On-Farm Experimentation Community Info No. 17

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

SharedIt link for Nature Food paper: OFE to Transform Global Agriculture

Our apologies for not having offered the opportunity to consult the full Nature Food paper in our last communication. The publisher does not allow open access for that kind of paper but it does provide an alternative in the form of this SharedIt link.

On-Farm Experimentation Community (OFE-C) co-leads, Simon Cook and Nicolas Tremblay are among the authors of a newly released and highly collaborative Nature Food paper on OFE. This timely work acknowledges and celebrates the diversity of approaches and views on farmer-centric OFE internationally. As the visionary Professor Simon Cook put it, “OFE is the result of accumulated changes across several domains that individually may not be spectacular, but collectively realize a change substantial enough to acknowledge and start articulating.” OFE indeed occurs at the intersection of discussions in agricultural sciences that are necessary to move forward, from best research practices that are inclusive and responsible, to digital technologies that renew spatial analysis and the production of local insights. The paper thesis is that OFE can contribute in a very concrete and pragmatic manner to reshaping relationships between all producers of knowledge — (re) building bridges between researchers, farmers, and other stakeholders of food systems. In many instances change will require proactive support and commitment from institutions. Lacoste, M., Cook, S., McNee, M. et al. On-Farm Experimentation to transform global agriculture. Nat Food (2021). https://doi.org/10.1038/s43016-021-00424-4

Comments, Reactions and Additions to the Nature Food paper?

You might consider submitting your work to the Special Issue in Agronomy for Sustainable Development. This virtual issue coincides with OFE2021, the 1st Farmer-Centric On-Farm Experimentation Conference (13–15 October 2021) and is open to everyone. Submissions end on March 1, 2022.

Data-Intensive Farm Management (DIFM) Project

Dr. David Bullock made a presentation entitled “Contributing to an International Cyber-Infrastructure for On-farm Precision Experimentation” before the OFE2021 “Farmer-Centric On-Farm Experimentation” Conference and the University of Bonn PhenoRob Institute. The purpose of the trip was to publicize DIFM’s latest efforts and seek collaboration with researchers in the European Union. The DIFM team has also created a multistate Research Project, titled NC1210: Frontiers in On-Farm Experimentation which will enable researchers from all across the United States to collaborate and host meetings on an annual basis.

Proposed Method for Statistical Analysis of On-Farm Single Strip Treatment Trials

This paper explores statistical frameworks to quantify the effect of a single treatment strip using georeferenced yield monitor data and yield stability-based management zones. Cho, Jason B., Joseph Guinness, Tulsi Kharel, Ángel Maresma, Karl J. Czymmek, Jan van Aardt, and Quirine M. Ketterings. 2021. "Proposed Method for Statistical Analysis of On-Farm Single Strip Treatment Trials" Agronomy 11, no. 10: 2042. https://doi.org/10.3390/agronomy11102042

A Review of Yield Stability Analysis Methods in Long-term Field Experiments (LTE)

This review provides guidance for the most commonly encountered methodological issues when analyzing yield stability in LTEs. Consistent use of the suggested guidelines and recommendations may provide a basis for robust analyses of yield stability in LTEs and to subsequently design stable cropping systems that are better adapted to a changing climate. Reckling, M., Ahrends, H., Chen, TW. et al. Methods of yield stability analysis in long-term field experiments. A review. Agron. Sustain. Dev. 41, 27 (2021). https://doi.org/10.1007/s13593-021-00681-4

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