

Inspiration to diminish yield gaps in Organic Farming

EIP-AGRI Focus Group on Organic Farming produces its report on Optimising Arable Yields

After a year's work, the EIP-AGRI Focus Group on Organic Farming has issued a report on how to close the yield gap in Organic Farming. The report includes proposals for topics that Operational Groups could work on, practical solutions which have already been implemented in some areas of Europe and recommendations for future research topics.

Identifying the main causes of the problem

The report describes the main causes of the yield gap. Poor soil fertility management; inadequate nutrients supply, insufficient weed management, pest and disease pressure and variety choice are the main specific causes identified. Several horizontal themes are also highlighted: the need of a system approach; the need to enhance knowledge sharing across the sector; the development of resilient systems; and the need for a broad cultural shift.

Proposing practical solutions

From the causes identified, the Focus Group was able to present proposals for action which could represent topics for Operational Groups. The report describes these practical solutions including:

- farming systems co-design;
- information and decision support systems;
- how to increase soil microbial activity and biodiversity by farming techniques;
- fine-tuning of composting techniques;
- fine-tuning of new machines;
- structuring of joint purchase and use of machinery;
- selection of locally appropriate robust varieties;
- development of innovative tillage techniques;
- fostering the use of companion planting and cover crops;
- introduction of new crops and variety trials.

The report also gives a list of practical solutions which have already been implemented and could be scaled up or transposed elsewhere in Europe and concrete suggestions for the setting-up of Operational Groups in terms of methodology and practical elements.. It also gives recommendations for future research topics and methodologies as well as proposals for training and education programmes.

The issue of the Yield Gap

Organic farming has reached an important share of European agriculture; European citizens are increasing their demand for organic products, making Europe a major player in the organic sector. What is more, almost a quarter of the World's organic agricultural land is situated in the EU. Therefore it is important for the future of EU farming to consider how to make improvements in this sector.

Various studies (see the report for details) have shown the fluctuations in the yields in organic farming. On average, organic gives 75-80% of conventional yields but it varies a lot more depending on regions,

systems, management practices, particular crop types and growing conditions. Also the yield that organic farmers in similar conditions can obtain varies quite largely and this means that there is room for improvement and the potential to bring the majority of organic farms to the production level of their colleagues.

Optimising arable yields in Organic Farming was the central point for the discussions of EIP-AGRI Focus Group on Organic farming. An important element for the Focus Group experts within this context was the understanding of the concept of “yields”, and they made the decision to include the aspects of quantity, quality and eco-system services in its use as the definition of a farm’s performance.

Communicating the results

The next step is now to communicate the outcome and recommendations and we are currently developing a programme of publications and events.

Do you know of interesting magazines, social media groups, farming communities where we can share the information from the Focus Group? Please let us know through innovativefarming@eip-agri.eu

Drawing conclusions, but not coming to an end

The EIP-AGRI Focus Group on Organic Farming will not be meeting again, they all agree that the discussions on this particular subject have come to an end. However, this does not mean the discussions end here. The experts have expressed that they wish to continue to share ideas and discuss the subject and they will be able to do so through a dedicated forum on the new EIP-AGRI website. They will also help to spread the results of the Focus Group throughout their networks and communication outlets, and they have expressed interest in getting involved in operational groups (or in helping set them up) working on the proposals recommended in the final report.

[Download the final report](#)