



**CULTURE AND NATURE: THE EUROPEAN HERITAGE OF
SHEEP FARMING AND PASTORAL LIFE**

**INTRODUCTION: HISTORY AND CURRENT STATE OF
SHEEP FARMING IN ESTONIA**

RESEARCH REPORT FOR ESTONIA

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Historical overview

Sheep farming in Estonia until 1940

The first signs of sheep and goat farming in Estonia originate from the Late Bronze Age in the 2nd millennium BC. During archaeological excavations, many sheep and goat bones have also been found from the Early Bronze Age. The first written data about sheep originate from the end of the 18th century, when the local sheep of Estonia were described as peasant sheep with thick black or gray wool, small size, long thin legs, and a short tail; they were tolerant and fertile. The so-called German sheep were also described – they were larger and had finer wool, and were grown in manors.

The following periods can be distinguished in the development of Estonian sheep breeds:

- 1) Until the beginning of the 19th century, Estonian native sheep with thick fur were grown for the production of pelts and wool.
- 2) 1824-1869 fine wool sheep farming and the establishment of baize factories.
- 3) 1869-1924 sheep farming and breeding for mutton.
- 4) 1924–1950s breeding and design of local Estonian breeds of mutton-wool sheep, Estonian Blackhead and Estonian Whitehead sheep.

As from 1824, Merino sheep were imported from Germany into Estonian manors; more than 200,000 Merino sheep were counted in the manors of Estonia and Livonia. Merino sheep slowly spread from manors to farms. No attention was paid to the development of a local Estonian native sheep in the 19th century.

Since 1841, the wool price started to fall, as cheap wool from Australia and Argentina reached the European market. At the same time, the textile industry kept developing and in 1863, it was decided to import different breeds of English mutton-wool sheep to improve the native sheep breeds. When fine wool sheep were still predominant in 1864, then by 1880, all the Merinos had been replaced by mutton-wool sheep. In 1890, there were approximately a million sheep in the Baltic states, including both Merinos and mutton-wool sheep, but the majority consisted of native sheep and their hybrids. As mutton-wool rams were also sold to peasants, the mutton value of the native sheep increased. Mutton-sheep farming was also facilitated by cleaning the grasslands of brushwood, draining land and growing new crops (clover, potato). The rise of mutton-wool sheep breeds continued until 1898, dairy cattle began to be developed instead of farming sheep.

There were 620,000 sheep in Estonia in 1916; due to the land reform and an increase in the number of farms, a record-breaking 722,000 sheep lived in Estonia in 1922. From 1925, the number of sheep started to decrease in Estonia due to the economic crisis, the priority development of dairy cattle, several rainy summers and the wide spread of parasitic diseases. The number of sheep was the lowest in 1930, when 467,200 sheep were counted, after which it started to increase again and reached 695,700 in 1939. Relatively more sheep were raised in small- and medium-sized farms. According to data from 1939, the most sheep were kept in farms with the size of 10–15 ha: they possessed over 70% of the total number of the sheep.

In 1937, sheep farming constituted 4% of gross agricultural product and a little more than 7% of livestock production. The biggest revenue came from mutton (70%), wool gave 27% and sheep skins 3% of the gross sheep farming production. The total production of wool was 669–1,179 tonnes during 1928–1940, which covered approximately half of the country's annual wool requirement. The production of mutton was 8,752 tonnes in 1922–1923 and 5,840 tonnes in 1930–1931. Each year, 200–300 tonnes of mutton was exported to Sweden (Piirsalu, 2006). Sheep milk and dairy products were not produced in Estonia.

Table 1. Number of sheep and total production of wool during 1916–1940 (Piirsalu, 2006).

Year	Total number of sheep	Total wool production (t)
1916	620,000	-
1920	551,540	-
1922	745,000	-
1925	719,785	-
1928	658,600	919.7
1929	476,935	680.0
1930	467,226	669.3
1935	593,000	921.1
1936	584,100	1024.2
1937	650,500	1118.5
1938	649,800	1112.4
1939	695,733	1179.1
1940	519,760	884.0

1.2 Sheep farming in Estonia during 1940–1990

During World War II, the number of sheep in Estonia decreased from 322,900 in 1940 to 248,000 in 1945. The number of breeder sheep had decreased by more than 40% as a result of the war. Many of the breeding stocks were destroyed and breeding came to a halt. In 1949, collective farms began to be formed in Estonia. There the state's objective was to develop new breeds of sheep suitable for the natural conditions of Estonia – Estonian Blackhead and Estonian Whitehead sheep. The breeds of Shropshire and Cheviot sheep were used as the basis. In the post-war years, the number of sheep started to increase, reaching 265,800 in 1951. 33.7% of them were in collective farms and 66.3% were in the households of the nation. The number of sheep started to increase in collective farms and reached 89,700 in 1951. In the 1960s, collective farms started to specialise in swine and bovine animal farming, and the majority of sheep farms were liquidated as the state abolished its order to sell wool, which had been established for collective farms. In 1969, the number of sheep left in collective farms was 4,800, which accounted for 3% of the total number of sheep in Estonia. By 1970, most of the sheep in collective farms were pure-bred Estonian Whitehead and Estonian Blackhead sheep, but the number of sheep was small. It remained between 4,000 and 7,000 in 1970–1990, forming 3–5% of the total number of sheep in Estonia. In 1972, there were total of 5,660 pure-bred sheep in collective farms and in 1984 the number was 9,485. The largest sheep breeding farm was raising 1,200 sheep in 1980 (Piirsalu, 2007).

Table 2. Number of pure-bred sheep in Estonia (Piirsalu, 2007).

Year	Total of pure-bred sheep	Estonian Blackhead sheep %	Estonian Whitehead sheep %
1945	75,672	65.3	34.7
1949	73,683	74.1	25.9
1960	63,378	78.5	21.5
1969	4,523	73.0	27.0
1974	5,878	73.2	26.8
1980	7,227	77.2	20.4
1985	7,252	77.0	23.0
1990	6,011	73.2	26.8

About 95% of sheep were raised in households and that is where most of the produced wool and mutton came from. As the number of sheep decreased and large sheep stocks were liquidated, the total production of wool and mutton also decreased (Piirsalu, 2007).

Table 3. Number of sheep and goats in Estonia in 1980–1990 (Statistics Estonia, production of livestock farming products).

Year	Number of sheep and goats (thousand)
1980	153.8
1981	155.8
1982	171.2
1983	170.8
1984	158.4
1985	147.7
1986	136
1987	136.1
1988	135
1989	140.2
1990	139.8

Sheep farming in Estonia starting from 1990

After Estonia regained its independence in the beginning of the 1990s, the number of sheep decreased sharply. The reason was the general decline of agricultural production as the Soviet system had collapsed and collective farms had been liquidated, but the new system was still not functioning and no agricultural refunds were paid in Estonia. The purchase price of mutton, wool and skin was very low, as a result of which, mutton production was operating with losses. There were also issues with the realisation of mutton and wool. When at the beginning of the 1990s there were approximately 140,000 sheep in Estonia, then the number dropped below 30,000 during the next ten years. Only 14 flocks had at least 100 sheep, mutton was not sold in shops, wool mills stopped working and slaughterhouses did not handle mutton anymore.

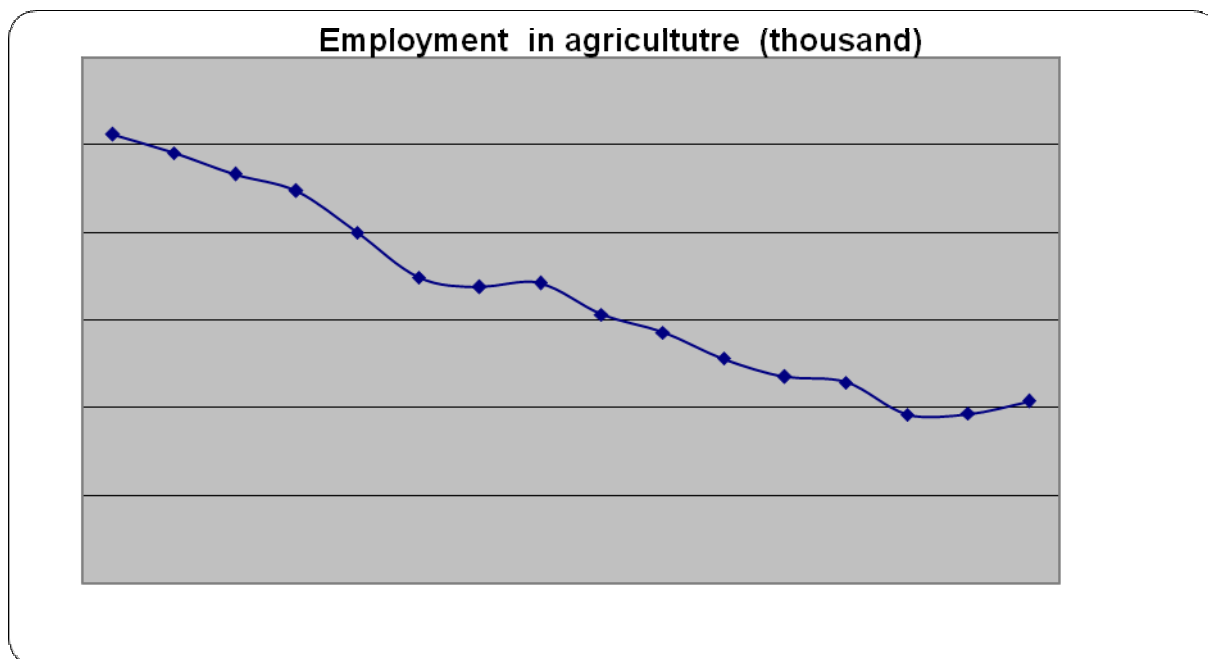


Figure 1. Employment rate in agriculture 1995-2010 (SE, 2011).

Table 5. Number of sheep and goats as well as mutton and wool production (according to Piirsalu 2009).

Year	Number of sheep and goats (thousand)	Including sheep	Produced mutton and goat meat (deadweight t)	Produced sheep wool (t)
1938-1939	695.7		8,100	1112.4
1992	142.8		1,800	311
1993	124.2	123.1	1,200	282
1994	83.3	82.2	1,300	241
1995	61.5	60.0	800	174
1996	49.8	48.2	500	159
1997	39.2	37.6	500	120
1998	35.6	33.9	426	82
1999	30.8	28.7	360	48
2000	30.9	28.2	296	71
2001	32.2	29.0	267	65
2002	32.4	28.8	327	70

2003	33.8	29.9	407	57
2004	34.3	30.0	380	82
2005	41.0	41.5	373	93
2006	52.4	49.6	508	120
2007	66.0	62.7	600	155
2008	76.4	72.4	900	
2009	80.4		800	
2010	82.7		700	

As from 1999, state subsidies for growing ewes were established, subsidies by the European Union were added, the economic efficiency of sheep farming improved and the number of sheep started to grow from 2000 onwards. As the price of mutton increased, mutton and wool production also started to increase and the consumers' demand for quality local mutton was also growing (Piirsalu, 2009). 29,000 sheep were raised in Estonia in 2001, out of which 60.3% lived in households, 39% in farms and 0.7% in enterprises, 43% of ewes lived in flocks having less sheep than 10 sheep, 52% of ewes lived in flocks with 10–100 sheep and 5% of ewes lived in flocks with more than 100 sheep. At the beginning of the 2000s, the largest flocks of sheep had 250–300 ewes in them. Mutton accounted for about 85%, wool for 12% and sheep hides for 3% of the annual income. Most of the wool produced was used for making yarn for handicraft and for making wool items. Only few of the wool mills were operating and it was difficult to sell the wool. Sheep hides were tanned by one mill in Central Estonia (Piirsalu, 2009).

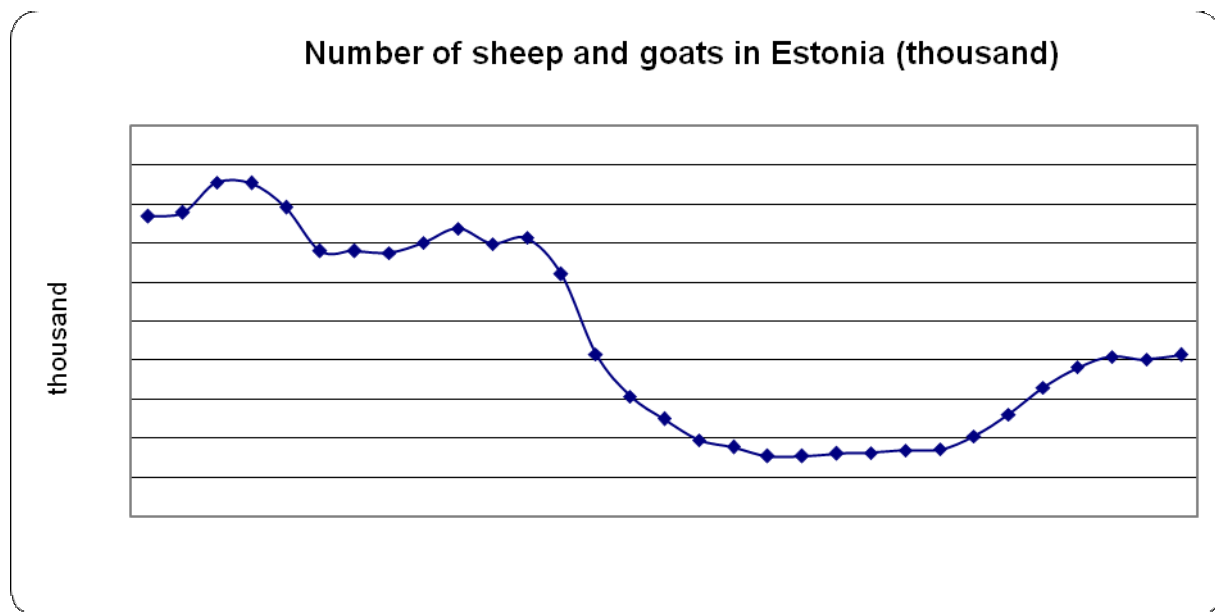


Figure 2. Number of sheep and goats in Estonia (SE, 2011)

The situation today

According to the Estonian Agricultural Registers and Information Board (PRIA), there were 1,900 sheep farmers in Estonia in 2010 and 79,031 sheep, and 518 goat farmers with 2,850 goats (number of animals on the register of farm animals as of 27 September 2010, PRIA). 805 animal keepers had 1–10 animals; 1,055 had up to 100 animals; 125 had up to 500 animals and four animal keepers had more than 1,000 animals. OÜ Rägavere manor has the largest flock of sheep with 3,178 animals in Lääne-ViruCounty. It is followed by the flock of OÜ KopraKarjamõis with 2,325 sheep in ValgaCounty, a flock of 1,857 sheep in PõlvaCounty and a flock of 1,130 sheep in SaareCounty (PRIA, 2010). All flocks with more than 500 sheep have mutton sheep of different breeds. The largest of them export either livestock or mutton and also supply Estonian catering companies. The size of the flocks of mutton-wool and wool sheep mostly remains within 10–100 animals. Flocks of this size are most common in Estonia. Wool, wool products and sheep hides are not exported from Estonia. SaareCounty has the most sheep as it has developed historically as a sheep farming region. Stony pastures with a thin layer of soil suited the sheep more than it did horses and cows. Today, the relative importance of nature conservation areas is great on the islands, which are maintained with sheep by means of support from the EU.

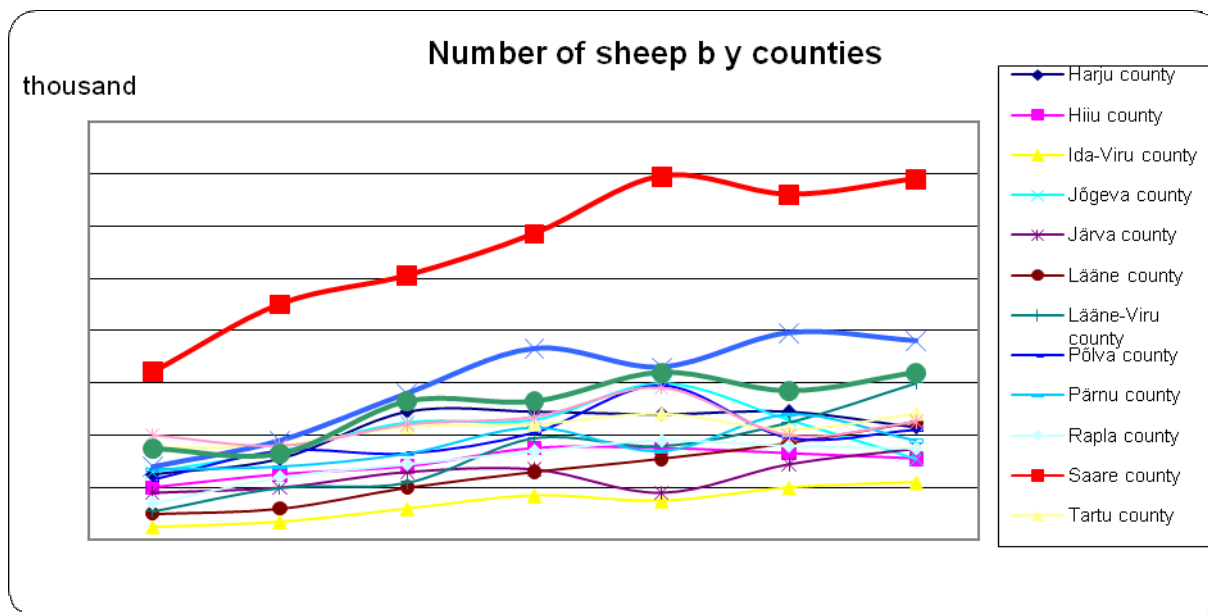


Figure 3. Number of sheep by counties (SE, 2011).

Estonian consumers are not used to consuming mutton (according to the statistics of the last 4 years, our mutton consumption is an average of 0.5 kg per person a year) and that is why the demand is low. This also causes difficulties in slaughtering sheep (there are only a few slaughterhouses and meat industries in Estonia who are willing to receive sheep) and issues with marketing. At the same time, the increase in the export of mutton and livestock demonstrates that there is a EU market, where mutton and goat meat are consumed in significantly larger quantities (according to the statistics of the last 4 years, on average 2.6 kg per person a year) (Pretke, 2010).

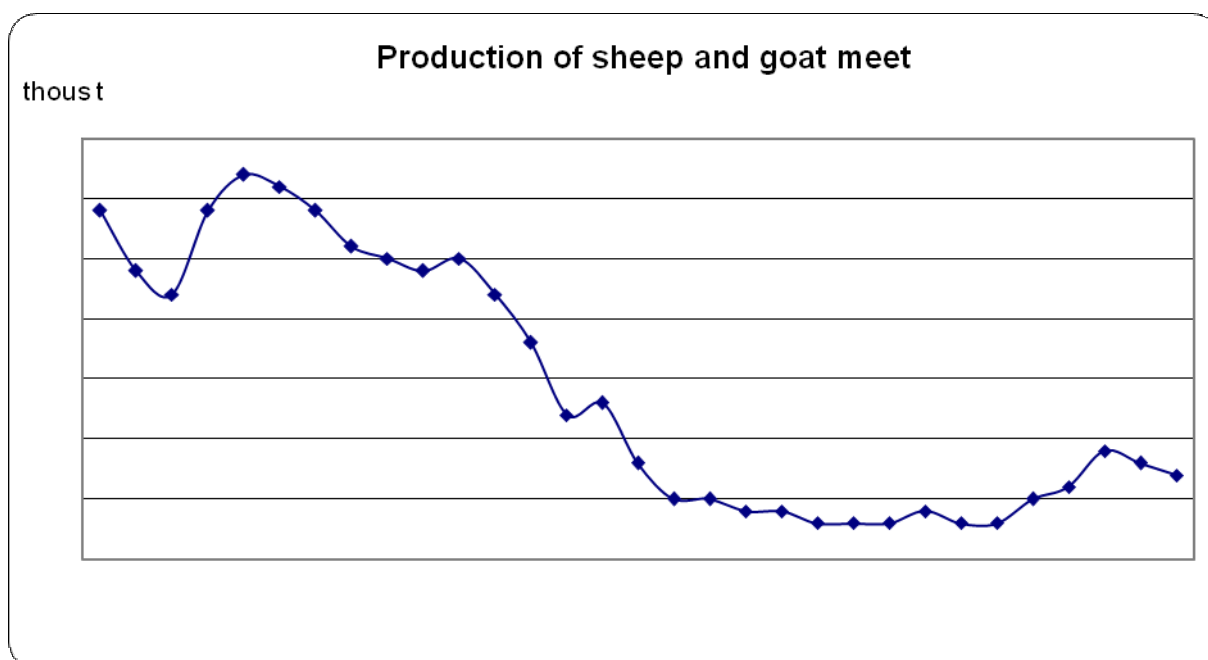


Figure 8. Production of sheep and goat meet 1980-2010 (SE, 2011).

Table 6. Meat consumption in Estonia

Meat consumption in Estonia in 2002–2010, kg per person a year (SE, 2010).

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total meat	65.8	67.3	69.5	70.1	70.3	71.3	75.6	73.4	61
Mutton and goat meat	0.2	0.3	0.2	0.2	0.4	0.6	0.5	0.7	0.5

Goats

The number of goats has always been small in Estonia and they are mostly kept individually in small farms or as hobby animals. The number of goats has also started to increase in Estonia during the last decade. Local Estonian dairy goat farming is the most popular. They have been little improved with today's culture breeds. No official record of goat's milk production has been published as most of the goat's milk and cheese is used for own purposes or marketed at fairs. The reason why goat's milk and products made of it are marketed so little lies in the fact that the requirements for hygiene in milk production farms are very high,

demanding huge investments. Small farms are just not able to comply with these requirements.

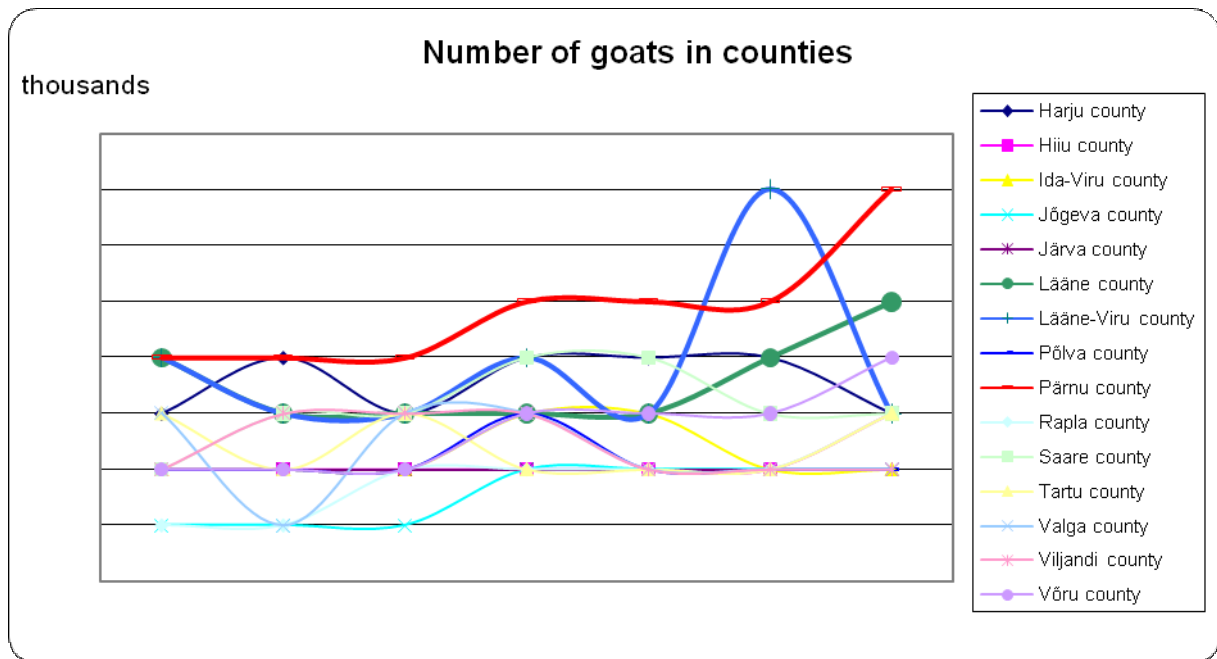


Figure 6. Number of goats in counties (SE, 2011).

Summary

Sheep farming in Estonia has experienced several declines, the first of which occurred after World War II and the second after the collapse of the Soviet system, when no agricultural subsidies had been established yet and the whole agricultural sector was at its low point. Slaughterhouses stopped buying mutton and wool mills were closed, and the number of sheep had reached less than 30,000 by the end of the last century. After establishing state and EU agricultural subsidies, sheep farming started to thrive. Sheep breeding associations, wool and sheepskin workshops and mutton purchasing were reinitiated. By today, we have achieved the export of both mutton and livestock once again. Sheep are successfully used for maintaining nature conservation areas and new sheep farmers are emerging thanks to support from EU. Sheep farming is also facilitated by the organic subsidies paid. An organic slaughterhouse started to operate in Estonia, making it possible for sheep farmers to sell their production as organic, which in turn ensures a higher price for mutton. When in 2008, the mutton sold as organic accounted for 38% of the sales, then in 2009 the mutton sold as organic already accounted for 51% of mutton sales. The most significant restrictions for selling mutton and mutton products are imposed by severe health protection and food processing requirements,

which cannot be met by small farmers, i.e. by most of sheep farmers in Estonia. This problem can be solved by establishing NGOs and associations, whose activities have already been launched. The popularity of mutton and wool products in Estonia is increasing.

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