



## Media Release

### Integrating reduced tillage and green manures in organic cropping systems

#### New European research project has started

(January 4, 2012) Recently the new European project “Reduced tillage and green manures for sustainable cropping systems” (TILMAN-ORG) has started. Over three years, eleven European countries will collaborate in this project under the leadership of the Swiss Research Institute of Organic Agriculture (FiBL).

Reduced tillage and green manures have the potential to improve soil structure and biology that can be damaged after the use of traditional deep ploughing. Trials have shown that reduced tillage and green manuring are environmentally friendly practices that increase levels of soil organic matter and biological activity, improve soil stability, and reduce fuel consumption. The avoidance of deep ploughing is successfully practised as no-tillage agriculture in conventional farming systems in many parts of the world; however, these no-tillage systems rely on herbicides for weed control and mineral fertilisers for plant nutrients. This means that organic farmers cannot readily take up these practices since herbicides and mineral fertilisers are prohibited under organic regulations.

#### Using reduced tillage – a challenge for organic farmers

For organic farmers technical difficulties, most notably in weed control, mean that abandoning the plough can be challenging. The aim of the TILMAN-ORG project is therefore to develop reduced tillage and green manure systems that will work in organic farming. The research of the TILMAN-ORG project focuses on strategies for efficient weed management, assessment of greenhouse gas emissions and improvement of nutrient management.

“With our research on reduced tillage systems in organic farming we are expecting to find ways to decrease the carbon footprint of arable cropping systems”, says project leader Paul Mäder of the Research Institute of Organic Agriculture in Switzerland. “We also want to help increase productivity through the better use of nutrients and enhanced biodiversity.”

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## Improved organic cropping systems

During the project fifteen research partners in eleven European countries will work for three years to compile data from field trials, case studies and farmer interviews. A literature review will explore the existing knowledge and experience. All project results will be used to design improved organic cropping systems. In the end, decision-support tools and guidelines will be provided to advisors and farmers.

The TILMAN-ORG project is part of the 1<sup>st</sup> Call on Research of national funding agencies participating in the European ERA-Net project Core Organic II (Coordination of European Transnational Research in Organic Food and Farming Systems).

Detailed information on the project as well as a video illustrating the project's activities and objectives are available on the project website [www.tilman-org.net](http://www.tilman-org.net).

## Further information

### Contact

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### Project partners

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- > ISARA Lyon, France
- > Helmholtz Zentrum München (HMGU), Germany
- > University of Kassel (WIZ), Germany
- > Louis Bolk Institute (LBI), The Netherlands
- > Wageningen University and Research Centre (DLO-PRO/PRI), The Netherlands
- > Institute for Agricultural and Fisheries Research, Plant Sciences, Crop Husbandry and Environment (OC-ILVO), Belgium
- > Public Research Center-Gabriel Lippmann (CRP-GL), Luxemburg
- > Newcastle University (UNEW), UK
- > The Organic Research Centre - Elm Farm (ORC), UK
- > Estonian University of Life Sciences (EULS)
- > Centro Interdipartimentale di Ricerche Agro-Ambientali (CIRAA), Italy
- > Scuola Superiore Sant'Anna (SSSA), Italy
- > Universitat de Barcelona (UB), Spain
- > Research Institute of Organic Agriculture (FiBL AT), Austria

A detailed description of the partners of the TILMAN-ORG project is available at [www.tilman-org.net/tilman-org-partners.html](http://www.tilman-org.net/tilman-org-partners.html)

## Links

- > [www.tilman-org.net](http://www.tilman-org.net)
- > [www.coreorganic2.org](http://www.coreorganic2.org)

## This media release on the Internet

The media release is available on <http://www.fibl.org/en/media.html>.