

From Scientific Staff of the International Plant Nutrition Institute (IPNI) 3500 Parkway Lane, Suite 550 Norcross, Georgia 30092-2844 USA

Phone: 770-447-0335 Fax: 770-448-0439 E-mail: info@ipni.net Website: www.ipni.net

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GOING FOR HIGH YIELDS

High yields are always exciting. Many farmers observe 300 plus bu/A in parts of their fields and 100 plus bu/A of soybean. But they aren't everywhere. Should they be? Is it realistic to expect farm average yields will eventually be that high or higher?

A tool that can help you get an idea of potential yield is Hybrid Maize. It's a user-friendly crop model available from the University of Nebraska (http://hybridmaize.unl.edu). The model outputs potential yields that are based on management and weather inputs. The goal in the field is to achieve 85% of those potentials. Hybrid Maize can help you answer if 300 and 100 bu are really realistic goals for corn and soybean yields on your fields. To run it under your conditions, you'll need daily weather data from nearby stations, although it does come with some limited weather datasets. You might also want to consider purchasing your own weather station.

Farmers going for high yields usually dedicate some part of their farm to discovery. On-farm trials are part of the high-yield culture. Hybrid and variety comparisons are the norm, but there is another type of experiment you can conduct. Try establishing field-length strips that compare two management practices: your current approach and a "high yield" approach. Keep the strips in the same place over time and monitor the progress each season for each crop. Try different things on the high-yield strips, such as changes in plant population, fertility, planting date, and hybrid or variety selection; but be sure to keep the second set of strips as your current practices. You need both to determine if your attempts at a high-yield system do, in fact, create real improvements in yield in any given year. A couple of publications to get you started on field research are:

http://www.agry.purdue.edu/ext/corn/news/timeless/onfarmresearch.pdf.

http://nanc.ipni.net/articles/NANC0034-EN.

Going for high yields takes dedication to gleaning all the information your farms and fields generate. Good record keeping and computer file management are essential. Being able to pull up yield maps from each field and look at how they have changed over time can help identify areas in the field that are consistently higher or lower yielding—leading to specialized management for those areas.

Don't just pour it on. High yields don't necessarily take more nutrients. When it comes to N, more isn't always better. Many have found that the higher-yielding parts of the field require less N than the lower-yielding ones. Soil testing is still the best tool for assessing soil fertility. Grain samples can help you get a handle on nutrient removal and what it takes to keep up.

Going for high yields is a process of discovery. Trying new things, comparing new approaches to current ones, keeping track of what happened, and using available models and tools can help you get an idea of what is realistic and how best to get there.

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For more information, contact Dr. T. Scott Murrell, Northcentral Director, IPNI, Phone: (765) 413-3343. E-mail: smurrell@ipni.net.

Abbreviation: N = nitrogen.

Note: Plant Nutrition TODAY articles are available online at the IPNI website: www.ipni.net/pnt