

1. HISTORICAL OUTLINE

The Swedish accession to the EU in 1995 created the need to adapt national agricultural statistics to the EU legislation. Until 2001, Sweden compiled FSSs annually, switching every year between EU and national legislation. The present metadata review and data refer to the 2010 Agricultural Census (AC), conducted together with the SAPM.

2. LEGAL BASIS AND ORGANIZATION

Legal framework

The legal basis of the AC 2010 includes:

- the Official Statistics Act (SFS 2001:99), and the Official Statistics Ordinance (SFS 2001:100) of 15 March 2001, with reference to agricultural statistics in Sweden, which appoints the Swedish Board of Agriculture (SBA) as the sole responsible authority for all national agricultural statistics.
- Provision SJVFS 2010:16 of the SBA, which took effect on 1 May 2010, stipulating that the SBA is responsible for organizing the AC 2010;
- Act 24, 8 § of the Swedish confidentiality law on statistics (SFS 2009:400); or
- the EU legislation relevant for implementing the FSS 2010.

Institutional framework and international collaboration

Starting in March 2001, the SBA became the sole authority responsible for organizing and producing all agricultural statistics in Sweden. The AC project team was located in the SBA.

Census staff

In total, 27 persons were involved in the survey team. No field personnel were involved in census data collection.

3. REFERENCE DATE AND PERIOD

Reference day: 10 June 2010, for livestock, buildings, machinery and other inventory items.

Reference periods:

- the 12 preceding months (from 1 June 2009 to 31 May 2010), for land and crops, farm labour force, production methods, irrigation, etc.; and
- the last 3 years (2008–2010), for rural development support.

4. ENUMERATION PERIOD

Enumeration was carried out from June to October 2010 (see section 8, “Data collection methods”).

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

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

The **statistical unit** was the farm/agricultural holding, defined as a single unit, both technically and economically, which has a single management and which undertakes the agricultural activities listed in annex I to the European Parliament and Council Regulation (EC) No. 1166/2008 within the economic territory of the EU, as either its primary or secondary activity.

6. GEOGRAPHIC COVERAGE

The AC 2010 covered the entire country.

7. CUT-OFF THRESHOLD AND OTHER EXCLUSIONS

The census covered all agricultural holdings in Sweden that on 10 June 2010 met one or more of the following criteria: (i) more than 2 ha of arable land; (ii) more than 5 ha of agricultural land; (iii) at least 200 m² are under glass; (iv) at least 2 500 m² of outdoor horticultural cultivation; (v) at least 10 head of cattle, ten sows, 50 pigs, 20 ewes or 1 000 head of poultry.

8. METHODOLOGY

Methodological modality for conducting the census

The AC 2010 data were collected using traditional field data collection (classical approach), along with an extensive use of administrative registers as a source of census data.

Frame

The frame for the AC 2010 was the LBR. The frame consisted of holdings from the FSS 2007, updated with information from the Livestock Survey for 2008 and 2009, the Holdings Applying for Subsidies 2008, and the 2009 IACS.¹

¹ The frame was also updated with information from the Poultry, Sheep, and Pig Registers. In addition, a special Register Survey was sent out to 6 000 holdings that were found in the 2007 FSS population but that could not be found in the IACS system in 2009.

Complete and/or sample enumeration methods

The AC 2010 was carried out as a complete enumeration of all agricultural holdings in the “frame”. Sampling was used for the OGA section, in accordance with the EU Regulation (EC) No. 1166/2008. The SAPM was also conducted using sampling.

Sample design

The SAPM and OGA used the same sample, based on a stratified random sample. The sampling frame was divided into 66 strata. The variables for stratification were divided into: (i) NUTS II regions; (ii) area of agricultural land; (iii) number of animals of different kinds; and (iv) new holdings.

Data collection methods

Different data collection channels were used during the AC: self-interviewing using printed questionnaires (mail-out/mail-back) and web questionnaires (CAWI), telephone interviewing (CATI)² and administrative registers. In addition, modelling was used to estimate the volume of water used for irrigation. Five administrative data sources were used for the AC, as sources of census data and for validation purposes: the IACS, the Bovine Register, the Organic Farming Register, the Register on Genetically Modified Crops, and Register of Support for Rural Development.

Questionnaire(s)

In total, four questionnaires were designed to collect the data requested; three questionnaires covering the AC variables and one covering the SAPM variables (SP). Two of the AC questionnaires were adopted for natural persons (one including OGA variables (SFK) and the other without OGA (SFE)), while the third one was designed for legal persons (SJ).

The questionnaires covered all 16 core items recommended in the WCA 2010.

9. USE OF TECHNOLOGY

Extensive use of administrative registers, of CAWI and CATI for census data collection, of optical scanning for data capture of printed questionnaires, as well as of online dissemination, were applied in the AC 2010.

10. DATA PROCESSING AND ARCHIVING

Optical scanning was used for data entry. An IT system was designed for the identification of all errors occurring when a questionnaire contained information that did not fulfil the validation criteria. Various methods were used to solve problems associated with missing data. The instructions, that were in force for the entire survey process, generally permitted the data to be corrected or completed by the staff directly on personal computers. The software used in this part of the process was SAS and Microsoft Excel.

11. CENSUS DATA QUALITY

The calculated national statistical results for 2010 were compared with corresponding results from the ACs/FSSs of earlier years at the macro level. Some micro level results were also compared with data from earlier years.

12. DATA DISSEMINATION

The first AC 2010 results were published in October 2010 and the final results in June 2011. The census results were disseminated in a series of statistical reports on the SBA website, and on the Statistics Sweden website. The data from the AC 2010 were also published through the online Statistical Database of the SBA.

13. DATA SOURCES

Eurostat. 2019a. Archive: Agricultural census in Sweden. In: *European Commission: Eurostat* [online] Luxembourg. [Cited 28 August 2019]. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Archive:Agricultural_census_in_Sweden

Eurostat. 2019b. Database, Agriculture, forestry and fisheries. In: *European Commission: Eurostat* [online]. Luxembourg. [Cited 26 August 2019]. <https://ec.europa.eu/eurostat/data/database>

Statistics Sweden. 2011. *Farm Structure Survey 2009/2010 and Survey on agricultural production methods 2009/2010*. National Methodological Report (also available at http://ec.europa.eu/eurostat/documents/749240/749313/SE_NMR_FSS_2010.pdf/79abcd91-5757-4a72-8aea-5d0f8aae11cb).

14. CONTACT

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² Telephone interviews were used in two different cases: to complete partly answered questionnaires and to reduce the nonresponse. The highest nonresponse rate was on the SP questionnaire, which included all the SAPM variables.

SWEDEN – AGRICULTURAL CENSUS 2010 – MAIN RESULTS¹

NUMBER OF HOLDINGS AND AREA, BY LEGAL STATUS		
	Holdings	Area (ha)
Total	71 090	6 759 760
Civil persons	65 850	5 535 920
An individual (sole holder holdings) ²	65 850	5 535 920
Juridical persons (legal entities)	5 240	1 223 850

LAND TENURE		
	Holdings	UAA (ha)
Total	71 090	3 066 320
Legal ownership and owner-like possession (owned land)	64 300	1 748 840
Rented from others (land rented)	32 970	1 317 480

DISTRIBUTION OF UAA, BY LAND SIZE CLASSES		
	Holdings	UAA (ha)
Total	71 090	3 066 320
Holdings without UAA	740	
Holdings with UAA	70 360	3 066 320
Less than 2 ha	560	340
2–4,99 ha	7 630	29 310
5–9,99 ha	15 820	112 930
10–19,99 ha	14 180	202 680
20–29,99 ha	7 140	175 130
30–49,99 ha	8 030	313 200
50–99,99 ha	9 070	643 730
100 ha and over	7 930	1 589 000

LAND USE		
	Holdings	Area (ha)
Total	71 090	6 759 760
UAA	70 360	3 066 320
Arable land	68 440	2 611 470
Land temporarily fallow	20 320	180 630
Land under permanent crops	780	2 940
Permanent meadows and pastures	37 950	451 910
Wooded area	47 160	3 687 550

MANAGERS BY SEX ³		
	Number	UAA operated (ha)
Total	71 090	3 066 320
Male	60 140	2 832 750
Female	10 950	233 560

MEMBERS OF HOLDER'S HOUSEHOLD, BY SEX ⁴	
	Number
Total engaged in agricultural activities on the holding	53 980
Male	20 610
Female	33 370

LABOUR FORCE OF THE HOLDING	
	Number
Total	141 530
Male	92 000
Female	49 530
Family labour force	119 830
Male	76 330
Female	43 510
Regular non-family labour force	21 700
Male	15 670
Female	6 030

MANAGERS BY SEX AND AGE ³	
	Number
Total	71 090
Male	60 140
Female	10 950
Less than 35 years	3 380
Male	2 690
Female	690
35–44 years	10 530
Male	8 590
Female	1 940
45–54 years	18 610
Male	15 440
Female	3 160
55–64 years	20 390
Male	17 760
Female	2 630
65 years and over	18 190
Male	15 650
Female	2 530

LIVESTOCK		
	Holdings	Head
Total holdings with livestock	40 360	
Cattle	21 590	1 536 660
Sheep	8 660	564 920
Pigs/swine	1 700	1 519 870
Equines (Equidae)	17 510	117 030
Poultry (1 000 head)	n.a.	n.a.
Broilers	180	6 450
Laying hens	3 770	7 710
Others	100	130

METHODS OF IRRIGATION		
	Holdings	Irrigable area (ha)
Total holdings with irrigable area	3 450	164 230
Holdings with irrigated area⁵	1 970	63 250
Surface	210	n.a.
Sprinkler	3 230	n.a.
Localized irrigation (drop irrigation)	320	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.