

1. HISTORICAL OUTLINE

The Agricultural Census (AC) 2010 was the first AC conducted in Iceland.

2. LEGAL BASIS AND ORGANIZATION

Legal framework

The legal basis for the AC 2010 was provided by the Act on Statistics Iceland and official statistics (Law No. 163 from 21 December 2007). Provisions on the submission of data and information to Statistics Iceland are contained in a series of laws (the National Registry and Civil Registration Act, in the Register of Enterprises Act, Tax Law, Customs Law, etc.).

The AC 2010 complies with the EU legislation with European Economic Area (EEA) relevance.¹

Institutional framework and international collaboration.

Statistics Iceland (SI) is the institution in charge of the ACs. Other institutions involved in the AC 2010 were the Icelandic Food and Veterinary Institute, and the Icelandic Farmers Association Agriculture-Economy-Service. A census committee was established within Statistics Iceland.

Census staff

Up to seven persons were involved in the activities related to census data collection.

3. REFERENCE DATE AND PERIOD

Reference day: 31 October 2010, for inventory items such as livestock numbers and machinery.

Reference period: calendar year 2010, for other items such as land use.

4. ENUMERATION PERIOD

The data collection period started on 17 January 2011, when personalized log-in information for the web-based module was sent out to respondents, and ended on 1 June 2011, with the last telephone interviews.

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

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

The **statistical unit** is the agricultural holding, defined as a single unit, both technically and economically, which has a single management and which undertakes agricultural activities listed further on within the economic territory of the EU, as either its primary or secondary activity: these activities include the growing of non-perennial crops, the growing of perennial crops, plant propagation, animal production, mixed farming, support activities to agriculture, and post-harvest crop activities.

6. GEOGRAPHIC COVERAGE

The AC 2010 covered the entire country.

7. CUT-OFF THRESHOLD AND OTHER EXCLUSIONS

None noted, other than those stated as the minimum threshold of agricultural activity in the EU definition of an agricultural holding.²

8. METHODOLOGY

Methodological modality for conducting the census

The classical approach was used in the AC. Some holding characteristics were collected directly from the administrative data sources (see also below).

Frame

Iceland does not have a farm register, nor any other complete data source with an overview of holdings. The census frame was built using Agricultural Tax Returns, VAT Returns and Annual Livestock Surveillance Reports. The initial census listing consisted of 3 241 individuals, and was later revised to 2 699 holdings.

Complete and/or sample enumeration methods

The AC was conducted using complete enumeration.

Sample design (if sampling was used)

No sampling was used (neither for the AC nor for the SAPM).

¹ Regulation (EC) No. 1166/2008 of the European Parliament and of the Council of 19 November 2008 on farm structure surveys and the survey on agricultural production methods and repealing Council Regulation (EEC) No. 571/88, etc.

² *Ibid.*

Data collection methods

Data were collected using a mixed mode strategy (CAWI, mail-out/mail-back, CATI). First, a pre-notification letter was sent to all agricultural holders informing them that an invitation to a web survey would be sent in a few days. In the invitation letter, respondents were provided with a web address for the web questionnaire, as well as a login name and a password. For the units that did not respond through the Internet, a paper questionnaire was sent, along with a prepaid return envelope. This was done approximately two weeks after the original invitation to the web questionnaire.

Some holding characteristics were collected directly from the administrative data sources.³

Questionnaire(s)

The census questionnaire was available in three formats, for PAPI, CAWI and CATI data collection. Fourteen of the total 16 core items recommended in the WCA 2010 were covered by the census.⁴

9. USE OF TECHNOLOGY

CAWI and CATI methods were used for AC data collection. Census results were disseminated and are accessible online.

10. DATA PROCESSING AND ARCHIVING

Three employees of Statistics Iceland entered manually the answers from the paper questionnaires to a database. Finally, for those who answered neither the web questionnaire nor the paper questionnaire, CATI was applied. Blaise survey software was used to create the data files for the data collected through CAWI and CATI. R software was used for data handling. Identification numbers, which were present both for holders and legal units, were used to link data from different data sources. Home addresses and land codes were used to link holders, as holdings in Iceland can have multiple holders.

11. CENSUS DATA QUALITY

Completion and correction methods were applied in cases of missing values and implausible values. No follow-up interviews were conducted. Administrative data were used for the missing values, as well as for the validation of the AC results, where the information was available.

12. DATA DISSEMINATION

Preliminary results were published in tables, in October 2012, on the Statistics Iceland website, as well as in a specific publication.⁵ The Statistical Series issue on agriculture, published for the first time, also includes the census results and is accessible online.⁶

13. DATA SOURCES

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

Statistics Iceland. 2012. Farm structure survey 2010. In: *Statistics Iceland* [online]. [Cited 28 August 2019]. <https://www.statice.is/statistics/business-sectors/agriculture/farm-structure-survey/>

Statistics Iceland. 2011. *Farm Structure Survey 2010, Survey on agricultural production methods 2010*. National Methodological Report, Eurostat. (also available at http://www.fao.org/fileadmin/templates/ess/ess_test_folder/World_Census_Agriculture/Country_info_2010/Reports/Methodology_4/ISL_ENG_MET_2010.pdf).

14. CONTACT

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³ The following administrative data sources were used for the collection of characteristics not otherwise collected in the AC, or for imputation and validation purposes: (i) Registers Iceland; (ii) Agricultural Tax Returns; (iii) VAT Returns; (iv) Land Register; (v) Livestock Surveillance Reports; (vi) Pay-as-you-earn Register; (vii) Beintfrayli.is, a web-based, centralized marketing network for farms; and (viii) data provided by Vottunarfóðun Tún, an independent conformity assessment body specializing in the inspection and certification of sustainable practices in agriculture, fisheries and related processing and trading activities.

⁴ Information on "Main purpose of production of the holding" and "Irrigation" was not collected.

⁵ The tables are available at: https://px.hagstofa.is/pxen/pxweb/en/Atvinnuvegir/Atvinnuvegir__landbunadur__landbrannsokn.

⁶ The Statistical Series are available at: https://hagstofan.is/3.amazonaws.com/media/public/054fde13-26b9-4a3f-8b7b-5b352f736630/pub_doc_4FmDeoW.pdf

ICELAND – AGRICULTURAL CENSUS 2010 – MAIN RESULTS¹

NUMBER OF HOLDINGS AND AREA, BY LEGAL STATUS		
	Holdings	Area (ha)
Total	2 590	2 560 050
Civil persons	2 240	2 218 230
An individual (sole holder holdings) ²	2 190	2 157 870
Two or more individuals (group holdings)	50	60 360
Juridical persons (legal entities)	360	341 810

LAND TENURE		
	Holdings	UAA (ha)
Total	2 590	1 595 670
Legal ownership and owner-like possession (owned land)	2 340	1 229 430
Rented from others (land rented)	800	161 130
Other form of tenure (shared farming or other modes)	450	205 110

DISTRIBUTION OF UAA, BY LAND SIZE CLASSES		
	Holdings	UAA (ha)
Total	2 590	1 595 670
Holdings without UAA	30	
Holdings with UAA	2 560	1 595 670
Less than 2 ha	50	30
2–4,99 ha	20	50
5–9,99 ha	20	110
10–19,99 ha	30	430
20–29,99 ha	40	970
30–49,99 ha	90	3 400
50–99,99 ha	230	16 770
100 ha and over	2 090	1 573 920

LAND USE		
	Holdings	Area (ha)
Total	2 590	2 560 050
UAA	2 560	1 595 670
Arable land	1 960	34 000
Land temporarily fallow	210	1 220
Land under permanent crops	40	60
Permanent meadows and pastures	2 480	1 561 620
Other land	1 740	964 380
Wooded area	690	25 100
Unutilised agricultural land and other areas	1 460	939 280

MANAGERS BY SEX ³		
	Number	UAA operated (ha)
Total	2 590	1 595 670
Male	2 190	1 377 900
Female	400	217 770

MEMBERS OF HOLDER'S HOUSEHOLD, BY SEX ⁴	
	Number
Total engaged in agricultural activities on the holding	1 930
Male	790
Female	1 140

LABOUR FORCE OF THE HOLDING	
	Number
Total	5 750
Male	3 710
Female	2 050
Family labour force	4 020
Male	2 580
Female	1 450
Regular non-family labour force	1 730
Male	1 130
Female	600

MANAGERS BY SEX AND AGE ³	
	Number
Total	2 590
Male	2 190
Female	400
Less than 35 years	140
Male	100
Female	40
35–44 years	420
Male	350
Female	70
45–54 years	830
Male	700
Female	130
55–64 years	790
Male	690
Female	110
65 years and over	410
Male	360
Female	50

LIVESTOCK		
	Holdings	Head
Total holdings with livestock	2 490	
Cattle	910	74 880
Sheep	1 990	463 380
Goats	60	1 020
Pigs/swine	20	40 870
Equines (Equidae)	1 850	54 700
Poultry (1 000 head)	n.a	n.a
Broilers	30	320
Laying hens	340	200
Others	80	20
Holdings with other livestock	90	

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.