

REPORT ON WESTERN STARA PLANINA LEARNING AREA CROSS-VISIT TO DALSLAND, SWEDEN

6 – 10 June 2018

The cross visit of a Bulgarian farmer to Dalsland, the Swedish Learning Area (LA) took place between 6th to 10th June 2018. The Bulgarian farmer joined the Dartmoor LA (UK) team cross-visit to Dalsland.

The main reason for visiting the Swedish LA was to visit the mobile abattoir described in the Dalsland innovations report and innovations linked to suckler cow livestock farming.

Participants:

- Ü Dartmoor LA (UK) group, consisting of 2 farmers plus 2 representatives of UK project team and a representative of Dartmoor National Park Authority ;
- Ü Bulgarian farmer from Western Stara Planina LA;
- Ü 3 representatives of the HNV Link project staff from France and Finland;
- Ü Hosting team from Dalsland LA;



Fig.1 Part of the participants in the crossvisit

Narrative: who, where, when, what?

The detailed programme is presented below.

Outline programme			
	Where	Who	Focus
Day 1	Gyltungebyn -Kingebol	Larsson family	Extensive beef farming, direct sales, diversification
	Svanängen, Köpmannenbro	Naraine Family	Community Supported Agriculture, marketing
Day 2	Gyltungebyn	Knut Per Hasund	Results based and value based approach within AE.
	Hillingsäter	Hillingsäter community	FOCLUM



	Stockelanda	Andersson family	mobile abattoir, extensive beef production
Day 3	Bräcke ängar, Åmål	Bosse Sanderberg & Börje Pettersson	FOCLUM -LUP & grazing nature reserve
	Närsidan, Bengtsfors	Jesper Johansson & Hanna Strutz	Semen sex selection, HNV-grazing & organic robotic dairy production
Day 4	Stenkas, Bullaren	Gustafsson Family	Extensive cattle grazing, restoration of pastures

Source: UK cross visit report to Dalsland LA

General information for the Learning area

The Dalsland LA is located in southwest Sweden. Administratively it is part of Vastra-Gotaland region. The Dalsland territory is 3,700 square km (like the joint territory of Bulgarian regions Montana, Vratsa and Vidin). The Learning Area is sparsely populated (50 000 inhabitants). The biggest town is Amal and small towns are scattered in the landscape. Its population density equals approximately 1/3 of the region with the lowest population density in Bulgaria.

The landscape of Dalsland is flat, with many low hilly terrains and a huge number of lakes - their total area is 450 sq. km. About 1/3 of the area is cultivated, occupied predominantly with cultivated meadows, and the rest are cultivated forests.

Despite the low population density, it is relatively evenly scattered across small villages and separate dwellings (farms). Following a serious decline in the number of family farms, non-farmers are now using most of the buildings or as holiday homes and their adjacent land is sold or leased to large farms. The available buildings, coupled with scenic views of lakes, forests and traditional wooden houses, has turned the province into a sought-after tourist destination, with a major share of summer holidays from Germany.



Fig.2 & 3. Dalsland

The province's infrastructure is perfect. Road access to even the most remote farms is available via macadam roads, maintained annually to a state better than most Bulgarian roads. In 2020, a mega-project of the government (interpreting the translation) "Optical Internet for All" ends, so a results of it, even the most remote sites already have high speed Internet. One can see posters of the initiative in front of many of the farms.

Forestry

Almost every farmer we visited also owns a forest. Many of the processes that we heard about on the spot included forestry in some way. During most conversations, there was a "forest or grass" conflict obvious, and for these reasons, this industry is described.



Forestry and logging are one of the major industries and are an essential part of the export and tax revenues. Over 75% of the forests in Sweden are planted mainly with spruce trees and are often referred to as "tree plantations". Over the past 30 years, a clear trend for cultivated afforestation of semi-natural pastures is observed, as the percentage of the pastures has dropped from 15% to approximately 1% of the territory. After the felling, the forest owner is obliged to reforest as the purchase of wood and the sale of propagating material is concentrated in a monopoly "cooperative", which includes all forest owners. Unlike semi-natural pastures, a "public consensus" is required by all immediate neighbors to change the use of forestland. When the forest borders a settlement, the consent of most of its inhabitants is needed for changing the purpose.

The Swedes have an expression - "the forest is my bank". For them, it is a long-term asset that only increases its value. When they need money, they just give a logging plot and get ready cash. The way of felling is economically the most advantageous - "clear cut" and is fully mechanized. On issues of environmental friendliness, erosion and impact on microclimate the responses are "thus far we have not had problems".

Agriculture

Sweden is a northern country with a warm season from May to October. Winter is cold, with a relatively low snow cover of up to 20 cm. The duration of daylight varies between 22 hours in the summer and 2 hours in the winter. The climate, combined with weak and weakened soils with predominantly acidic base, are the reason the country to have relatively low production of cereals, vegetables and fruits. Their cultivation is mainly concentrated in the more southern parts of the country, along the Gothenburg-Malmö line.

Grass is the only culture that prefers similar conditions. Most of the arable land is cultivated meadows sown monocultures only with Timothy or with a combination of Timothy and legumes. Some of the cultivated meadows are also used for pastures without change in grass composition. Haylage and silage are harvested from the meadows (the difference is in the humidity and the final appearance, the silage is picked up immediately after mowing in pits or bunkers, the fodder is packed the next day and packed with foil).

The fodder produced is used in dairy farms, which are the main Swedish agriculture component. The country is an exporter of milk and dairy products, mainly butter. All milk farms in Sweden, Denmark and Norway sell their milk to a monopoly cooperative, Arla Food, where farmers are considered partners. The main breed is Swedish Red Bovine, but Holstein and cross-breeds are also used. The rearing of dairy cows is almost entirely intense.

The beef cattle breeding, with the main breeds of Charolaise, Limousin and Hereford, is rather well developed as well. Beef has a significant role in the country's diet, but between 55% and 60% of the meat is imported (from different sources). There are only 4 slaughterhouses in the whole country that make up a sort of monopoly related to animal purchase prices.

Sheep breeding has vanished as a branch, with the exception of autochthonous breeds of valuable wool and leather.

The average size of Swedish farms is 36 ha - perhaps the largest in the EU. The smallest farm we visited was 12 ha but with niche production. All the others were over 100 ha.

Narrative:



Kingebol - Larsson Family

Farm description:

Total area of the farm is 60 ha. Forest and pasture forest - 12ha. Pastures and meadows - 48ha. Beef cows - breeds Charolais, Limousin, Hereford, and crosses between them. A total of 60 cows. Cows scattered in groups of about 10 in various places, including rented to people who want to see cows and grazed pastures through their windows without looking after the animals in the winter period. Renting subsidies are shared. Bulls are 2 years old, fattened at barn on silage, with an average weight of 600kg. The family owns many cottages on the farm, which was once a mining village. They acquired a neighboring farm two years ago, also with many houses, land and barns. Most houses are rented long-term as rental villas and in some houses short-term tourism is developed.

The main workers in the farm are the family - husband and wife, and a hired worker. There is high degree of mechanization, they own six large John Deere tractors and lots of adjacent inventory. Certified for organic/bio production. The Swedes have a separate certificate - KRAV, which they say is "not just BIO, but much more".

Innovations:

- Ü Direct meat sales. They are still at the beginning, have sold the meat of 4 animals. They rely on personal contacts, Facebook and hope for public procurement from the municipality for schools and kindergartens. The nearest slaughterhouse is 80 km away, then a 120 km for meat processing. They only sell boxes of 10 kgs at a price of 150 EUR.
- Ü Recovery of a pasture with an area of 3ha. It used to be a forest on the shore of the adjoining lake. They cut the trees and change the designation.

Main observations:

- Ü Very active and hardworking young people. Traditional farmers that successfully pass the enthusiasm of farm life to their children. They work actively with the advisory service, listen to their advice on new ventures and business expansion.
- Ü Meat marketing had stalled – the farmers have exhausted the resources of personal acquaintances but have not developed marketing for a wider client range. They do not have a dedicated farm webpage but try to sell through their personal Facebook profile.
- Ü The KRAV certificate cannot be considered as advantage since most of the farms have this certificate.
- Ü They are grazing cows that are specialized for barn rearing which results in leg and hoof problems and very low fertility (maximum 30% calves / cows). This problem turned out to be a general one for all observed herds.
- Ü An overgrazing of the pastures was observed – grazing was at least three days longer than needed.

Svanängen, Köpmannebro – Naraine Family

Farm description (<http://www.swedishcountryliving.se/>; <https://www.andelslamm.se/>)

The owners are a family of an Englishman and a Swedish lady, who left the world of fashion three years earlier and founded a farm. They have repeatedly highlighted their past profession because they use many techniques from it.



The farm is relatively small. They develop tourism, build new cottages, deliver lectures on spiritual growth and connection to nature, and organize farm visits. They are rearing a herd of Gotland sheep - relatively small, appreciated mainly for the specific curly wool. The main market is for processed furs that are traditionally used for baby beds and rugs. There is as well realization of the meat, but lamb is not a traditional product on the Swedish table. KRAV certified. There are no hired workers, but volunteers from the WWOOF (World Network) and Grön Arena (local organization) are used. They tried to rear pigs, but they consider it too hard to do it environmentally friendly and clean and does not meet their realization techniques, so they abandoned pig production. They grow laying hens and vegetables on a small scale.

Innovations:

- Ü CSA (Community supported agriculture). It turned out that this label can be used by anyone on different things. In this particular case, it is expressed in the sale of a "share" in the spring, as against each share the client receives the meat of one lamb in the autumn. The price of a lamb is fixed per piece - no matter of the weight ("there are good years and bad years, the price is the same") - approximately 13-18 kg of meat with bone.
- Ü Pasture restoration. When the farm was set up, there were no pastures and meadows around - just forest. With Lars's help, they are pushing through a restoration project by only thinning the trees to a "grazing forest" state.
- Ü Social Farming. The use of volunteers and lecture visits is a form of urban population integration into farming and the natural way of life.

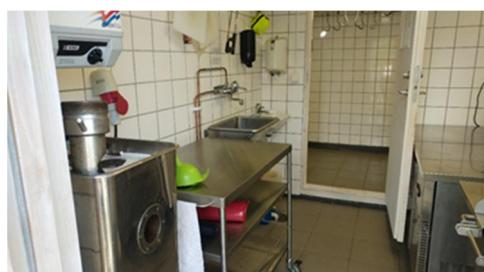


Fig. 4,5,6 & 7 Svanängen, Köpmannebro – Naraine Family farm

Main observations:

- Ü The owner is a great speaker and a native merchant. Especially for our visit, a slideshow and a lecture were prepared, including many details "from the inside".
- Ü The farm has closed the production cycle with the construction of their own slaughterhouse and cutting room (overall three small rooms).



- Ü In addition to the main production line (meat, hides and tourism), they also create quite a few small by-products such as herbal syrups and wool souvenirs. Together with the vegetables and eggs, these are sold on a farm market, which they use as a "PR for our main products".
- Ü Contacts and orders are primarily done through their sites. They make deliveries to Gothenburg.
- Prices are quite high. Advance payment is an advantage because "when you pay a lot and get the goods right away, you rate it with different eyes. When customers receive meat, they have long forgotten the emotion of payment, and are only left to enjoy the product". This was the only farm with no visible overgrazing.
- Ü We saw a brilliant pasture door that closes automatically. This type of doors proved to be ordinary in Sweden but are not found in England, nor in France or in Bulgaria. Just the whole door wing and its frame is tilted and the door closes under its own weight without any extra mechanisms:



Fig.8 Typical pasture door in Sweden

- Ü Generally, very smart and clever solutions, but the price of meat and the products is very high and it is unlikely that the products could be sold at these "luxury prices" – 220 EUR for the meat of a lamb (13-18kg), 370 EUR for the meat and processed leather, 2 EUR for a small pouch with a few curls of wool.

Introduction to the Result based agri-environment payments

Main observations:

- Ü In theory, it's great – instead of paying per hectare to everyone in a HNV area, we are evaluating the specific value they provide and paying only for it. However, there are culprits – who and how determine the "value", how to control the implementation of the scheme, how to be objective?
- Ü There is a "pilot" project to prove the sustainability of the "Result-based payments" in Sweden. It was about the stonewalls, bordering the fields in a specific region of Sweden (stonewalls are typical only for calcareous geology areas). The farms outside such geological areas don't comply. There were too many unanswered questions about that project so we cannot judge whether such could be piloted in Bulgaria.



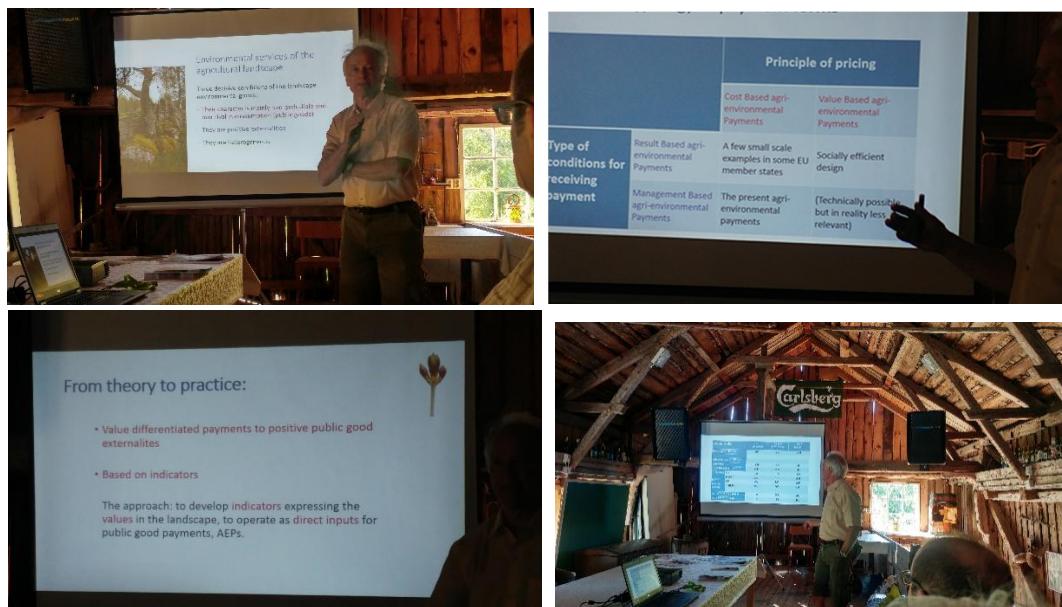


Fig. 9,10,11,& 12. Introduction to Result based agri-environment approach

Introduction to FOCLUM – Land use plan (LUP)

Main observations:

- Ü It's an interesting and complex approach to the land use, the innovation with highest potential we witnessed. Our hosts – Lars and Katrin, implement that tool and we saw several case studies of it. It answers a simple, but difficult question – "what is the best purpose of each of my different plots in the farm?". Unfortunately, most of the farmers do not care – "they know better". In reality the tool and its complex approach is used mostly for converting woodlands to seminatural pastures or arable fields – its assessment is obligatory for such conversion.
- Ü If and when farmers realize, that the Land Use Plan (LUP) gives them a scientific approach to the farmland management and they could benefit from "imported knowledge", then the real benefit of it would shine. However the implementation of such approach in Bulgaria will be difficult since our farmers are much more stubborn in "know-it-all".

Nature reserves

The most impressive part was that the nature reserve recognizes the grazing farm animals as necessity for keeping nature intact. The funding comes from government and NGO's. The reserve hires local farms to do extensive grazing of its pastures and paying them extra cash among the subsidies they receive.





Fig.13 & 14. Nature reserve

Mobile abattoir

The main reason for the Bulgarian participant to visit Sweden was the mobile abattoir. Unfortunately due to mechanical issues or lack of willingness of the owners the abattoir was not visited. Instead it was discussed with a farmer who has used it. The mobile abattoir is buying the animals by live weight just like the ordinary abattoirs, they demand specific conditions to visit your farm (minimum number of 50 animals, parking lot for 3 large trucks, loading chute...) and they are processing and selling the meat by their own label (so you cannot hire them for your direct sales).

The most emphasized benefit of the mobile slaughter is the "low stress" factor. It is a possible benefit, just in the first three hours of the first stressfull situation (arriving of three large trucks on site). Whatever you do after those 3 hours (transporting, slaughter etc.) already has the mark of the adrenaline released, so the mobile abattoir is effective only with smaller numbers of animals (less than 5-8). After that threshhold all benefits of the mobile vs stationary quickly diminish.

Lessons learnt and possible replications in WSP LA

The most interesting innovations that can be useful for Bulgarian Learning area are the following:

- Ü The role and the activities of the HNVF advisors - the momentum they create to push all other participants to action;
- Ü The level of automation and mechanization in the sector – inevitable for the most of our farms; (especially the automated farm for 120 dairy cows);
- Ü The negative example of where we can get with our abundant HNV areas if we don't pay attention;
- Ü The negative example of overgrazing – the local farms were totally not prepared for a little draught period;
- Ü The organic certification will become a must for Bulgaria too;



- Ü The "togetherness" of the neighboring farms;
- Ü The payment for the solid electric fences by the state;
- Ü The "automated pasture door";
- Ü The sexed semen could be used for both sexes – breed the best dairy cows with female dairy semen (for reproducing) and the worst – with beef male semen for slaughtering;
- Ü From our British colleagues – bracken bruising;
- Ü The diversification – mixing of farming and tourism, especially our hosts were remarkably good at it;
- Ü The overall attitude of the farmers – they do not complain and they do not have problems with the CAP support payments;
- Ü The use of all side-products, especially sheep furs.

Other

Special thanks to the Dalsland team for their hospitality and organization of the cross visit, including all logistical details, and to the CIHEAM team for putting it all together.

