PRINCETON, KY.

Getting as much information about products through company and university research is an important tool for farmers but oftentimes farmers wonder how well that research translates to their specific operations. If properly done, farmers can conduct their own on-farm test plots to determine how specific products perform on their farm.

“On-farm field plots can help to answer very common questions,” said Chad Lee, grains specialist with the University of Kentucky College of Agriculture.

These questions can include how much nitrogen to apply to corn, how many soybean seeds to plant per acre, what variety of soybean to plant and whether to use row cleaners. With the high costs surrounding crop production today, finding the optimum products and applications for a farm can have a significant impact on a farmer’s profitability.

With this year’s crop behind them, farmers have time this winter to consider whether or not they want to do some of their own farm test plots. As they consider this, it is important to properly set up the tests to get comparable data.

Using soybean seeding rates as an example, Lee noted UK research has indicated that seeding rates can be lowered from current recommendations.

“If you are a farmer, you could argue that your farm and planting equipment are very different from our small plot equipment,” he said. “These are important factors to consider and even more reason to conduct on-farm research.”

If a farmer wishes to accurately compare soybean seeding rates, everything else in the study should be as similar as possible. In general, splitting a field in half is not a good comparison, Lee said. The best comparison is multiple passes or strips of each seeding rate across the same field. Averaging yields across all the strips with the same populations generally provides a better estimate of yield. It is also important to know the limitations of the test. For example, was it a dry year or wet one? Would the results be different in a different year?

“Compare the data with replicated research conducted by UK and other institutions,” he said. “By conducting good on-farm comparisons, and comparing the data from those comparisons with data from other research, a farmer can make good decisions about their farming operation.”

Farmers who’d like to conduct their own on-farm research should contact their local office of the UK Cooperative Extension Service for details on how to conduct the tests in order to get the most accurate results. Δ