



A new European project on cover crops

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Introduction

There is widespread concern over the damage caused by modern agriculture to soil structure and the ecosystem services provided. One approach to overcome this problem is conservation agriculture which aims to maintain soil structure by

- minimising soil disturbance,
- maximising soil cover, and
- and using crop rotation.

However, despite recent legislation supporting minimum tillage and direct seeding, conservation agriculture is still practised on less than 4% of the agricultural land in Europe.

This underlines the need for major improvements in this approach together with consolidation of, and access to, information about alternative cropping methods and their biological and economic value and performance.

Research programme

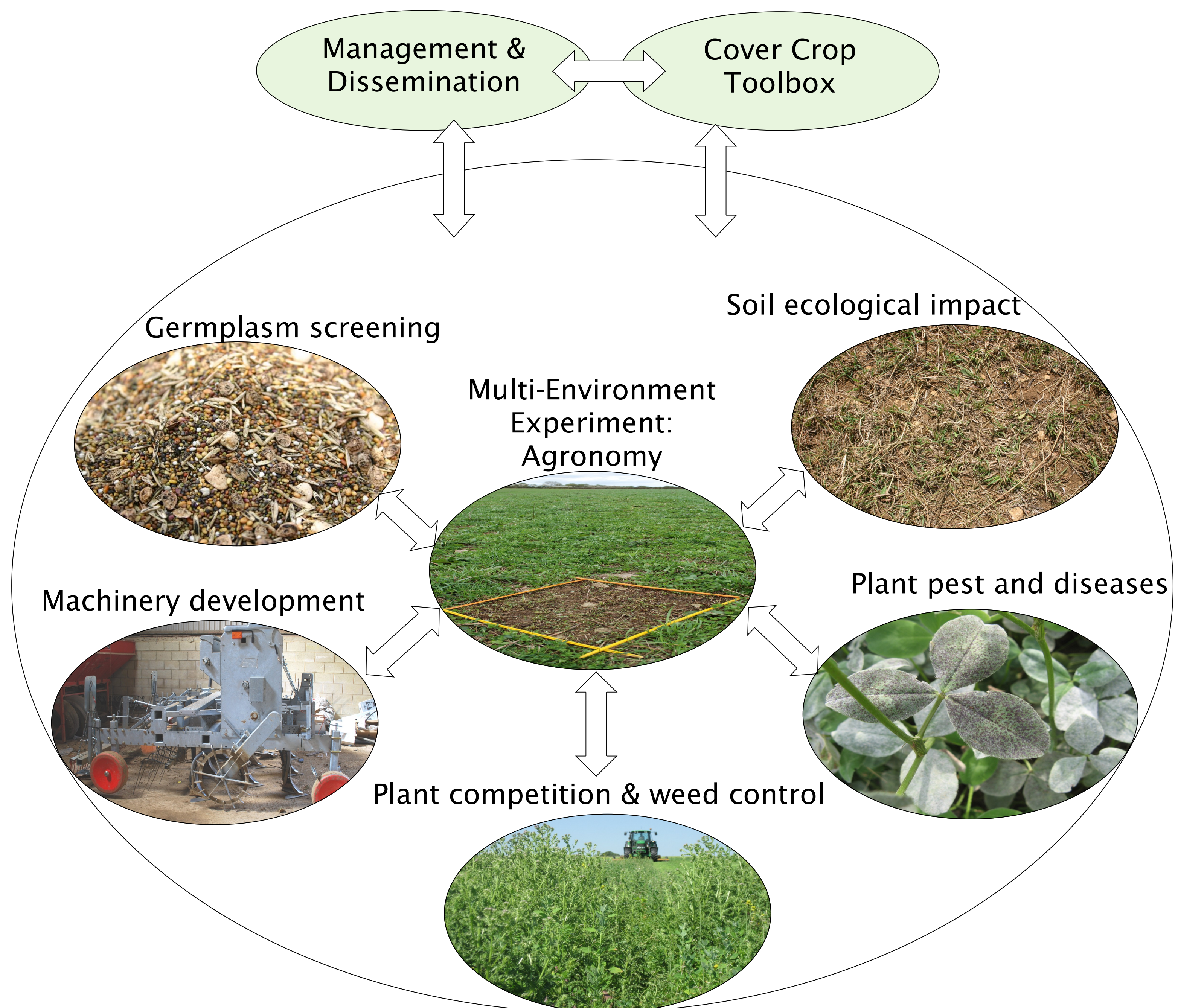
- OSCAR (Optimising Subsidiary Crop Application in Rotations), a European research project, addresses these problems by extending existing knowledge and **improving and developing novel cropping systems** based on cover crops, catch crops, living mulches and other subsidiary crops.
- OSCAR started in April 2012, and is led by University of Kassel, Germany; conducted by **22 partners** it will run for 4 years.
- OSCAR aims to enhance the implementation and **increase the duration of soil coverage by plants**, introduce diversity to the crop rotation and reduce the need for and the intensity of soil tillage. Particular attention is given to conservation tillage systems.
- OSCAR considers **both conventional and conservation agricultural systems**, encouraging a high level of innovation as well as offering a more immediate transfer into practical agriculture.
- A series of field trials in an **Multi-Environment Experiment** as OSCAR's experimental platform. It is complemented by three long-term agricultural experiments on Conservation Agriculture, cover crops and living mulches.

Impact through a Cover Crop Toolbox

OSCAR will develop a Cover Crop Toolbox, which –

- Brings together the **knowledge generated** through the research and make project information available
- Reduces the fragmentation of existing knowledge by **drawing together existing information** in a central place.
- Aims to **help farmers** to identify SC species most suited to their specific production systems, including economic aspects and technology requirements.
- Encourages feedback from users and thus can evolve dynamically during and beyond the present project.

Project structure



Partners

- University of Kassel, DE
- Agroscope-Reckenholz-Taenikon, CH
- Institute f. Agricultural & Environmental Research-BIOFORSK, NO
- International Research Center for Agriculture in dry Areas, SY
- Intitut National por la recherche Agricole, Morocco
- Institute of Soil Science and Plant Cultivation, PL
- The Organic Research Centre, UK
- Swedish University of Agricultural Sciences, SE
- Scuola Superiore S.Anna, IT
- Universita' degli Studi di Pisa, IT
- Technische Universitaet Muenchen, Germany
- Universita della Tuscia, IT
- University of Copenhagen, DK
- Wageningen University, NL
- University of Santa Maria, BR
- IAPAR, BR
- Friedrich Wenz Landtechnik GmbH, DE
- ARCOIRIS, IT
- P.H. Petersen Saatzucht Lundsgaard, DE
- Marangon s.r.l., IT
- Hassouni, Morocco
- Ferrari Costruzioni meccanice SRL, IT