

Finland - Agricultural Census, 2010

Ministry of Agriculture and Forestry (Tike)

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Overview

Identification

ID NUMBER

FIN_2010_AC_v01_EN_M_v01_A_OCS

Overview

ABSTRACT

The first Agricultural Census in Finland was conducted in 1910, and the tenth in 2010. Since Finland joined the EU in 1995, the Information Centre of the Ministry of Agriculture and Forestry (Tike) has been responsible for implementing Farm Structure Surveys. Data for the 2010 Agricultural Census was collected during autumn 2010 and winter 2011. This data covered 2010. All farms and horticultural enterprises in Finland fell under the scope of the census. The Agricultural Census and Survey on Agricultural Production Methods were carried out at the same time. Data were collected both electronically and via telephone

interviews. The information was collected in five batches. Tike carried out its own data collection using data collection software, and also ran the telephone service for farmers that was used during electronic data collection. The contract for carrying out the actual telephone interviews was put out to tender. The winner, Taloustutkimus Oy, is an independent and unaffiliated Finnish market research company. 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 were carried out once the data collection period had ended. Preliminary information was published on Matilda (Tike's online information service) during autumn 2011 and spring 2012. The final versions of the Agricultural Census and Survey on Agricultural Production Methods were completed in April 2012.

KIND OF DATA

Census/enumeration data [cen]

UNITS OF ANALYSIS

Households

Scope

NOTES

The scope of the study is agriculture including forestry, plantations, irrigation methods, beehives, landscapes and livestock.

TOPICS

Topic	Vocabulary	URI
Agriculture & Rural Development	FAO	
Forests & Forestry	FAO	
Food (production, crisis)	FAO	
Land (policy, resource management)	FAO	
Livestock	FAO	

Coverage

GEOGRAPHIC COVERAGE

National coverage

UNIVERSE

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).

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
Ministry of Agriculture and Forestry (Tike)	

OTHER PRODUCER(S)

Name	Affiliation	Role
Information Centre		Census implementation

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Office of Chief Statistician	OCS	Food and Agriculture Organization	Adoption of metadata for FAM
Census team, Statistics Division	ESS	Food and Agriculture Organization	Metadata producer

DDI DOCUMENT VERSION

FIN_2010_AC_v01_EN_M_v01_A_OCS_v01

DDI DOCUMENT ID

DDI_FIN_2010_AC_v01_EN_M_v01_A_OCS_FAO

Sampling

Sampling Procedure

a. Frame

The sample frame for the Agricultural Census included all farms recorded in the 2009 Farm Register, all horticultural enterprises in the 2009 Horticultural Enterprise Register, and farms that were new applicants for farming subsidies in 2010. A large proportion of horticultural businesses in the Horticultural Enterprise Register are also farms. The sample frame included a total of 66,313 farms and horticultural enterprises. The registers used to form the sample frame (Farm Register, Horticultural Enterprise Register and IACS) are updated annually. A farm is only removed from the Farm Register and Horticultural Enterprise Register if it is certain that the farm has ceased its activities. Statistical surveys querying the available agricultural land and number of livestock are carried out for farms that do not apply for subsidies. The sample frame for the Survey on Agricultural Production Methods did not include the smallest farms, that is, those whose economic size was under EUR 1,200 according to 2009 data. These farms are either very small or do not actively engage in agricultural production. The sample frame for the Survey on Agricultural Production Methods therefore consisted of 63,219 farms and horticultural enterprises. The sample frames were very up-to-date: at the time of sampling, most data were approximately one year old. The information for new farms dated from spring 2010, as it was retrieved from the administrative register (IACS) on the basis of subsidy applications submitted in spring 2010. When the results of the survey were estimated, the sample frame was updated on the basis of 2010 register data. Consequently, overcoverage due to the inclusion of farms that had ceased operation did not pose a problem at the estimation stage. As the Farm Register, Horticultural Enterprise Register and IACS use the same farm code, these registers could be successfully consolidated into a sample frame.

b. Survey design

The bulk of the information for the Agricultural Census was collected as an exhaustive survey. Some of the information obtained as part of the exhaustive survey (the geographical location of the farm, the area under different crops, the number of livestock, organic production, and questions and coordination data relating to rural development subsidies) was obtained from registers, while the rest (labour force, education and training, other business activities on farms, renewable energy, and some data on irrigation) was collected using either an online questionnaire or telephone interview. Data for the Survey on Agricultural Production Methods were collected as a sample survey. Questions covered arable and horticultural production, livestock production, and irrigation. A stratified sample was used. The sample frame was constructed using three variables: geographical location (20 municipalities), production sector (8 classes) and economic size (5 classes). After initial stratification, the small strata (which only contained a few farms) were combined. There were a total of 566 strata.

Questionnaires

Overview

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.

Questionnaire:

Agricultural area utilised for shared farming or other modes

Storage facilities for slurry - lagoon

Irrigation method: Surface irrigation

Beehives

Landscape features - Linear elements

Livestock

Data Collection

Data Collection Dates

Start	End	Cycle
2010-09-01	2011-03-01	N/A

Data Collection Mode

Computer Assisted Web Interview (CAWI)

Data Collection Notes

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.

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 Landscape features - Linear elements
 Livestock

Data Processing

Data Editing

a. 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.

b. 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.

Data Appraisal

Other forms of Data Appraisal

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.