



Organic Farming - Optimising arable yields

Why do yields vary so much between organic farms? How can organic farming systems achieve their optimal level of production?

The EIP-AGRI Focus Group on Organic Farming brought together 20 experts to find an answer to these questions. The Focus Group made recommendations on transferable innovative solutions on the topic of optimising arable crop yields in organic systems.

Various studies have shown fluctuations in the yields of organic farms. Yields vary a lot more than in conventional farming depending on regions, systems, management practices, particular crop types and growing conditions. The Focus Group identified the main causes of the gap for organic producers, with regards to quantity and quality, as:

- ▶ poor soil fertility management
- ▶ inadequate nutrient supply
- ▶ insufficient weed management
- ▶ pest and disease pressure
- ▶ variety choice

They started their work September 2013 and delivered the final report May 2014.

"There is a need for higher and more stable yields in organic farming to improve things economically for the organic farmer and make sure that resources are used as best as possible. Organic farmers in the EU can benefit from the sharing of innovation, knowledge and experience."

- Inger Bertelsen (Denmark), expert from the EIP-AGRI Focus Group on Organic Farming -

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Ideas for Operational Groups

- ▶ information and decision support systems
- ▶ farming techniques to increase soil microbial activity and biodiversity
- ▶ fine-tuning of composting techniques
- ▶ 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

Research needs

- ▶ analysis of low phosphorous (P) and potassium (K) systems to understand how they function
- ▶ identification of new sources of organic fertilisers
- ▶ selection of varieties with increased resistance to abiotic stress
- ▶ development of machines adapted to the needs of organic farming
- ▶ improvement of composting techniques adapted to different materials and establishment of innovative cooperation strategies

Other recommendations

- ▶ proposals for dissemination, training and education programmes

More ideas for Operational Groups and research needs available in the final report

More information on the EIP-AGRI website

Final report	Focus Group webpage	Inspirational ideas <ul style="list-style-type: none">• Reviving former links between forest and agricultural land• Protecting plants against insects, naturally!• Local food networks inspiring people to take up organic farming• Perfumes for pests
EIP-AGRI brochure	Press article	
Minipapers , analysing the factors causing the yield gap		

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Register to www.eip-agri.eu where you can find peers, projects, ideas and resources to work together to catalyse innovation in agriculture, forestry and horticulture.