

Spain - Agricultural Census 2020

National Statistical Institute of Spain (INE, Instituto Nacional de Estadística)

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Identification

SURVEY ID NUMBER
ESP_2020_CA_v01_M_v01_A_ESS

TITLE
Agricultural Census 2020

ABBREVIATION OR ACRONYM
CA 2020

TRANSLATED TITLE
Censo Agrario 2020

COUNTRY

Name	Country code
Spain	ESP

STUDY TYPE
Agricultural Census [ag/census]

SERIES INFORMATION
The first Agricultural Census (CA, Censo Agrario) in Spain was carried out in 1962 and, since then, CAs were conducted in 1972, 1982, 1989, 1999, and 2009. The CA 2020 was the latest census conducted in the country.

ABSTRACT
The Agricultural Census is a census of all agricultural holdings that takes place every ten years. It is part of an EU-wide programme of agricultural censuses carried out in 2020 under EU Regulation 2018/1091 on integrated farm statistics and conducted under the World Programme for the Census of Agriculture (<https://www.fao.org/world-census-agriculture/en/>). The objective of the Agricultural Census 2020 is to collect useful information on structural characteristics of agricultural holdings for the purposes of monitoring, evaluating, and revising the common agricultural policy.

KIND OF DATA
Census/enumeration data [cen]

UNIT OF ANALYSIS
Agricultural holdings

Scope

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

The questionnaire collected information on:

1. Identification and general characteristics
2. Land use
3. Crops
4. Livestock and Poultry
5. Irrigation
6. Sustainable agricultural practices

KEYWORDS

Keyword
Structure of Agriculture
Land use
Crops

Livestock and Poultry

Coverage

GEOGRAPHIC COVERAGE

The Agricultural Census 2020 covered the entire country.

UNIVERSE

The statistical unit for the Agricultural Census 2020 was the agricultural holding, defined both technically and economically, which has a single management, and which undertakes agricultural activities listed in annex I of the European Parliament and Council Regulation No. 2018/1091 within the economic territory of the EU, as either its primary or secondary activity.

For the CA 2020, the agricultural holdings that met at least one of the following thresholds were included:

- 5 ha of utilized agricultural area (UAA)
- 2 ha of arable land
- 0.5 ha of UAA used for fresh vegetables, strawberries, and potatoes
- 0.3 ha of UAA used for fruit trees, berries, nut trees, citrus fruit trees, olive trees, other permanent crops excluding nurseries and vineyards
- 0.2 ha of UAA used for aromatic, medicinal and culinary plants, flowers and ornamental plants, seeds and seedlings, and nurseries
- 0.1 ha of UAA used for vineyards
- 100 m² of UAA used for greenhouses and cultivated mushrooms
- 1.7 livestock units

With these thresholds, 98 percent of the total utilized agricultural area (excluding kitchen gardens) and 98 percent of the livestock units of national total were covered.

However, for the NUTs of Galicia, these thresholds were lowered and an extended frame was formed and studied by means of a sample.

Producers and sponsors

PRIMARY INVESTIGATORS

Name
National Statistical Institute of Spain (INE, Instituto Nacional de Estadística)

PRODUCERS

Name	Affiliation
Ministry of Agriculture, Fisheries and Food (MAPA, Ministerio de Agricultura, Pesca y Alimentación)	Government of Spain
Basque Statistics Institute (EUSTAT, Instituto Vasco de Estadística)	Basque Autonomous Community

Sampling

SAMPLING PROCEDURE

The CA was composed of a core module and three thematic modules on labor force and other gainful activities, rural development, and animal housing and manure management.

The frame was obtained from the Register or Census Directory maintained by Spain's National Institute of Statistics (INE). All the reporting units of this register were considered to be potential agricultural holdings. The Register was based on the use and integration of data from three key sources:

- Integrated Administrative Control System Register
- Spanish Agency for Tax Administration

- Other administrative and INE statistical sources

The CA 2020 was conducted using the combination of complete and sample enumeration, and some data was also collected from administrative records. Data for the core module was conducted using complete enumeration. Whereas, data for the thematic modules on labor force and other gainful activities, and animal housing and manure management was conducted using sample enumeration. Direct collection has been carried out for information on the variables of the modules of labor force and other gainful activities, animal housing and manure management. For the information of the Rural Development module, the administrative registers of the rural development aids were used.

The Agricultural Census 2020 employed a stratified random sample using optimal allocation, distributing the sample across strata to improve precision. The sampling frame for the module of labor and other gainful activities was the pre-census directory formed by administrative sources referred mostly to 2019. For the module of animal housing and manure management, the sampling frame was a subset of the previous one, comprised only of those holdings that contain livestock head of cattle, goats, sheep, pigs or poultry. Approximately 0.1 percent of holdings per Autonomous Community (NUTS2) were included. Additional "take-all" holdings were including by using the Sigma Deviation Rule (Julien and Maranda, 1990) based on the variables Utilized Agricultural Area (UAA), Land Under Cultivation (LUC) and Livestock Units (LU). The procedure was carried out independently within each Autonomous Community and Two-Digit Technical-Economic Orientation (OTE2).

The sampling frame for the module of labor and other gainful activities was stratified by combining Autonomous Community, OTE2, and between 1 and 6 size groups, according to the characteristics of the distributions of the auxiliary variables and the number of holdings. The auxiliary variables used to define the size groups for agricultural OTE2 were UAA and LUC, whereas for the main livestock OTE2 were UAA and gross output (UG). For each of these variables, the size groups were initially created by applying the Cumulative Square Root of the Frequency Rule (Cochran, 1977).

The sampling frame for the module of animal housing and manure management was stratified by combining Autonomous Community, OTE2, and between 1 and 5 size groups, according to the distributions' characteristics of the auxiliary variable and the number of holdings. The auxiliary variable used to define the size groups was LU.

Annex V of Regulation 2018/1091 determined the precision requirements to be applied. Specifically, the core and module data shall be statistically representative for the relevant populations of agricultural holdings at:

- NUTS 2 level (Autonomous Community) for regions with at least 10 000 agricultural holdings in the relevant population
- NUTS 1 level for regions with at least 1000 agricultural holdings in the relevant population
- National Level if the above conditions are not met

For the module of labor and other gainful activities a maximum relative error of five percent was set to establish the sample size, while for module animal housing and manure management a 7.5 percent error was set. When a precision level for Autonomous Community was required, the agricultural and livestock characteristics considered relevant by the Regulation were those which fulfil the following conditions:

- for agricultural characteristics: those that represent 7.5 percent or more of the UAA of the Autonomous Community
- for livestock characteristics: those that represent 7.5 percent or more of the LU of the Autonomous Community and more than five percent of the national total

The samples were obtained by applying the Permanent Random Number technique with positive coordination to get maximum overlap between samples of the two modules.

Data collection

DATES OF DATA COLLECTION

Start	End
2020-10	2021-03

DATA COLLECTION MODE

Computer Assisted Web Interview [cawi], Computer Assisted Telephone Interview [cati]

DATA COLLECTION NOTES

The AC 2020 data were collected in two phases. In the first phase, data was collected using postal mail, CAWI and CATI methods from October 2020 to March 2021. In the second phase, a follow-up using CAPI was planned for holders that had not yet responded at the end of phase 1. However, due to the pandemic, the personal interview collection phase was cancelled. But an attempt was made to recontact five percent of informants for whom data was not collected.

INE has developed in recent years a multichannel collection system (IRIA) for the collection of economic and social surveys. To not influence ordinary data collection of surveys, a second specific IRIA system was implemented for the census. The tasks to be carried out prior to and during the census collection were: installation, design of the questionnaire for each collection channel, configuration and parameterization of the system, administration, monitoring, exploitation of data and attention to users.

****QUALITY ASSURANCE****

For quality assurance purposes, Member States shall transmit a quality report describing the statistical process, and in particular:

- metadata describing the methodology used and how technical specifications were achieved by reference to those laid down by the Regulation
- information on compliance with the minimum requirements for the sampling frames used, including their development and update, as required by European Regulation

Questionnaires

QUESTIONNAIRES

Two types of questionnaires were used for data collection of the Agricultural Census 2020: one for the AC, and one for supplementary information on labor force, other gainful activities, animal housing and manure management.

The CA 2020 questionnaire covered 20 out of 23 essential items recommended in the WCA 2020. The items were collected both by administrative register (70 percent of farms) and by direct collection through the questionnaire (the remaining 30 percent). The items collected by administrative register were the same as those collected by direct questionnaire.

Data Processing

DATA EDITING

Editing processes were established to ensure the consistency of the information. The execution of manual, semi-automatic and automatic editing tasks was foreseen. A customized interactive application was used for central data manual debugging. The design and the development parts of this interactive application was outsourced. Subsequently, other automatic editing processes were implemented in order to solve and correct inconsistencies.

The intermediate and final files of data collected directly or through administrative sources were analyzed. The units were recontacted, and the error lists were determined for further debugging or editing. Subsequently, data from administrative sources and those obtained by direct collection were integrated.

Once data editing was finalized, some processes to calculate aggregated variables and other information needed for the publication were initiated.

Access policy

CONTACTS

Name	Affiliation	URL
National Statistical Institute of Spain (INE, Instituto Nacional de Estadística)	Ministry of Economy, Trade, and Business (Ministerio de Economía, Comercio y Empresa)	Link

ACCESS CONDITIONS

The data request procedure and the data request form are available at "How to apply for microdata access?" at <https://ec.europa.eu/eurostat/web/microdata/farm-statistics>.

Metadata production

DDI DOCUMENT ID

DDI_ESP_2020_CA_v01_M_v01_A_ESS_FAO

PRODUCERS

Name	Abbreviation	Affiliation	Role
National Statistical Institute of Spain (Instituto Nacional de Estadística)	INE		Metadata producer
Statistics Division	ESS	Food and Agriculture Organization of the United Nations	Metadata adapted for FAM

Data Dictionary

Data file	Cases	Variables
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