Organic is Operational

*The European Innovation Partnership (EIP-AGRI) held the 'Organic is Operational' workshop in Hamburg in June 2017, bringing together 33 Operational Groups (OGs), 5 Horizon 2020 projects as well as other innovative projects, all working in organic farming or closely related subjects. ORC Senior Programme Manager **Susanne Padel** was the coordinating expert for the event and reports back.*

The European Innovation Partnership for Agricultural productivity and Sustainability (EIP-AGRI) was launched in 2012 to contribute to the European Union's strategy 'Europe 2020' for smart, sustainable and inclusive growth. This strategy sets the strengthening of research and innovation as one of its five main objectives and supports a new interactive approach to innovation: European Innovation Partnerships. It works to foster competitive and sustainable farming and forestry that 'achieves more and better from less'. It contributes to ensuring a steady supply of food, feed and biomaterials, developing its work in harmony with the essential natural resources on which farming depends. EIP-AGRI Operational Groups (OGs) are funded under the Rural Development Programmes (RDPs), are project based and tackle a specific farmer problems. Currently ORC is involved with two English EIP-AGRI projects: one focused on Agroecological soil management and the other on the use of woodchip (see p18). Each OG has to include farmers; other members can be advisers, researchers, other businesses, NGOs, etc. Organic farming was one of the top five themes and the focus of around 40 of the 300 OGs that had been established by April 2017. EIP-AGRI also works through Focus Groups and specific research projects under H2020.

The objective of the Hamburg event was to promote cross-border knowledge exchange and networking among the various OG actors working on new solutions for organic farming systems across Europe, and to bring them in touch with relevant EU Research. The workshop included field visits to farms and research stations engaged with organic OGs in Northern Germany. In total more than 70 participants, from 12 countries attended, including farmers, advisers, researchers, innovation brokers and people from the farming industry. ORC is involved with two thematic networks, funded under Horizon 2020 and promoted by EIP-AGRI: OK-net Arable and AFINET.

Innovation is crucial for creating a competitive and sustainable farming sector that is fit for the future. The EIP-AGRI initiative of the EU Commission supports bottom-up innovation through the OGs, linking farmers with research and other important actors, so that good ideas can lead to improved practices on farms and in related businesses, along the supply chain, and in rural communities. This includes new technology, new organisation of the supply chain (organisational innovation) and new ways of working with each other (social innovation). The field lab groups of Innovative Farmers work in a similar way, and some of the Operational Groups in the UK started as field labs.

What is specific innovation in organic farming?

Finding new ways of innovating is also vital for the organic sector. Organic farming is value-driven and has close connections to consumers and the value chain creating new opportunities. The sector also collaborates with other sectors, such as tourism and public health. Organic farmers are willing to share knowledge and experience, and there is a tradition of bottom-up innovation and interactive ways of working together.

However, organic farming is also regarded by some as a closed and inward looking sector, one overly reliant on knowledge generated internally to bring positive change. There is a lack of scientific research knowledge, informing current practice, even if the collaboration with the conventional sector is improving, as shown in a recent brochure 'Innovating for Organics'[1] published by TP Organics.

Topics of Operational Groups in Organic Agriculture

Organic cropping systems and arable production

- Home grown protein supply through growing, processing and infrastructure for native pulses and novel feed sources (e.g. clover pellets);
- Various strategies for improving soil fertility and yields through use of catch crops, composts;
- Mycorrhiza and reduced tillage/controlled traffic;
- Coping with problem weeds, such as docks, through biological weed control;
- Developing organic production strategies for specific crops (e.g. soil fertility and water management in vineyards), producing organic oil seed rape, and weed control in vegetables and perennial crops.

Organic horticulture

- Solutions for specific pest/disease challenges, such as disease control in potatoes, controlling the maize rootworm, rodent control in orchards;
- Use of technology and novel inputs in organic fruit production;
- Organic vine production.

Organic livestock

- New tools for improved grassland and pasture management;
- Strategies for housing, feeding, herd management and health and welfare of organic layers and pigs;
- Maintaining rare breeds and working with minor species (e.g. rabbits).

Developing the market

- Use of heritage varieties and diverse populations of cereals (mainly wheat);
- All year round vegetable production (e.g. growing winter vegetables);
- Bread making with low-protein wheat;
- Marketing for specific products (e.g. goat meat, laying hens at the end of their productive cycle).

Common challenges and opportunities among the organic operational groups

Yield stability for organic production was identified as a major issue by the EIP-AGRI Focus Group on Organic Farming. It is also one of the main topics in the thematic network OK-net Arable which created an Organic Knowledge Hub for farmers[2]. Participants felt that there is lack of research as to how organic farmers can improve yields and enhance yield stability for the various crops they grow. Introducing (technical) innovation in organic agriculture one also has to consider the acceptability of any new technologies to consumers.

Several common technical challenges were identified which could also provide opportunities for future innovation projects. These include:

- Working with legumes and the nitrogen cycle;
- Adaptation to, and mitigation of, climate change;
- Working with seed mixtures and suitable cultivars;
- Plant protection, pest and disease management;
- Increasing the productivity of organic farming without increasing production costs;
- Bio-mimicry (copying biological processes) as a new field of research;
- Developing new adapted machinery;
- Developing animal welfare-friendly housing systems;
- Small farms have specific challenges in meeting the high costs of machinery;
- Land management for soil conservation.

An important topic was the organic market, which also presents many opportunities. Farmers and consumers perceive the added value of short and organic food supply chains. The market can be developed in innovative ways and there is also a market for innovation (e.g. new crop varieties and populations, new products, new markets). Networks can be set up along the whole supply chain to increase the value of organic products.

Other issues mentioned included a potential market for ecosystem services and the challenge of preserving livelihoods and social structures in rural communities.

Working together

OGs put farmers at the centre. There is a need therefore to ensure farmers are equal partners and are rewarded for their time and effort, including during the preparation phase of a project. It is also important to enable organic and non-organic farmers to work together. The perspective of 'conventional' farmers can help bridge the gap between integrated production and organic farming.

An interesting discussion emerged around the trade-off between flexibility in shaping innovation projects and control requirements required by the administrators. Sometimes, the realities on the ground require changes to be made and farmers' innovative ideas do not always fit the application form boxes. In line with rural development guidelines the funding agencies prefer project applicants to present clear and results-based work plans. Farmers may find the bureaucracy of project applications very challenging and are therefore less likely to take the role of the lead applicant, relying on professional support through consultants or innovation brokers.

Field visit: Arable soil management at Gut Wulksfelde

It was a pleasure to visit the farm of Rolf Winter, an old colleague of mine, with whom I had worked with in North Germany before I came to the UK.

Rolf Winter is now the farm manager of Gut Wulksfelde, a well-established diverse organic farm just outside Hamburg. The farm focuses on arable and vegetable cropping on very light and partly peaty soils. The farm also has a bakery, a farm shop and catering service to add value to what the farm produces and make use of the opportunity that farming just outside a large city provides. As part of Ackerhelden.de they offer small plots which are already planted with organic vegetables that families can care for and harvest throughout the season. Rolf also showed us how Gut Wulksfelde uses compost and silage as a fertiliser for growing potatoes. Approximately 12.5% of the cropping area of Gut Wulksfelde is used for conservation, with landscape elements including 22 amphibian ponds, 18 km of hedgerows, an extensive newly-planted orchard as well as participation in some specific agri-environment measures. The farm takes part in the operational group on Sustainable yield increase in ecological cash cropping using farm specific catch cropping strategies to enhance soil fertility and conserve the soil.

Photo: Alfred Grand

The workshop discussed ways of getting the best out of the groups. A good facilitator is crucial, as is finding the 'right' partners and establishing clear roles and common rules. Using videos and visuals can help overcome language problems, across borders, and in fostering common understanding of the practicalities of working on farms and in 'translating' scientific knowledge into farming language. Good communication strategies need to be developed for each group, identifying the target audiences and informing them using a variety of tools and events.

References

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