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RESOURCES FOR ON-FARM RESEARCH

The 4Rs – right source, rate, time and place – set “right” as a target. Getting it “right” requires a solid scientific basis followed by local refinement. The approach many top producers and advisers follow is to start with university nutrient recommendations and then adjust them to local conditions with on-farm research. “Adaptive management” is currently being used to describe such a process.

Getting a start on this process, or improving your existing one, requires knowing where to look for guidance and tools.

Many on-farm networks have developed over the years and they serve as valuable resources for sampling protocols, experimental designs, and guidance on data handling:

Iowa Soybean Association On-Farm Network®
(<http://www.isafarmnet.com>)

Nebraska On-Farm Research Network
(<http://cropwatch.unl.edu/web/farmresearch/home>)

Penn State On-Farm Research
(<http://extension.psu.edu/on-farm>)

Purdue Collaborative On-Farm Research
(<http://www.agry.purdue.edu/ext/ofr/>)

Sustainable Agriculture Research and Education Program
(<http://www.sare.org>)

Kansas Ag Research and Technology Association
(<http://www.kartaonline.org>)

Ohio On-Farm Research
(<http://agcrops.osu.edu/on-farm-research>)

Practical Farmers of Iowa Cooperator's Program
(<http://practicalfarmers.org>)

Solutions to Environmental and Economic Problems II
On-Farm Testing Project
(<http://pnwsteepest.wsu.edu/onfarmtesting/>)

Statistically analyzing data is daunting for many and most farmers and advisers defer that task to a university, association, or government agency scientist; however there are a few resources that make analyses easy enough to do on your own.

A free online tool for statistically analyzing an experiment conducted in one year and in one location is AG-STATS02, which was developed by a consortium of scientists from Washington State University, University of Idaho, and Oregon State University (<http://pnwsteepest.wsu.edu/agstatsweb/>).

The Crop Nutrient Response Tool, an Excel spreadsheet developed by Dr. Tom Bruulsema from IPNI, fits a number of models through data generated from nutrient rate studies. The tool automatically determines the most economic rate of fertilizer (<http://nane.ipni.net/article/NANE-3068>).

Cleaning up yield monitor data is a necessary first step to ensuring accurate conclusions from statistical analyses. Yield Editor 2.0 is a free tool developed by the USDA-ARS that applies a number of filters to yield data, getting rid of the “garbage in” that leads to “garbage out” in an analysis (<http://www.ars.usda.gov/services/software/download.htm?softwareid=370>).

There are many resources available now that help move nutrient management away from “average” toward “right.” Check out a few and begin building your own set of 4Rs.

–TSM –

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