



MALTA – CENSUS OF AGRICULTURE 2020 – METADATA REVIEW

1. Historical outline

Censuses of agriculture (CA) were carried out in Malta every year between 1949 and 1954. The next CAs were carried out in 1956, 1960, 1968/1969, 1979, 1982/1983, 2001, 2010 and 2020. The data and metadata presented here refer to the CA 2020.

2. Legal basis and organization

Legal framework

The legal basis for the CA 2020 was provided by:

- Malta Statistics Authority Act No. XXIV of 1 March 2001, that places full responsibility on the National Statistics Office (NSO) to carry out any statistical survey, to produce official statistics, and collect data from administrative sources;
- Agreement between the NSO and the Ministry for Agriculture, Fisheries, and Animal rights (MAFA) of July 2020, to enable sharing of the microdata collected in the Census by NSO of those agricultural holdings that gave their consent;
- 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 unit of Environment, Agriculture and Fisheries Statistics (EAF) of the NSO in collaboration with the Agriculture Directorate within the MAFA conducted the CA 2020.

Census staff

The CA 2020 involved 74 census staff, of which, 70 enumerators, three supervisors and one coordinator.

3. Reference date and period

Reference day: 30 September 2020, for livestock, animal housing, and machinery.

Reference periods:

- from 1 September 2019 to 31 August 2020, for land variables, permanent crops, irrigation and soil management practices, labour force;
- from 1 October 2019 to 30 September 2020, for manure management; and
- from 1 January 2018 to 31 December 2020, for rural development measures.

4. Enumeration period

The CA 2020 was conducted from October 2020 to February 2021. The NSO planned to start data collection in July 2020 using CAPI for the first time. However, the date was postponed to October and mode of collection revised due to the disruptions and measures imposed because of COVID-19. By mid-November, 20 percent of the data had been collected mainly using CATI, but also some face-to-face interviews in the case of large farms. Although the initial postponement caused further delays to the following stages, the NSO transmitted data to Eurostat in March 2022, as planned.

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 CA 2020 covered the entire country

Cut-off threshold and other exclusions

Holdings with less than 0.056 ha of Utilized Agricultural Area (UAA) were not included in the CA 2020. The animal housing and manure management module covered agricultural holdings with at least one cattle, pig, sheep, goat, or poultry.

7. Methodology

Methodological modality for conducting the census

The CA 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.

Relation to other censuses

No relationship with other censuses.

Frames

The CA 2020 used the Statistical Farm Register, a list frame updated annually. Prior to the census, all available registers from NSO and MAFA were merged, following this process, the updated register was merged for cross-checks with the NSO population database to have the latest contact telephone number of the farmers.

Complete or/and sample enumeration methods

The CA 2020 was conducted on complete enumeration basis.

Sample design

No sampling was used.

Data collection methods

In the CA 2020, data was collected through CAPI and CATI methods. A letter with an information brochure containing further details about the census and a list of some documents that needed to be prepared in advance for the interview was sent to the farmers in advance. The following administrative sources were used to acquire information on agricultural land, livestock, and rural development: (i) organic farm register; (ii) rural development measures; and (iii) Integrated Administration and Control System (IACS).

Questionnaire(s) and items covered

There was one questionnaire in the CA 2020. The questionnaire covered 19 out of 23 essential items recommended in the WCA 2020¹.

8. Use of technology

CAPI and CATI were used for field data collection. Census results were disseminated online.

9. Data processing

CAPI and CATI methods ensured direct data capture. Supervisors and staff from the EAF Unit within the NSO carried out the validation process for data transmission through data format and completeness checks, and comparisons with other domains in agricultural statistics, using Microsoft Access, Excel, and SPSS. A thorough check of completed questionnaires was an integral part of the processing system. Data control started at the collection stage including a number of in-built validations directly in the system. Once the interviewers submitted the questionnaires through the system, a number of validations were run on the data and, in cases where information was not clear, the interviewer was contacted again to verify the data given by the farmer. In such instances, the interviewer could update the data and resend the respective questionnaire. When the data collected from the census resulted in discrepancies, the respondent was contacted again in order to validate the data provided. Interviewers were able to make corrections to the questionnaire directly on the tablet and insert a comment explaining the correction, after which the interviewer sent the questionnaire again to the office. Besides the interviewers, only the census co-ordinator was able to do corrections to the data submitted by the interviewer during the validation stage. No imputation was applied.

10. Quality assurance

The NSO ensures the accuracy of data released to the public and prepares clear methodological notes which explain the processes involved in the collection and production of official statistics. The NSO has developed an internal Quality Management Framework (QMF) which is built on common requirements of the ESS Code of Practice (ESS CoP). A document was prepared to include a set of general quality guidelines spanning over all statistical domains. Assuring methodological soundness is an integral part of the QMF, nonetheless, the document spans also on other areas related to institutional aspects. Every five to seven years, the NSO participates in a peer review exercise, based on a standard self-assessment questionnaire, through which a team of experts assesses its operations' compliance with the ESS CoP principles. Peer Reviews are in fact part of the European Statistical System (ESS) strategy to implement the ESS CoP. Several actions were carried out to minimize non-sampling errors in the CA 2020: pre-testing questionnaire, explanatory notes and handbooks for enumerators and respondents, and training of enumerators to minimize measurement errors; follow-up interviews and reminders to minimize non-response.

11. Data and metadata archiving

Microdata was disseminated using EU methodology, where categories were merged to avoid disclosure. Data was stored on the servers and will be archived for future use in view of the IFS 2023 and 2026.

12. Data reconciliation

There was no reconciliation process of CA 2020 data.

13. Dissemination of census results and microdata

The first results were published via a news release on 1 February 2022 and are available at the region level at https://nso.gov.mt/en/News_Releases/View_by_Unit/Unit_B3/Environment_Energy_Transport_and_Agriculture_Statistics/Pages/Census-of-Agriculture.aspx. The final report was published on 2 December 2022 and is available at the region level at <https://nso.gov.mt/en/nso/Media/Salient-Points-of-Publications/Pages/2022/Census-of-Agriculture-Report-2020.aspx>. Information to

¹ The following essential items were not covered: (i) 0202 Area of holding according to land use types; (ii) 0601 Use of agricultural pesticides; (iii) 0801 Household size by sex and age groups; and (iv) 1201 Presence of aquaculture on the holding.

access the microdata is available on the NSO's website at <https://nso.gov.mt/en/Services/Microdata/Pages/Access-to-Microdata.aspx>

14. Data sources

Eurostat. 2022. *Integrated Farm Statistics - National quality reports 2020: Malta* [online]. Luxembourg. [Cited 28 October 2022]. https://ec.europa.eu/eurostat/cache/metadata/en/ef_simsif_mt.htm

National Statistics Office (NSO). 2022. Structure of agricultural holdings. In: *NSO* [online]. Valletta, Malta. [Cited 28 October 2022]. https://nsocms.gov.mt/en/nso/Sources_and_Methods/Unit_B3/Environment_Energy_Transport_and_Agriculture_Statistics/Pages/Structure_of_agricultural_holdings.aspx

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