
**2007 SURVEY OF THE STRUCTURE OF
AGRICULTURAL HOLDINGS**

NATIONAL METHODOLOGICAL REPORT

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Member State: BELGIUM

RAW MACHINE TRANSLATION

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1. INTRODUCTION

1.1. Background

As a founder member of the European Union, Belgium has been taking part in the survey on the structure of agricultural holdings since the creation of this survey. The 2007 survey was conducted within the framework of the "agricultural census of 1 May 2007". Belgium has been organising such a census annually since 1960. The first agricultural census was conducted in 1846. Between this date and 1960, 8 censuses were conducted at intervals of 10 to 15 years.

1.2. Legislation

The agricultural census of 1 May 2007 was based on the Royal Decree of 2 April 2001, which provides for the organisation of an annual agricultural census in May. This Royal Decree is based on the law of 4 July 1962 concerning public statistics, as amended by the Law of 1 August 1985, in particular regarding Articles 5 to 7, 14, 16 and 18 to 23.

The Royal Decree states that the census is conducted among all agricultural holdings with an operating base in Belgium. An agricultural holding is defined as an enterprise producing agricultural products with a view to selling them. In addition to agricultural holdings, the survey also covers (provided that they are least one are in area or have animals, regardless of whether or not they produce products for sale): research or test establishments, nursery services of public bodies producing for their own needs, schools, religious communities, prisons and similar establishments.

The General Directorate of Statistics and Economic Information, which comes under the FPS Economy, SMEs, Self-employed and Energy, is in charge of the survey. The actual conduct of the survey is the responsibility of the mayors as representatives of central authority and senior officials of the municipalities. They delegate collection of data to one or more municipal census officials.

The Statistical Law of 4 July 1962 requires any person involved in the collection or processing of data to observe strict confidentiality.

The declaration must be made by the farmer or by a person whom he/she designates.

Participation in the agricultural census is obligatory. Persons who refrain from submitting their declaration or who do not provide the information requested in a precise and thorough way are liable to the penalties laid down by the Statistical Law.

The declarations are collected by the census officials at the home of the farmer or his/her representative. They may also be collected at the municipal offices.

2. CONTENTS

2.1. Characteristics and reference period

2.1.1. National characteristics

The agricultural census is defined as a collection of a whole series of information on agricultural holdings: legal status and type of farming, characteristics of the agricultural labour force, areas under crops, number of animals, type of equipment, information on farm buildings and installations, etc.

The contents of the agricultural census were the subject of a meticulous analysis by the Higher Statistics Council in November 2000. The objective was to delete all the headings that were not essential with a view to satisfying European regulations concerning the survey of the structure of agricultural holdings, on the statistics of the crop products and the statistics of the animal products, as well as national uses justified by institutional users. The result of this examination was a reduction of almost 50% of the list of the characteristics as from 2001.

In spite of this, the amount of information collected during the agricultural census is still much more than would be provided if only the survey of the structure of agricultural holdings were considered. The other or more detailed characteristics which are surveyed in compliance with certain European or national requirements include:

- a question on the possible existence of a successor: this information is useful for making forecasts concerning the trend in the number of holdings;

- collection of more detailed information on areas under major crops to comply with the requirements of Regulations 837/90 and 959/93 concerning statistical information to be supplied by the Member States on, respectively, cereals production and crop products other than cereals;
- collection of more detailed information on areas under horticultural crops (vegetables, ornamental plants, fruits and nursery products). This information is useful for estimating the production of these various crops, both for national purposes and for providing statistical information to Eurostat for crop product statistics;
- collection of more detailed information on bovine animals, pigs, sheep and goats in order to be able to satisfy Directives 93/23, 93/24 and 93/25 EEC and the related decisions.

2.1.2. Characteristics differing from the EU list of characteristics

In general, the definitions of the characteristics surveyed are in line with the definitions laid down by the Community legislation establishing the survey of the structure of agricultural holdings.

In accordance with Annex II of Regulation (EC) 1444/2002, "other gainful activities" are not collected for holders' spouses not working on the holding. This situation stems from the fact that information for the agricultural census is not collected on all the members of the holder's household but only on those working on the holding. This is in fact done in line with the definition of the agricultural labour force that is used for the survey of the structure of agricultural holdings.

Since the distinction between permanent and temporary grassland is not always clear if the definitions in the list of characteristics are used, a more workable criterion was adopted: grassland sown in the previous five years is automatically considered temporary, while grassland sown more than five years earlier is automatically considered permanent.

2.1.3. Characteristics not surveyed

The agricultural census does not include, of course, a series of crops which are not grown in Belgium because of climate conditions: durum wheat, rice, cotton, soy, tropical fruits and soft fruits, citrus fruits, olives, etc.

Other crops are not grown enough to justify their inclusion in the agricultural census: sunflowers, hemp, vines, etc.

There is nothing under the heading "other arable crops" because all arable crops can be classified under other headings.

Some areas under aid schemes (areas converted into permanent pasture and meadow and other areas) come under schemes that no longer apply in Belgium.

2.1.4. Reference date/period of characteristics

The survey of the agricultural labour force covers all those involved in agricultural work on holdings between 1 May 2006 and 30 April 2007.

For outdoor crops, the area surveyed refers to the situation on 1 May. If, on 1 May, all the crops have not yet been planted, the information must indicate the areas that will be sown or transplanted for harvesting in the current year. For vegetables grown outdoors, the indication must refer to the first crop to be sown for harvesting by 1 September.

In the case of glasshouse crops, if the glasshouse is empty on 1 May, the information must refer to the main crop that was grown in the previous 12 months. This is the crop that had the greatest production value or, in the case of doubt, which was grown for the longest time.

All the animals present on the holding on 1 May must be surveyed.

2.1.5. Changes affecting comparability with the data of the previous survey

There are no changes in relation to the survey on the structure of the holdings of 2005.

2.2. Questionnaire

The information was collected using a single form, except in the case of holdings with a large number of workers. In this instance, farmers received in April a questionnaire specifically covering the agricultural labour force and indicating for each worker the information that was declared the previous year. The farmers simply had to update the document and attach it to the declaration to be made to the census official.

The 2007 census form contained 11 pages and covered eight topics: identification of the holding, agricultural labour force, management of the holding, main crops, other information on the farmland, livestock, various activities, farming system and practices. Each topic is divided into a series of modules covering similar characteristics. In general, for each module there is a total, which does not necessarily have a meaning but which is used for encoding checks.

The declarations must be collected by the municipal authorities between 1 and 31 May.

The municipal authorities may choose between a printed form or an electronic "Blaise" form. In 2007 the electronic form was used by 271 municipalities and accounted for 47% of declarations.

If an electronic form is used, a copy must be printed out and sent to the General Directorate of Statistics and Economic Information, together with the diskette containing the data.

The printed forms are pre-printed with the information that is unlikely to change from one year to the next (identification data concerning the holding, information on the various people working on the holding).

In addition to this information, the electronic forms also give the figures declared the previous year for crops and livestock, so that the census official can detect any aberrant trends.

3. SURVEY METHODOLOGY

3.1. Organisation of the survey

Since the agricultural census is an annual event, it is part of the regular activities of the agricultural statistics unit of the General Directorate of Statistics and Economic Information, and the structural survey does not therefore need any special organisation to be set up.

A central department in Brussels is in charge of the overall organisation of the survey (preparation of documents, dispatch to municipalities, processing of data, publication of results, etc). This department also has particular responsibility for contact with the two Brabant municipalities in the country, as well as for checking and encoding the

forms of the surveys conducted in these two municipalities. Four local offices perform this work for the eight other provinces, i.e. two provinces per office.

Two statisticians and a computer programmer are responsible for the survey. Encoding is performed by about 30 people.

The municipal authorities are responsible for conducting the agricultural census and interviewing farmers, who are individually informed, normally by post, using address lists supplied by the General Directorate of Statistics and Economic Information. The municipal authorities are also responsible for contacting any new agricultural holdings that have been established in the municipality in the previous year, and in this way the register of holdings is kept up to date. Of the 589 municipalities in Belgium, 581 host on average 83 agricultural holdings (with a minimum of one holding and a maximum of 450 in 2007).

The decentralisation of the daily management of the survey to the four provincial offices allows easier contacts between the municipal authorities and the General Directorate of Statistics and Economic Information when it comes to solving any problem which may arise. The annual repetition of the census means that someone at the municipal offices often acquires some familiarity with agriculture, and this helps to improve understanding of the sector and contacts with the farmers and hence the quality of the survey.

3.2. Timetable

Implementation phases/periods	Operations
1) October 2006 / November 2006	preparation of the questionnaires in the 3 languages of the country: French, Dutch and German
2) January 2007 - end of February 2007	<ul style="list-style-type: none"> - printing and completion of individual printed forms - development of electronic form
3) March 2007	<ul style="list-style-type: none"> - dispatch of the questionnaires and the instructions to the municipal authorities - information sessions for the census officials
4) 1 – 31 May 2007	conduct of survey by municipal census officials
5) 1 Jun – 15 Nov 2007	<ul style="list-style-type: none"> - return of completed questionnaires - checking and inputting of replies
6) 15 Nov 2007 – end Jan 2008	<ul style="list-style-type: none"> - analysis of results - validation of results
7) March-April 2008 (delay)	calculation of SGMs and TFs
8) January 2008 – June 2008	<ul style="list-style-type: none"> - preparation of the files for the transmission of the data to Eurostat - checking and correction of errors

3.3. Preparation of survey

3.3.1. Population and scope of survey

Since it is a census, the survey is exhaustive and covers every undertaking producing agricultural products for sale, without any thresholds being applied. The definition of agricultural holding matches the definition used for the survey of the structure of agricultural holdings.

The list of holdings to be surveyed is drawn up on the basis of the holdings which took part on the 2006 agricultural census, i.e. 49.850 units. Out of them, 47.732 holdings have declared their activity and fulfilled the questionnaire in 2007. The other units (2118) ceased their agricultural activities. 281 new agricultural holdings have fulfilled their questionnaire for the first time.

3.3.2. Sampling plan

Since the survey is exhaustive, there is no sampling plan.

3.3.3. Pilot survey

Since the annual census has been routinely carried out for several years, there is no need for a pilot survey. Before the introduction of electronic forms in 2001, however, a pilot survey was carried out in order to test this new method of collecting data.

3.3.4. Information and training for interviewers and respondents

The municipal census officials receive a manual with the main explanations that are needed to understand the forms and the instructions for carrying out the census. The census officials also have an opportunity to attend training meetings organised by the General Directorate of Statistics and Economic Information. Also, the General Directorate can be contacted by telephone at any time during the survey so that it can help census officials who may have difficulty in interpreting the instructions.

Farmers are informed by notices put up by the municipal authorities. The census is also announced on the General Directorate's website. It is possible to download both the agriculture census questionnaire and manual.

3.4. Sampling, collection and encoding of data

3.4.1. Selection of holdings

There is no need for any selection, since the survey is exhaustive.

3.4.2. Collection and encoding of data

The data are collected by the census officials either at the home of the farmer or his representative or, more usually, at the offices of the municipal authorities after an interview has been arranged.

The average time to complete an electronic declaration is 11 minutes and 45 seconds.

At the end of the census the municipalities that have used printed forms send them by post to the relevant decentralised office. The data are encoded on PCs using a Blaise application (variant of electronic form).

The municipalities that have used electronic forms send paper copies of the declarations, together with the diskette containing the collected information, by post to the relevant decentralised office. The data are recovered using a special application and placed in the same database that contains the declarations that were encoded in the decentralised offices.

The data from each decentralised office are gathered at regular intervals in a Blaise database on a central server. The data are then transferred to an SPSS database for further analysis and calculation of the results. The final reference file is an SPSS file.

3.4.3. Use of administrative data sources

Administrative data were not used in 2007.

3.4.4. Checking of data

Preliminary checks of printed forms

An initial and essentially visual check is carried out as soon as the forms are received to ensure that all the required headings have been completed. Farmers are usually contacted by telephone to fill in any missing information. In exceptional cases, the forms may be returned to the municipal authorities if some important headings have been systematically ignored. This cannot occur if electronic forms are

used because the path through the form requires the census official to cover every topic in the questionnaire.

Input checks

Some checks cannot be forced. In case of error, it is impossible to continue encoding. These are checks that refer to module totals (detection of encoding errors) or parts that really must be completed (e.g. legal status of the holding), or consistency rules that must be respected (e.g. the sum of the areas used for different types of farming must match the utilised agricultural area). These checks make it possible to ensure that the encoding of the data properly reflects the content of the declaration.

Other checks can be forced. Generally, these concern consistency rules that may possibly be ignored (e.g. if there are dairy cows, there should be heifers to replace them, but this is not compulsory). These checks involve telephoning the respondent, and this can be done immediately or later.

Probability checks

Probability checks are made for livestock numbers and areas under crops by comparing the reported data with the data of the previous year.

These probability checks are performed in two stages.

The first stage is at the time of input, either by the encoders of the General Directorate of Statistics and Economic Information, or by the municipal census officials if electronic forms are used.

Since the previous year's data appear on screen and variations are calculated, encoders can detect any abnormal trends. They can then decide to contact the respondent again by telephone to check whether any error was made when the form was being completed. Census officials who are using the electronic form can, of course, question the respondent immediately to ensure that there is no error in the declaration.

The second stage occurs when the data are analysed by the statisticians using SPSS software. Each variable must be compared in detail with the previous year's results. By looking at variations and comparing the maximum and minimum figures

for a specific set of forms generally makes it possible to detect any anomalies. The decentralised offices are notified of any suspected errors in declarations so that the errors may be corrected after the respondent has been contacted.

3.4.5. Treatment of non-responses

Since the survey is compulsory by law, the non-response rate is always extremely low. The municipal authorities make every effort to question every farmer in the municipality. If there is any resistance, the General Directorate of Statistics and Economic Information sends the holding an official letter pointing out the compulsory nature of the survey and at the same time tries to make contact by telephone. As a last resort, the Directorate's inspection department – which can record for legal purposes any refusal to respond – visits the holding and generally manages to obtain the necessary information. The department had to be called in about ten times during the 2007 survey. In rare instances when a farmer cannot be contacted, it is always possible to use the previous year's data to estimate the figures needed for the survey. This practice had little impact on the results of the 2007 structural survey.

3.5. Data processing, estimation and analysis

3.5.1. Methods of processing missing or incorrect data

As mentioned earlier, missing or incorrect figures are corrected by the encoders, normally after contacting the respondent by telephone.

In cases where the errors are obvious, the corrections may be made directly in the database by the statistician in charge of the survey.

3.5.2. The data are validated by the statistician in charge of the survey.

Estimates and sampling error

This is not relevant, since the survey is exhaustive.

3.5.3. Other errors

Errors of measurement can always occur in the figures for areas. However, in view of the fact that farmers also have to provide a lot of crop information to the authorities who are responsible for granting subsidies, they have an increasingly accurate knowledge of areas under crops. It has also been found that there is more and more

convergence between the figures for areas surveyed and those taken from administrative records.

Entries in the wrong line can always occur when the form is being completed or the data encoded. However, the various checks comparing the data with the previous year's figures allow these errors to be detected and corrected.

In 2007, about 950 declarations were checked with farmers after the statistical analysis of the database, with a view to validating the results.

3.5.4. Evaluation of results

It is not possible to make comparisons with other statistical surveys, such as those on crop products or animal products, because it is the agricultural census that also provides the figures needed for these surveys. It is also difficult to make comparisons with the labour force survey because there are not enough data on the agricultural labour force to provide reliable results.

No comparison can be made with administrative data either, since the latter are not accessible at the micro level and the macro results become available only after the results of the agricultural census.

4. PUBLICATION AND DISTRIBUTION

A summary of provisional results based on about 44% of the declarations was published in July 2007. The final file of 2007 census data was available at the beginning of March 2008, which was when the final summary and detailed results were disseminated.

The provisional and final composite figures are available to users without charge on the General Directorate's website (<http://statbel.fgov.be>).

Various files with detailed results at different geographical levels are also available on request.

The availability of the census results is independent of the processing of the survey of the structure of agricultural holdings, which is not used in this format by national users.

Any specific request by a user, which cannot be answered using the standard results tables, can be dealt with by the statistical service, provided that the requested tables do not pose any problem with regard to data confidentiality.

The results which are disseminated do not contain metadata, but the latter are available free of charge by using the census manual available on the website.

The Statistical Law does not permit individual data to be transmitted to users. When the General Directorate subcontracts work, however, depersonalised individual data may be sent to the subcontractor. The transmission of such data is subject to very rigorous conditions outlined in an agreement signed by both parties. The aim of these conditions is to preserve data confidentiality and to give a precise definition of the uses to which the data may be put.

5. ANNEXES

- 2007 agricultural census form
- 2007 agricultural census manual

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