

Farm structure in Estonia - 2007

The utilised agricultural area increased 10%

This Statistics in Focus is part of a series of country-specific publications on the results of the Farm Structure Survey (FSS) 2007. It provides a brief but nevertheless comprehensive insight into the farm structure in Estonia.

23 300 agricultural holdings were recorded in Estonia in the 2007 Farm Structure Survey (16% less than in 2005). This drop is accompanied by an increase in the utilised agricultural area, reflecting the decrease in the number of small farms together with the increase in the number of large ones.

* * *

Due to the different coverage of the FSS across Member States, the total number of surveyed farms is not comparable between countries. This is why the present analysis focuses on holdings of at least one European Size Unit (ESU). See the methodological notes for more information on the concept of ESU.

In 2007, about **12,700 agricultural holdings** (55%) had an economic size of at least 1 ESU, compared with 13,400 in 2005.

- They use about **0.85 million ha of utilised agricultural area (UAA)**, an increase of 11% compared with 2005, this represents an average of 67 ha per holding (compared with 57 ha in 2005);
- These holdings employed **25 200 AWUs** (annual work units), the equivalent of 25 200 people working full time; (10% less than 2005);
- They had **0.3 million livestock units (LSU)** in 2007, slightly less (0.5%) than in 2005.

Amongst these 12 700 agricultural holdings:

- 43% made use of less than one AWU, while another 21% made use of 2 or more AWUs;
- 5% used less than 2 ha (2% less than in 2005), while 20% used 50 ha or more;
- 28% were producing mainly for own consumption, 10% less than in 2005;

- 15% of the holdings specialised in sheep, goats and other grazing livestock
- 14% in cereals, oilseed and protein crops and
- 14% were engaged in mixed livestock,

30% of the farms specialised in livestock, and 30% had a specialisation related to crops, these figures represent a rise in these specializations since 2005, were the values were 26 and 28% respectively.

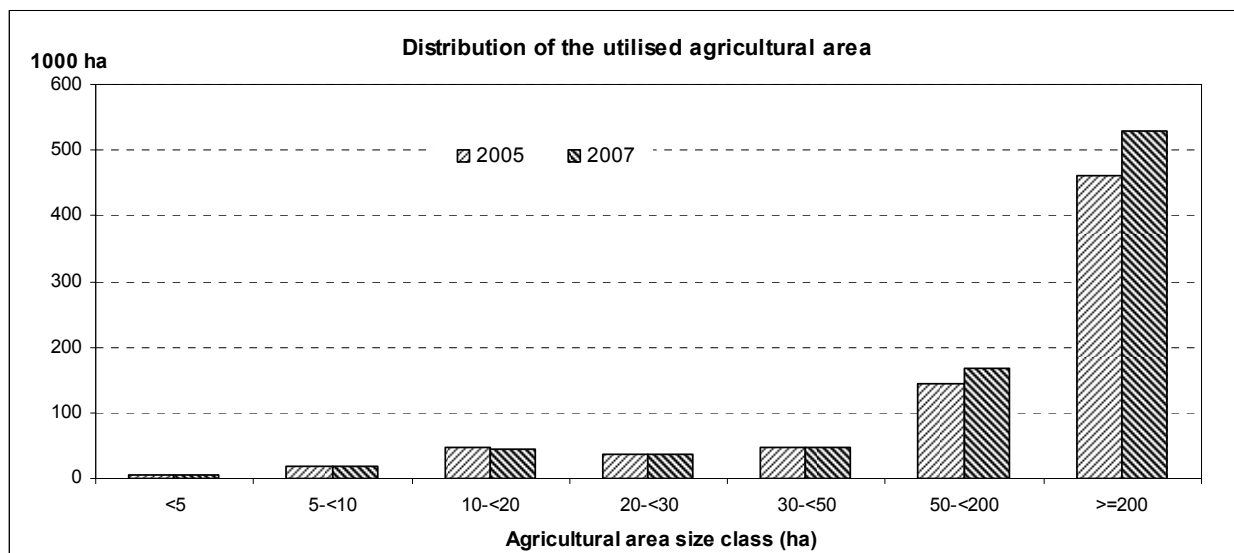
The family labour force has decreased by 16% from 2005 to 2007.

Amongst the sole holders:

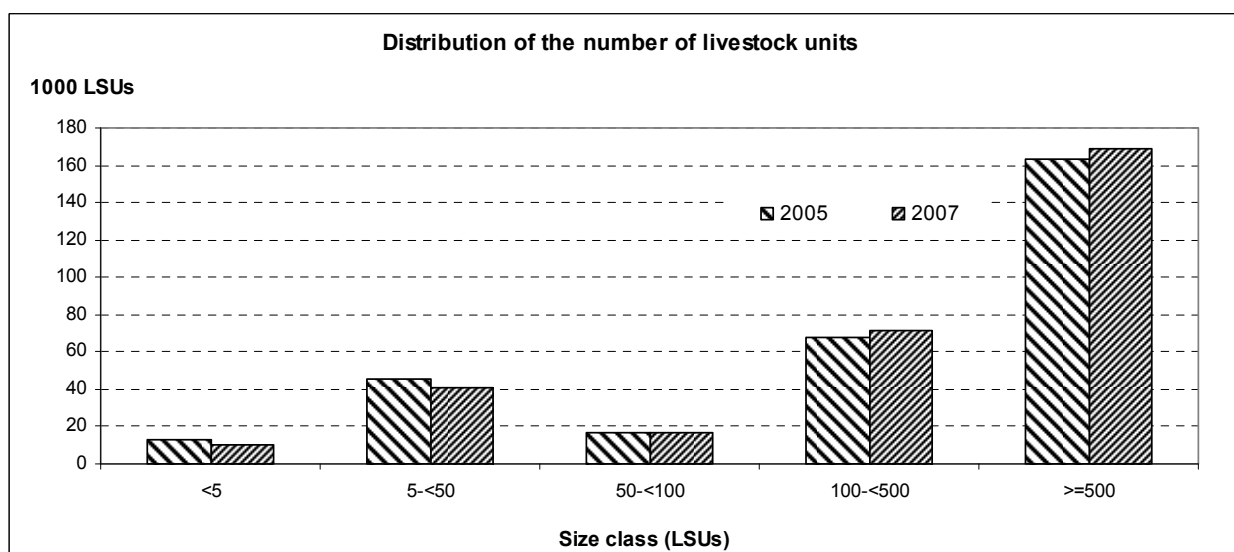
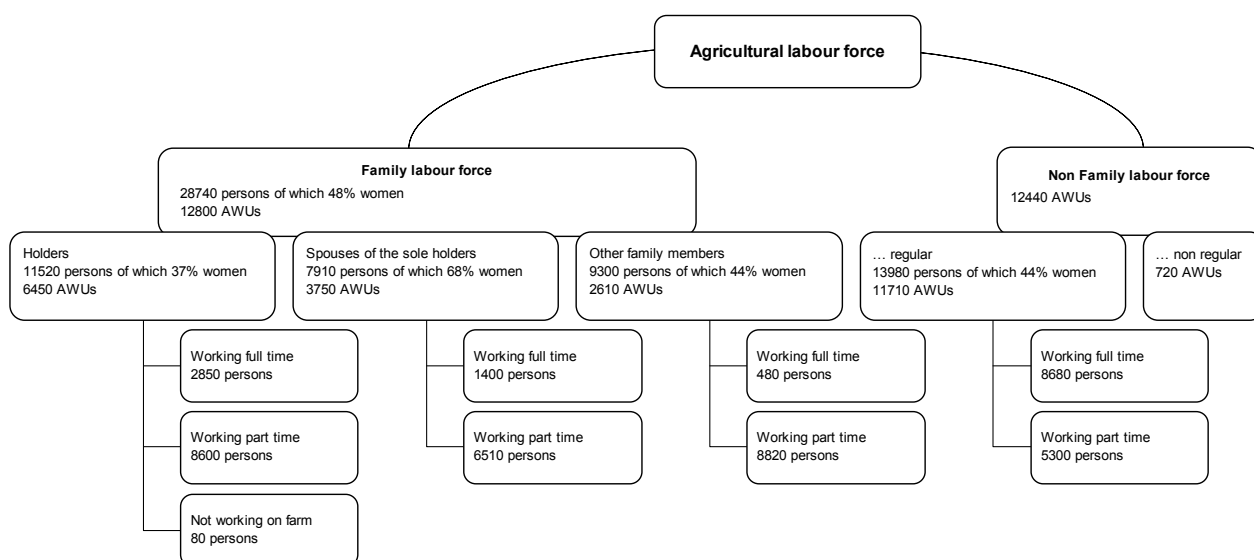
- 37% were women in 2007;
- 55% were aged 55 or more, and 6% were younger than 35 years;
- 40% of the sole holders had another gainful activity in 2007 (compared with 37.6% in 2005);

In Estonia in 2007, 42% of the agricultural area was owned by farmers.

In 2007, in Estonia there was a 55% rise in the organically farmed area, to 53 700 ha or 6.3% of the UAA. The number of holdings with organic farming area increased by 49% from 2005 to 2007.



Description of the labour force in Estonia



*LSUs = Livestock Unit

Size of the farms	Agricultural area (ha)				All farms	Livestock (LSU*)				
	<20	20-<50	50-<100	>=100		0	>0-<50	50-<100	>=100	
Total labour force										
1000 annual work units	9.0	3.2	1.6	11.5	25.2	5.1	9.9	0.7	9.6	
Family labour force										
1000 persons	17.7	6.4	2.2	2.4	28.7	8.4	19.5	0.6	0.3	
1000 annual work units	7.1	2.9	1.2	1.5	12.8	3.0	9.2	0.4	0.2	
Non-family labour regularly employed										
1000 persons	2.2	0.4	0.5	10.9	14.0	2.6	0.9	0.4	10.1	
1000 annual work units	1.6	0.2	0.3	9.5	11.7	1.8	0.5	0.3	9.1	
Non regular non family labour force										
1000 annual work units	0.2	0.1	0.1	0.4	0.7	0.3	0.2	0.0	0.3	
Holding managers	1000	7.5	2.7	1.0	1.5	12.7	4.3	7.7	0.2	0.4
- women (%)		41.4	28.0	21.6	10.8	33.2	23.7	40.0	19.2	15.0
- part-time: - under 50 % (%)		57.4	48.4	32.4	17.3	48.6	64.4	43.2	9.0	7.5
- 50 % and over (%)		24.8	24.8	23.7	20.9	24.2	17.6	28.4	18.8	18.3
Sole/main holders	1000	7.2	2.6	0.9	0.9	11.5	3.7	7.5	0.2	0.1
- women (%)		43.5	30.8	23.1	13.1	36.7	27.3	41.9	23.8	20.2
-distribution by age (%)										
- under 35 years		4.8	5.6	8.1	8.7	5.6	8.1	4.3	6.9	3.4
- from 35 to 44 years		13.7	17.3	20.0	26.9	16.0	19.9	14.0	16.9	23.6
- from 45 to 54 years		21.4	24.8	32.0	34.0	24.0	26.9	21.9	40.7	40.4
- from 55 to 64 years		26.4	27.9	24.9	21.7	26.2	24.6	27.0	28.0	22.5
- 65 years and over		33.8	24.5	15.0	8.6	28.3	20.6	32.8	6.9	10.1
- part-time: - under 50 % (%)		59.8	51.3	37.0	29.6	53.7	75.1	44.5	11.6	36.0
- 50 % and over (%)		25.8	26.4	27.0	35.8	26.8	20.6	29.2	24.3	87.6
- with another gainful activity ¹ (%)		42.3	43.1	35.3	23.4	40.4	56.4	33.5	14.2	11.5
- as a main occupation		35.4	33.6	24.4	12.1	32.3	47.4	25.8	4.9	5.7
- as a subsidiary occupation		6.9	9.6	10.9	11.2	8.2	9.0	7.8	9.3	5.7
Spouse of sole holder	1000	4.8	1.8	0.6	0.6	7.9	2.4	5.3	0.1	0.1
- women (%)		63.4	71.8	77.6	88.1	68.4	75.1	64.9	80.4	78.4
-distribution by age (%)										
- under 35 years		5.1	5.8	7.2	10.5	5.9	8.0	4.9	5.6	8.1
- from 35 to 54 years		39.8	46.7	56.2	64.1	44.7	53.0	40.2	64.3	56.8
- 55 years and over		55.1	47.5	36.6	25.5	49.4	39.0	54.9	30.1	35.1
- part-time: - under 50 % (%)		67.9	60.9	51.2	43.4	63.0	80.1	56.9	19.6	20.3
- 50 % and over (%)		19.9	19.4	18.6	15.6	19.3	11.3	23.1	17.5	14.9
- with another gainful activity (%)		46.2	48.7	42.7	37.2	45.8	62.0	39.4	21.7	18.9
Other members of the holder's family working on the holding	1000	5.7	2.1	0.7	0.9	9.3	2.2	6.7	0.2	0.1
- women (%)		46.3	40.8	39.0	38.3	43.8	44.0	43.6	45.9	46.0
- part-time: - under 50 % (%)		89.3	86.6	80.1	66.6	85.9	89.7	86.1	63.1	50.8
- 50 % and over (%)		7.8	9.3	11.8	13.6	8.9	6.5	9.3	16.7	20.6
- with another gainful activity (%)		64.9	60.3	50.9	31.3	59.7	58.8	61.8	30.9	17.5

*LSU = Livestock unit

¹ Only holders who are also farm managers

":" not available

"0" less than a half of the unit or nil

Size of the farms	Agricultural area (ha)				All farms	Livestock (LSU)				
	<20	20-<50	50-<100	>=100		0	>0-<50	50-<100	>=100	
Holdings										
- total number	1000	7.5	2.7	1.0	1.5	12.7	4.3	7.7	0.2	0.4
- by legal personality of the holder (%)										
- sole holder		96.0	94.2	87.4	58.5	90.4	85.8	97.2	77.1	20.9
- legal person		4.0	5.8	12.7	41.5	9.6	14.2	2.8	22.4	79.1
- group holders		0	0	0	0	0	0	0	0	0
- by employed labour force (%)										
- under 1 AWU		51.1	43.2	29.2	15.8	43.4	62.2	36.3	4.9	1.2
- from 1 to less than 2 AWU		37.1	37.1	40.2	25.8	36.0	25.8	43.8	24.9	3.3
- from 2 to less than 3 AWU		10.2	17.0	23.4	16.7	13.5	6.9	17.2	29.0	5.2
- 3 AWU and over		1.6	2.6	7.2	41.7	7.1	5.0	2.7	41.2	90.4
- by economic size (%)										
- from 1 to less than 8 ESU		96.8	89.5	46.0	8.3	80.4	77.2	88.8	9.4	0.5
- from 8 to less than 16 ESU		2.0	8.3	40.8	12.8	7.8	8.9	7.4	9.0	3.1
- from 16 to less than 40 ESU		0.7	1.5	12.3	37.5	6.3	8.2	3.1	64.5	9.6
- from 40 to less than 100 ESU		0.3	0.6	0.8	21.4	3.0	4.1	0.5	15.5	27.9
- 100 ESU and over		0.3	0	0.2	20.0	2.6	1.5	0.1	1.2	58.9
- by type of farming (top 5 + 'other') (%)										
... sheep, goats and other grazing livestock		14.4	19.9	14.6	7.8	14.8	20.3	12.6	9.0	1.9
... specialist cereals, oil seed and protein crops		5.6	16.3	27.6	41.2	14.0	27.3	7.3	6.5	3.8
... mixed livestock, mainly grazing livestock		19.8	8.3	3.2	1.4	13.8	4.3	20.1	2.0	1.9
... specialist dairy farming		9.3	16.2	22.9	24.1	13.7	0	17.7	53.9	56.8
... field crops – grazing livestock combined		12.0	13.5	11.1	12.0	12.3	5.3	15.9	16.3	14.6
Other types of farming		38.9	25.7	20.6	13.5	31.5	42.8	26.4	12.2	21.1
- by farming methods (%)										
- organic farming		3.5	10.1	12.6	11.2	6.6	3.8	7.7	17.1	8.2
- irrigating		:	:	:	:	:	:	:	:	:
- with crops under glass		4.2	1.6	0.4	0.6	2.9	3.8	2.6	0	0
- with another gainful activity than agricultural production: (%)										
Tourism		1.4	1.9	1.9	1.7	1.6	1.2	1.8	2.9	1.9
Handicraft		1.0	0.9	1.0	0.5	0.9	0.6	1.1	0.4	0.5
Processing of farm products		0.9	1.4	2.1	2.2	1.2	1.5	1.0	1.2	3.3
Wood processing		1.9	3.2	4.1	3.7	2.6	3.5	2.1	3.3	0.9
Aquaculture		0.2	0.5	0.4	0.1	0.3	0.3	0.3	0	0.2
Renewable energy production		0.1	0.3	0.3	0.5	0.2	0.4	0.1	0	0.2
Contractual work		1.7	4.7	8.5	13.3	4.3	5.1	3.5	11.4	7.7
Other gainful activities n.a.e		1.5	2.1	2.2	2.5	1.8	2.6	1.4	1.6	1.4

*LSU = Livestock unit

": not available

"0" less than a half of the unit or nil

Size of the farms	Agricultural area (ha)				All farms	Livestock (LSU)				
	<20	20-<50	50-<100	>=100		0	>0-<50	50-<100	>=100	
Area	(1000 ha)									
Total area of agricultural holdings	160.4	130.4	98.8	682.8	1072.4	367.4	324.5	53.4	327.2	
· H. Other area	92.4	47.5	28.7	56.0	224.6	98.6	102.6	6.9	16.5	
Wooded area	64.1	38.0	23.0	41.4	166.4	74.7	78.7	5.7	7.3	
· Agricultural area	67.9	82.9	70.1	626.9	847.8	268.8	221.9	46.4	310.7	
- D. Arable land	25.2	42.8	45.4	505.0	618.5	216.5	129.4	30.4	242.1	
Cereals	11.9	19.3	20.9	238.6	290.7	123.6	57.0	9.4	100.6	
<i>Common wheat and spelt</i>	3.2	5.2	6.2	84.9	99.5	49.0	17.4	2.5	30.7	
<i>Durum wheat</i>	0	0	0	0	0	0	0	0	0	
<i>Rye</i>	0.7	0.5	0.6	14.9	16.8	6.6	2.7	0.3	7.2	
<i>Barley</i>	5.3	9.8	10.7	109.4	135.1	56.6	26.2	4.5	47.8	
<i>Oats</i>	2.3	3.3	3.2	26.0	34.7	10.1	9.6	2.0	13.1	
<i>Grain maize</i>	0	0	0	0	0	0	0	0	0	
Dried pulses	0.3	0.7	0.5	5.6	7.1	3.3	1.7	0.4	1.6	
Root crops	2.6	1.5	0.8	1.9	6.8	3.5	2.9	0.1	0.2	
<i>Potatoes</i>	2.5	1.4	0.8	1.9	6.6	3.5	2.8	0.1	0.2	
<i>Sugar beet</i>	0	0	0	0	0	0	0	0	0	
<i>Fodder root</i>	0.1	0	0	0	0.2	0	0.1	0	0	
Industrial crops	0.8	2.0	3.2	68.6	74.6	41.1	10.5	2.1	20.8	
<i>Tobacco</i>	0	0	0	0	0	0	0	0	0	
<i>Hops</i>	0	0	0	0	0	0	0	0	0	
<i>Cotton</i>	0	0	0	0	0	0	0	0	0	
<i>Rape and turnip</i>	0.7	1.8	3.0	68.1	73.5	40.3	10.5	2.0	20.7	
<i>Sunflower</i>	0	0	0	0	0	0	0	0	0	
<i>Soya</i>	0	0	0	0	0	0	0	0	0	
Fresh vegetables, melons, strawberry	0.7	0.3	0.1	0.8	1.9	1.4	0.4	0	0.1	
<i>outside</i>	0.7	0.3	0.1	0.8	1.9	1.4	0.4	0	0.1	
<i>under glass</i>	0	0	0	0	0	0	0	0	0	
Flower and ornamental plants	0	0	0	0	0	0	0	0	0	
<i>outside</i>	0	0	0	0	0	0	0	0	0	
<i>under glass</i>	0	0	0	0	0	0	0	0	0	
Forage plants	7.3	16.6	18.0	176.5	218.4	33.3	51.9	17.8	115.5	
Fallow land	1.5	2.1	1.6	10.4	15.5	8.6	4.3	0.5	2.1	
- E. Kitchen garden	1.3	0.4	0.1	0.1	1.9	0.6	1.3	0	0	
- F. Permanent pasture and meadows	40.3	39.1	24.3	120.9	224.6	49.7	90.6	15.9	68.4	
- G. Permanent crops	1.1	0.6	0.3	0.9	2.8	2.1	0.6	0	0.1	
Fruit and berry plantation	1.0	0.5	0.2	0.7	2.5	1.8	0.6	0	0.1	
Citrus plantation	0	0	0	0	0	0	0	0	0	
Olive trees	0	0	0	0	0	0	0	0	0	
Vineyard	0	0	0	0	0	0	0	0	0	
Ratios										
Agricultural area per holding	(ha)	9.1	30.4	68.8	405.0	66.5	62.0	28.7	189.5	729.2
Agricultural area...	(%)									
... own farmed		87.8	74.8	55.6	30.7	41.7	42.2	61.9	40.7	26.8
... in less favoured or mountain area		51.5	48.4	48.9	34.9	38.7	37.0	50.9	61.9	28.1
... organic farmed		4.0	10.0	11.0	5.6	6.3	1.8	12.0	17.9	4.5
... irrigated		:	:	:	:	:	:	:	:	:

*LSU = Livestock unit

":" not available

"0" less than a half of the unit or nil

Size of the farms	Agricultural area (ha)				All farms	Livestock (LSU)			
	<20	20-<50	50-<100	>=100		0	>0-<50	50-<100	>=100
Total livestock (1000 LSU)	80.9	17.8	16.4	193.0	308.1	0	51.1	17.0	240.0
of which grazing (%)	18.5	92.2	92.4	82.8	67.0	:	91.3	94.8	59.8
Grazing livestock (1000 heads)									
Equidae	1.6	1.3	0.8	1.9	5.5	0	3.9	0.9	0.7
Bovine animals	15.4	18.4	18.2	197.5	249.5	0	51.3	19.5	178.7
Under 1 year	4.4	4.8	4.5	37.7	51.4	0	14.0	4.6	32.8
From 1 to less than 2 years	3.6	5.3	4.7	50.6	64.2	0	13.3	4.9	46.0
Dairy cows	6.3	6.3	6.5	87.7	106.8	0	17.7	7.3	81.8
Other cows	0.5	1.3	1.6	5.1	8.6	0	4.3	1.6	2.7
Other bovine animals 2 years and older	0.6	0.7	0.9	16.3	18.5	0	2.0	1.0	15.4
Sheep	20.1	17.8	8.5	27.2	73.5	0	54.4	6.7	12.5
Goats	1.6	0.8	0.1	0.2	2.7	0	2.6	0	0.1
Granivores									
Pigs (1000 heads)	243.1	4.5	4.1	116.8	368.4	0	12.4	2.8	353.2
Piglets < 20 kg	97.7	1.6	0.5	24.4	124.3	0	4.6	0.7	118.9
Breeding sows	27.5	0.5	0.3	8.7	37.0	0	1.3	0.3	35.5
Other pigs	117.8	2.3	3.3	83.7	207.1	0	6.5	1.8	198.8
Poultry (million heads)	1.4	0	0	0.2	1.7	0	0.1	0	1.6
Broilers	0.9	0	0	0	0.9	0	0	0	0.9
Laying hens	0.6	0	0	0.2	0.8	0	0.1	0	0.7
Other poultry	0	0	0	0	0	0	0	0	0
Rabbits, breeding females (1000 heads)	3.7	0.7	0.4	0.2	4.9	0	4.9	0	0.1
Beehives (1000)	14.8	2.8	0.8	0.7	19.0	9.6	9.1	0.2	0.1
Average size of herds* (head/holding)									
Equidae (head/holding)	3.8	6.8	10.0	17.2	7.0	:	5.3	27.1	28.3
Cattle (head/holding)	4.8	14.0	33.5	250.0	42.7	:	9.7	88.2	531.9
Dairy cows (head/holding)	2.1	5.8	15.9	139.3	21.2	:	3.9	40.1	261.3
Other cows (head/holding)	3.5	5.6	9.7	19.5	10.5	:	6.6	17.9	31.8
Sheep (head/holding)	22.5	46.4	77.1	261.4	49.4	:	37.4	289.2	959.6
Goats (head/holding)	6.1	9.1	4.7	11.3	7.0	:	6.9	3.3	12.0
Pigs (head/holding)	159.9	8.4	28.9	768.5	157.3	:	5.6	118.5	3428.7
Breeding sows (head/holding)	117.1	5.1	6.2	116.0	81.4	:	3.4	20.3	460.6
Other pigs > 20 kg (head/holding)	117.1	6.3	30.1	633.9	128.3	:	4.4	86.6	1967.8
Rabbits, breeding females (head/holding)	7.8	7.7	10.3	8.1	7.9	:	7.9	2.3	17.8
Laying hens (1000/holding)	0.2	0	0	1.4	0.2	:	0	0.3	39.3
Broilers (1000/holding)	11.7	0	0	0	7.8	:	0	0	853.0
Beehives (hive/holding)	12.8	7.5	7.2	9.8	11.2	23.0	7.2	15.3	13.7

*LSU = Livestock unit

Size of the farms	Absolute figures			% of total	
	Total	< 1 ESU	>= 1 ESU	< 1 ESU	>= 1 ESU
Regular Labour force (1000 pers)	65.4	22.7	42.7	34.7	65.3
Regular labour force (1000 AWU)	31.3	6.8	24.5	21.7	78.3
Holders with... (1000)	21.9	10.4	11.5	47.4	52.6
... at least 65 years	7.3	4.0	3.3	55.3	44.7
... another gainful activity	9.1	4.6	4.4	51.3	48.7
Number of sole holdings (1000)	23.3	10.6	12.7	45.4	54.6
... producing mainly for own consumption	10.6	7.0	3.6	66.2	33.8
... producing mainly for direct sales	4.3	1.2	3.1	27.5	72.5
SGM (1000 ESU)	178.3	5.5	172.8	3.1	96.9
Agricultural area (1000 ha)	906.8	59.0	847.8	6.5	93.5
... own farmed	406.9	53.7	353.1	13.2	86.8
Livestock (1000 LSU*)	313.2	5.1	308.1	1.6	98.4

*LSU = Livestock Unit

➤ METHODOLOGICAL NOTES

The survey on the structure of agricultural holdings in Estonia was carried out in summer 2007 using a combined method (exhaustive and sample survey). This was the fourth Farm Structure Survey in Estonia; the first one was a full-scale agricultural census conducted in 2001 and two sample surveys were carried out in 2003 and 2005. The reference date of the FSS 2007 was 1st June 2007 and the reference period was the preceding 12 months.

The target population for the FSS 2007 covers all the agricultural holdings having at least 1 ha of UAA or, if the UAA is less than 1 ha, the holdings with an economic size of at least 1 ESU or which production is mainly intended for sale.

The sample frame for the 2007 FSS was the statistical Register of Agricultural Holdings, which is based on the 2001 agricultural census data and is regularly updated by statistical surveys and administrative sources. The largest holdings (economic size 2 ESU or more), the legal entities, the holdings of small-numbered strata (specialised in horticulture, permanent crops and breeding granivores), the organic farms and the units involved in the survey of sown areas in 2007, as well as the new farms were selected exhaustively (altogether 11 328 units).

A 75-stratum stratified simple random sample was drawn from the remaining ones using the economic size, the type of farming and the geographical location as stratification variables. The total number of selected holdings was about 20 000 (70% of the total in the frame).

In Estonia the FSS 2007 made use of data from the Organic Farming Register for three characteristics. All the new organic farms of this register were added into the completely enumerated stratum.

The data were checked at different levels and times. Arithmetical and logical control procedures were used during the filling in of the questionnaires and also during the data processing. The results of the survey were also compared with the administrative information and data from previous surveys.

Non-response in the Estonian 2007 FSS was 14% of the farms. For completely enumerated strata with non-response the extrapolation factor is corrected proportionately to the non-response. The information from previous surveys and administrative data were also used for imputation in particular cases of non-response.

The initial extrapolation factors were adjusted according to the new holdings and in the case of duplicates. In post stratification 45 new strata were composed.

Between FSS 2005 and 2007 "maintaining land in good agricultural and environmental conditions" (GAEC) became an agricultural activity and the concerned land has been included in the agricultural area. In Estonia it covers 45 000 ha, 49% being in farms with at least 1 ESU.

For each activity ('enterprise') on a farm (for instance wheat, dairy cow or vineyard), a Standard Gross Margin (SGM) is estimated, based on the area (or the number of heads) and a regional coefficient. The sum of such margins in a farm is its economic size, expressed in European Size Units (ESU, 1 ESU is a 1200-euro SGM).

An Annual work unit (AWU) is equivalent to a worker employed on a full time basis for one year. In Estonia it is 1800 hours (225 working days of 8 working hours per day).

A Livestock Unit (LSU) is equivalent to a dairy cow. The number of animals (number of heads) is converted into LSU using a set of coefficients reflecting the feed requirements of the different animal categories.

➤ REFERENCE PUBLICATIONS

Website of the Statistical Office of Estonia (Statistikaamet): <http://www.stat.ee/> (English version available)

FSS 2007 Estonia, National Methodological Report – (available for request)

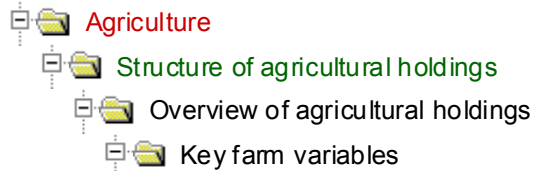
Further information

Data: [Eurostat Website: http://ec.europa.eu/eurostat](http://ec.europa.eu/eurostat)

Select your theme on the left side of the homepage and then 'Data' from the menu.

Data: [EUROSTAT Website/Agriculture, forestry and fisheries](#)

Agriculture, forestry and fisheries



Journalists can contact the media support service:

Bech Building Office A4/125 L - 2920 Luxembourg
Tel. (352) 4301 33408 Fax (352) 4301 35349
E-mail: eurostat-mediasupport@ec.europa.eu

European Statistical Data Support:

Eurostat set up with the members of the 'European statistical system' a network of support centres, which will exist in nearly all Member States as well as in some EFTA countries.

Their mission is to provide help and guidance to Internet users of European statistical data.

Contact details for this support network can be found on our Internet site:
<http://ec.europa.eu/eurostat/>

A list of worldwide sales outlets is available at the:

Office for Official Publications of the European Communities.

2, rue Mercier
L - 2985 Luxembourg

URL: <http://publications.europa.eu>
E-mail: info@publications.europa.eu

This publication has been written in collaboration with Maria BERGUA.
