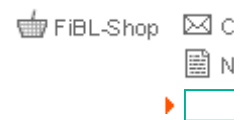




Research



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DOK-Trial: Organic farming enhances soil fertility and biodiversity

Is organic farming practicable?

In the early seventies, farmers and agricultural scientists were convinced that agricultural production without external input of production factors like synthetic fertilizers and pesticides would not be feasible.

Organic farming as an alternative to conventional developed agricultural practice was not taken seriously. At that time of scepticism, some pioneers initiated a movement to support organic farming research, hoping that the Swiss Federal research stations could be persuaded to direct their focus to this field of research. However, with the exception of some rare efforts of policy makers and universities, there was little response. The main task, i.e. to study the feasibility of organic farming, was not covered by any of the official Swiss Agricultural Research institutions. Hence, an initiative of farmers, politicians and scientists founded the Research Institute of Organic Agriculture (FiBL) in 1973. This private foundation linked administration and practice, and its first task was to elaborate the concept of the DOK field trial.

In 1974, the Swiss Federal Office of Agriculture (BLW) charged the former Federal Research Station for Agricultural Chemistry and Hygiene of Environment (FAC, Bern-Liebefeld) to set up a field trial in collaboration with the FiBL in order to compare the performance of organic farming systems. When FAC-Liebefeld was shut down, the Swiss Federal Research Station for Agroecology and Agriculture (FAL-Reckenholz) took over the responsibility for the DOK trial in close cooperation with FiBL.

The DOK-long term trial - unique in its conception - compares the consequences of bio-organic, bio-dynamic and conventional farming systems in a randomised plot trial that has no other equivalent. Experimental samples are used by many other laboratories to develop new methods in the areas of soil and food quality.

Evaluation of the pros and cons of different land management strategies allows for rational system optimization. This would not have been possible without the long-term research carried out within the framework of the DOK-trial.

The DOK-field trial was started in 1978 at Therwil. In the beginning the main goals were agronomic: yield and product quality. The database of agronomic results of more than twenty years has stimulated the discussion about farming systems and has contributed significantly to the general acceptance of organic farming. In Switzerland today, over 5000 farmers successfully farm organically, showing convincingly that organic farming is indeed feasible. In the last decade, therefor research has focused on processes in the soil and on the long-term effects of organic farming practice on the environment.

The investigators are indebted to the Federal Office of Agriculture (BLW), the advisory farmers and the field staff for their constant and unflagging support. The collaborative work with national and international research institutions is gratefully acknowledged.



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Field inspection 1991

Scientists, field staff and the advisory farmers meet each year in order to evaluate current management procedures and to decide upon possible changes in farming management.

Exceptionally for the time, farmers from both the farming systems and organic producer organisations were involved in the planning and executing of the field trial.

[>>The field trial design](#)

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