On-Farm Experimentation Community Info No. 5

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On-Farm Experimentation Community (OFE-C) of the International Society of Precision Agriculture (ISPA)

Data Becomes Really Useful Only When Aggregated

There is a growing need to quantify complex interactions of processes for diverse environmental conditions and crop management realities. Any study is worth very little in itself unless its data is being agglomerated with others to express conclusions valid for real use. In order to tear the agronomic data Babel Tower down, there is little alternative but to converge on standards, at least for a minimal set of them. Do you use a standard to construct your agronomic databases? If so, which one? Please fill in this two-question survey. The OFE-C will use the results to start a conversation on agronomic (management practices or treatments, soil and weather data and measurements of crop responses) standards for data and metadata.

Farmers' Experiments and Scientific Methodology

"Testing of only one variable at the same time," has sometimes been described as one of the criteria that a scientific field trial has to satisfy. In projects involving cooperation between farmers and scientists, scientists have sometimes been "frustrated" with farmers whose experiments have not satisfied the one-variable requirement. Reportedly, this is "one of the points that has [led] research station scientists to dismiss farmer innovation." This study investigates methodological and philosophical issues pertaining to farmers' experiments such as the choice of interventions to be tested, the planning of experiments, and the means to deal with confounding factors. [Hansson, S. O. Farmers' experiments and scientific methodology. European Journal for Philosophy of Science 9, doi:10.1007/s13194-019-0255-7 (2019).]

The Way Farmers Learn

Acknowledging how farmers learn is a forced passage to the impact of knowledge generation and the way to link extension to research. This Janvry et al. (2016) paper presents an interesting perspective. It presents a few concepts such as "private learning" (learning-by-doing) by Bayesian updating. This consists of direct learning from own individual actions over time. There is also "social learning" (learning from others) with Bayesian updating and aggregation of observations collected from others according to a chosen pattern of weights.

Guide to Farmer's Crop Trials from ADAS

By working together with other farmers, suppliers, agronomists and scientists, farmers can use their own trials to bring fast learning, new findings and best practice for themselves and the industry at large, an approach ADAS calls "Agronōmics". GPS and other modern technologies, along with thorough trial protocols, can make farm trialling straight forward and routine. Decisions and innovations can then become thoroughly validated and tailored to real farming conditions. This Guide to Farmer's Crop Trials outlines processes leading to successful farm-trialling and how to avoid the pitfalls.

How to Conduct Research on Your Farm or Ranch

This Sustainable Agriculture Research and Education (SARE) technical bulletin provides detailed instruction for crop and livestock producers, as well as educators, on how to conduct research at the farm level using practical strategies and peer-reviewed research findings. It also includes a comprehensive list of in-depth resources and real-life examples in order to stimulate on-farm research ideas and provide guidance.

Map of the On-Farm Experimentation Community Membership

Our website features a map locating OFE-C members around the world. As we want to make sure it is working as intended, we would like to know if you experience problem using it. More specifically, if you have had the "Sorry Something Went Wrong" message:

- Did the reset button solved the problem?
- If not, have you successfully tried F5?
- What is your browser?

Thanks for your help in making sure the OFE-C tools are useful to our members.

Should you have something to share with the Community or the Community leaders, let us know here.