

1. HISTORICAL OUTLINE

The first Agricultural Census (AC) in Finland was conducted in 1910. Since then agricultural censuses have been conducted almost every ten years. The latest ACs were carried out in 1959, 1969, 1990 and 1999/2000. The tenth and last AC was carried out in 2010.

2. LEGAL BASIS AND ORGANIZATION

Legal framework

The legal basis for the AC 2010 included:

- Finland's Statistics Act (280/2004);
- the Acts on the Information Centre of the Ministry of Agriculture and Forestry (No. 1200/1992 and No. 667/2006);
- the Act on Rural Business Statistics (1197/1996); and
- Relevant EU legislation.

Institutional framework

Since 1995, the Information Centre of the Ministry of Agriculture and Forestry (Tike) has been responsible for implementing FSSs, including the ACs. Tike was responsible for the implementation of the AC 2010 and of the SAPM conducted together, as a project. Tike's Director General was also the Chairperson of the project's Steering Group.

Census staff

No field staff were involved, as self-interviewing and telephone interviewing methods were used for data collection. See also section 8 ("Data collection methods").

3. REFERENCE DATE AND PERIOD

Reference days:

- 1 April 2010, for the number of horses, pigs and poultry; and
- 1 May 2010, for the number of cattle, sheep and goats.

Reference periods:

- harvest year 2010, for crops;
- calendar year 2010, for irrigation, other gainful activities, grazing land and manure;
- from 1 September 2009 to 31 August 2010, for labour force; and
- the previous three years (2008, 2009 and 2010), for rural development characteristics.

4. ENUMERATION PERIOD

The data collection operation started on 1 September 2010 and ended on 1 March 2011.

5. SCOPE OF THE CENSUS AND DEFINITION OF THE STATISTICAL UNIT

The **census scope** covered agricultural activities (crop and livestock production).

The **statistical unit** in the AC 2010 was the agricultural holding. Two types of holdings were distinguished: "farms" and "horticultural enterprises" that were "engaged in commercial agricultural or horticultural production".

A farm is defined as a holding/business that has a utilized arable land area of at least 1 ha or at least one animal unit of livestock. The farms do not include horticultural enterprises that are solely engaged in greenhouse production. A horticultural enterprise is a holding engaged in horticultural production intended for sale (for example, greenhouse enterprises).

6. GEOGRAPHIC COVERAGE

The entire area of the country was covered by the census, both urban and rural areas.

7. CUT-OFF THRESHOLD AND OTHER EXCLUSIONS

The AC 2010 covered the holdings engaged in commercial agricultural production that have:

- an utilized arable land area of at least 1 ha;
- less than 1 ha of arable land used for horticultural production; or
- at least one animal unit of livestock.

Farming for the household's own consumption was not included in the scope of the AC 2010.

8. METHODOLOGY

Methodological modality for conducting the census

The majority of the data for the AC 2010 were taken directly from statistical registers, which are regularly updated using statistical and administrative data sources. The remaining data were collected using specific (AC and SAPM) questionnaires (see below). In Finland, questions required for statistical purposes have been added to subsidy application forms in cooperation with the agricultural administration and Tike's Statistics Group.

Frame

The frame for the AC included all: (i) farms and horticultural enterprises included in either the Farm Register or the Horticultural Enterprise Register (in 2009); and (ii) all farms that were new applicants for farming subsidies in 2010.

Complete and/or sample enumeration method(s)

The AC was conducted as a complete enumeration of agricultural holdings. The SAPM was conducted as a sample survey.

Sample design

A stratified sample was used for the SAPM.

Data collection method(s)

The majority of the data for the AC 2010 were taken directly from two statistical registers, the Farm Register and Horticultural Enterprise Register. The missing data (such as labour force, education and training, other gainful activities, renewable energy, irrigation) were collected using either the AC or the SAPM questionnaires.

Information for the AC and the SAPM was collected using the CAWI and CATI methods.

Questionnaire(s)

There were two questionnaires: one for the CA and one for the SAPM. The questionnaires covered all 16 core items recommended in the WCA 2010.

9. USE OF TECHNOLOGY

New data collection methods were applied in the AC 2010: CAWI and CATI. Statistical registers, updated based on administrative data sources, replaced a significant proportion of traditional data collection. Census results were disseminated and are accessible online.

10. DATA PROCESSING AND ARCHIVING

Specific checks were used in both the online forms and the software used to enter data from telephone interviews. The results were produced using SAS software. Variances for the SAPM were estimated using the CLAN software developed by Statistics Sweden.

Missing information on farms and horticultural enterprises that did not respond to the AC was filled in using imputation methods. The imputation method used varied, depending on the amount of background information available for the variable in question. The most common imputation method was to fill in a missing data item using an average obtained from similar farms, or to substitute information on a missing farm with data from a similar farm that had filled in the questionnaire. Missing geographical coordinates were obtained using the farm's address details.

11. CENSUS DATA QUALITY

Data verification began during the collection period, as checks were carried out in online forms and by the software used to enter data during telephone interviews. Although information was checked during collection, more thorough verification and processing procedures were carried out once the data collection period had ended. The values for the most important crop areas and livestock numbers from the SAPM differed very little from the values from the complete enumeration of all holdings, the differences being usually of less than 5 percent and well within the coefficients of variation of the sample.

12. DATA DISSEMINATION

Preliminary census results on different topics were published in five batches, from June to December 2011, on the website of the Natural Resources Institute Finland (Luke). The results of the AC were published using Tilastolaari's dynamic reporting service. The final results of the AC were published in May 2012 and those of the SAPM in September 2012. Detailed census data can be found at on the Luke website.

13. DATA SOURCES

Eurostat. 2019a. Archive: Agricultural census in Finland. In: *European Commission: Eurostat* [online]. Luxembourg. [Cited 26 August 2019]. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Archive:Agricultural_census_in_Finland

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Tike. 2013. *Maatalouslaskenta 2010 (Agricultural Census 2010)*. Helsinki, Greece. (also available at http://www.fao.org/fileadmin/templates/ess/ess_test_folder/World_Census_Agriculture/Country_info_2010/Reports/Reports_4/FIN_FIN_ENG_REP_vol_I_2010.pdf).

14. CONTACT

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FINLAND – AGRICULTURAL CENSUS 2010 – MAIN RESULTS¹

NUMBER OF HOLDINGS AND AREA, BY LEGAL STATUS		
	Holdings	Area (ha)
Total	63 870	6 250 610
Civil persons	62 620	6 111 710
An individual (sole holder holdings) ²	57 600	5 523 500
Two or more individuals (group holdings)	5 020	588 210
Juridical persons (legal entities)	1 260	138 910

LAND TENURE		
	Holdings	UAA (ha)
Total	63 870	2 290 980
Legal ownership and owner-like possession (Owned land)	61 040	1 498 160
Rented from others (Land rented)	37 680	792 820

DISTRIBUTION OF UAA, BY LAND SIZE CLASSES		
	Holdings	UAA (ha)
Total	63 870	2 290 980
Holdings without UAA	400	
Holdings with UAA	63 470	2 290 980
Less than 2 ha	1 440	990
2–4,99 ha	4 340	16 410
5–9,99 ha	7 970	59 550
10–19,99 ha	13 340	197 000
20–29,99 ha	9 730	240 580
30–49,99 ha	12 000	465 950
50–99,99 ha	10 840	746 910
100 ha and over	3 820	563 590

LAND USE		
	Holdings	Area (ha)
Total	63 870	6 250 610
UAA	63 470	2 290 980
Arable land	63 060	2 253 450
Land temporarily fallow	40 770	306 950
Land under permanent crops	2 640	4 580
Permanent meadows and pastures	8 340	32 950
Other land	60 480	3 959 630
Wooded area	58 210	3 118 570
Unutilised agricultural land and other areas	59 620	841 060

MANAGERS BY SEX ³		
	Number	UAA operated (ha)
Total	63 870	2 290 980
Male	56 770	2 124 050
Female	7 100	166 930

MEMBERS OF HOLDER'S HOUSEHOLD, BY SEX ⁴	
	Number
Total engaged in agricultural activities on the holding	48 710
Male	20 180
Female	28 520

LABOUR FORCE OF THE HOLDING	
	Number
Total	125 290
Male	84 390
Female	40 900
Family labour force	111 170
Male	75 520
Female	35 640
Regular non-family labour force	14 120
Male	8 860
Female	5 260

MANAGERS BY SEX AND AGE ³	
	Number
Total	63 870
Male	56 770
Female	7 100
Less than 35 years	5 500
Male	4 670
Female	820
35–44 years	12 750
Male	11 110
Female	1 640
45–54 years	20 210
Male	18 330
Female	1 880
55–64 years	19 310
Male	17 330
Female	1 980
65 years and over	6 110
Male	5 330
Female	780

LIVESTOCK		
	Holdings	Head
Total holdings with livestock	23 130	
Cattle	15 640	925 790
Sheep	1 350	125 670
Goats	170	4 890
Pigs/swine	2 080	1 366 930
Equines (Equidae)	5 320	31 590
Poultry (1 000 head)	n.a.	n.a.
Broilers	110	4 620
Laying hens	1 120	4 680
Others	140	10

METHODS OF IRRIGATION		
	Holdings	Irrigable area (ha)
Total holdings with irrigable area	4 570	68 560
Holdings with irrigated area⁵	2 920	26 480
Sprinkler	2 060	n.a.
Localized irrigation (drop irrigation)	590	n.a.

¹ Data source – Eurostat database, available at: <https://ec.europa.eu/eurostat/web/agriculture/data/database>

² The categories in brackets are presented as indicated in the Eurostat database (if different from the WCA 2010).

³ According to Eurostat, managers include holders that manage the holding themselves, and managers that are not holders, including of legal units

⁴ Data are presented without holders.

⁵ Excluding kitchen garden and area under glass.