

SoildiverAgro project

Adoption of new management practices to increase crop production and quality



THE WHAT AND WHY

SoildiverAgro - Improving the stability and resilience of European agroecosystems by boosting the soil biodiversity

The main objective of SoildiverAgro (H2020 project 817819) is to increase the soil genetic and functional biodiversity in European agroecosystems to profit more optimal of the delivery of ecosystems, for example the increase of crop production and quality, while decreasing the use of external inputs. As a result, the stability and resilience of the EU-agriculture will be much improved. To achieve the objective, a survey to determine the current soil biodiversity condition in European croplands will be conducted in 9 EU-pedoclimatic regions, tools for monitoring will be developed and/or optimised, and 15 field case studies to investigate the potential of innovative measures in agriculture will be organised in 6 EU-pedoclimatic regions. The innovative measures are applications of newly developed

and tested commercial products based on soil mycorrhiza and plant growth promoting bacteria; the adoption of suitable, more diversified crop rotation systems including nutrient catch crops and cover crops; the use of trap crops for pest control and the development of pest alert systems; the use of organic products as soil ameliorants and fertilizers; the application of alternative tillage systems. To ensure rapid adoption, the proposed measures will also be analysed from an economic and social point-of-view because farmers presumably will not accept the innovations unless the socio-economic profitability is ensured. Finally, operational diversity targets will be defined for existing EU policies update.



1. Photo of case study 6 in Melle, East-Flanders (Belgium).



2. Photo of tractor direct sowing in case study 14b in South Carelia (Finland).



3. Photo of melons from case study 1 in Cartagena (Spain).

KEYWORDS

Soil, socio-economic, biodiversity, management, systems, crops, pedoclimatic, case studies, production, agrifood.

AUTHORSHIP

Lieven Waeyenberge, Instituut voor Landbouw-, Visserij- en Voedingsonderzoek (ILVO) Merelbeke, Belgium.
Merrit Shanskiy, Eesti Maaülikool (EULS), Tartu, Estonia.

Paula Pérez, Universidad de Vigo (UVigo), Vigo, Spain.
Raúl Zornoza, Universidad Politécnica de Cartagena (UPCT), Cartagena, Spain.
David Fernández Calviño, Universidad de Vigo (UVigo), Vigo, Spain.
Stefan Schrader, Thünen-Institute (TI), Braunschweig, Germany.
Krista Peltoniemi, Luonnonvarakeskus (Luke), Helsinki, Finland.
Tamara Rodríguez, Fundación Empresa-Universidad Gallega (FEUGA), Santiago de Compostela, Spain.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 817819

This factsheet is produced as part of the SoildiverAgro project. Although the author has worked on the best information available, neither the author nor the EU shall in any event be liable for any loss, damage or injury incurred directly or indirectly in relation to the project.