On-Farm Experimentation Community Info No. 21

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

Open position in On-Farm Experimentation

The ITAP Research unit (Technologies for the Agriculture of Tomorrow) has an early career research position open at the moment to research and support the use of on-farm experimentation in the agroecological transition. The post details are available on the INRAE website (in French). See the position's description here.
The candidate will work with a dynamic group of researchers in Precision and Digital Agriculture based in Montpellier, France. The successful candidate does not necessarily need to be proficient in French, but does need to commit to learning and working in French. As this is an OFE position, interaction with growers (non-english speaking) will be expected. For further details, please contact Dr James Taylor (james.taylor@inrae.fr).

Successful approaches for on-farm experimentation

On-farm experiments are used increasingly in agronomic research because they are commercially relevant, but they can carry greater risks of failure than traditional small plot experiments conducted by scientists. Experimental failures can result from farmer withdrawal, errors in treatment application or harvest, or non-provision of yield data by farmers. This paper describes the development and testing of approaches for on-farm experimentation and concludes which approaches should be adopted to maximise success. The programme of work included the largest on-farm research network in the UK, with farmers conducting around 50 on-farm experiments per year from 2017 to 2019 to compare fungicide programmes in winter wheat. The project developed management approaches to mitigate the risks of experimental failure such that in 2019, 96 % of experiments were completed and returned a yield result; a greater success rate than is commonly achieved in on-farm experiments. Statistical analysis of yield maps resulted in an average site SED (standard error of the difference between means) of 0.26 t/ha, which is comparable to that achieved in randomised, replicated small plot experiments. The large number of experimental sites enabled a greater level of precision in the cross-site analysis (SED 0.06 t/ha), showing the potential of on-farm experiments for detection of small yield effects if the appropriate yield analysis is undertaken. The project results received substantial publicity within the UK arable farming community, demonstrating the value of effective on-farm research for engaging and informing farmers. Full paper here: https://www.sciencedirect.com/science/article/abs/pii/S0378429022002222

A new knowledge exchange platform for agriculture

FarmPEP is a new knowledge exchange platform created for agriculture. It was initiated in January 2020 via an Innovate UK project with ADAS, Agri-techE, CCRI, Innovative Farmers, Open Coop and The Farming Forum with the aim of connecting Knowledge Exchange in agriculture, post-Covid19. Read more about the initial project here. It has been co-designed to connect across agriculture, enabling knowledge exchange through a new Performance Enhancement Platform. It aims to connect people, organisations, projects and resources to enable knowledge across farming to be shared, found, discussed, distilled and developed. Various topics include On-Farm Experimentation, Farm centric research, Farmer led innovation, and Precision Farming among others. Not all topics are fully developed yet and you have an opportunity to put your comments on each topic. Come have a look.

Biweekly seminar series on Data Intensive Farm Management

The Data-Intensive Farm Management Project at the University of Illinois will be hosting again their biweekly seminar series where members of the DIFM/CIGOFT project will present their research. The seminar series will be held on every other Thursday's starting October 20, 2022. People who have tried the DFIM system and would like to share their experience are encouraged to reach out to Carli J. Miller (cjmille5@illinois.edu). You can connect via email with Carli J. Miller for the link to the seminars. Come and join us.

Inspiring from other sectors: UK Recovery Trial

The UK RECOVERY Trial is heralded as a huge success for its discovery of cheap and effective treatments to COVID even while the UK's National Health Service was being inundated by the Tsunami of the Covid pandemic. The trial is credited with saving at least a million lives, using Dexamethasone, a cheap and readily available medication. It did so in rapid time, enrolling its first trial patient within days, its first life-saving treatment within weeks and changes to government policy within hours. The account of the RECOVERY Trial makes exciting reading in its own right, but also contains some important lessons for OFE.

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