



PORTUGAL – Agricultural Census 2019 – Metadata review

1. Historical outline

The first reference to an exhaustive, systematic and organized 'survey' of statistical data on Portuguese agriculture dates back to 1934, with the 'Arrolamento Geral de Gados e Animais de Capoeira', which was repeated in 1940 and 1972. Since the 1950s, Statistics Portugal (INE) has been carrying out uninterrupted censuses of agriculture for the Mainland every ten years, and since 1989 for the whole country. This was followed by the general agricultural censuses carried out in 1999 and 2009. The metadata and data presented here refer to the Agricultural Census 2019 (AC 2019).

2. Legal basis and organization

Legal framework

The AC 2019 legislation consisted of:

- Regulation (EU) 2018/1091 of the European Parliament and of the Council of 18 July 2018 on integrated statistics on agricultural holdings and repealing Regulations (EC) No. 1166/2008 and (EU) No. 1337/2011.
- 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 statistics on agricultural holdings and repealing Regulations (EC) No 1166/2008 and (EU) No 1337/2011, as regards the list of variables and their description.
- The collection, processing and dissemination of statistical data were done in accordance with the provisions of Law 22/2008 of 13 May (National Statistical System/SEN Law), namely Article 6, which establishes the application of the principle of statistical confidentiality to all information that enables to individualize statistical units as well as the manuals implementing this principle by the Statistical Authority.

Institutional framework and international collaboration

Statistics Portugal was the entity responsible for carrying out the AC in cooperation with the Planning, Policy and general administration office, which is responsible for coordinating the production of statistical information within the Ministry of Agriculture, Forestry and Rural Development.

Census staff

A total of 1 600 technicians, of whom 238 were hired for a fixed-term contract and 1 300 providers of services (interviewers), in addition to Statistics Portugal staff with supervisory functions.

3. Reference date and period

Reference day: 1 September 2019, for inventory items, such as livestock numbers

Reference period:

- the crop year 2018/2019 (from 1 November 2018 to 31 October 2019), for area and labour force characteristics;
- the last 12 months, for animal grazing, animal housing, manure application and storage, etc.; and
- the last three years, for irrigated area, landscape features and support for rural development.

4. Enumeration period

The census enumeration was conceded to be carried out from 25 October 2019 to 31 May 2020. However, following the suspension of face-to-face data collection on 13 March as a result of the COVID-19 pandemic, Statistics Portugal decided to carry out an extended test of the AC 2019 data collection by telephone to assess its feasibility. The test ran from 1-14 April.

At the beginning of June, it was possible to restart the data collection by face-to-face interviewing, coexisting with telephone interviews, and Statistics Portugal postponed data collection until the end of November.

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

The **census scope** covered agricultural 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. Regarding activities of class A.01.49, only the activities "Raising and breeding of semi-domesticated or other live animals" (with the exception of raising of insects) and "Bee-keeping and production of honey and beeswax" are included.

Community-level data

Not applicable

6. Census coverage

Geographic coverage

The AC 2019 covered the entire country, the Mainland and the Autonomous Regions of the Azores and Madeira.

Cut-off threshold and other exclusions

A threshold of 1 ha of UAA for the Mainland was applied by the country; however, the holdings had to fulfil a minimum area (or production) for certain specific crops or the existence – on the day of the interviewer's visit, or production in the reference year – of livestock above the established threshold. For the Autonomous Regions, lower thresholds were applied: the minimum UAA had to be 0.1 ha.

7. Methodology

Methodological modality for conducting the census

The AC was composed of a core module and three thematic modules on labour force and other gainful activities, rural development, and animal housing and manure management. However, the classical approach (one-off complete enumeration) was used in the AC 2019, even for the thematic modules.

Relation to other censuses

Not applicable

Frames

In order to support the fieldwork of the AC 2019, a list of producers was created, resulting from the process of crossing the Farm Base (BEA), based on the AC 2009, with information from administrative sources.

Complete or/and sample enumeration methods

The AC 2019 was a complete enumeration of all agricultural holdings.

Sample design (if sampling was used)

Not applicable

Data collection methods

The data collection of the AC 2019 was carried out, in person, by an interviewer using PAPI method. Because of COVID-19, it was also introduced the phone interview mode.

Questionnaire(s) and items covered

Three different questionnaires were designed, one for the Mainland and one for each Autonomous Region (Azores and Madeira). All modules were combined in a single questionnaire. The census covered 21 items out of the 23 essential items¹ recommended in the WCA 2020.

8. Use of technology

Online data dissemination was used to release census results. Customized software application to support the agricultural survey system of Statistics Portugal (SAGR) supplied instantaneous feedback to the staff member using a laptop to record data electronically regarding the information that was being recorded. The interviewers recorded the data collected using their laptops at home.

9. Data processing

In the AC 2019, interviewers recorded the data collected with a paper questionnaire using laptops at home. During the data collection phase, validations, calculation of totalizers, selections and some analysis were performed, at the national or regional level, using the software application SAGR - Apache Tomcat Java Server Application on Oracle database. Errors were viewed online or through listings. Data recorded were analysed by field chain staff to detect possible inconsistencies, incorrectly implemented concepts, or misalignments with local/regional circumstances, using the Error Report, the Validate function, the Selection module and the Comparison with other sources module. Questionnaires with problems not solved in office, were returned to the field. At the regional and central offices, additional quality checks were carried out for aggregated data. In addition, telephone contact was made to five percent of the interviews to verify the veracity of the interview.

10. Quality assurance

Statistics Portugal has a quality management system in place following, whenever convenient, the principles of the ISO 9001:2015 Standard, and having adopted a systematic and process-oriented approach in accordance with the Plan-Do-Check-Act cycle. This system comprises a wide range of instruments, methods, and activities covering process documentation, performance assessment, and user relations. Statistics Portugal is part of the European Statistical System (ESS) and has adopted the European Statistics Code of Practice, since its first edition (2005), as firm guidance for the success of its mission. Since its last revision (November 2017), the Code comprises the Quality Declaration of the European Statistical System, 16 Principles and 84 indicators of best practices and standards for each of the Principles, defining the European benchmarks for the statistical activity, covering the institutional environment, statistical processes, and statistical outputs. For further details on quality assurance at Statistics Portugal, please see the following link: https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_qualidade&xlang=en

11. Data and metadata archiving

Metadata archiving and data storage were in place. Data was stored in an Oracle database managed by Statistics Portugal Datawarehouse.

12. Data reconciliation

The IT tool² allowed the comparison of the data collected in the AC 2019 with other data sources, besides allowing the analysis of individual data and aggregated data. The results of the agricultural census were also compared with the results of the structural survey data series (beginning of the 1989 data series).

13. Dissemination of census results and microdata

Statistics Portugal published the final results in March 2021. The information is available on the Statistics Portugal website as a record in their database and as a publication. The available information includes methodology and other metadata of value to data users. In the case of microdata file, the maximum disaggregation of results is associated with the statistical observation unit (farm holding). Microdata will be made available under specific conditions and upon request.

¹ The following items were not covered: (i) 0107 Main purpose of production of the holding; and (ii) 0601 Use of agricultural pesticides.

² The IT tool used is business object.

14. Data sources

Instituto Nacional de Estatística/Statistics Portugal. 2011. 2009 Agricultural Census, National Methodological Report. Eurostat. (also available at https://ra2019.ine.pt/scripts/ra2019_css_js/comunicacao/var/RA2019_MI_CONTINENTE.pdf)

15. Contact

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