Start challenging your production practices

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Start challenging your production practices

Abstract
Hopefully, many farmers are beginning to plant corn when this newsletter hits the mailbox. It is an exciting time for all of us, but it is also the time to remember that planting is not always about planting. It could also be the time when you challenge your production practices to see if any of the things you currently do could be done in a better or cheaper way without losing yield. You may also want to try some of the new technologies available to see if they will fit your production practices and give you a larger profit. In other words, spring is the time when you need to start planning your on-farm trials.

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Start challenging your production practices
by Palle Pedersen, Department of Agronomy

Hopefully, many farmers are beginning to plant corn when this newsletter hits the mailbox. It is an exciting time for all of us, but it is also the time to remember that planting is not always about planting. It could also be the time when you challenge your production practices to see if any of the things you currently do could be done in a better or cheaper way without losing yield. You may also want to try some of the new technologies available to see if they will fit your production practices and give you a larger profit. In other words, spring is the time when you need to start planning your on-farm trials.

Each year farmers are asked to test new products such as varieties, inoculants, fungicides, insecticides, and seed treatments on their farm. Some products are even donated without any expectations from the company. It is always easy to accept products, but why not take the opportunity to keep good records and then use that data in the future? In order to generate good data, it is important that you follow some general guidelines. The most important suggestion I can give you is to be sure you don’t fool yourself. If the experiment hasn’t been laid out in a proper way, the data may not help you at all. You want to be sure that the data are reliable and true. The success of your research trial will therefore depend initially on how well it’s planned. The best time to do that is right now, prior to planting.

Many times much effort and expense are put into comparisons that are not valid. Certain statistical principles must be maintained; otherwise, the information you obtain could be meaningless or, worse yet, deceptive. Replication, randomization, and the use of a control are necessary in conducting a trial because they help us separate out treatment effects from natural levels of background variation. By following these procedures, field variation and other factors will not discredit the reliability of the results. Treatment effects can be measured in many different ways. The most accurate way is to use a weight wagon, which can be rented from most elevators. Yield monitors also can be used but are not always that accurate.

Probably the biggest mistake is not to include replicated control strips in a field if you change a production practice. Most of us have an abundance of ideas for new production practices and products. Sometimes those ideas can be implemented quickly and easily. At other times, a major investment is needed. Before adopting another management system or management practice, it is important to weigh the costs and benefits, while also considering the effect on long-term profitability and risk exposure. Each year we hear about people changing their entire tillage or fertilizer program without leaving strips from their previous practice to document if it really makes a difference. Another way to reinforce the reliability of your data is to use more than one field or more than one hybrid or variety.

The bottom line is that you need to challenge yourself if you want to remain competitive in the future. It should be a standard practice to have on-farm research on every farm because it can be a powerful decision-making tool if you do it right. The reason to conduct on-farm research is to document whether a given product or production practice works on your farm to increase profitability. Many farmers believe that you have to be a farmer with at least 1,000 acres and have a yield monitor on your combine to be able to do on-farm research. That is not the case, and it doesn’t take a lot. You may have observed things in your field when you scouted last year that may be worth investigating this year. The specific problem could be the 30 bushels that you are missing.

If you have any specific questions, please don’t hesitate to contact me by e-mail at palle@iastate.edu or call me at 515-294-9905.

Palle Pedersen is an assistant professor of agronomy with research and extension responsibilities in soybean production.

Spring is the perfect time to begin planning on-farm trials. (Palle Pedersen)