

# Inspirational ideas

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## The Soil Box

**German Operational Group project 'The Soil Box' ('Bodenbox') has developed a tool for farmers combining practical know-how and new scientific findings. The tool offers users the opportunity to obtain knowledge about the soil and its complex processes in an understandable and practice-relevant way.**

Protecting the soil is fundamental for sustainability. It plays an extremely important role in providing us with clean water, enabling stable agricultural yields, hosting biodiversity, recycling nutrients, regulating climate, just to mention a few. Soil degradation however is one of today's biggest sustainability challenges.

The good management of soil resources is therefore essential, but it requires extensive knowledge of the processes and relationships within the soil.



Christiane Meyer, coordinator, says "Knowledge is the basis for making the right decisions and acting successfully in the long term. This new form of learning offer can increase the oh-so important understanding of the processes and connections in many aspects of soil science and improve applicability. By increasing know-how, farmers are able to deal with the difficulties and challenges of dealing with the soil. This then has a positive effect on sustainability and environmental protection in agriculture."

This Operational Group is developing 'Soil Boxes', packages of information providing specific instructions to farmers so that they can assess soil properties and growth conditions themselves on their farms. With this knowledge, farmers can develop suitable strategies for the maintenance, optimisation and further development of soil fertility.

The project is led by MR Agrarnetz GmbH, a service company that advises agricultural businesses in many areas, and involves Kiel University of Applied Sciences and the Institute for Science Education at the Christian-Albrechts-Universität zu Kiel as well as farmers from Schleswig-Holstein (five farmers are directly partners in the OG and 20 others are involved in testing the Boxes).

The development of the tools for the individual boxes has been planned with close cooperation between farmers, consulting and science. The practical tests and the further development are being carried out by the farmers.



The Operational Group intends to develop eight different boxes. Christiane Meyer, project coordinator, tells us "Each one focuses on a different current thematic issue and problems from practice: such as physical properties, soil chemistry, ecology or compaction. The boxes guide you step by step through the topic and the analyses which need to be done. Each box includes a magazine presenting the information in a clear and concise way, useful equipment and practical instructions." Each box contains worksheets to document the results of the experiments, and they include actual equipment

which can be used again, for example an 'infiltrometer' - a tool for measuring water permeability, or another tool for measuring the pH of the soil.

Test versions of six boxes are already available and are currently being tested on the ground. New test equipment is being developed, and a team of journalists, graphic designers and soil science experts are also reworking the content to ensure it is prepared for the final users. "This is particularly important so that the content is understandable and the subject of soil receives the necessary appreciation." Explains Christiane.

#### Sources:

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