Soil Care for profitable and sustainable crop production in Europe

Results

Project Information

SOILCARE
Grant agreement ID: 677407

Funded under
H2020-EU.3.2.

Overall budget
€ 7,628,403

EU contribution
€ 6,999,993

Closed project

Start date
1 March 2016

End date
31 August 2021

Coordinated by
STICHTING WAGENINGEN RESEARCH
Netherlands

This project is featured in...

RESEARCH‘EU MAGAZINE
Soil and sustainability: Raising the game for European agriculture

NO. 96, OCTOBER 2020
Deliverables

Documents, reports (6)

- Stakeholder analysis report
  Stakeholder analysis report providing results from each study site

- Inventory of opportunities and bottlenecks in policy to facilitate the adoption of soil-improving techniques
  Inventory of opportunities and bottlenecks in policy to facilitate the adoption of soil-improving techniques

- List of CS selected for testing in WP5
  List of cropping systems selected for testing in WP5

- Review report of soil-improving CS
  Review report of soil-improving cropping systems

- Report on the selection of good policy alternatives at EU and study site level accompanied by an analysis of their performance on multiple criteria
  Report on the selection of good policy alternatives at EU and study site level accompanied by an analysis of their performance on multiple criteria

- Report on demonstration activities in Study Sites
  Report on demonstration activities in Study Sites

Websites, patent fillings, videos etc. (1)

- SOILCARE website
  SOILCARE project website
Publications

Peer reviewed articles (26)

Mycobiome Composition and Diversity under the Long-Term Application of Spent Mushroom Substrate and Chicken Manure

Author(s): Magdalena Frąc, Giorgia Pertile, Jacek Panek, Agata Gryta, Karolina Oszust, Jerzy Lipiec, Bogusław Usowicz
Published in: Agronomy, Issue 11/3, 2021, Page(s) 410, ISSN 2073-4395
DOI: 10.3390/agronomy11030410

Inconsistent effects of agricultural practices on soil fungal communities across twelve European long-term experiments

Published in: European Journal of Soil Science, 2021, ISSN 1351-0754
DOI: 10.1111/ejss.13090

The Impact of Soil-Improving Cropping Practices on Erosion Rates: A Stakeholder-Oriented Field Experiment Assessment

Author(s): Ioannis K. Tsanis, Konstantinos D. Seiradakis, Sofia Sarchani, Ioanna S. Panagea, Dimitrios D. Alexakis, Aristeidis G. Koutroulis
Published in: Land, Issue 10/9, 2021, Page(s) 964, ISSN 2073-445X
DOI: 10.3390/land10090964

Barriers and Facilitators for Adopting Sustainable Soil Management Practices in Mediterranean Olive Groves

Author(s): José A. Aznar-Sánchez, Juan F. Velasco-Muñoz, Belén López-Felices, Fernando del Moral-Torres
Published in: Agronomy, Issue 10/4, 2020, Page(s) 506, ISSN 2073-4395
DOI: 10.3390/agronomy10040506

Spatial variability of saturated hydraulic conductivity and its links with other soil properties at the regional scale

Author(s): Usowicz, B., Lipiec, J.
Published in: Scientific Reports, Issue 11, 2021, ISSN 2045-2322
DOI: 10.1038/s41598-021-86862-3

Effects of Application of Recycled Chicken Manure and Spent Mushroom Substrate on Organic Matter, Acidity, and Hydraulic Properties of Sandy Soils
Long-term soil quality effects of soil and crop management in organic and conventional arable cropping systems

**Author(s):** Jerzy Lipiec, Bogusław Usowicz, Jerzy Kłopotek, Marcin Turski, Magdalena Frąc
**Published in:** Materials, Issue 14/14, 2021, Page(s) 4036, ISSN 1996-1944
**DOI:** 10.3390/ma14144036

Interactions between cover crops and soil microorganisms increase phosphorus availability in conservation agriculture

**Author(s):** Chiara De Notaris, Johannes Lund Jensen, Jørgen Eivind Olesen, Tiago Stumpf da Silva, Jim Rasmussen, Ioanna Panagea, Gitte Holton Rubæk
**Published in:** Geoderma, Issue 403, 2021, Page(s) 115383, ISSN 0016-7061
**DOI:** 10.1016/j.geoderma.2021.115383

Seasonal differences in tillage draught on a sandy loam soil with long-term additions of animal manure and mineral fertilizers

**Author(s):** Moritz Hallama, Carola Pekrun, Stefan Pilz, Klaus A. Jarosch, Magdalena Frąc, Marie Uksa, Sven Marhan, Ellen Kandeler
**Published in:** Plant and Soil, 2021, ISSN 0032-079X
**DOI:** 10.1007/s11104-021-04897-x

Impact of Early Sowing on Winter Wheat Receiving Manure or Mineral Fertilizers

**Author(s):** Bent T. Christensen, Johannes L. Jensen, Ingrid K. Thomsen
**Published in:** Agronomy Journal, Issue 109/4, 2017, Page(s) 1312, ISSN 0002-1962
**DOI:** 10.2134/agronj2016.11.0677

Limitation of multi-elemental fingerprinting of wheat grains: Effect of cultivar, sowing date, and nutrient management

**Author(s):** Alfonso Suarez-Tapia, Sergey V. Kucheryavskiy, Bent T. Christensen, Ingrid K. Thomsen, Jim Rasmussen
**Published in:** Journal of Cereal Science, Issue 76, 2017, Page(s) 76-84, ISSN 0733-5210
**DOI:** 10.1016/j.jcs.2017.05.015

A framework for scaling sustainable land management options

**Author(s):** Richard Thomas, Mark Reed, Kathryn Clifton, Nathan Appadurai, Anthony Mills, Claudio Zucca, Elie Kodsi, Jason Sircely, Fida Haddad,
Christopher Hagen, Everisto Mapedza, Kifle Woldearegay, Kumar Shalander, Mauricio Bellon, Quang Le, Samuel Mabikke, Sasha Alexander, Stefan Leu, Stefan Schlingloff, Tana Lala-Pritchard, Victor Mares, Roberto Quiroz

**Published in:** Land Degradation & Development, Issue 29/10, 2018, Page(s) 3272-3284, ISSN 1085-3278  
**DOI:** 10.1002/ldr.3080

[Bacterial Preferences for Specific Soil Particle Size Fractions Revealed by Community Analyses](#)  
**Author(s):** Michael Hemkemeyer, Anja B. Dohrmann, Bent T. Christensen, Christoph C. Tebbe  
**Published in:** Frontiers in Microbiology, Issue 9, 2018, ISSN 1664-302X  
**DOI:** 10.3389/fmicb.2018.00149

[Functional Land Management: Bridging the Think-Do-Gap using a multi-stakeholder science policy interface](#)  
**Author(s):** Lilian O’Sullivan, David Wall, Rachel Creamer, Francesca Bampa, Rogier P. O. Schulte  
**Published in:** Ambio, Issue 47/2, 2018, Page(s) 216-230, ISSN 0044-7447  
**DOI:** 10.1007/s13280-017-0983-x

[Hidden miners – the roles of cover crops and soil microorganisms in phosphorus cycling through agroecosystems](#)  
**Author(s):** Moritz Hallama, Carola Pekrun, Hans Lambers, Ellen Kandeler  
**Published in:** Plant and Soil, Issue 434/1-2, 2019, Page(s) 7-45, ISSN 0032-079X  
**DOI:** 10.1007/s11104-018-3810-7

[Are advisory services “fit for purpose” to support sustainable soil management? An assessment of advice in Europe](#)  
**Author(s):** Julie Ingram, Jane Mills  
**Published in:** Soil Use and Management, Issue 35/1, 2019, Page(s) 21-31, ISSN 0266-0032  
**DOI:** 10.1111/sum.12452

[The use of Twitter for knowledge exchange on sustainable soil management](#)  
**Author(s):** Jane Mills, Matthew Reed, Kamilla Skaalsveen, Julie Ingram  
**Published in:** Soil Use and Management, Issue 35/1, 2019, Page(s) 195-203, ISSN 0266-0032  
**DOI:** 10.1111/sum.12485

[A Review of Soil-Improving Cropping Systems for Soil Salinization](#)  
**Author(s):** Julián Cuevas, Ioannis N. Daliakopoulos, Fernando del Moral, Juan J. Hueso, Ioannis K. Tsanis
Determining the effect of exogenous organic materials on spatial distribution of maize yield

**Author(s):** Bogusław Usowicz, Jerzy Lipiec

**Published in:** Scientific Reports, Issue 9/1, 2019, ISSN 2045-2322

**DOI:** 10.1038/s41598-019-56266-5

Spatial relationships among cereal yields and selected soil physical and chemical properties

**Author(s):** Jerzy Lipiec, Boguslaw Usowicz

**Published in:** Science of The Total Environment, Issue 633, 2018, Page(s) 1579-1590, ISSN 0048-9697

**DOI:** 10.1016/j.scitotenv.2018.03.277

Phosphorus-acquisition strategies of canola, wheat and barley in soil amended with sewage sludges

**Author(s):** C. Nobile, D. Houben, E. Michel, S. Firmin, H. Lambers, E. Kandeler, M.-P. Faucon

**Published in:** Scientific Reports, Issue 9/1, 2019, ISSN 2045-2322

**DOI:** 10.1038/s41598-019-51204-x

Social capital factors affecting uptake of sustainable soil management practices: a literature review

**Author(s):** Niki A. Rust, Emilia Noel Ptak, Morten Graversgaard, Sara Iversen, Mark S. Reed, Jasper R. de Vries, Julie Ingram, Jane Mills, Rosmarie K. Neumann, Chris Kjeldsen, Melanie Muro, Tommy Dalgaard

**Published in:** Emerald Open Research, Issue 2, 2020, Page(s) 8, ISSN 2631-3952

**DOI:** 10.35241/emeraldopenres.13412.2

Crop yield after 5 decades of contrasting residue management

**Author(s):** I. Piccoli, F. Sartori, R. Polese, A. Berti

**Published in:** Nutrient Cycling in Agroecosystems, Issue 117/2, 2020, Page(s) 231-241, ISSN 1385-1314

**DOI:** 10.1007/s10705-020-10067-9

A theory of participation: what makes stakeholder and public engagement in environmental management work?

**Author(s):** Mark S. Reed, Steven Vella, Edward Challies, Joris de Vente, Lynne Frewer, Daniela Hohenwallner-Ries, Tobias Huber, Rosmarie K. Neumann, Elizabeth A. Oughton, Julian Sidoli del Ceno, Hedwig van Delden

**Published in:** Restoration Ecology, Issue 26 (S1), 2017, Page(s) S7-S17, ISSN 1061-2971

**DOI:** 10.1111/rec.12541
The effect of crop residues, cover crops, manures and nitrogen fertilization on soil organic carbon changes in agroecosystems: a synthesis of reviews

Author(s): Martin A. Bolinder, Felicity Crotty, Annemie Elsen, Magdalena Frac, Tamás Kismányoky, Jerzy Lipiec, Mia Tits, Zoltán Tóth, Thomas Kätterer
Published in: Mitigation and Adaptation Strategies for Global Change, 2020, ISSN 1381-2386
DOI: 10.1007/s11027-020-09916-3

Have farmers had enough of experts?

Author(s): Niki A. Rust, Petra Stankovics, Rebecca M. Jarvis, Zara Morris-Trainor, Jasper R. de Vries, Julie Ingram, Jane Mills, Jenny A. Glikman, Joy Parkinson, Zoltan Toth, Regina Hansda, Rob McMorrann, Jayne Glass, Mark S. Reed
Published in: Environmental Management, 2021, ISSN 0364-152X
DOI: 10.1007/s00267-021-01546-y

Datasets

Datasets via OpenAIRE (9)

Data underlying publication https://doi.org/10.1007/s13280-017-0983-x
Author(s): O'Sullivan
Published in: Zenodo

Data underlying publication https://doi.org/10.1007/s13280-017-0983-x
Author(s): O'Sullivan
Published in: Zenodo
Accompanying material to the Inventory of opportunities and bottlenecks in policy to facilitate the adoption of soil-improving techniques

Author(s): McNeill, Alicia; Bradley, Harriet; Muro, Melanie; Merriman, Nicholas; Pederson, Robert; Tugran, Tugce; Lucakova, Zuzana

Published in: Zenodo

Spatial variability of saturated hydraulic conductivity and its links with other soil properties at the regional scale

Author(s): Usowicz Bogusław; Lipiec Jerzy

SOILCARE_database1_WP2_SICS_aspects

Author(s): Heinen, Marius; Rietra, René; Oenema, Oene

Published in: Zenodo

DRAFT EU-level policy inventory (Database 3)

Author(s): Bradley, Harriet; McNeill, Alicia; Merriman, Nicholas; Muro, Melanie; Pederson, Robert; Petrovic, Damir; Lukacova, Zuzana

Published in: Zenodo

Determining the effect of exogenous organic materials on spatial distribution of maize yield

Author(s): Usowicz Bogusław; Lipiec Jerzy

Data to support the publication The use of Twitter for knowledge exchange on sustainable soil management

Author(s): Mills, Jane; Skaalsveen, Kamilla

Published in: Zenodo

SOILCARE_database1_WP2_SICS_aspects

Author(s): Marius Heinen; René Rietra; Oene Oenema

Published in: Zenodo

Last update: 30 September 2021
Record number: 200533

Permalink: https://cordis.europa.eu/project/id/677407/results

© European Union, 2021