

NORWAY – AGRICULTURAL CENSUS 2020 – METADATA REVIEW

1. Historical outline

The first agricultural census (AC) was carried out in Norway in conjunction with the census of population (CP) in 1835. Separate censuses devoted exclusively to agriculture were conducted in 1907, 1918, 1929, 1939, 1949, 1959, 1969, 1979, 1989, 1999, 2010 and the latest in 2020. The metadata review and data presented here refer to the data from this census.

2. Legal basis and organization

Legal framework

There is no separate national legislation concerning the AC. Information is collected according to the Statistics Act No. 54 of 16 June 1989. Although a new version of The Statistics Act was passed by the Storting (Norwegian Parliament) on 21 June 2019, the AC 2020 was not affected by the new version. The AC 2020 was organized in line with the following EU regulations:

- 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 AC 2020 was carried out by the Division for property, housing, spatial and agricultural statistics from Statistics Norway (SN). A steering committee was appointed for the project composed of the director of the Department for business and environmental statistics and the head of the Division for housing, property, spatial and agricultural statistics, as well as staff from the Division for Business Surveys, the Division for Methods, and the Division for product maintenance and development. In addition, advice was provided by the Advisory Committee for Agricultural and Forestry Statistics. The members of this committee represented the most important users of agricultural statistics.

Census staff

Two persons were recruited to the census project, and an additional six persons from the Division for housing, property, spatial and agricultural statistics were engaged in various tasks and stages. In addition to this, staff from eight different Divisions in SN were involved.

3. Reference date and period

Reference day: 1 October 2020, for livestock and animal housing and for all other variables.

Reference periods:

- from 1 January to 31 December 2020, for use land, irrigation and soil management practices, manure management; and
- from 1 October 2019 to 30 September 2020 for labour force, forestry, other gainful activities,

4. Enumeration period

The enumeration period for the AC was between October 2020 and January 2021, and it was reported a response rate of 98.4 percent. The AC were not compromised by the COVID-19 outbreak. Most of the employees (95 percent) of SN teleworked during this period.

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 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. 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. Related to Regulation (EU) 2018/1091, article 2 (a), there were three minor differences between the national definition and the EU definition of the holding. The Norwegian definition excludes cultivation of Christmas trees (NACE, class 01.29); holdings exclusively maintaining agricultural land in good agricultural and environmental condition (NACE, class 01.61); and holdings exclusively raising animals for the production of fur.

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

For the AC 2020, the country adopted the following thresholds: (i) two ha of UAA; (ii) 0.2 ha of permanent outdoor crops together: fruit species of temperate climate zones, berry species, fresh vegetables - outdoor, strawberries - outdoor; (iii) 0.1 ha of nurseries - outdoor; (iv) 0.03 ha of fresh vegetables (including melons) and strawberries, flowers and ornamental plant - under glass or high accessible cover; (v) ten live bovine animals or goats breeding females; (vi) five breeding sows, live weight 50 kg or over; (vii) 50 piglets, live weight under 20 kg and other pigs; (viii) 20 sheep, breeding females and other; (ix) 1 000 laying hens and/or pullets intended for laying hens or broilers and live poultry excluding chicken (species); or (x) 25 bees (hives). Thresholds were raised compared to Regulation (EU) 2018/1091.

7. Methodology

Methodological modality for conducting the census

The AC was composed of a core module and two thematic modules on labour force and other gainful activities, and animal housing and manure management. However, the classical approach (one-off complete enumeration) was used in the AC 2020, even for the thematic modules. Some census data in the core module were collected directly from administrative registers. The rural development module was not applicable to the country.

Relation to other censuses

No relationship with other censuses.

Frames

The population of agricultural holdings was the list frame used in the AC 2020. The register is updated annually. The final data of the System of Governmental Production Subsidies and data from other administrative registers were used to establish the final version of the population of agricultural holdings.

Complete or/and sample enumeration methods

The AC 2020 was a complete enumeration of all agricultural holdings.

Sample design

No sampling was used.

Data collection methods

In the AC 2020, data was collected using the CAWI method. E-questionnaires were forwarded to 40 000 respondents. The questionnaire worked well even for the module on animal housing and manure management. Cross-checking with administrative sources was made, for example for the most important holdings declaring animals. Statistics Norway used the following administrative registers for data collection: System of Governmental Production Subsidies (PROS) /Norwegian IACS, Central Register of Establishments and Enterprises, Organic farming register, Bovine register, Register of Slaughtered Animals, Cadastre, National Land Cover and Resource Map System, National Education Database, Register of deliveries of grains and oilseeds, and A-ordning (joint digital reporting from employers on employment per person)

Questionnaire(s) and items covered

One questionnaire was used for data collection. The census questionnaire and administrative sources covered 14 out of 23 core items recommended in the WCA 2020¹.

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

Direct data capture was ensured by the CAWI method. Staff from central department validate data through data format checks, completeness checks, routing checks, range checks and relational checks, using SAS. For item non-response and to minimize processing errors, staff from SN carried out imputation by means of a general data editing software application called DYNAREV, developed in SN, using deductive imputation, ratio imputation and nearest neighbour imputation.

10. Quality assurance

Although there is no quality management system, some actions were carried out to minimize sampling errors in the AC 2020: various checks to avoid under-coverage errors; pre-testing questionnaire, explanatory notes or handbooks for respondents, and on-line FAQ or hot-line support for respondents to minimize measurement errors; and follow-up interviews, reminders, legal actions and imputation to minimize non-response errors.

11. Data and metadata archiving

National metadata was published in 2022 and is available at <https://www.ssb.no/en/jord-skog-jakt-og-fiskeri/landbrukstellinger/statistikk/landbruksteljing>. Final data was published in October and November 2021 in the Statistics Bank of SN and is available at <https://www.ssb.no/en/statbank/list/landt>.

12. Data reconciliation

There was no reconciliation process of AC 2020 data.

13. Dissemination of census results and microdata

Preliminary results were published on 17 March 2021 based on a sample of 7 850 holdings selected from the holdings covered by the census. Final results were published in on 19 October 2021 and are available at <https://www.ssb.no/en/statbank/list/landt>. News releases were published during 2021 and 2022 and are available at <https://www.ssb.no/jord-skog-jakt-og-fiskeri/landbrukstellinger/statistikk/landbruksteljing/artikler>. The lowest geographical level for which data is in public domain is municipality. Microdata is available on request to SN and by using EU methodology for microdata dissemination.

14. Data sources

Eurostat. 2024. *Integrated Farm Statistics - National quality reports 2020: Norway* [online]. Luxembourg. [Cited 19 February 2024]. https://ec.europa.eu/eurostat/cache/metadata/en/ef_simsif_no.htm.

15. Contact

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¹ The following essential items were not covered: (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; (iv) 0203 Area of holding according to land tenure types; (v) 0402 Area of temporary crops harvested (for each temporary crop type); (vi) 0406 Area of productive and non-productive permanent crops in compact plantations (for each permanent crop type); (vii) 0407 Number of permanent crop trees in scattered plantings (for each tree crop); (viii) 0601 Use of agricultural pesticides; and (ix) 0801 Household size by sex and age groups. The following items were derived from administrative sources: (i) 0101 Identification and location of agricultural holding; (ii) 0103 Legal status of agricultural holder (type of holder); (iii) 0104 Sex of agricultural holder; (iv) 0105 Age of agricultural holder; (v) 0502 Number of animals; and (vi) 0503 Number of female breeding animals.