On-Farm Experimentation Community Info No. 7

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

Repeated designs not sufficient to evaluate treatment effects accurately in OFE

The outcomes of on-farm experiments can support farmers' decision-making processes, while inappropriate procedures would result in incorrect interpretations. Conventional statistical approaches (e.g., ordinary least squares regression) may not be appropriate for on-farm experiments because they are not capable of accurately accounting for the underlying spatial variations in a particular response variable (e.g., yield data). A combination of a repeated design and an anisotropic model is required to improve the precision of the experiments. [Tanaka,T.S.T. 2020. Assessment of research frameworks for on-farm experimentation through a simulation study of wheat yield in Japan . Preprint 12741.]

How do data and analytics from on-farm trials should be dealt with?

The OFE-C is seeking professionals and researchers dealing with data from on-farm experimentations or their analysis. We want to identify requirements and valid procedures leading to guidelines and eventually policy development. Volunteers will help select topics to cover in a webinar sometime this spring and the best presenters for that purpose. The workload will not be substantial. Please volunteer or suggest someone you know here.

The Long-Term Agroecosystem Research Network (LTAR)

The LTAR network integrates question-driven research projects with common measurements on multiple agroecosystems (croplands, rangelands, and pasturelands) and develops new technologies to address agricultural challenges and opportunities. The LTAR network provides common measurements and data streams that complement other federally funded national networks. Their data management working group strives to make LTAR data aligned with the FAIR guiding principles, to be findable, accessible, interoperable, and reusable. The LTAR network fosters data sharing principles and guidelines with the intent that all LTAR data will be available for research collaboration and the development of agroecosystem management recommendations and education.

How do we enact co-innovation with stakeholders in agricultural research projects?

Mobilising co-innovation involves a complex interplay between contextual forces and facilitation processes. This interplay shapes the core co-innovation processes of joint framing, testing of solutions and creating new knowledge. The interplay between contextual and facilitation processes requires an adaptive approach to research design and management. [Ingram, J., Gaskell, P., Mills, J. & Dwyer, J. How do we enact co-innovation with stakeholders in agricultural research projects? Managing the complex interplay between contextual and facilitation processes. J. Rural Stud. 78, 65-77, doi:10.1016/j.jrurstud.2020.06.003 (2020).]

Farm Hack

Farm Hack is a worldwide community of farmers that build and modify their own tools. They share their hacks online and at meet-ups. Their work is licensed under a Creative Commons Attribution 4.0 International License.

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