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## Communication with basis in experimental units for organic farming

A number of field experimental units were established in 1996 as part of the joint effort on organic farming research in Denmark coordinated by DARCOF. These units primarily consisted of field experimental sites at Flakkebjerg, Foulum, Jyndevad, Årslev, Askov and KVL-Taastrup, and the long-term crop rotation experiments at Jyndevad, Foulum, Flakkebjerg og Holeby. The organic farming research station, Rugballegård, has also been available for this research. These experimental units cover all major organic farming practices and soil types in Denmark.

The aims of the experimental units for research in organic farming systems are three-fold:

1. To describe long-term effects of organic farming practices and crop rotations.
2. To function as workshop facilities for other, more specific research projects.
3. To assist in communication and dissemination of the results of research on organic farming.

The activities in the project is divided into three workpackages:

1. Dedicated workshop areas. This includes organic crop rotations with 1 ha field, but no experimental treatments within the fields. The main role of these areas is to function as sites for more detailed experimentation. The rotations at these sites will be adjusted to include more arable crops and a higher and more diversified use of catch crops.
2. Long-term field experiments with crop rotations, catch crops and various fertiliser levels, which also function as workshop areas for other dedicated experiments. Yields and nutrient leaching is measured in all these experiments. The crop rotation experiment includes three factors in a factorial design with two replicates: A) fraction of grass-clover and pulses in the rotation (crop rotation), B) catch crop (without or with catch crop), and C) fertiliser (without or with animal manure applied as slurry). This experiment is conducted at four locations, representing different soil types and climate regions. An experiment on nutrient cycling in organic dairy farming crop rotation is conducted at Foulum. The experiment includes treatments with two levels of animal manure and two types of animal manure in a factorial design. The crop rotation of this experiment will be modified to study more closely the nitrogen cycling in the experiment as affected by both grass-clover crops and manure type and level. The third experiment is also located at Foulum, but includes different types and management of grazed grass and grass-clover pastures. This experiment will be used to

investigate more closely the effect of proportion of pasture in the rotation for yields and nutrient use.

3. Demonstration and communication. The basic activities include field days, radio and TV interviews and papers in farmers journals. In addition several two-day seminars will be organised every year at the experimental sites aimed primarily at organic advisors. An advisory committee will aid the project group with respect to change in crop rotations and management of the experimental sites and with respect to demonstration activities.

#### **Project title**

IV.2 Communication with basis in experimental units for organic farming (EXUNIT-2)

#### **Project leader**

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