

### 3.4 Finland (Arja Nykänen)



The farms assessed in Finland were all members of the SME Juvan Luomu Ltd, which is a small organic dairy company in eastern Finland. Seven out of nine partners of the company were interviewed and they all produce organic milk. The aim was to interview all partners of Juvan Luomu, which is also a SME partner in SOLID project, but two of the partners were not able to take part.

Only very few data about Finnish organic dairy farming could be identified. Most of the organic milk production is situated in eastern and western Finland. All organic milk is sold from farms to dairy companies which process and sell it further. Finnish organic dairy product markets are dominated by two dairy companies: Valio Ltd and Arla Ltd. Juvan Luomu Ltd and Juustoportti Ltd have a smaller share of the Finnish organic dairy market. In addition some small companies are producing small amounts of dairy products e.g. ice cream and cheese.

The most common breeds of milking cows in Finland are Ayrshire and Holstein and on organic farms their share is 61% for Ayrshire and 34% for Holstein. The remainder (5%) includes Western, Eastern and Northern types of Finn cattle. The study farms mostly have only Ayrshire cattle. Two farms also have Holsteins and one farm has some Finn cattle.

#### 3.4.1 Characteristics of the case study farms

The general characteristics of the farms are described in Table 6. The Finnish farms had been organic for 10 – 22 years (mean 17). Stocking rate and yield were very close to the national organic average

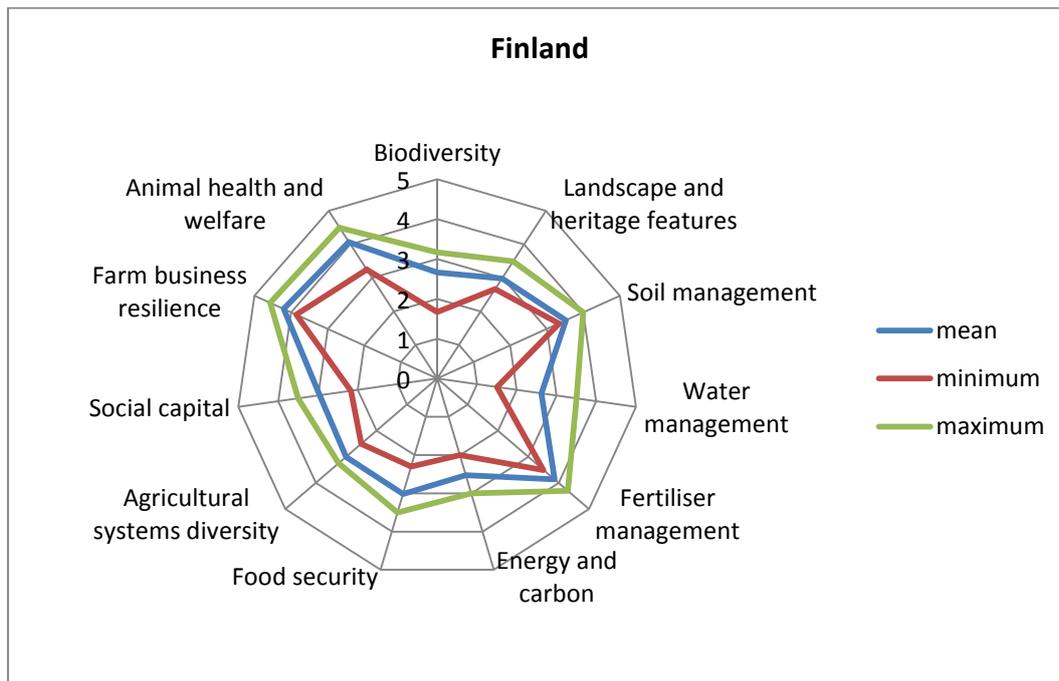
although the farm size was considerably larger than average. Labour inputs were relatively high, among the countries involved in the project.

**Table 6 Characteristics of Finnish organic dairy farms and the SME farms selected**

		<b>Organic dairy population in Finland, average. (Finish Food Safety Authority EVIRA)</b>	<b>Mean of farms selected</b>	<b>Range of farms selected</b>
Farm size	ha	70	139	18-414
Herd size	No. of adult cows	39	47	9 - 124
Stocking rate	Livestock units/ha	0.54	0.51	0.39-0.61
	Grazing livestock units/forage ha	Unknown	0.85	0.54 – 1.20
Milk sales	l/cow/year	7834	7765	6400-10071
Level of concentrate fed to milking animals	kg/cow/year	Unknown	Unknown	Unknown
Total purchased concentrate per cow <sup>1</sup>	kg/ cow/year	Unknown	1010	410 – 2300
Milking cows per Annual Labour Unit	Cows/ Annual Labour Unit	Unknown	25	9 - 53
Labour input per unit area	Annual labour units/100 ha	Unknown	2.35	0.60 – 5.48

<sup>1</sup>Data from the tool - may include some concentrate fed to other livestock on the farm, therefore not necessarily directly comparable with the line above

### 3.4.2 Results of the sustainability assessment



**Figure 8 Spur diagram for Finland**

The highest mean scores for Finland (Figure 8) were achieved in the spurs “Farm Business Resilience”, “Animal Health and Welfare” and “Nutrient Management”. “Soil Management” also scored quite highly. Farmers considered their farm profitability to be quite good and expected it to be the same or better in the future. In Finland farmers take in a lot of information from advisors, farmer magazines, seminars, the Internet and even from abroad. They make many economic and other plans for their farms and have good forward vision. The lowest variation in scores was found in “Farm Business Resilience”. All the farms had health care plans which were formulated together with the vet and updated regularly. Costs of medicines and treatment are quite high, but they also include preventive actions which result in good animal health. The average number of lactations was below 3 on all farms, which all farmers considered to be too low. All farms except one have loose housing and even when not on pasture, the cattle have access to the outdoors. The grazing period in eastern Finland is normally 5 months.

Under “Nutrient management” it is notable that soils and manures are analysed on all farms and computer based programs are widely used for nutrient management planning and are completed with the help of an advisor. N, P and K balances averaged 118, -1.6 and -2.9 kg/ha respectively. N-balance seemed to be quite high on farms, but there is a degree of uncertainty in these figures, because it is quite difficult to estimate the correct amount in clover-based short-term grasslands, which cover the majority of the farmland. The mean of estimates of N fixation based on the area of legumes, and the farmer’s description of the clover content of swards was 100 kg/ha (range 78 – 121). A major weakness on the farms is that the slurry tanks for storage are not covered. The good scores in “Soil Management” were recorded mainly because of low risk of erosion

The lowest scores were recorded in the spurs “Energy and Carbon”, “Water Management” and “Biodiversity”. The highest variation in results was found in the spur “Water Management” (standard deviation 0.61). Energy use per head in Finland seems to be very high. The reason for this is possibly the long distances between the main farm and the fields which are quite far away, because of big farms, combined with large areas of forests and lakes. It is also notable that there is no attention paid to greenhouse gas emissions in Finland. Renewable energy use is on quite a high level in Finland because wood is used for energy production and much of the energy is produced with ‘green tariff’ (water) power. “Water Management” scored low mainly because water is not a limiting factor in Finland and therefore little or no attention is paid to saving water and water management. On the other hand, much attention is paid to prevention of water pollution and, in particular, nutrient leaching. Third party endorsements are very rare, so this question scored low in all farms. At the moment, biodiversity actions on farms are quite rare, because little attention is paid to biodiversity on a national level.

Some general observations can also be made. The lowest score for each spur was quite often found on the same farm and similarly for the highest score reflecting that either the whole management of the farm is good or a farm requires further improvement across a range of areas. The genetic heritage is quite narrow in Finnish dairy production but on the other hand, good care is taken of the landscape. The diversity of plant species is high, but the diversity of animal breeds is low. The fodder and feed self-sufficiency is high.

On one farm, the farmer aimed at 100% self-sufficiency in energy consumption in field work. That was mainly achieved by producing turnip rape both for feed and oil for fuel in tractors. No novel feeds are used on the farms. It was also interesting to see that the farm does not have to be large to achieve a good economic result.



**Figure 9 Mean scores for activities for Finland**