# On-Farm Experimentation Community Info No. 16

Dec 13, 2021

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

## Call for papers on Farmer-Centric On-Farm Experimentation in Agronomy for Sustainable Development

Here is an exceptional opportunity to let the scientific community know about your On-Farm Experimentation (OFE) work. Contributions are most welcome to this Virtual Issue focusing on recent advances relative to Farmer-Centric On-Farm Experimentation (OFE). It coincides with OFE2021, the 1st Farmer-Centric On-Farm Experimentation Conference (13–15 October 2021) and is open to everyone. Indeed, participation in OFE2021 is not mandatory to submit OFE-related work to this special issue. Submissions end on March 1, 2022. The conference was supported by the OECD—CRP Sustainable Agricultural Systems, DigitAg, INRAE and the International Society of Precision Agriculture (ISPA).

## Data & Digital Revolution for Food Systems

To address the global food system challenges effectively, we must overcome fragmentation within and across sectors to act in a transdisciplinary fashion, bringing together the natural and social sciences with data and technology to drive food systems towards more favorable potential futures for humanity and the planet. The Global Coalition for Digital Food Systems Innovation participated to the “Forum COP26 Live”. The recording is available here. The Coalition involves FAO, World Bank, CGIAR Platform for Big Data in Agriculture, Mineral at X, Google, Digital Green, GEOGLAM, Hewlett Packard Enterprise, VARDA, Consumers International, Bayer Foundation, Mercy Corps, World Economic Forum.

## Data-Driven Understanding of on Farm Yield Variation

Agriculture research uses “recommendation domains” to develop and transfer crop management practices adapted to specific contexts. The scale of recommendation domains is large when compared to individual production sites and often encompasses less environmental variation than farmers manage. Farmers constantly observe crop response to management practices at a field scale. These observations are of little use for other farms if the site and the weather are not described. The value of information obtained from farmers’ experiences and controlled experiments is enhanced when the circumstances under which it was generated are characterized within the conceptual framework of a recommendation domain, this latter defined by Non-Controllable Factors (NCFs). Controllable Factors (CFs) refer to those which farmers manage. Using a combination of expert guidance and a multi-stage analytic process, we evaluated the interplay of CFs and NCFs on plantain productivity in farmers’ fields. Jiménez D, Dorado H, Cock J, Prager SD, Delerce S, Grillon A, et al. (2016) From Observation to Information: Data-Driven Understanding of on Farm Yield Variation. PLoS ONE 11(3): e0150015.

## Smartphone App Designed for, and With, Farmers

As the use of smartphone technology is becoming increasingly popular in the agricultural context, there is a need to consider how farmers have adapted to this form of technology. The current study examined the factors which influence Irish farmers’ engagement with smartphone use and new smartphone apps and explored the supports required by farmers to successfully engage with smartphone apps for agriculture use. Kenny, U. and Regan, Á., 2021. Co-designing a smartphone app for and with farmers: Empathising with end-users’ values and needs. Journal of Rural Studies, 82, pp.148-160.

## Farming to Meet Sustainable Development Goals in Africa: Reflections on Soil Health and Policy

This webinar reflects on how to achieve sustainable productivity gains through investments in soil health and knowledge. Reports have been commissioned on pioneering efforts in East and Southern Africa to engage and empower farmers and communities through approaches that specifically support disadvantaged youth and women. Highlights include innovations in extension, soil health monitoring and agricultural policy around sustainable intensification.

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