

## 1. HISTORICAL OUTLINE

Switzerland has a long tradition of conducting censuses in the area of agriculture. From 1955, the agricultural census, conducted every five years, was the main source of information. A turning point came in 1966, with the introduction of farm surveys based on administrative sources. Switzerland has a yearly census for the main agricultural topics like farmland, livestock and labour force. The main data source is the declaration for direct payments for farmers. The 2010 Agricultural Census (AC) was carried out together with a thematic survey (on holdings' OGA, the structure of the labour force and characteristics related to agricultural production methods) and the SAPM.

## 2. LEGAL BASIS AND ORGANIZATION

### *Legal framework*

The legal basis of the AC 2010 includes the following:

- the Federal Statistics Act (FStatA) of 9 October 1992 with Regulations;
- Federal Law of 29 April 1998 on Agriculture (Agriculture Act, AgricA);
- the Federal Act on Data Protection (FADP) of 19 June 1992;
- the Ordinance on the Evaluation and Sustainability of Agriculture of 7 December 1998;
- the Ordinance on Agricultural Terminology and Recognition of Types of Farming;
- the Ordinance on Information Systems in the Field of Agriculture of 23 October 2013; and
- the EU legislation relevant for implementing the FSS 2010

### *Institutional framework and international collaboration*

The census is a joint effort of the Federal Office for Agriculture (FOAG) and the Federal Statistical Office (FSO). The FSO and the cantonal offices for agriculture made a key contribution by making their administrative data sources available for census purposes. Throughout the survey, the FSO received assistance from the federal Statistical Support Group for the agricultural and food sectors, which is composed of representatives from: (i) research stakeholders; (ii) cantonal coordinators; (iii) the Federal Office for Agriculture; (iv) the Federal Office for the Environment; and (v) the Federal Food Safety and Veterinary Office.

### *Census staff*

For the logistics involved in the thematic survey conducted along with the AC, a production team was established (ten employees for six months) to provide information, process and check the data and carry out reminders by telephone.

## 3. REFERENCE DATE AND PERIOD

**Reference day:** 4 May 2010, for land, livestock, labour force, etc.

### *Reference periods:*

- the calendar year 2010, for management of the holding, structure of labour force, other gainful activities, renewable energies, irrigation, farm manure, pasture grazing, housing systems, etc.;
- winter 2009/2010, for items related to agricultural production methods.

## 4. ENUMERATION PERIOD

For the AC 2010, data on the farmer's declarations for direct payments were due in May 2010. The questionnaires for farmers that did not receive direct payments were sent out by post by the end of April 2010. The deadline for responding was the end of May 2010. Additional questionnaires for the sample survey on the SAPM, OGA and detailed information on the labour force were sent in October 2010. The information was due by the end of November 2010.

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

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

The **statistical unit** was the agricultural holding, defined as "an enterprise that: (i) is dedicated to growing crops or keeping livestock, or both; (ii) consists of one or several production units; (iii) is legally, economically, organizationally and financially independent; (iv) is independent of other holdings; (v) has its own operating income; and (vi) is operated all year round". It should also reach or exceed at least a certain size, according to the thresholds defined in section 7 below.

## 6. GEOGRAPHIC COVERAGE

The entire country was covered.

## 7. CUT-OFF THRESHOLD AND OTHER EXCLUSIONS

The AC 2010 covered the agricultural holdings that reached at least one of the following thresholds:

- 1 ha of UAA;
- 0.3 ha of permanent crops;
- 0.1 ha of greenhouses;
- eight breeding sows or 80 fattening pigs, or 300 head of poultry of any type.

## 8. METHODOLOGY

### **Methodological modality for conducting the census**

The AC 2010 consisted of:

- i. data collection based on administrative registers, for the agricultural holdings registered in the Agricultural Policy Information System (SIPA); and
- ii. traditional field data collection using census questionnaires, for holdings not registered in the SIPA.

A thematic survey (on the holdings' OGA, the structure of the labour force and the characteristics related to agricultural production methods) were conducted along with the AC.

### **Frame**

The population of the AC 2010 essentially comprised the holdings receiving subsidies (direct payments), which were approximately 58 000 holdings, and an additional 1 000 holdings that did not receive subsidies or that were not registered in the SIPA (mainly horticultural holdings).

### **Complete and/or sample enumeration methods**

The AC 2010 was based on complete enumeration of holdings. The thematic survey was based on sample data collection.

**Sample design (if sampling was used).** The thematic survey used a stratified random sampling.

### **Data collection methods**

The AC 2010 data were collected using administrative registers as a source of census data and the field data collection through: (i) paper questionnaires sent by post (mail-out/mail-back) and (ii) Internet-based questionnaires (CAWI).

### **Questionnaire(s)**

Different questionnaires/administrative forms were used for different groups of farms. Questionnaires were sent to the holdings not receiving direct payments. A questionnaire for the thematic survey (on OGA, labour force and agricultural production methods) was used for the holdings in the sample.

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

## 9. USE OF TECHNOLOGY

The new technology was used in the AC 2010 for: (i) field data collection (using CAWI); (ii) use of administrative registers as a source of census data; (iii) optical scanning of paper questionnaires; and (iv) online dissemination to provide access to census results.

## 10. DATA PROCESSING AND ARCHIVING

The paper census questionnaires were scanned using ICR. In addition, farmers were also offered an electronic application (eSurvey), allowing them to complete the questionnaire online.<sup>1</sup> All data collected were imported into a database to which the project production team had access, so that they could view the content of each questionnaire and contact the holdings concerned to request additional information if necessary in the event of inconsistency, error or missing information.

## 11. CENSUS DATA QUALITY

Paper questionnaires were checked visually<sup>2</sup> before scanning in order to correct the text and illegible figures. The online questionnaire incorporated checks on, for example, maximum values and other elements of control. For quality control, priority was given to direct contact with the holdings.

## 12. DATA DISSEMINATION

Data were published on the website of the Swiss Federal Statistical Office in June, 2012.

## 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>

**Swiss Federal Statistical Office (FSO).** 2012. *Farm Structure Survey 2010, Survey on agricultural production methods 2010 National Methodological Report*. Zurich, Switzerland. (also available at [https://ec.europa.eu/eurostat/documents/749240/749313/CH\\_NMR\\_FSS\\_2010.pdf/61e88ad7-311c-4191-95c0-2b7ce8461f01](https://ec.europa.eu/eurostat/documents/749240/749313/CH_NMR_FSS_2010.pdf/61e88ad7-311c-4191-95c0-2b7ce8461f01)).

## 14. CONTACT

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<sup>1</sup> With 18 percent of respondents completing the questionnaire electronically, this initial experience was considered a resounding success.

<sup>2</sup> The characteristics collected as primary statistics during the AC 2010 were subjected to plausibility check at the micro record level.

SWITZERLAND – AGRICULTURAL CENSUS 2010 – MAIN RESULTS<sup>1</sup>

NUMBER OF HOLDINGS AND AREA, BY LEGAL STATUS		
	Holdings	Area (ha)
<b>Total</b>	<b>59 070</b>	<b>1 163 190</b>
Civil persons	52 990	1 037 390
An individual (sole holder holdings) <sup>2</sup>	52 190	990 170
Two or more individuals (group holdings)	800	47 220
Juridical persons (legal entities)	6 070	127 290

LAND TENURE		
	Holdings	UAA (ha)
<b>Total</b>	<b>59 070</b>	<b>1 047 800</b>
Legal ownership and owner-like possession (owned land)	52 260	537 160
Rented from others (land rented)	47 810	494 380
Other form of tenure (shared farming or other modes)	3 700	16 330

DISTRIBUTION OF UAA, BY LAND SIZE CLASSES		
	Holdings	UAA (ha)
<b>Total</b>	<b>59 070</b>	<b>1 047 800</b>
Holdings without UAA	1 340	
Holdings with UAA	57 730	1 047 800
Less than 2 ha	3 840	3 980
2–4,99 ha	4 880	17 230
5–9,99 ha	9 330	70 570
10–19,99 ha	19 350	286 320
20–29,99 ha	11 400	278 000
30–49,99 ha	6 980	259 710
50–99,99 ha	1 830	115 320
100 ha and over	120	16 670

LAND USE		
	Holdings	Area (ha)
<b>Total</b>	<b>59 070</b>	<b>1 163 190</b>
UAA	57 720	1 047 800
Arable land	31 800	405 340
Land temporarily fallow	2 460	2 390
Land under permanent crops	9 740	22 630
Permanent meadows and pastures	54 890	619 650
Kitchen garden	3 890	180
Other land	39 480	115 390
Wooded area	39 210	114 820
Unutilised agricultural land and other areas	960	570

MANAGERS BY SEX <sup>3</sup>		
	Number	UAA operated (ha)
<b>Total</b>	<b>59 070</b>	<b>1 047 800</b>
Male	55 250	1 011 710
Female	3 820	36 160

MEMBERS OF HOLDER'S HOUSEHOLD, BY SEX <sup>4</sup>	
	Number
<b>Total engaged in agricultural activities on the holding</b>	<b>69 350</b>
Male	24 570
Female	44 780

LABOUR FORCE OF THE HOLDING	
	Number
<b>Total</b>	<b>166 370</b>
Male	103 450
Female	62 930
Family labour force	121 900
Male	73 320
Female	48 580
Regular non-family labour force	44 470
Male	30 130
Female	14 350

MANAGERS BY SEX AND AGE <sup>3</sup>	
	Number
<b>Total</b>	<b>59 070</b>
Male	55 250
Female	3 820
Less than 35 years	4 650
Male	4 380
Female	280
35–44 years	14 260
Male	13 430
Female	830
45–54 years	20 440
Male	19 290
Female	1 160
55–64 years	16 230
Male	15 010
Female	1 210
65 years and over	3 490
Male	3 150
Female	340

LIVESTOCK		
	Holdings	Head
<b>Total holdings with livestock</b>	<b>50 990</b>	
Cattle	41 100	1 591 750
Sheep	9 780	434 080
Goats	6 980	86 990
Pigs/swine	8 850	1 589 000
Equines (Equidae)	12 230	82 520
Poultry (1 000 head)	n.a.	n.a.
Broilers	960	5 580
Laying hens	12 750	3 360
Other	1 790	90
Other animals	n.a.	
Rabbits (breeding females)	3 280	100 110
Other	1 110	
Insects		
Bees (hives)	1 160	16 940

METHODS OF IRRIGATION		
	Holdings	Irrigable area (ha)
<b>Total holdings with irrigable area</b>	<b>8 030</b>	<b>34 520</b>
<b>Holdings with irrigated area<sup>5</sup></b>	<b>8 030</b>	<b>34 520</b>
Surface	770	n.a.
Sprinkler	8 020	n.a.
Localized irrigation (drop irrigation)	1 600	n.a.

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

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

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

<sup>4</sup> Data are presented without holders.

<sup>5</sup> Excluding kitchen garden and area under glass.