

Field day at the farm and agricultural college Sötåsen

The open field day was on the 31th of May on a hot and sunny day. Sötåsen is an agricultural college with an educational farm that is managed completely organically since 1998. The farm is located outside Töreboda in the south west of Sweden, and has 202 ha arable land, 105 ha forest, 70 dairy cows, approximately 35 sows with piglets and sheep.

We were around 45 participants on the field day – 15 were farmers, advisers and teachers and around 30 students from the college. The day started with coffee and introduction of the participants. Hans Nilsson and Britt-Marie Benjaminsson, agricultural teachers on the college, presented the farm and the college in terms of capacity of the farm and the educational parts. Niels Andresen made a short presentation of the Solmacc project and the main objectives for why farming should be prepared for climate change.



Farmers and students discussing on the open field day at Sötåsen

Improved nutrient management

In the morning we started on the farm yard where Hans Nilsson showed us the biogas unit. At the moment a project is running for upgrading biogas for direct use in engines on the farm. This is a big step toward getting the farm self-sufficient with energy. The residues from the biogas production are spread in the fields and has improved nutrient utilisation on the farm. This was confirmed by the nutrient balance on the farm and reflected in higher yields in cereals and ley production.





Hans Nilsson is presenting the biogas unit.

High proportion of legumes in the crop rotation

Legumes are very essential in the crop rotation and are produced for animal feeds as well as for human consumption. As an example, faba beans are harvested green for human consumption and as grain for feed for the dairy cows and the pigs. The farm has the possibility for heat treatment of the faba beans at approximately 120 °C, which improve the protein value of the beans with 20-25 % in the diet for the dairy cows. This is one of the keys to feed the herd with on-farm feed. The farm is now growing more and more different legumes for human consumption to adjust to the demand from the consumers for more vegetarian food. We saw examples of different beans, as well as, vetch and peas, which are introduced on the farm.

Reduced tillage in organic cropping

On two fields, with the same area around 3 hectares, reduced tillage has been compared to conventional tillage during the last 5 years. This year these fields were cropped by second year clover grass leys. During our farm walk soil structure were compared for these two treatments by digging in the ground and studying the structure in the top soil. The reduced tillage field had slightly better structure and the ley seemed to be in a better condition than the field with conventional tillage. The ley is a good crop for reduced tillage and weeds were low on both fields. However, Britt-Marie Benjaminsson commented that in years with cereals, weeds had been a bigger problem on the low tillage fields. The conclusion was that low tillage with only ploughing 1 year out of 5 is a realistic management practice but be aware on fields with high weed pressure.

Improving biodiversity

The hedgerows and tree strips along fields with outdoor pig production have improved the biodiversity on the farm and increased the number of pollinating insects. A project is now going on in corporation with researchers monitoring these effects. Furthermore, a walking path along the fields are highly appreciated of people living in the area.





Britt-Marie Benjaminsson leading the discussing about soil structure in the field with reduced tillage.

We finished the day in the horticultural part of the farm. An adviser from the Agricultural board joined the discussion and had important information about how biodiversity strips can be an active management strategy to reduce pressure from insects and pests.

The day ended with coffee and concluding remarks from Hans Nilsson that the strategy to meet climate change in agriculture has just started. Sötåsen has an important role to play for farmers and students in the region to meet the challenges of climate change in the future.

Text and photo: Niels Andresen



Going out on in the fields on tractor wagons

