

Brazil - Agricultural Census, 2006

Brazilian Institute of Geography and Statistics (IBGE)

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Overview

Identification

ID NUMBER

BRA_2006_AC_v01_EN_M_v01_A_OCS

Overview

ABSTRACT

The Census of Agriculture investigates information on agricultural establishments and agricultural activities developed inside them, including characteristics of the producers and establishments, economy and employment in the rural area, livestock, cropping and agribusiness. Its data collection unit is every production unit dedicated, either entirely or partially, to agricultural, forest or aquaculture activities, subordinated to a single administration – producer or administrator –, regardless of its size, legal nature or location, aiming at producing either for living or sales.

The first Census of Agriculture dates back to 1920, and it was conducted as part of the General Census. It did not take place in the 1930s due to reasons of political and institutional nature. From 1940 onward, the survey was decennial up to 1970 and quinquennial later on, taking place in the beginning of the years ending in 1 and 6 and relating to the years ending in 0 and 5. In the 1995-1996 Census of Agriculture, the information was related to the crop year (August 1995 to July 1996). In the 2006 Census of Agriculture, the reference for the data returned to be the calendar year. The 2006 edition was characterized both by the technological innovation introduced in the field operation, in which the paper questionnaire was replaced by the electronic questionnaire developed in Personal Digital Assistants - PDAs and by the methodological refinement, particularly concerning the redesign of its contents and incorporation of new concepts. That edition also implemented the National Address List for Statistical Purposes - Cnefe, which gathers the detailed description of the addresses of housing units and agricultural establishments, geographic coordinates of every housing unit and establishment (agricultural, religious, education, health and other) in the rural area, bringing subsidies for the planning of future IBGE surveys. The 2017 Census of Agriculture returned to reference the crop year – October 2016 to September 2017 –, though in a different period than that adopted in the 1995-1996 Census of Agriculture. New technologies were introduced in the 2017 survey to control the data collection, like: previous address list, use of satellite images in the PDAs to better locate the enumerator in relation to the terrain, and use of coordinates of the address and location where the questionnaire is open, which allowed a better coverage and assessment of the work.

The survey provides information on the total agricultural establishments; total area of those establishments; characteristics of the producers; characteristics of the establishments (use of electricity, agricultural practices, use of fertilization, use of agrottoxins, use of organic farming, land use, existence of water resources, existence of warehouses and silos, existence of tractors, machinery and agricultural implements, and vehicles, among other aspects); employed personnel; financial transactions; livestock (inventories and animal production); aquaculture and forestry (silviculture, forestry, floriculture, horticulture, permanent crops, temporary crops and rural agribusiness).

The periodicity of the survey is quinquennial, though the surveys in 1990, 1995, 2000 and 2005, 2010 and 2015 were not carried out due to budget restrictions from the government; the 1990 Census of Agriculture did not take place; the 1995 survey was carried out in 1996 together with the Population Counting; the 2000 survey did not take place; that of 2005 was carried out in 2007, together with the Population Counting once again; that of 2010 did not take place and that of 2015 was carried out in 2017. Its geographic coverage is national, with results disclosed for Brazil, Major Regions, Federation Units, Mesoregions, Microregions and Municipalities. The results of the 2006 Census of Agriculture, which has the calendar year as the reference period, are not strictly comparable with those from the 1995-1996 Census of Agriculture and 2017 Census of Agriculture, whose reference period is the crop year in both cases.

KIND OF DATA

Census/enumeration data [cen]

UNITS OF ANALYSIS

Households

Scope

NOTES

The scope of the study includes agriculture (including forestry), inputs, infrastructure and livestock.

TOPICS

Topic	Vocabulary	URI
Agriculture & Rural Development	FAO	
Forests & Forestry	FAO	
Food (production, crisis)	FAO	
Land (policy, resource management)	FAO	
Livestock	FAO	
Labor	FAO	

Coverage

GEOGRAPHIC COVERAGE

National coverage

UNIVERSE

The statistical unit was the agricultural holding, defined as any production unit dedicated wholly or partially to agricultural, forestry and aquaculture activities, subject to a single management, with the objective of producing for sale or subsistence, regardless of size, legal form (own, partnership, lease, etc.) or location (rural or urban). The agricultural holdings were classified according to the legal status of the producer as: individual holder, condominium, consortium or partnership; cooperative; incorporated or limited liability company; public utility institutions (church, NGO, hospital), or government.

Producers and Sponsors

PRIMARY INVESTIGATOR(S)

Name	Affiliation
Brazilian Institute of Geography and Statistics (IBGE)	

Metadata Production

METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Office of Chief Statistician	OCS	Food and Agriculture Organization	Adoption of metadata for FAM
Census team, Statistics Division	ESS	Food and Agriculture Organization	Metadata producer

DDI DOCUMENT VERSION

BRA_2006_AC_v01_EN_M_v01_A_OCS_v01

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Sampling

Sampling Procedure

(a) Frame

The 2000 Population and Housing Census and the cartographic documentation constituted the source of the AC 2006 frame. No list frames were available in digital media with georeferenced addresses of the holdings. Census coverage was ensured on the basis of the canvassing of the EAs by enumerators.

(b) Complete and/or sample enumeration methods

The AC 2006 was a complete enumeration operation of all agricultural holdings in the country.

Questionnaires

Overview

An electronic questionnaire was used for data collection on:

Total agricultural establishments

Total area of agricultural establishments

Total area of crops

Area of pastures

Area of woodlands

Total tractors

Implements

Machinery and vehicles

Characteristics of the establishment and of the producer

Total staff employed

Total cattle, buffalo, goats, Sheep, pigs, poultry (chickens, fowls, chickens and chicks)

Other birds (ducks, geese, teals, turkeys, quails, ostriches, partridges, pheasants and others)

Plant production

The AC 2006 covered all 16 items recommended by FAO under the WCA 2010.

Data Collection

Data Collection Dates

Start	End	Cycle
2007-04	2007-08	N/A

Data Collection Mode

Face-to-face [f2f]

Data Collection Notes

Data collection was performed through face-to-face interviews using Personal Digital Assistants (PDAs). Due to the use of PDAs, the data collection programme was structured to allow for gathering more details on specific production issues. The PDAs were programmed in a modular manner, to enable use of a detailed questionnaire on all holdings with more than:

- 50 head of cattle
- five cows for milk production
- 2 000 head of poultry
- permanent crops over 50 feet
- forest products over 500 feet

Questionnaires

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 Total area of crops
 Area of pastures
 Area of woodlands
 Total tractors
 Implements
 Machinery and vehicles
 Characteristics of the establishment and of the producer
 Total staff employed
 Total cattle, buffalo, goats, Sheep, pigs, poultry (chickens, fowls, chickens and chicks)
 Other birds (ducks, geese, teals, turkeys, quails, ostriches, partridges, pheasants and others)
 Plant production

The AC 2006 covered all 16 items recommended by FAO under the WCA 2010.

Data Processing

Data Editing

(a) DATA PROCESSING AND ARCHIVING

The entire data collection and supervision software was developed in house by IBGE, using the Visual Studio platform in the Microsoft Operations Manager 2005 environment and Microsoft SQL Server 2000, with the assistance of Microsoft Brazil consulting. In addition, the GEOPAD application was installed to view, navigate and view maps and use GPS guidance. Updated versions of the software were installed automatically as soon as census enumerators connected the PDAs to the central server to transmit the data collected. Once internally validated by the device, the data were immediately transmitted to the database at the IBGE state unit. The previous AC (1996) served as the basis for defining the parameter values for the electronic editing process.

(b) CENSUS DATA QUALITY

Automatic validation was incorporated into PDAs. Previously programmed skip patterns and real-time edits, performed during enumeration, ensured faster and more reliable interviews. In addition, the Bluetooth® technology incorporated into the PDAs allowed for direct data transmission to IBGE's central mainframe by each of enumerators on a weekly basis.

Data Appraisal

Other forms of Data Appraisal

The preliminary census results were published in 2007. The final results were released in 2009 through a printed volume and CD-ROMs. The census results were disseminated at the national and subnational scope (country, state and municipality) and are available online at IBGE's website.