



LUXEMBOURG – AGRICULTURAL CENSUS 2020 – METADATA REVIEW

1. Historical outline

Luxembourg participated in the WCA programme in the years 1950, 1960, 1970, 1980, 1990, 1999/2000, 2010 and 2020. Although statistical information on agricultural land and livestock numbers has been collected since the first half of the nineteenth century, data on structural aspects were collected for the first time in the 1907 General Census of Activities. Since 1953, the agricultural census, undertaken annually on 15 May, has followed almost the same criteria and definitions. The data and metadata presented here refer to the Agricultural Census 2020 (AC).

2. Legal basis and organization

Legal framework

The legal basis for the AC 2020 was provided by:

- Law of 25 February 1980, organizing the Rural Economy Service (SER);
- Law of 10 July 2011, on the organization of the National Institute of Statistics and Economic Studies (STATEC) and amending the amended law of 22 June 1963 establishing the salary regime for State officials;
- Grand-ducal regulation of 12 March 2013, on the composition, organization, and operation of the Committee for Official Statistics;
- Regulation (EU) 2018/1091 of the European Parliament and of the Council of 18 July 2018 on integrated farm statistics and repealing Regulations (EC) No 1166/2008 and (EU) No 1337/2011; and
- Commission Implementing Regulation (EU) 2018/1874 of 29 November 2018 on the data to be provided for 2020 under Regulation (EU) 2018/1091 of the European Parliament and of the Council on integrated farm statistics and repealing Regulations (EC) No 1166/2008 and (EU) No 1337/2011, as regards the list of variables and their description.

Institutional framework and international collaboration

The SER conducted the AC 2020 and had the entire responsibility. The National Technology and Information Centre (CTIE) supported SER in programming the online questionnaire. The census was co-funded by the European Commission.

Census staff

The AC 2020 involved two full time employees of the census office. One additional employee of the CTIE programmed the online questionnaire.

3. Reference date and period

Reference day: 1 April 2020, for livestock and animal housing, and land variables.

Reference periods:

- from 1 September 2019 to 31 August 2020, for crops;
- from 2 April 2019 to 1 April 2020, for manure management, and labour force; and
- from 1 January 2018 to 31 December 2020, for rural development measures.

4. Enumeration period

The AC 2020 was mainly conducted from April to May 2020. Some responded after that period and clarification was also requested after this period where necessary. Census activities were not affected by the COVID-19 early 2020. The census data was mainly sourced from registers (the direct payment system), CAWI and post. The country did not work with collectors in the field. The data collection started

before the spread of the virus and was completed without any noteworthy incidents.

5. Scope of the census and definition of the statistical unit

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

The **statistical unit** was the agricultural holding, defined as a single unit, both technically and economically, that has a single management and that undertakes economic activities in agriculture in accordance with Regulation (EC) No 1893/2006 belonging to groups A.01.1, A.01.2, A.01.3, A.01.4, A.01.5 or to the "maintenance of agricultural land in good agricultural and environmental condition" of group A.01.6 within the economic territory of the Union, either as its primary or secondary activity, as it is stated in the Regulation (EU) No. 2018/1091 of the European Parliament and of the Council on integrated agricultural statistics. Regarding activities of class A.01.49, only the activities "Raising and breeding of semi-domesticated or other live animals" (except for raising of insects) and "Bee-keeping and production of honey and beeswax" were included.

Community-level data

There were no community-level data collected along with the census.

6. Census coverage

Geographic coverage

The AC 2020 covered the entire country.

Cut-off threshold and other exclusions

The AC 2020 considered the following thresholds for agricultural holdings: (i) three ha of UAA; (ii) two ha of arable land; (iii) 0.5 ha of potatoes (including seed potatoes) - outdoor, fresh vegetables (including melons), or strawberry; (iv) 0.2 ha of aromatic, medicinal and culinary plants, flowers and ornamental plants, seeds and seedlings, nurseries; (v) 0.3 ha of fruits, berries and nuts (excluding citrus fruits, grapes and strawberries), other permanent crops including other permanent crops for human consumption; (vi) 0.1 ha of vineyards; (vii) 0.01 ha of fresh vegetables (including melons) and strawberries - under glass or high accessible cover, flowers and ornamental plants - under glass or high accessible cover, or cultivated mushrooms; or (viii) 1.7 livestock units. The animal housing and manure management module covered all agricultural holdings; however, information is available for holdings with at least one bovine animal, pig, sheep, goat, or poultry.

7. Methodology

Methodological modality for conducting the census

The AC 2020 used the classical approach combined with the use of administrative registers. It comprised a core module and three thematic modules on labour force and other gainful activities, rural development, and animal housing and manure management. All census data related to the thematic module on rural development were collected directly from administrative registers, which were also used partially for the core module and the animal housing and manure management module.

Relation to other censuses

No relationship with other censuses.

Frames

The AC 2020 used a list frame based on the Integrated Administration and Control System (IACS) register, updated annually.

Complete or/and sample enumeration methods

The AC 2020 was conducted on complete enumeration basis.

Sample design

No sampling was used.

Data collection methods

In the AC 2020, data was collected through CAWI and post. The questionnaire was sent with the subsidy application package sent by the SER. Respondents were given the option of completing the questionnaire on paper or answering the questionnaire through an online application. The country can draw on a large number of administrative registers. The following were used to collect data such as bovine animals and rural development: IACS, bovine register, organic farmer register, rural development measures.

Questionnaire(s) and items covered

One questionnaire was used in the AC 2020. The questionnaire covered 17 out of 23 essential items recommended in the WCA 2020¹. Data for 4 essential items were collected from administrative sources².

8. Use of technology

CAWI was used for field data collection. Census data were collected directly from administrative registers to reduce the response burden. Census results were disseminated online.

9. Data processing

CAWI method ensured direct data capture, and manual data entry was used for paper questionnaires received by post. Supervisors carried out validation for data transmission through data format and completeness checks using STATA and VIFS flow (structure and content validation tool provided by Eurostat). Qualified statisticians implemented data corrections. Imputation was applied using random hot deck imputation and previous data for the same unit. STATA was used for data processing.

10. Quality assurance

Quality was assured and assessed using best practices and regular participation in peer review of the STATEC by the European Commission. There was no quality management system. Some actions were carried out to minimize measurement errors: pre-testing of questionnaire, explanatory notes and hot-line support for respondents. Non-response was minimized sending reminders to respondents, through follow-up interviews, and imputation.

11. Data and metadata archiving

Data is archived in a back-office hosted by CTIE as well as on the servers of the SER characterized by high security measures of the Luxemburgish government.

12. Data reconciliation

There was no reconciliation process of AC 2020 data.

13. Dissemination of census results and microdata

A first dataset was ready for use at the end of the reference year serving as input in preliminary economical agricultural accounts (approximately seven months after the end of the data collection period) although it was not published. The final results were published at the end of March 2022. Data is available online at <https://lustat.statec.lu/?lc=fr&pg=0&fs%5b0%5d=Th%C3%A8mes%2C1%7C%20Entreprises%23D%23%7CAgriculture%20et%20foresterie%23D2%23&fc=Th%C3%A8mes>.

Microdata is not available to users.

14. Data sources

¹ The following essential items were not covered: (i) 0302 Area of land actually irrigated: fully controlled and partially controlled irrigation; (ii) 0402 Area of temporary crops harvested (for each temporary crop type); (iii) 0406 Area of productive and non-productive permanent crops in compact plantations (for each permanent crop type); (iv) 0407 Number of permanent crop trees in scattered plantings (for each tree crop); (v) 0601 Use of agricultural pesticides; and (vi) 1201 Presence of aquaculture on the holding.

² The following essential items were covered by administrative sources: (i) 0107 Main purpose of production of the holding; (ii) 0201 Total area of holding; (iii) 0202 Area of holding according to land use types; and (iv) 0203 Area of holding according to land tenure types.

Eurostat. 2022. *Integrated Farm Statistics - National quality reports 2020: Luxembourg* [online]. Luxembourg. [Cited 26 October 2022]. https://ec.europa.eu/eurostat/cache/metadata/en/ef_simsif_lu.htm

15. Contact

Rural Economy Service.

Division of agricultural statistics, agricultural markets, and external relations.

Address: BP 2102, L-1021 Luxembourg

Telephone: (+352) 2478 2500

E-mail: info@ma.public.lu

Website: <https://agriculture.public.lu/de.html>