Inspirational Ideas

NEWSLETTER AUGUST 2017

Climate-friendly practices

SOLMACC, an EU- LIFE funded project coordinated by IFOAM EU is about testing and sharing strategies for organic and low-input farming to mitigate and adapt to climate change. It wants to demonstrate that agriculture can be climate-friendly, but you need to apply a combination of optimised organic farming practices to respond to climate change.

Climate change challenges

Extreme changes in weather patterns and increasing climatic events mean that farming today is ever-more challenging. At the same time, the agriculture sector accounts for about 10% of the total greenhouse gas emissions in the EU (solmacc.eu). SOLMACC is, therefore, looking at applying a range of farming practices to help make farms more resilient to the effects of climate change and at the same time protecting the environment from harmful greenhouse gases. SOLMACC project coordinator Ann-Kathrin Trappenberg (IFOAM EU) says "The SOLMACC project, seeks to promote the wider adoption of innovative practices that can contribute to reaching the EU's climate change mitigation and adaptation objectives in the food and farming sector."

Demonstration farms for climate-friendly techniques

At the moment, the potential of climate-friendly farming is not yet fully utilised and largely un-formalised. This project is scientifically monitoring 12 demonstration farms. The farmers adjust their agriculture techniques over the course of five years, introducing the new practices but adapting them to the particular climatic area and farm conditions. Since 2014, the project is keeping them under close supervision and maintained constant exchange between the farmers and their advisors.

The demonstration network includes 4 organic farms in each of the following countries: Sweden, Germany and Italy. Ann-Kathrin goes on to say "The added value of implementing the set of best farming practices in three different countries such as Italy, Germany, and Sweden lies in strengthening the exchange of knowledge between partners from different member states. Furthermore, it helps to draw conclusions from the project that will be applicable for most of the EU area due to the fact that the project covers important climatic zones."

The farmers are all implementing 4 innovative climate-friendly practices each from 4 different categories on their farms:

- **Optimised on-farm nutrient recycling**
- **Optimised crop rotations**
- **Optimised tillage system**
- **Agroforestry**

funded by European Commission

How the farms in Sweden are getting on

Optimised on-farm nutrient recycling

Kjell Sjelin from Hånsta Östergärde developed a method of optimised on-farm nutrient recycling where animals are kept outside during winter but with access to open sheds with straw bedding. Straw is added daily when the height reaches 40-50cm, the shed is moved, leaving the used straw outside. They begin with new bedding in the shed's new position. Since the outdoor temperature is low during winter, biological activity is minimal. When spring comes, the beddings are spread and instantly incorporated into the soil followed by the planting of spring cereals. This system for manure management is expected to be energy efficient with very low emissions from both storage and spreading.

Optimised crop rotations with legume grass leys

At **Hånsta Östergärde farm, Ylva and Kjell Sjelin** have introduced a triticale-winter pea mixed culture which improves yield stability of peas. The protein yield per hectare is increased along with a reduction of N_2O emission due to integrating of N fixing crop and reduced N fertilisation. The higher aboveground biomass of this practice compared to its mono-cultural counterparts also contributes to C sequestration when incorporated into the soil.

Optimised tillage system

Magnus Bengtsson at Körslätts gård practices reduced tilling on parts of his organic farm. On a medium heavy clay soil, he quit ploughing in the autumn in favor of ground cultivation combined with a root cutting tool (CMN couch grass killer). He sows radish to cover the field during the winter, catch nitrogen and let the roots help prepare the soil for next spring's crop. In the spring he uses the cultivator a second time, and thereafter sows directly in the soil. "So far I seem to get about the same yields as when I was ploughing", says Magnus Bengtsson. "I think that I save around 100 Euro [of fuel] per hectare not having to plough"

Agroforestry

"Pigs love to root in the soil. We get about 95% soil preparation, this is improving the self-seeding of new forest" **Kjell Sjelin, Hånsta Östergärde.**

Körslätts gård installed hedgerows and tree strips which lead to carbon sequestration in above- and belowground biomass and in soil. Part of the woody biomass is used for heating and thus replaces fossil fuel (CO_2 mitigation).

Follow the progress of the different demonstration farms: **http://solmacc.eu/**
Content: **http://solmacc.eu/**
Photos: Oscar Franzén, Kjell Sjelin
Contact: Ann-Kathrin Trappenberg- **ann-kathrin.trappenberg@ifoam-eu.org**

funded by European Commission