

Field day at Trägsta Farm - climate friendly dairy production

On the 15th of August the SOLMACC field day at the Trägsta farm outside of Östersund was realized. The day started at eleven a clock with a warm welcome and a cup of coffee from the farmers Eva and Torgny Widholm and their family. Around 20 people attended the field day and was a mix of people from farmers, advisers, farm workers and a journalist from the local newspaper. Torgny started with presenting the farm and the program for the day. The schedule was feeding system and strategy, milking robots, housing system, biogas unit and in the afternoon, field walk on the grazing areas with agroforestry. Niels Andresen presented the Solmacc project and the importance of dairy production based on high proportions of roughages to achieve low climate emissions from dairy production.



Torgny Widholm is introducing the farm.

Roughages of good quality

The farm walk started in the dairy cow unit introducing the milking robots. The yearly yield is around 10300 kg of milk per cow. The cows are milked 2,5 to 2,8 times per day. In average each milking will give approximately 10 kg of milk. Torgny and Eva stress the importance of knowing the cows. Even though they have more than 120 dairy cows, still each cow has a name!

Roughage quality is optimal on this farm, the analysis of the first cut of silage showed very good values of energy and protein content with around 11,4 MJ metabolizable energy and 150-165 gram crude protein per kg dry matter. The cows will with this quality have an intake of 15-18 kg dry matter silage per day making it possible to lower concentrate feeding. The strategy in the Solmacc project, increasing the age of the clover grass lands, has not lowered the quality of the silage. On a yearly basis about 70 to 80 percent of the feed is roughages, which is a high proportion in relation to the milk yield in the herd.





Roughages of good quality is appreciated by the cows.

Less emissions from silage production

The leys have been older during the project period. This means there is a reduction on N₂O emissions and carbon sequestration from the silage production. The longer period with clover grass land leads to less soil tillage which reduces carbon emissions and improve storage of carbon in the soil. On the field day this was discussed and even the strategy on the farm with two years of whole-crop cereals for silage production. With a high stubble the quality of this crop is nearly as good as cereals for combine harvesting. However, this year with the drought like in most part of Sweden, they needed to harvest with a low stubble to get as much feed as possible. This might lower the quality of this crop compared to previous years.

The biogas unit

The group was then shown the anaerobic treatment of liquid and solid manure for producing biogas. By using anaerobic fermentation, it is possible to capture the methane which can be used instead of fossil fuel for energy and heat. The residues are used on the fields to optimize the internal cycle of nutrients. The analysis of the first cut showed that the crude protein content was high, which is a indication of that the nutrient utilisation from the residues is good. Torgny was very satisfied with the residues from the biogas unit. However, the economy of producing biogas is not profitable now due to the low prices on electricity. Unfortunately, they must burn the gas to get rid of it here in the summer period and this gave a lot of discussion about the energy policy in Sweden.

Silvopastoral system – forestry and grazing in combination

After lunch the participants were shown the agroforestry part of the project. A forest area of 20 hectares are fenced and grazed by young cattle. The cattle can graze in both open areas with grass land and in the forest. When the cattle are grazing the forest, they keep undergrowth of trees down and fertilize the soil. The grazing of the cattle in the forest improve the biodiversity as well.





Discussing management of trees and grazing in the silvopastoral areas.

The farm had got many new ideas from the Solmacc project and especially the agroforestry part had big interest from themselves but even from other farmers and the public. This year, with exceptional dry periods the possibility to graze forest areas have been adapted of many farmers in Sweden. The idea of having whole crop cereals for silage two years after each other, might they skip in the future. At the end of the day, all participants agreed on that Trägsta really is a role model for organic dairy production and the positive perspectives we got from this field day is important for the future development of organic agriculture.



Young cattle in the more open area of the silvopastoral system on Trägsta.

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SOLMACC is supported by the LIFE financial instrument of the European Union (agreement number: LIFE12 ENV/SE/000800). The sole responsibility for the content lies with the author and the communication reflects only the author's view. The European Commission is not responsible for any use that may be made of the information provided. www.solmacc.eu