

Conducting on Farm Field Trials

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Received: March 7, 2015; **Published:** March 25, 2015

Meetings and exhibits from the recently held Commodity Classic emphasize that both farmers and farm technology are becoming more sophisticated. It seems that more farmers are doing some kind of on-farm comparisons, demonstrations or even research.

On-farm field trials can provide valuable information because the farmer is seeing what the results are on his own farm, soils, climate, management, equipment, etc. On-farm research can help improve production efficiency, farm profitability and environmental stewardship. There is no better place for doing field trials than the farm itself IF you are willing to take the time to do it right.

Monroe County farmers have been very cooperative in hosting and cooperating with me to do on-farm trials for the past twenty-plus years. Whether replicated, research field trials, or simpler demonstration projects, these take the farmer's time, land and equipment. I have been constantly amazed at the willingness of farmers to try something new or different because there is no guarantee that the project will show a benefit. Ideally a field size trial is replicated at least four times and only compares one thing at a time. Four replications of a "new treatment" and four replications of no treatment mean harvesting eight separate times to measure the result of each replication. Alternating between the treated and untreated strips is simpler to do, and acceptable, but not as good as a randomized order of treated and untreated strips. Going across the entire field takes more time and costs more as well. However many farmers like field size plot projects as compared to much smaller university plots, which may each only be 5 feet wide and 17 feet long.

Field size trials should have as uniform of soils as possible and ideally be done across tile lines. Stay away from field margins or otherwise "odd" spots in the field where perhaps there used to be buildings, for example.

Soybean yield world-record farmer Kip Cullers was in Phoenix and has said to try something new on ten acres by the house so you can look at it every day. On-farm testing demonstrates how real factors such as different soil types, plant population and pests may affect a new practice, product or piece of equipment.

USDA Sustainable Agriculture Research and Education (SARE) program has funding for small grants for farmers to run on-farm experiments. Farmer grants typically have run between \$500 and \$15,000. Visit www.sare.org to download calls for proposals, check deadlines and learn about grant requirements.

Martin Nagelkirk, MSU Extension wheat educator asked me at the Great Lakes Crops Summit if there were any farmers in Monroe County who wished to do some spring wheat projects. He would like to compare a farmer's standard wheat growing practice to including a fungicide, and/or fungicide plus extra nitrogen, and/or fungicide, extra nitrogen and Palisade growth regulator. I printed out five sets of protocol sheets if anyone is interested.

Mike Station, the MSU Extension soybean educator is working on 2015 soybean projects and protocols as well. As of today, I have not received his summary to distribute to interested farmers.

Citation: Ned Birkey. "Conducting on Farm Field Trials". *EC Agriculture* 1.3 (2015): 138-139.

I will be happy to work with farmers who have other ideas of new products, practices or equipment as well. There may be some kind of cover crop projects in the pipeline as well as we are in the Lake Erie watershed. In the past two weeks I have heard from two innovative cover crop companies; LaCrosse Seeds and Center Seeds.

Volume 1 Issue 3 March 2015

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