



Soil organic matter content in Mediterranean regions

How can we improve soil organic matter content in the Mediterranean region in a cost-effective way? What new solutions for securing soil functionality and soil fertility can be proposed in this regard?

The EIP-AGRI Focus Group on soil organic matter content (SOM) in Mediterranean regions brought together 19 experts to find an answer to these questions. They started their work in January 2014 and delivered the final report in March 2015.

The group started with a comprehensive survey of techniques for increasing SOM content and/or securing soil functionality and fertility, analysing their pros and cons, dividing them in five clusters of practices:

- ▶ optimised use of resources of organic carbon
- ▶ optimised soil management
- ▶ optimised crop selection and management
- ▶ possible use of bioeffectors and microbial inoculants
- ▶ development of tools to properly assess the soil organic matter (SOM) content and soil quality, with a special focus on its biological component

Across all these topics, it was stressed that there was an overarching need to:

- ▶ better define adequate indicators and reference values
- ▶ improve knowledge sharing and dissemination, including education about the functions of soil organic matter and soil biota
- ▶ develop a systems approach and long-term evaluation rather than single, simple technical solutions ('recipes') with short-term efficiency

"We have identified 16 priorities on transferable innovative solutions for the purpose of improving soil organic matter content in a cost-effective way, while securing soil functionality and soil fertility in the specific context of Mediterranean regions."

- Borbala Biro (Hungary), expert from the EIP-AGRI Focus Group on Soil Organic Matter -

Soil organic matter content in Mediterranean regions

Ideas for Operational Groups

- ▶ diagnostic procedure and recommendations for SOM management
- ▶ optimising the use of fertilisers and pesticides in conservation agriculture
- ▶ organic resources from tree-based cropping systems
- ▶ benchmarking for SOM
- ▶ introducing conservation agriculture within organic farming systems
- ▶ biomass production: bioenergy crops and SOM content

Research needs

- ▶ evaluating the long-term economic benefits of SOM improvement
- ▶ selecting/breeding crops and genotypes combining increased production of residues (to increase SOM) and income (to increase crop yield and/or quality)
- ▶ establishing agronomic references for manure application in Mediterranean agriculture
- ▶ defining quality standards for manure inventory
- ▶ defining SOM reference values related to soil types and functions
- ▶ designing organic carbon analysis standards and databases

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

Other recommendations

- ▶ proposals for dissemination, training and education programmes

More information on the EIP-AGRI website

[Final report](#)

[Focus Group webpage](#)

[Press article: Four tips to improve organic matter content in Mediterranean soils](#)

Contact: EIP-AGRI Service Point - Avenue de la Toison d'Or 72 - 1060 Brussels - BELGIUM
Tel +32 2 543 73 48 - servicepoint@eip-agri.eu - www.eip-agri.eu

Join the EIP-AGRI Network!

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.