

Farm structure (ef)

National Reference Metadata in ESS Standard for Quality Reports
Structure (ESQRS)

Compiling agency: Please provide the name of the organisation of the
contact points for the data or metadata. Statistics Portugal

Time Dimension: 2013-A0

Data Provider: PT1

Data Flow: FSS_ESQRS_A:1.0



Eurostat metadata

Reference metadata

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For any question on data and metadata, please contact: [EUROPEAN STATISTICAL DATA SUPPORT](#)

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1. Contact

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1.1. Contact organisation

Please provide the name of the organisation of the contact points for the data or metadata.

Statistics Portugal

1.2. Contact organisation unit

Please specify an addressable subdivision of an organisation.

Economic Statistics Department / Agriculture and Environment Statistics Unit

1.5. Contact mail address

Please specify the postal address of the contact points for the data or metadata.

Av. António José de Almeida
1000-043 LISBOA

2. Introduction

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2.a. Brief description of the national history of Farm Structure Surveys (FSS)

*This item is of special interest for countries with less experience in FSS surveys. In these cases it is useful to include a brief description about the related statistical activities e.g. establishment/update of the statistical register, etc. Please keep the description **brief** (expected length of maximum 250 words)*

In Portugal the series of agricultural and livestock surveys dates back to the first half of the last century. In fact, the first exhaustive, systematic and organised listing of statistical data on the Portuguese agriculture occurred in 1934, with the “General inventory of livestock and poultry”, and was later repeated in 1940 and 1972. Mainland farm surveys were held in 1952-1954, 1968 and 1979, and in 1965 a Census was conducted on agricultural holdings in adjacent islands (Azores and Madeira).

The first “General census on agriculture” harmonised with the European Union (EEC at the time) was held in 1989, exhaustively and simultaneously across all regions in the country. Subsequently, farm structure surveys were held in 1992, 1995 and 1997, followed by the 1999 General Agricultural Census, the 2003, 2005 and 2007 sample iterations and the 2009 Agricultural Census.

In 2013 Portugal held the Farm Structure Survey, a mandatory statistical operation as laid down in [Regulation \(EC\) No 1166/2008](#) of the European Parliament and of the Council. This survey was also structured to obtain a series of data of national/regional interest that, although not mandatory in Community terms, were considered to be pertinent and timely.

Data obtained will also make it possible to update the farm register and the agricultural sample base (Portuguese acronym: BAA).

2.b. Brief description of the national legislation of FSS

*Please **briefly** specify the following provisions from the national legislation:*

- the reference of the national legal base of the FSS survey (Act, Government Decree, etc.)	The attached <i>Law No 22/2008</i> of 13 May laying down the principles, rules and structure of the National Statistical System (NSS) and the <i>Decree-Law No 166/2007</i> of 3 May, approving the organisation of Statistics Portugal.
- the scope and the coverage of the survey	The national legislation does not define the purpose nor the scope of coverage of the FSS.
- the frequency and the reference period of the survey	The national legislation does not establish the frequency nor the reference period of the FSS.
- the responsibility for the survey	The national legislation establishes that the responsibility for conducting the FSS is of Statistics Portugal, since it is its task, as the central body that produces and disseminates official statistics with technical independence, to hold surveys, censuses and other statistical operations (Article 3 (2) of the NSS Law and Article 7 (2) (a) of the Decree-Law 136/2012 (in annex), approving the organisation of Statistics Portugal).
- the administrative and financial provisions	The national legislation does not mention administrative or financial aspects regarding the FSS. However, the Business Plan of Statistics Portugal is appraised by the Statistical Council, pursuant to Article 13 of the NSS Law, and envisages the general characterisation and the costs of the FSS.
- the obligations of the respondents with respect to the survey	The national legislation provides for the obligation of respondents, individuals and enterprises, to provide the information deemed necessary to produce official statistics (Article 4 (1) of the NSS Law and Article 4 of the Decree-Law approving the organisation of Statistics Portugal).
	Principle of Statistical Confidentiality is strictly observed by all employees, agents and contractors who have access to individual statistical data on individual or collective, in the exercise of their activity, constituting Confidentiality, even after the functions; All these people sign a declaration that they undertake to comply with

- the identification, protection and obligations of survey enumerators	<p>the rules relating to the application of the Principle of Statistical Confidentiality.</p> <p>Face to face interviews:</p> <p>The statistical units are pre-informed about all aspects related to the survey, in particular about the confidentiality of the information provided.</p> <p>For security reasons, interviewers always display the respective identification / credentials to the respondent and then inform them about the Principle of Statistical Confidentiality and inform them that the data collection is intended solely for statistical purposes</p>
- the right of access to administrative data	<p>The national legislation provides for access to administrative records (Article 4 (2)) which in the case of the FSS are used to validate the information provided by respondents.</p>
- confidentiality provisions	<p>The national legislation provides for the confidentiality of data collected both as regards data on enterprises and on individuals. The principle of statistical confidentiality is thus applied, i.e. individual statistical data cannot be disclosed (Article 6). The violation of statistical confidentiality considered as a breach of the obligation of professional secrecy is punishable (Article 32). All those involved in the FSS were bound by contracts or protocols listing their responsibilities with regard to the FSS. These responsibilities were notably technical, or within the scope of statistical confidentiality and professional secrecy, in accordance with the law (Articles 6 and 32).</p>

Annexes:

[Law No 22/2008 of 13 May](#)

[Decree-Law 136/2012](#)

3. Quality management - assessment

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[Not requested]

4. Relevance

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4.1. Relevance - User Needs

4.1.a Overview of the main groups of national characteristics

Please indicate the main groups of national characteristics which are surveyed.

Please include references to characteristics surveyed only for national purposes and mention for which purposes and where the request came from (i.e. which are the users).

The FSS was structured to make it possible to provide information on the characteristics defined for the farm structure survey (general characteristics, crop areas, livestock, type of machinery and equipment, agricultural buildings and structures, agricultural population and labour force, other non-agricultural activities and measures to support rural development).

Other characteristics (variables), or greater detail in mandatory characteristics pursuant to Community legislation, were also surveyed as a response to specific national requirements (see *Tables 1 and 2* in annex).

The determination of the final version of the national characteristics to be included and the formulation of mandatory questions pursuant to Community legislation resulted from contacts with a number of entities, which contributed to defining the variables that would provide relevant statistical data with no excessive statistical burden on respondents. See

Contacts in annex.

Also worth mentioning that in a logical for streamlining the costs, was still included a module on the use of pesticides in cereals, potatoes, processed tomatoes and vineyards.

This module will also join the others that have been performed together with other agricultural surveys: Vegetable survey Permanent crops - Orchards survey

4.1.b Reference periods/dates of the main groups of national characteristics

Please indicate the reference periods/dates of the main groups of national characteristics. (new) Please provide justifications if the reference periods/dates from the Regulation 1166/2008 are not respected.

There are various reference periods, depending on the variable to be collected:

Characteristics	Reference date/period
Related to area and labour force	Crop year 2012/2013, starting on 1 November 2012 and ending on 31 October 2013
Livestock and some characteristics related to the sole holder's household	On the day of the interview (1)
Rural development measures	Since the beginning of the implementation of the rural development plan (ProDeR), launched in 2009, until 31 October 2013

(1) -

We consider that the deviations are minimal and for dissemination purposes the reference period should be allocated to the first day of data collection – 1st November 2013

Annexes:

[Contacts](#)

[Table 1 - National characteristics as a result of the breakdown / individualization of the characteristics defined in Community legislation](#)

[Table 2 - National characteristics without relation to the characteristics defined in Community legislation](#)

4.2. Relevance - User Satisfaction

Despite Statistics Portugal doesn't have a specific satisfaction survey for this domain, we are aware of the quality of information produced, either because the statistical press releases disseminated under this domain are often integrated in specialized magazines and journals, or through opinion articles written by experts praising the quality of this statistics, yet either because of the statistical information produced in this area to be often part of the speech of renowned national experts. Another aspect that allows us to measure customer satisfaction is the feedback from experts and the invitations received to participate in seminars and studies.

4.3. Completeness

Characteristics not collected (non-significant, non-existent or (new) possibly not collected for other reasons)

For non-significant or non-existent characteristics, you may repeat the information sent to Eurostat according to art. 7 par. 3 of Regulation 1166/2008. You can also attach the relevant file to this section using the "Add file" button below.

The overall answer to this item should provide information on:

-the list of characteristics non-significant and the list of characteristics non-existent from the EU list of characteristics [\[1\]](#);

-the reasons i.e. the prevalence or physical thresholds;

-the source(s) of information used (for the prevalence or physical thresholds);

- (new) how are non-significant or non-existent characteristics marked in the dataset transmitted to Eurostat.

(new) In addition, please specify whether non-significant characteristics are reported under the headings of other characteristics (as in the case of some countries). If yes, please specify which those other characteristics are and please indicate if the Standard Output of those other characteristics is recalculated considering the inclusion of the non-

significant characteristics.

From the list of mandatory characteristics pursuant to Community legislation, several were identified whose prevalence is quite low (non-significant) or even zero (non-existent). See attached file on *Non-existent and non-significant characteristics*.

[1] See Annex III of Regulation (EC) 1166/2008 of the European Parliament and of the Council on farm structure surveys and the survey on agricultural production methods and repealing Council Regulation (EEC) 571/88.

Annexes:

[Non-existent and non-significant characteristics](#)

4.3.1. Data completeness - rate

[Not requested]

5. Accuracy and reliability

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5.1. Accuracy - overall

Main sources of error

Please provide a **brief** general assessment on the main sources of error (e.g. sampling errors, measurement errors etc.)

Only sampling errors were estimated.

5.2. Sampling error

Section 5.2 should be completed *only* in case of sample surveys.

5.2.a. Applicability of precision requirements (precision criteria)

The precision requirements stipulated in Annex IV "Precision Requirements" of the Regulation 1166/2008 are applicable only in some cases, depending on the actual value of characteristics. Thus, we are first interested to know the actual value of characteristics, in order to determine the applicability of precision requirements.

Please provide the actual values of the characteristics in a separate Excel file (template provided by Eurostat) and annex the completed file using the "Add file" button below. Here, we are interested in the point estimates (the weighted values), NOT in the relative standard errors (RSEs).

5.2.b. Method used for estimation of relative standard errors (RSEs)

Please describe the method used for estimation of RSEs. You can annex a document with the description of method and formulae applied, using the "Add file" button.

Please see the annex 5.2.b Method used for estimation of RSEs

Annexes:

[5.2.b Method used for estimation of RSEs](#)

[5.2.a Applicability of precision requirements](#)

5.2.1. Sampling error - indicators

5.2.1.a Relative standard errors (RSEs)

(new - the information request is not new, but only the template) Please provide the RSEs in a separate Excel file (template provided by Eurostat) and annex the completed file using the "Add file" button below. The Excel file comprises tables related to the precision requirements stipulated in Annex IV "Precision Requirements" of the Regulation 1166/2008.

See annexes: 5.2.1.a Relative standard errors and 5.2.a Applicability of precision requirements

5.2.1.b. (new) Reasons for possible cases where precision requirements are applicable and estimated RSEs are above the thresholds

The cases where precision requirements are applicable are identified with the information provided in section 5.2.a. For those cases, the requirement is that the estimated RSEs are below the thresholds stipulated in Annex IV "Precision Requirements" of the Regulation 1166/2008. However, in some of these cases, estimated RSEs might be above the thresholds. In the latter cases, please provide justifications.

Some cases were found. you can find attached (precision requirements above thresholds) those cases. These differences are related with structural changes that occurred in some holdings since Agricultural census, namely based in size and/or type changes.

Annexes:

[5.2.1.a Relative standard errors](#)

[5.2.1.b Precision requirements above thresholds](#)

5.3. Non-sampling error

*Section 5.3 should be completed **only** in case of a sample survey or a census.*

*Section 5.3 should **not** be completed when data are **entirely** taken from administrative sources. In this case, section 12.1.e.5 of the report provides the relevant information.*

Assessment of possible bias

*If comparison with another source or consistency study is made, please give a **brief** description of the source used and the differences observed which can be proof of bias.*

(new) Please also consider here bias risks associated with non-response by assessing the distribution of non-response across holdings' categories.

For budgetary reasons the FSS did not include the planned quality survey, wherefore it was not possible to estimate coverage errors (affecting statistical units that had been omitted, unduly enumerated or double-counted) and content/measurement errors (chiefly resulting from wrong or inconsistent replies, or the impossibility to obtain the required information due to poor performance of the interviewer or wrong interpretation of the questionnaire).

There is no pattern for the non respondent holdings. It is situation that occurred throughout all the holdings' categories (whether we consider the size or the type of holding), which means that the non-response bias risks are not significant.

5.3.1. Coverage error

5.3.1.a Under-coverage errors

Under-coverage units are target population units that are not accessible via the frame. This mainly includes new units not included in the frame, either through real birth or demergers, and wrongly classified units. This generally leads to bias in the estimates. If possible, please provide an assessment on the extent of under-coverage.

As the FSS was a sample operation, its purpose was to survey agricultural holdings representative of the population (all portuguese agricultural holdings). In view of the possibility that the farm register (BAA) might not be exhaustive, the necessary steps were taken to identify holdings not included therein – new agricultural holdings – thereby ensuring an exhaustive coverage of data collection. For this purpose, during an interview with a holder in their list of agricultural holdings, or through other contacts, interviewers would ask about land transactions. Subsequently, they would check whether such holders were included in BAA, and, if not, they would collect information enabling them to enter into contact with the holders in question. A more exhaustive coverage of data collection was hence ensured.

5.3.1.b Over-coverage

Over-coverage units are units that do not belong to the target population. Please mention whether the data was corrected for over-coverage and if yes, please describe.

There was an adjustment of weights taking in account the units that do not belong to the target population, excluded them from the universe.

5.3.1.c Misclassification errors

Misclassification refers to wrongly classified units (for example by geographical area or size) which belong to the target population. Please provide an assessment on the extent of misclassification errors and how they were addressed.

No method was applied. we assumed that this kind of errors if exist, are residual.

5.3.1.d Contact errors

They refer to units with incomplete or incorrect contact data. Please describe how possible errors were corrected.

Wrong details in contact data were investigated and corrected during the operation.

5.3.1.e Multiple listings

Multiple listings are units which are present more than once in the frame. Please indicate the proportion of multiple listings in the frame which are present more than once in the frame and specify how the duplicates were eliminated.

The duplicated units were eliminated from the population and the sampling, and the coefficients associated with them recalculated (re-weighting). There were 231 identified duplicated cases (0,8% of the sampling units).

5.3.1.f Other relevant information, if any

N/A

5.3.1.1. Over-coverage - rate

Please provide the value of the over-coverage rate.

The over-coverage rate is the proportion of units accessible via the frame which do not belong to the target population (e.g. holdings with ceased activities still included in the frame).

Over-coverage rate=8.4% (computed by dividing the number of ineligible units in the sample to the gross sample).

5.3.2. Measurement error**5.3.2.a Causes of measurement errors in the FSS survey**

The causes are commonly categorised as:

- *Survey instrument: the form, questionnaire or measuring device used for data collection may lead to the recording of wrong values;*
- *Respondent: respondents may, consciously or unconsciously, give erroneous data;*
- *Interviewer: interviewers may influence the answers given by respondents.*

Please include here possible problems caused by difficult questions, unclear definitions, sensitive questions etc. which are likely to determine measurement errors.

The methodology used to avoid/minimise incorrect and/or incomplete data included:

- Interview techniques (interpretation of the questions) – questions would be posed to the interviewee in a way to avoid personal interpretations;
- Outline of the agricultural holding – on the occasion of the interview, the interviewer would always prepare an outline of the agricultural holding characterising it correctly, to be used as an auxiliary tool in subsequent analyses. The outline would be duly identified and attached to the questionnaire;
- Entry of “Observations” – the “Observations” field of the questionnaire should include all information deemed relevant by the interviewer, which would help to validate and analyse collected data after the interview. This prevented questionnaires from being returned and/or avoided subsequent contacts with the interviewee to confirm/justify the information.

5.3.2.b If available, failure rates during data editing. Please mention if the data was corrected.

Not available

5.3.2.c If available, assessments based on comparisons with external data, re-interviews, etc.

Not available

5.3.3. Non response error**5.3.3.a (new) Unit non-response: reasons and treatment**

Please specify the reasons for unit non-response and how the unit non-response was accounted for. Unit non-response can be accounted for by e.g. re-weighting, imputation.

Non-response rate: 0.34%. The main reasons for non-response were: *i) absence of the holder - 73 units ; ii) refuse to*

answer - 18 units.

There were also 103 units not found by the interviewer, which were considered with unknown eligibility status. The non-response units and the unknown eligibility status units were eliminated from the sample, which was re-weighted.

5.3.3.b Item non-response: reasons and treatment

Please mention any characteristic(s) having higher item non-response rate together with the reasons of the item non-response. This information is important and will be useful for the organisation of future surveys.

Please also specify how the item non-response was accounted for. Item non-response can be accounted for by e.g. re-weighting, imputation.

PT is not aware of any higher non-response rate for a specific characteristic.

5.3.3.1. Unit non-response - rate

Please provide the ratio of the number of non-responding holdings with no information or not usable information (item 5.1, table in section 12.3.d) to the total number of in-scope (eligible) units (item 5, table in section 12.3.d).

Eligible units: 26,979; Non-responding holdings: 91; Ratio: 0.34%

5.3.3.2. Item non-response - rate

Please provide the ratio of the in-scope (eligible) units which have not responded to a particular item (characteristic) to the in-scope (eligible) units that are required to respond to that particular item (characteristic). Please provide this rate for characteristics with high item non-response.

Not available. All known cases of non-response items were solved by re-interviewing the unit.

5.3.4. Processing error

5.3.4.a Assessment of processing errors affecting individual observations

Please give a quantitative or qualitative assessment of processing errors.

Not available

5.3.4.b Completion/correction methods applied

These can consist of follow-up interviews, imputation, re-weighting, use of other data sources etc. Please describe.

The following procedures were taken during the data collection period. No errors were detected/corrected after that period.

Questionnaire returned by the chain of collection

In addition to the interviewer, the questionnaire was analysed by different profiles in the FSS chain of collection (see item 12.4.c), implying its return in case of error and/or information misaligned with local circumstances. This led to a more thorough analysis/validation. Returning the questionnaire to the interviewer and identifying the reasons avoided the perpetuation of possible errors and erroneous interpretations of the concepts.

Regular meetings involving the collection structure

Meetings carried out at the different levels of the FSS chain of collection facilitated information flows among them. Discussing the main issues/problems arising from the work developed made it easier to standardise the criteria to solve similar situations.

Procedures to confirm/correct microdata

The illustration in annex outlines the procedures to be followed when incorrections are detected or when questions raise doubts. The solution may involve confirming the situation after analysis of the "Observations" field, in a simpler case, or a new contact with the holder, in the most complex case. See annex.

5.3.4.c Imputation methods

Please specify what kind of imputation methods were used and for which items (characteristics).

Imputation was not used.

5.3.4.d Tools used and people/organisations authorised to make corrections

The corrections were made by the interviewers and the different profiles in the FSS chain (local and regional staff and national staff) on the custom-made software application that supports the agricultural survey system of Statistics Portugal (SAGR).

Annexes:

[Procedures to confirm/correct microdata, conducted by data collection chain](#)

5.3.4.1. Imputation - rate

Please provide the ratio of the number of replaced values to the total number of values for a given characteristic, for each main characteristic where this method was applied.

This method was not applied in FSS.

5.3.4.2. Common units - proportion

Administrative sources were only used for validation.

5.3.5. Model assumption error

In case of models used for estimation, please provide an estimation of related errors.

Not applied.

5.3.6. Data revision

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5.3.6.1. Data revision - policy

Brief description of the revision policy

As a rule, data in FSS are not subject to revisions.

5.3.6.2. Data revision - practice

Data revision practice

Please describe the practice, provide the main reasons for revisions and the extent to which the revisions improved accuracy.

Please provide the average number of revisions (planned and unplanned) for main characteristics.

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5.3.6.3. Data revision - average size

[Not requested]

5.3.7. Seasonal adjustment

[Not requested]

6. Timeliness and punctuality

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[Not requested]

6.1. Timeliness

[Not requested]

6.1.1. Time lag - first result

Please indicate the number of months from the last day of the reference period to the day of publication of first results.

Time lag – first results: 12 months.

6.1.2. Time lag - final result

Please indicate the number of months from the last day of the reference period to the day of publication of complete and final results.

Time lag – final results: 12 months.

6.2. Punctuality

See below

6.2.1. Punctuality - delivery and publication

Please indicate the number of days between the delivery/ release date of data and the target date on which they were scheduled for delivery/ release.

Punctuality of the publication of the results

Publication	Scheduled date of publication	Actual date of publication	Time lag
First results	28 November 2014	28 November 2014	0
Final results	28 November 2014	28 November 2014	0

7. Accessibility and clarity

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7.1. Dissemination format - News release

The dissemination of statistical data collected in the FSS is its essence. An operation of this size can only be justified if subsequently every effort is made to disseminate the output of the survey to the interested public.

A press release of the final results will be followed by the dissemination of over 600 indicators on the official statistics website.

This disclosure will contain the main results and their evolution compared to 2010. Is also expected to present a regional picture (whenever appropriate) and a comparison with the EU (year 2010, the last year available).

Within the programme for the output dissemination from the FSS (see annex), Statistics Portugal published in its [official statistics website](#) on 28 November 2014 a press release with the results, obtained from the computation of preliminary data at national level. The analysis of results in this press release was almost exclusively carried out by comparison with those of the previous 2009 Agricultural Census.

Annexes:

[Schedule of the publication of the results](#)

7.2. Dissemination format - Publications

Regular and ad-hoc publications in which data are made available to the public

7.2.a The nature of publications

Please specify the nature of publications. For example, the publications can contain preliminary results or final results, can be technical reports, etc.

Please also specify if the publications contain metadata.

No publication is scheduled.

Despite not having been considered the dissemination of results through publication, dissemination of the results will be far-through a press release.

7.2.b Date of issuing (actual or planned)

N/A

7.2.c References for on-line publications.

N/A

7.3. Dissemination format - online database

Please provide information about on-line databases in which the disseminated data can be accessed.

The on-line database releasing the output can be found on the Statistics Portugal website -> Statistical data - > [Database](#) (Theme: Agriculture, forestry and fishing; Sub-theme: Agricultural census). Every indicator is linked to the associated metadata, by just following the link close to the name of the indicator.
See attached *Example of the statistical data available in the online database*.

Annexes:

[Example of the statistical data available in the online database](#)

7.3.1. Data tables - consultations**The number of consultations of on-line data tables for a given time period**

Please indicate on-line data tables with an indicative number of consultations.

See the indicative number of consultations in annexes.

Annexes:

[Indicative number of consultations 2010](#)

[Indicative number of consultations 2011](#)

[Indicative number of consultations 2012](#)

7.4. Dissemination format - microdata access

See item *11.1 Confidentiality policy*

7.5. Documentation on methodology**7.5.a Available documentation on methodology on FSS national survey**

Please provide references.

The methodology on FSS is available for consulting in [official statistics website](#) (just in portuguese).

7.5.b Main scientific references

Please provide references.

Sampling of Populations- Methods and Applications - Paul S. Levy Stanley Lemeshow
Survey methods and practices - Statistics Canada

7.5.1. Metadata completeness - rate

[Not requested]

7.5.2. Metadata - consultations

Not available

7.6. Quality management - documentation**Available documentation on quality**

Please provide references.

Within the statistical production process of Statistics Portugal, any statistical operation should be certified through a methodological dossier validated by all the organizational structure of Statistics Portugal ensuring compliance with the European Statistics Code of Practice. The document attached, is only available in Portuguese and can be consulted for any stakeholder through the INE website
<http://smi.ine.pt/DocumentacaoMetodologicaPorTema?clear=True>

Annexes:

[FSS methodological report PT](#)

7.7. Dissemination format - other

[Not requested]

8. Comparability

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8.1. Comparability - geographical

8.1.a National vs. EU definition of a holding

Please indicate possible differences between the national definition and the EU definition of the holding [\[2\]](#). Please also indicate the reasons.

The national definition of the agricultural holding is the same as the definition from Regulation 1166/2008 art.2.a. However, the national thresholds are narrow than the EU ones (see item 12.1.a.3 *The national survey coverage; the thresholds applied in the national survey (if any) and the geographical coverage*)

8.1.b National survey coverage vs. coverage of the records sent to Eurostat

Please indicate possible differences between the population covered in the national survey and the population covered by the records sent to Eurostat. Please also specify the reasons. The population covered in the national survey may be different from the population covered by the records which are sent to Eurostat, in case very low national thresholds are applied or no national thresholds are applied.

There is no difference between the population covered in the national survey and the population covered by the records sent to Eurostat.

8.1.c National vs. EU definitions of characteristics

Please indicate the version of the Handbook on implementing the FSS definitions used for the organisation of the current FSS survey. Please indicate possible differences between national and EU definitions of characteristics and classifications of characteristics, the differences, the reasons and the impact on the comparability with the EU definitions. This information is relevant for users. Please also indicate the number of hours per year for a full-time employee, used to calculate the Annual Work Unit.

The latest version used during the preparation/organisation of the FSS was the CPSA/SB/652 Ver.10.

The number of hours per year for a full-time employee, used to calculate the Annual Work Unit, was 1,800h.

8.1.d Common land

The legal change of the utilised agricultural area concept, and also the fact that there are various options for the coverage of the common land make this an obligatory section in this report for all countries.

8.1.d.1 Current methodology for collecting information on the common land

If common land does not exist in the country, please specify this.

If common land exists and you do not collect information on common land, please specify this and the reasons.

If you collect information on common land, please describe the methodology by referring to the below options.

Combinations of the options are possible; if you use more options, please briefly describe each one.

- common land is included in the land use data of the agricultural holdings making use of the common land.

- common land is included as special holdings i.e. the common land holdings. In addition to records with data representing agricultural holdings, records representing the common land holdings are created.

- common land is collected at regional level and included in regional records. In addition to records with data representing agricultural holdings, records representing the regional sum of the common land are created. According to

discussion in a Working Group, this third option has been converted into the second option (common land holdings) allowing all common land to be formatted and included in the Eurofarm tables.

In addition, please specify:

- whether there was a set of specific questions in the FSS questionnaire on common land or a separate questionnaire.

In the case of a separate questionnaire, it should be attached to this report, section 12.3.e.

- (new) how was the common land treated in terms of tenure classification;

- (new) how can common land be identified in the data.

In Portugal there is land owned and managed by local communities, the so-called common land. Common land are common adjacent grounds for agricultural, forestry, silvo-pastoral or apicultural uses, notably cattle grazing, cultivation, harvesting of wood and scrub, etc. For the purpose of representation, planning, management and auditing, they have an

assembly of counterparts, a governing board and an auditing commission. In general, the governing board is composed of a group of inhabitants of the commune where the common land is located, and may also be managed by the commune office. The right to use the common land is restricted to counterparts according to customs. As a rule, it has no permanent workers or livestock.

Common land should be recorded using one of the following three methods (by priority according to the following order):

1. In proportion to its use by each holding. In this method, common land area used by a holding would be included in its UAA (taking care to avoid double counting);
 2. As “common land agricultural holding”, as long as the techno-economic unit fulfils the agricultural holding definition criteria;
 3. Indication, for the most relevant geographic level (e.g. NUTS 3), of the total area of common permanent grassland.
- Following the method already used in previous farm structure surveys, Portugal adopted method 2 and considered common lands as agricultural holdings.

The questionnaire used to survey common land was that used for any other holding. The common land option was included in the legal personality of the holding, and this units were recorded as "legal persons" in the EU characteristics on the legal personality of the holding. The rule is to treat the common land, in terms of tenure, as agricultural area utilised for farming by owner. However, there were 3 exceptions in which the agricultural area utilised was considered as shared farming or other modes.

See *Question on the legal personality of the holding (Mainland FSS questionnaire)* (in Annex) for the question on the legal personality of the holding.

Finally, it is important to stress that the entire UAA of common land holdings is common land.

8.1.d.2 Possible problems encountered in relation to the collection of information on common land and possible solutions for future FSS surveys

Please provide this information in case information on common land is collected.

The main concern was to avoid double-counted areas in the common land and in the holdings of holders using common land. The focus was on training, interviewers having been alerted to these situations. Data analysis, throughout the collection, allowed for the control, detection and correction of those cases where there was double counting.

8.1.d.3 Total area of common land surveyed in the reference year

Please indicate the survey estimate in case information on common land is collected.

Total area of common land is 102,239 ha. Approximately 99,7% of the UAA of common land is permanent grassland.

8.1.d.4 (new) Number of agricultural holdings making use of the common land or Number of (specially created) common land holdings in the reference year

Please indicate this number in case information on common land is collected.

The FSS computed 245 common land holdings.

8.1.e. Location of the holding

8.1.e.1 The origin of the coordinates

Please specify from which source you have obtained the origin of the coordinates (the geographical reference of the holding). This is required in the Handbook (document 3.1. Methodology - Handbook on implementing the FSS and SAPM definitions - REV 10). For example: cadastre information system, IACS (Integrated Administrative Control System), CAPI (Computer Assisted Personal Interview) with digital maps, address register (address of the farm or of the farmer), LAU2 (village, town, municipality etc.) region of the farm.

The Statistics Portugal spatial data infra-structure to support statistical activity does not incorporate specific geographic data to delimit or position agricultural holdings. In this context, the geo-referencing of agricultural holdings observed in the FSS was carried out according to the following methodology:

Assumptions

- Non-existence of coordinates for agricultural holdings;
- Existence of coordinates for the commune's centroids of the polygons;
- For reasons of statistical confidentiality, the coordinates for the representative point of the agricultural holding geo-referencing are likely to undergo a degradation of 5 minutes of arc (5').

Premise

- The Earth is a sphere with a radius of 6,400,000 m.

Calculations

- For different latitudes, the value corresponding to 5 minutes of arc (5') was calculated in linear units;
- Generation of a geometry of circles considered to be the area of influence in relation to the commune centroids;
- Overlay between the commune polygons and the areas of influence of centroids.

Output

- Geo-referencing of the agricultural holding through the commune centroid in those cases where the area of influence of centroids intersect the administrative boundaries of the commune;
- Txt file containing coordinates for CAOP 2010 commune centroids;
- Images.

See in attachment *Overlay between the polygons of the communes and areas of influence of the centroids* (overview and detail).

8.1.e.2 (new) The reference system

Eurostat asks to transmit the coordinates based on the reference system ETRS89 (European Terrestrial Reference system 1989) but has set up his system to allow coordinate transformation from different reference systems.

Please specify the reference system used in countries to store data on location of the agricultural holdings. This information is required by the Handbook (document 3.1. Methodology - Handbook on implementing the FSS and SAPM definitions - REV 10).

Geographic data

- Official Administrative Map of Portugal (Portuguese acronym: CAOP 2010), with the following geographic referencing:

- i. Mainland: ETRS89 / PT-TM06
- ii. Archipelagos of the Azores and Madeira : ITRF93 / UTM

8.1.e.3 (new) The rounding of the coordinates

Eurostat recommends the transmission of the exact coordinates (the data is handled respecting statistical confidentiality provisions).

If countries still round the coordinates to a grid system, Eurostat recommends the grid based on the INSPIRE data specification on Coordinate Reference System.

Please specify if you transmit the exact coordinates or if you round them. If in the last case, please briefly describe the rounding method and the level of the rounding. For example: LAU2, regions lower than LAU2, census enumeration areas, grids, grouping by 5 holdings (ranked by latitude and longitude).

See **8.1.e.1**

8.1.e.4 (new) The criteria used to determine the NUTS3 region of the holding

Please indicate which criterion is used to determine the NUTS3 region of the holding. Criteria:

- the majority of the total area of the holding where the holding is located;
- the building (administrative, for livestock or other production);
- the most important parcel (in terms of production);
- the residence of the farmer (if it is not further than 5 km from the farm).

The criteria used to determine the NUTS3 region of the holding is the majority of the total area of the holding where the holding is located.

8.1.f (new) Organic farming

Possible differences between national standards and rules for certification of organic products and the ones set out in Council Regulation No.834/2007

Please mention possible differences. This information is requested by the handbook (document 3.1. Methodology - Handbook on implementing the FSS and SAPM definitions - REV 10).

The data produced in Portugal under the Reg. 834/2007 presents problems of quality and timeliness. Also with regard to the concepts there are differences, particularly because in animal production can be included insects and in crop production, wild plant products. Moreover certification companies often do not report to the Ministry of Agriculture individual data but only aggregate information by control body.

[\[2\]](#) See Article 2 of Regulation (EC) 1166/2008 of the European Parliament and of the Council on farm structure surveys

and the survey on agricultural production methods and repealing Council Regulation (EEC) 571/88

Annexes:

[Question on the legal personality of the holding \(Mainland FSS questionnaire\)](#)

[Overlay between the polygons of the communes and areas of influence of the centroids \(overview and detail\)](#)

8.1.1. Asymmetry for mirror flow statistics - coefficient

[Not requested]

8.2. Comparability - over time

8.2.a Possible changes of the definition of the holding the reasons and the impact of the changes on the comparability with previous sample survey/census data

Please indicate the relevant case from the ones below:

- There have been no changes, in which case this should be reported.*
- There have been some changes but not enough to warrant the designation of a break in series.*
- There have been sufficient changes to warrant the designation of a break in series.*

In the second and third cases, please indicate the changes, the reasons and their impact on the comparability over time. Particularly in the third case, please indicate any information relevant for users.

There were no changes in the definition of agricultural holding, wherefore data comparability with previous operations is perfectly possible.

8.2.b (new) Possible changes in the coverage of holdings for which records are sent to Eurostat, the reasons and the impact on the comparability with previous sample survey/census data processed by Eurostat

Please indicate the relevant case from the ones below:

- There have been no changes.*
- There have been some changes but not enough to warrant the designation of a break in series.*
- There have been sufficient changes to warrant the designation of a break in series.*

In the second and third cases, please indicate the changes, the reasons and their impact on the comparability over time. Particularly in the third case, please indicate which procedure Eurostat should apply to compare the data over years and any other information relevant for users.

There were no changes in the coverage of holdings for which records are sent to Eurostat, wherefore data comparability with previous operations is perfectly possible.

8.2.c Changes of definitions and/or reference time and/or measurements of characteristics the reasons and the impact of the changes on the comparability with previous sample survey/census data

Please specify the characteristics whose definitions underwent changes, the reasons and the impact on the comparability over time.

Please indicate the relevant case from the ones below:

- There have been some changes but not enough to warrant the designation of a break in series.*
- There have been sufficient changes to warrant the designation of a break in series.*

Particularly in the second case, please indicate any information relevant for users.

No changes were introduced to the definitions of variables that would compromise comparability with previous statistical operations.

8.2.d (new) Changes over time in the results as compared to previous sample survey/census, which may be attributed to sampling variability

This item is applicable when at least one of the two surveys whose results are compared is carried out as a sample survey.

Please indicate any information relevant for users.

Anomalies in the evolution related with high sampling errors can be found in the following characteristics:

- All variables concerning organic farming;
- B_1_2 – Pulses total;

- B_1_1_2 – Durum wheat;
- B_1_6_12 - Aromatic, medicinal and culinary plants;
- B_4_4_3 - Vineyards - table grapes;
- C_5_3_1 – Turkeys;
- C_5_3_2 – Ducks.

8.2.e Common Land

8.2.e.1 Possible change in the decision or in the methodology to collect common land , compared with previous sample survey/census data and reasons.

Please specify possible changes and reasons.

There were no changes in the decision or in the methodology to collect common land, wherefore data comparability with previous operations is perfectly possible.

8.2.e.2 Change of the total area of common land and of the number of agricultural holdings making use of the common land number of common land holdings compared with the previous sample survey/census data and possible reason(s)

Please specify.

With regard to the 2009 farm structure survey (agricultural census) there is a decrease in the number of holdings (-33%), and in the total area (-20%).

Common Land	RA 09	FSS 13	Variation %
Holdings (No.)	368	245	-33
UAA (ha)	127,660	102,239	-20

These changes may be chiefly accounted for by two reasons:

- The type of survey held in 2013 (sample survey). The common land (as the other legal person) wasn't considered in the sampling design (in Annex IV of Regulation (EC) No 1166/2008 there is no precision requests concerning the legal personality of the holding);
- The difficulty in quantifying precisely the areas of these holdings. Common land extends throughout large open hilly mountainous areas, with poor soils and pastures or forest land, and it is often very difficult for the common land governing board itself to indicate the area in a precise manner.

8.2.f Major trends on the main characteristics compared with the previous sample survey/census data

Please complete the following table. Comments must be given in case there is a change of more than 10% in the current FSS survey compared with the previous one for any numeric main characteristic.

This comparison concerns the population covered by the records sent to Eurostat.

Main characteristic	Current FSS survey	Previous FSS survey	Difference in %	Comments
Number of holdings	264,419	305,266	-13%	
UAA (ha)	3,641,592	3,668,145	-1%	
Arable land (ha)	1,083,517	1,173,127	-8%	
Permanent grassland (ha)	1,816,585	1,784,598	+2%	
Permanent crops (ha)	708,765	690,725	+3%	
Wooded area (ha)	807,638	842,208	-4%	
Unutilised Agricultural area (ha)	100,959	127,691	-21%	
Fallow land (ha)	333,072	341,534	-2%	
LSU (LSU)	2,035,511	2,205,950	-8%	
Cattle (head)	1,407,269	1,430,285	-2%	
Family labour force (persons)	565,830	657,831	-14%	
Family labour force (AWU)	250,058	294,415	-15%	
Non-family labour force (persons)	60,562	50,245	+21%	

Non-family labour force (AWU)	48,493	41,369	+17%
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Among these, stress is laid on those with a change exceeding 10% vis-à-vis 2009: number of holdings (-13%), unutilised agricultural area (-21%), family labour force (-14% in persons and -15% in AWU) and Non-family labour force (+21% in persons and +17% in AWU).

These trends are related to the decrease of familiar agriculture, replaced by an enterprise/professional agriculture. Indeed, the reduction of the number of holdings didn't correspond to an abandonment of land, but to a transfer from the small holdings (mostly based in family labour force, without competitiveness) to bigger holdings (mostly based in non-family labour force). These justify the reduction of the number of the holdings as well as the family labour force and simultaneously the increase of non-family labour force. This dynamics also explain the decrease of the unutilised agricultural area.

8.2.1. Length of comparable time series

It's possible to compare data, for the main variables, since 1989.

8.3. Comparability - domain

Comparisons with other data sources at micro/macro level

Other data sources can be for example administrative data, crop production surveys, animal surveys, labour force surveys, National Accounts.

If you run comparisons, please give a brief description of the results of these comparisons and possible adjustment made to FSS data. If not, please indicate why not.

8.3.a Comparisons at micro level

Data sources for comparisons (in annex) shows the information sources, as well as the respective comparison level and items. See Microdata in column Comparison level.

8.3.b Comparisons at macro level

Data sources for comparisons (in annex) shows the information sources, as well as the respective comparison level and items. See Aggregated data in column Comparison level.

Main output of the comparison with IFAP _ areas of land declared (in annex) presents the main output of the comparison with the IFAP (IACS) source with respect to Areas of land declared. The comparison of collected data with IFAP data – Areas of land declared allowed for effective monitoring during collection. By comparison, rather satisfactory data were obtained for the main monitored crops. As the coverage of FSS is larger than the IFAP, it is only natural that data collected exceed data taken from the IFAP source (areas of land declared by the beneficiaries receiving aid in 2013). In the case of oat, and considering that most is harvested green, it is also possible that some of this cereal has been incorrectly classified in the source as oat for the production of grain, thus justifying the negative change in the FSS vis-à-vis IFAP. As regards the total area, much other land contributing to the total holdings' area is neglected in the information reported to the IFAP.

Main output of the comparison with IFAP – SNIRA (Animal register) (in annex) presents the main output of the comparison with the IFAP source – SNIRA (Animal register) with respect to dairy cows, other cows, cattle, pigs, sheep and goats.

The random differences in animal categories between this administrative source and the Farm structure survey results can mainly be justified by the basic methodological differences of these two operations (sample survey versus administrative exhaustive source).

Annexes:

[Data sources for comparison](#)

[Main output of the comparison with IFAP _ areas of land declared](#)

[Main output of the comparison with IFAP _ SNIRA](#)

9. Coherence

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9.1. Coherence - cross domain

(new) Coherence with other data sources

Please indicate whether the FSS statistics are reconcilable (i.e. can be combined) with those obtained through other data sources or statistical domains.

FSS statistics are, obviously, crossable with other statistics/domains, namely crop, animal and national account statistics.

9.1.1 Coherence - sub annual and annual statistics

See item 9.1

9.1.2. Coherence - National Accounts

See item 9.1

9.2. Coherence - internal

[Not requested]

10. Cost and Burden

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Co-ordination with other surveys: burden on respondents

Please indicate if there is any co-ordination between surveys to avoid the situation that some farms have to answer multiple questionnaires with the same kind of questions.

the co-ordination is made by the field chain (interviewers) since field work is distributed previously taking into account the location of the farm

11. Confidentiality

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The confidentiality is required by law. This report should confirm these arrangements.

Please provide the requested information, taking into consideration that this report is a non-confidential document.

11.1. Confidentiality - policy**Dissemination of micro-data to external users for research purposes**

Please mention if micro-data are also disseminated and if yes, the confidentiality provisions that are applied.

The academic community has special requirements as regards statistical data, especially in terms of the development of research and preparation of Masters and PhD theses.

Against this background, Statistics Portugal established a Protocol with the Ministry of Science, Technology and Higher Education, with a view to facilitating access by researchers to the statistical data required for their activity. See attachment.

For this purpose, the interested researchers must be approved by the Office of Planning, Strategy, Assessment and International Relations, where they may obtain all the necessary information.

Annexes:

[Protocol INE MCTES \(only PT\)](#)

11.2. Confidentiality - data treatment**The procedures applied for ensuring confidentiality of the data during dissemination**

Procedures can include controlled rounding, cell suppression, aggregation of disclosive information, aggregation rules on aggregated confidential data, primary confidentiality with regard to single data values etc. Main reference: [Handbook on Statistical Disclosure Control](#) (2007).

The FSS promotes the most extensive use possible of information, while ensuring compliance with the NSS Law. [Output dissemination at NUTS II level](#)

The analysis made to the variables collected in FSS and their mostly physical nature prevents the respective agricultural holders from being in any way identified. Moreover, there are variables such as crop area (in the case of temporary

crops, as the name indicates, they vary every year depending on market and weather conditions during the crop year, and, in the case of permanent crops, they vary depending on the options taken by farmers at a given moment, with new planting or grubbing-up, etc.), which, due to its variability, do not allow for the identification of any holder. Information on livestock is under the same conditions: due to seasonality throughout the crop year, arising either from the productive cycle or from demand peaks on feast days (Christmas, Easter, etc.), it reveals significant changes in total livestock over the year. Also, agricultural labour is not subject to secrecy, given that it is collected and made available in groups, according to the legislation in force (Article 6 (4) (b) of the NSS Law).

Therefore, and also given the vast geographical area covered, no situations are envisaged in which the information released leads to direct or indirect identification of a certain agricultural holder, wherefore there will be no statistical confidentiality treatment.

Dissemination of economic data, by type

Any issues related to the typology of holdings and economic data associated with physical data that are measurable in euro may be released, provided that they are based on aggregates. This information is currently already released as such, wherefore this situation is also covered by the legislation in force.

12. Statistical processing

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Survey organisation and calendar

Please provide **brief** information on:

12.a The steps of the survey organisation and the starting and ending time of each step.

This information could help countries in the future planning of the activities.

As guidelines, the steps can consist of the following. Please adapt to the national situation if needed.

1. definition of survey objective and requirements:

1.1. formation of workgroups for survey organisation;

1.2. consultation of users;

1.3. set-up objectives, target population, statistical units, classifications, precision requirements etc.;

1.4. survey promotion.

2. survey design:

2.1. set-up organisation of the survey (e.g. detailed timetable, specification of resources, costs estimation);

2.2. definition of the survey variables;

2.3. design of the sampling frame and sampling procedures;

2.4. design of data collection procedures (e.g. questionnaire design, selection of data collection modes etc.);

2.5. design of data processing procedures (e.g. CATI/CAPI/CAWI input programmes etc.);

2.6. pilot survey organisation and execution.

3. data collection:

3.1. sampling frame construction and sample

Preparation work

FSS preparatory work took place from the last quarter of 2012 onwards and extended until the third quarter of 2013. The main tasks of the teams responsible for organising the FSS were the following:

Consultaion of users, definition, design and composition of the questionnaire and respective instruction manual, update of the list of producers, recruitment and training of the interviewers.

There wasn't any questionnaire test due to the fact that the questionnaire remain mostly unchanged since 2009.

Chronogram of the main operation activities

The main activities of this statistical operation, from the preparation to the dissemination of results, are recorded in the chronogram shown in *Calendar (overview of work progress)* (in annex).

The FSS collection period ranged from November 2013 to May 2014. Data collection also included critical appraisal, recording, validation

<p>selection;</p> <p>3.2. <i>recruitment of interviewers;</i></p> <p>3.3. <i>training of interviewers;</i></p> <p>3.4. <i>fieldwork;</i></p> <p>3.5. <i>evaluation and assessment of fieldwork.</i></p> <p>4. <i>data processing and validation:</i></p> <p>4.1. <i>data entry and data coding;</i></p> <p>4.2. <i>data validation (at record level);</i></p> <p>4.3. <i>data correction and imputation.</i></p> <p>5. <i>data compilation:</i></p> <p>5.1. <i>weight calculation and estimation;</i></p> <p>5.2. <i>calculation of derived variables;</i></p> <p>5.3. <i>calculation of quality indicators (e.g. non-response rates, relative standard errors, coverage errors, bias etc.);</i></p> <p>5.4. <i>aggregation and tabulation;</i></p> <p>5.5. <i>validation of aggregated data.</i></p> <p>6. <i>data analysis</i></p> <p>7. <i>data dissemination</i></p>	<p>and analysis.</p> <p>Collected data was subject to a critical appraisal according to the guidelines defined in the control manual (document provided to the chain of collection and containing, for each question, the procedures to be adopted for a preliminary control of data collection, especially identifying compulsory questions, relationships among variables, etc.). In turn, the consistency of collected data should be analysed in line with the provisions of the Instruction Manual and its alignment with local circumstances.</p>
	<p>Statistics Portugal (INE) was the entity responsible for conducting the FSS, in cooperation with the Regional Statistical Office of the Azores and the Regional Directorate of Statistics of Madeira. The Agriculture and Environment Statistics Unit of the Economic Statistics Department and the Data Collection Department were the two units that coordinated the operation at national level, having been responsible for organising and conducting works to collect and validate information respectively.</p> <p>This statistical operation involved over 200 staff across the whole country (Mainland and Islands), and was based on compliance with pre-defined data collection procedures aimed at organising, managing, monitoring and controlling data collection.</p> <p>The FSS data collection model focused on the collection services, with the coordination and technical support structure and coordination upstream, and field teams downstream. <i>FSS – Organisational structure</i> (in annex) shows the organisational structure of the statistical operation.</p> <p><u>Interviewer</u></p> <p>The interviewer used a laptop to record data electronically. In addition to the collection, critical appraisal and analysis of data consistency, the interviewer was also responsible for data recording, validation, analysis and confirmation/correction in computer-readable format.</p> <p>Interviewers had a document (the “Credential”) proving to agricultural holders/respondents that they were Statistics Portugal interviewers.</p> <p><u>Local technical staff member (Portuguese acronym: TL)</u></p> <p>Responsible for guiding and monitoring data collection, recording, validation and analysis, as well as for the organisational logistics and administrative management at their section level. They ensured information sessions to interviewers, and, in cooperation with the regional coordinating body, the allocation of the different intervening parties to the SAGR chain and the distribution of work to the interviewers. They ensured the management of questionnaire transfer,</p>

12.b The bodies involved and the split of responsibilities among bodies with respect to the main steps of the survey process

notably by reallocating questionnaires at the level of the collection section and between this section and other sections of the region or of other regions. They contributed to overcome the difficulties shown by the interviewers and assessed the quality of the information provided by them, being able to hand them back certified questionnaires. They were responsible for preparing meetings and drafting periodical monitoring reports on the work.

Regional coordinating body (Portuguese acronym: CR)

The regional coordinating body was responsible for interlinking the respective contributions in terms of recruiting, selecting and training human resources, effectively establishing shared intervention in terms of operational management. The regional coordinating body of Statistics Portugal ensured coordination of the operation in each region, being responsible for compliance with the respective budget (upon final validation of collection structure expenses). Was also responsible for guiding and monitoring data collection, recording, validation and analysis at regional level. They ensured information sessions for the interviewers, and overcame difficulties these considered to be insurmountable. They prepared periodical monitoring reports on the work at regional level, as well as a regional report on the operation.

National coordinating body (Portuguese acronym: CR)

Composed of representatives of the Economic Statistics Department and the Data Collection Department – organisational units of Statistics Portugal – with the responsibility, in addition to defining the organisational and logistical structure of the statistical operation, of monitoring works, thereby gauging the need to intervene in order to solve critical situations. It also assumed responsibility for the project's budget control.

Structure of the chain of data collection

The collection structure was initially sized based on the number of agricultural holdings forming the farm register, the size of the geographical area of intervention of teams, and, at the upper levels of the chain of collection, the profile and availability of human resources.

Geographical distribution/organisation

The field structure was composed of 7 services distributed across the country, 31 staff supervising a team incorporating 172 interviewers. As the collection stage of the operation progressed, the national coordinating body sent to the different regional coordinating bodies the current status of the collection on a weekly basis. This included, per collection service, information on the number of questionnaires collected, still to collect, their status and certification.

12.c Serious deviations (if any) from the established calendar and reasons. *Please mention only serious deviations with significant consequences on the quality and the transmission time of data to Eurostat.*

There wasn't any serious deviation from the established calendar.

Annexes:

[Calendar \(overview of work progress\)](#)

[FSS Organisational structure](#)

12.1. Source data**12.1.a Target population****12.1.a.1 The national definition of an agricultural holding**

Please mention if the national definition of the holding is as according to the EU definition [3] or not. If not, please mention the national definition of a holding.

Agricultural holdings are techno-economic units where there is common use of inputs (labour, machinery, buildings, land, etc.) and that cumulatively:

- Produce agricultural products or maintain in good agricultural and environmental conditions land which is no longer used for production purposes (as set forth in Regulation (EC) No 1782/2003);
- Reach or exceed a specific size (minimum limit);
- Are in a specific identifiable location, even when their area covers more than one commune or even more than one municipality;
- Are operated under the single management of an agricultural holder, who assumes substantive decision-making.

12.1.a.2 The number of holdings in the population disregarding any possible thresholds applied (the entire number of holdings in the country), according to the EU definition of a holding or, if different from the EU definition of a holding, according to the national definition.

Please indicate the number. If it is not possible to provide this information, please provide the reasons.

Number of holdings: 305,163.

12.1.a.3 The national survey coverage; the thresholds applied in the national survey (if any) and the geographical coverage

Please briefly describe the national target population which is the population for which national inferences are made.

Please consider possible thresholds applied in the national survey and please mention them.

Please mention the geographical coverage (including any geographical areas not covered).

The population includes the agricultural holdings existing in Portugal. The FSS was held on the Mainland and in the Autonomous Regions of the Azores and Madeira.

The size conditions that agricultural holdings must meet are, in the following order:

- To have, in the Mainland, at least 1 hectare (ha) of Utilised Agricultural Area – UAA (arable land + kitchen garden + permanent crops + permanent grassland). In the Autonomous Regions limits are lower, the minimum UAA being 0.1 ha;
- Minimum area (or production) limits for at least one of the following crops:

Crops	Threshold	
	are	m ²
Flowers and ornamental plants (excluding nurseries)	5	500
Crops under glass or other (accessible) protective cover	5	500
Nurseries	5	500
Aromatic, medicinal and culinary plants	5	500
Market gardening fresh vegetables	10	1 000
Arable land seed and seedlings	10	1 000
Industrial crops (excluding aromatic, medicinal and culinary plants)	20	2 000
Orchard	20	2 000
Vineyard	20	2 000
Olive plantation	50	5 000
Potatoes (do not include potatoes from market gardening and kitchen gardening)	50	5 000
Open field fresh vegetables	50	5 000

- Existence, on the day of the interviewer's visit, or production in the crop year 2012/2013, of at least:

Livestock	Threshold	
	Existence	Production
Breeding bulls	1	
Cows (exclude work animals)	1	
Bovine animals with 2 years old and over (exclude work animals)	2	
Fattening pigs	3	
Breeding sows	1	
Sheep	6	
Goats	6	
Breeding female rabbits	10	
Laying poultry and breeding poultry (chickens, turkeys, ducks, geese, guinea fowls, etc.)	100	
Inhabited hives and traditional cork hives	10	
Breeding ostriches	2	
Breeding quails	500	
Bovine animals		5
Pigs		5
Geese		250
Turkeys		250
Guinea fowls		250
Broilers		500
Ducks		500
Ostriches		15
Quails		10 000

As the survey progressed, a number of agricultural holdings in the list of producers might be considered as non-existent or in no enquiry conditions. This included, in particular, those that were incorporated into other holdings, whose agricultural area or animal houses went on to have another type of (non-agricultural) utilisation, those that, despite maintaining some sort of agricultural activity, lost the enquiry limits, or those that were double-counted in the list of producers.

12.1.a.4 (new) The number of holdings in the nationally covered population (see 12.1.a.3), according to the EU definition of a holding or, if different from the EU definition of a holding, according to the national definition.

Please indicate the number. These are holdings in the national survey coverage. If national thresholds are applied, the size of the national survey population is the number of holdings in the population by considering the thresholds applied in the national survey (see 12.1.a.3).

Number of holdings: 305,163.

12.1.a.5 (new) The survey coverage of the records sent to Eurostat

The survey coverage of the records sent to Eurostat can be different from the national survey coverage in case very low (or no) national thresholds are applied.

Please indicate if the coverage of the records sent to Eurostat is different the national survey coverage. If yes, please indicate the differences and how you selected the records sent to Eurostat.

The same survey coverage as in the national survey.

12.1.a.6 The number of holdings in the population covered by the records transferred to Eurostat, according to the EU definition of a holding and, if different from the EU definition of a holding, according to the national definition (*this number should be reported as item 1, in the table from section 12.3.d*).

Number of holdings: 305,163.

12.1.a.7 (new) Records sent to Eurostat on holdings with standard output equal to zero.

These can be holdings with only fallow land and/or only kitchen gardens and/or only crops and animals for which standard output coefficients are not defined (crops and animals not valued). In the case of a few countries, a significant amount of records have been sent to Eurostat with standard output equal to zero. Please provide any information that could help Eurostat and users to better understand why standard output is equal to zero and why those holdings are included in the survey.

There were collected 252 holdings under these conditions, mostly due to the fact that their activity was temporarily suspended. These holdings are considered in the results because they represent a reality that can not be neglected. These units, although having their activities temporarily suspended (mainly for sanitary break reasons, but also to change their production systems, install greenhouses or new orchards) still to be holdings and have to remain in the frame list of the survey.

12.1.a.8 Proofs that the requirements stipulated in art. 3.2 and (new) 3.3 of the Regulation 1166/2008 are met in the data transmitted to Eurostat

Art. 3.2: However, Member States which use a survey threshold above one hectare shall fix this threshold at a level that excludes only the smallest agricultural holdings which together contribute 2% or less to the total utilised agricultural area excluding common land and 2% or less to the total number of livestock units.

Art. 3.3: In any case, all agricultural holdings reaching one of the physical thresholds specified in Annex II shall be covered.

PT complies with art. 3.3 of the Regulation 1666/2008. Since the PT holdings threshold is one hectare of UAA, the art. 3.2 is not applicable.

12.1.b Source of data

Please mention the source of data for example exhaustive coverage of units in a survey (census), sample survey, use of administrative sources, combinations, etc.

The FSS is a sample survey.

12.1.c (Sampling) frame

Section 12.1.c refers to the frame used to identify holdings to be surveyed and therefore should be completed only in case of a sample survey or a census.

*Section 12.1.c should **not** be completed when data are entirely taken from administrative sources. In this case, section 12.1.e of the report provides the relevant information.*

12.1.c.1 Source of the frame

Please specify the source of the frame, for example a statistical register (farm register, business register etc.), an administrative source etc.

The source of the frame was BAA (farm register). To update the list of holders, and with reference to the agricultural farm register/agriculture sample base – an agricultural holdings base to support agricultural surveys – ad hoc cross-checks were made with statistical files (statistical units file and specific surveys), with data from administrative sources, namely Financing Institute for Agriculture and Fisheries (Portuguese acronym: IFAP)

The statistical files are:

SOURCE: Agricultural surveys (horticulture, orchard, floriculture, etc.)

Responsibility: Statistics Portugal

Coverage: All agricultural holders with specific productions

Geographical scope: Mainland, Autonomous Region of the Azores, Autonomous Region of Madeira

Reference point: 2009 to 2012

SOURCE: Statistical units file

Responsibility: Statistics Portugal

Coverage: All companies and self-employed people

Geographical scope: Mainland, Autonomous Region of the Azores, Autonomous Region of Madeira

Reference point: online (2013)

For **administrative sources**, see item 12.1.e.1

In addition, use was made of **other sources**:

- of files with specific information from the Autonomous Region of Madeira and,
- on an ad hoc basis, of information scattered in files from other statistical surveys of the Economic Statistics Department, notably the inquiry populations of statistical operations targeted at poultry farms and nurseries.

12.1.c.2 Type of frame

Please specify whether it is a list frame or an area frame, whether you used a combination of multiple frames etc.

The sampling frame used to select the sample for the Farm Structure Survey was the register of all the Portuguese holdings, which was built after the last Agriculture Census in 2009.

12.1.c.3 Time reference and updating process for the frame

The list of producers became available at end-May 2013.

In the process of updating and rendering the different available sources compatible, Statistics Portugal used a tool developed in QualityStage, a data quality management application. This application supported the implementation of processes within the scope of the standardisation and consolidation of names and addresses.

Based on the use of the QualityStage tool, a sequential process was established to compare sources, two by two. After the definition of survival criteria, this gave rise to provisional lists of producers.

The provisional result is compared with a new source, until a final consolidated list of producers is obtained.

It was deemed necessary to define survival rules for the “selection” of the producer who subsists given a group of “potentially” equal producers; essentially, the rules are related to the quality/timeliness associated with each source.

In the 2013 process the list was updated with the latest data obtained from the Financing Institute for Agriculture and Fisheries, the Autonomous Region of Madeira, and also available in the Economic Statistics Department.

Following implementation of the QualityStage software and definition of survival rules for producers, a provisional list was obtained, which was subject to various types of analyses, as a result of the enhancement, improvement and update of information:

- Spelling correction of names, addresses and cities, undetectable in the standardisation made by the software application;
- Construction of Access queries to detect and eliminate possible double counting that may persist: same names/District/Municipality/Commune (DT/MN/FREG)/Tax identification number; names/telephone/DT/MN/FREG/address; etc.
- Comparison with data from the statistical units file to complement registers with missing information, in particular names, incomplete or unknown addresses, DT/MN/FREG/4 and 7-digit postal_code;
- Update of the DT/MN/FREG code of the holding and the producer with current territorial referencing (Portuguese acronym: REFTER) codes, ensuring completion of all fields;
- Assignment of cities of the Portuguese Mail Services (CTT) when there is a common 7-digit DT/MN/FREG/postal_code key between the two bases of comparison;
- Completion of not valid postal codes through the DT/MN/FREG link with the CTT table for which there is a direct match;
- Replacement of legal person identification numbers started with 8xx by new numbers, started with 1xx or 2xx;
- Filtering of telephone characters and elimination of telephones without 9 digits;
- Elimination of the completion of the address field, whenever the address and city fields were exactly alike.

12.1.d Sampling design

Section 12.1.d should be completed only in case of a sample survey.

Please describe the sampling design according to the following structure. This structure aims to increase the clarity and comparability of information between countries.

12.1.d.1 the name of the sampling design and whether it is a probability design.

A probability sampling design ensures known probabilities for units selected. In practice, non-response generally makes samples depart from the probability ones. However, the point here is to report on whether or not the gross sample (net sample plus non-respondents) has been selected in a probability way.

Stratified random sampling.

12.1.d.2 (new) the number of sampling stages.

If the survey sample is selected from another sample (e.g. master sample) please consider this stage. If you use sub-sampling for some of the characteristics, please distinguish the cases in your answer.

Single-stage design.

12.1.d.3 (new) the sampling unit at each stage

For example, sampling units can be holdings in a single-stage design or municipalities/villages as primary sampling units and holdings as secondary sampling units in a two-stage design etc.

Holdings

12.1.d.4 the stratification variables and the sampling stage where they are applied

For example, in a single-stage design, holdings can be stratified by region and size.

The sample was stratified by agrarian region, geographical region (NUTS level II), general farmtype, and a variable (ST) which characterize the holding by effective livestock or by size classes of UAA.

In order to obtain good results for some variables, with significative importance at national level, but concentrated in a relatively small number of holdings, it was adopted a stratification “in cascade”. Some strata were built that contained all the holdings of the region with a non-zero value or above a certain value for those variables. It’s called stratification “in cascade”, because the holdings with values of the concerning variables above certain limits were progressively isolated.

All the remaining holdings, not belonging to these special strata, were stratified by size classes of UAA. Strata with less then 10 holdings were fully covered. We also considered exhaustive some special cases:

- Agrarian Regions = 3 (“Beira Litoral”) and ST = 13 (UAA \geq 5000) or
- Agrarian Regions = 9 (“Madeira”) and ST = 11 (UAA \geq 500)

For the non exhaustive stratum Neyman Allocation was used to calculate the optimal sample size for each stratum, based on the number of holdings.

The stratification and the variables used can be found in annex: “12.1.d.4 the stratification variables and the sampling stage”.

We calculate à priori coefficient of variation for the Less Favourable Areas to guarantee statistical representation.

12.1.d.5 (new) the sampling method at each stage

The sampling method can be exhaustive selection, simple random sampling, systematic sampling with equal probabilities, systematic sampling with probabilities proportional to size, etc.

The sample was selected independently in each stratum h by sequential simple random selection without replacement. That is, within each stratum holdings were sorted by the random number associated with them and were selected for the sample the first agricultural holdings. Later adjustments to sample size were made to improve the accuracy of some indicators considered relevant.

12.1.d.6 the list and description of full coverage strata

Full coverage strata are strata with complete enumeration (all units are selected in the sample).

Strata with less then 10 holdings were fully covered.

We also considered exhaustive some special cases:

- Agrarian Regions = 3 (“Beira Litoral”) and ST = 13 (UAA \geq 5000) or
- Agrarian Regions = 9 (“Madeira”) and ST = 11 (UAA \geq 500)

12.1.d.7 the overall sample size, how it was determined and any allocation method used

Allocation methods can be equal allocation, proportional allocation, Neyman allocation, optimal allocation considering different costs across strata etc.

See annex: 12.1.d.7 the overall sample size

12.1.d.8 sampling across time

This item refers to whether a new sample is drawn in each occasion, or a part or the whole sample is retained over all/several occasions. The latter two cases should be justified.

Not applicable since this is the first wave of the FSS.

12.1.d.9 the software tool used in the sample selection

For the study and selection of the sample it was used the package SAS, with programs made for the occasion.

12.1.d.10 other relevant information, if any

Nothing relevant.

12.1.e Use of administrative data sources**12.1.e.1 Name, legal base, time reference and (new) updating of the source**

If more than one administrative data source is used, please provide this information for each of them.

The farm register was updated from crossing the agricultural sample base (based on the 2009 General Agricultural Census and updated on the basis of agricultural surveys and other sources) with data from the following administrative sources:

SOURCE: IFAP (IACS)

Responsibility: Financing Institute for Agriculture and Fisheries

Coverage: Agricultural holders that actually received aid in the reference year

Geographical scope: Mainland, Autonomous Region of the Azores, Autonomous Region of Madeira

Reference point: Crop year 2012/2013

Legal Basis: Council Regulation (EC) No 73/2009 of 19 January 2009 establishing common rules for direct support schemes for farmers under the common agricultural policy and establishing certain support schemes for farmers

Updating frequency: yearly

12.1.e.2 Definition of the reporting unit (holding)

If more than one administrative data source is used, please provide this information for each of them.

External source	File	Correspondence between the INE's definition of holding and the one from the external source
Financing Institute for Agriculture and Fisheries (IFAP) – IACS	Holders that received payments under the common agricultural policy from IFAP in 2013	Theoretically there are no significant differences between the concepts of INE and IFAP. However, often the beneficiaries of IFAP and holders don't have a perfect match (e.g.: one holding may correspond to two or more beneficiaries of IFAP, when/if different household members apply for aid).
	SNIRA (Animal Register) – livestock keepers at national level	There are differences between the "holding" of SNIRA and "holding" of INE (e.g., one holding may correspond to two or more holdings of SNIRA).

12.1.e.3 The purpose(s) of the use of administrative sources

Purpose	Administrative source
	<i>Please specify the name of the administrative source(s) in the rows of this column. The row(s) where the name(s) of the source(s) is (are) specified indicate(s) the purpose(s) of the use of that (those) source(s).</i>
- to totally replace the survey, on all characteristics and on the whole survey population	
- to replace the survey on some of the characteristics and on the whole survey population. <i>Please indicate these (groups of) characteristics, the common identifiers and the method(s) of integration (record linkage algorithm).</i>	
- to replace the survey on all characteristics and on a part of the survey population	

- to replace the survey on some of the characteristics and on a part of the survey population. <i>Please indicate these (groups of) characteristics, the common identifiers and the method(s) of integration (record linkage algorithm).</i>	
- to build/update the (sampling) frame (used for census or for sample survey)	IFAP See item 12.1.e.2 <i>Definition of the reporting unit (holding)</i>
- to pre-fill answers in the questionnaires which are then checked by farmers during the survey	
- to impute item/unit non-response	
- to validate the survey data (quality control). <i>Please indicate actions taken in case of large discrepancies</i>	IFAP See item 12.1.e.2 <i>Definition of the reporting unit (holding)</i> . See also items 8.3 and 12.4.a.
- to calibrate of survey estimates. <i>Please indicate the calibration variables</i>	
- other (<i>please specify in the next column</i>)	

12.1.e.4 Difficulties of using administrative source(s) and measures taken

For each administrative source used, please briefly describe any difficulties and the way those difficulties were addressed. Examples of difficulties:

- *incoherence of concepts/definitions;*
- *incoherence of classification systems;*
- *different population coverage;*
- *problems creating the links between the units: the units in administrative sources do not correspond directly to the definition of required statistical units;*
- *problems creating the links between databases caused by e.g. the lack of common identifiers, obstacles related to IT issues etc.;*
- *impossibilities to establish cooperation with register owners;*
- *(too high) costs charged for the access by the register owners;*
- *problems related to data quality of the source;*
- *resistance to change caused by a general lack of trust in the quality of the source;*
- *timeliness and punctuality: the final validated data in the source may not be in time to meet statistical deadlines or may relate to a period which does not coincide with the statistical reference period;*
- *risks concerning the stability of the source to political changes etc.*

See item 8.3. *Comparability - domain*

12.1.e.5 Quality assessment of the administrative sources

*Section 12.1.e.5 should **not** be completed when administrative sources are used only for building/updating the (sampling) frame of a census or a sample survey . In that case, other sections of the report (sections 5.3, 12.1.c, 12.3.d) provide relevant information.*

	Administrative source and assessment of errors <i>Please specify the name of the administrative source(s) in this column, along with information required for each row.</i>
-coverage:	
- over-coverage <i>If the source covers more units than it should, please provide an assessment of the over-coverage rate and mention whether the out-of-</i>	

<i>scope units were excluded.</i>	
<p>- under-coverage <i>If the source covers less units than it should, please provide an assessment of the extent of under-coverage (if possible) and mention if and how the missing information is derived.</i></p>	
<p>- misclassification <i>Please mention whether the information allows for the requested classification of units and whether there are errors in classification variables.</i></p>	
<p>- multiple listings <i>Please provide an assessment on units which were present more than once in the source and specify how the duplicates were eliminated.</i></p>	
<p>- rate of unreported events <i>If data of the System for the Identification and Registration of Bovine Animals is used, please provide an assessment of the rate of unreported events. Unreported events refer to births, deaths or loss, sales or change of owners etc. of animals, which create under – and/or over-coverage errors for the estimates of animals.</i></p>	
<p>- missing data (analogue to item and unit non-response errors in a survey). <i>Please provide an assessment of missing data, specify for which characteristics and how it was accounted for (e.g. by imputation).</i></p>	
<p>- errors in register variables (analogue to measurement errors in a survey) i.e. erroneous values for certain variables</p>	
<p>- processing errors. <i>Please provide an assessment. You can mention here imputation methods used, if any.</i></p>	
<p>- coherence (comparison to other available data) of the administrative data (ex-ante and/or ex-post)</p>	
<p>- other drawbacks (if any) of the use of data from the administrative source. <i>Please specify the drawbacks in the next column.</i></p>	

[3] See Article 2 of Regulation (EC) 1166/2008 of the European Parliament and of the Council on farm structure surveys and the survey on agricultural production methods and repealing Council Regulation (EEC) 571/88

The same survey coverage as in the national survey

Annexes:

[12.1.d.4 The stratification variables and the sampling stage](#)

[12.1.d.7 The overall sample size](#)

12.2. Frequency of data collection

(new) Please indicate the frequency of data collection.

Since 1989, data collection on FSS were made on the following years:

- 1989 - Census
- 1993
- 1995
- 1997
- 1999 - Census
- 2003
- 2005
- 2007
- 2009 - Census
- 2013

12.3. Data collection

12.3.a Data collection modes

Please specify the data collection mode(s) used.

These can be for example:

- *Telephone*

The data collection is carried out through the telephone interviews, usually supported by the CATI technology.

- *Face-to-face*

An interviewer visits selected holdings to directly communicate with them and get the required data.

- *Internet*

The data collection is carried out by using questionnaires which can be completed through internet applications.

- *Self-completed paper questionnaires*

The data is gathered through self-completed paper questionnaires which can be collected on a spot or sent to the survey organisation by mail.

- *Mixed-mode*

Several modes for data collection are combined. The typical example is the survey where the telephone interviews are complemented with the face-to-face interviews for the respondents who were not reached by telephone.

The survey was conducted through face-to-face interviews, and collection was based on paper questionnaires. The interviewers were also responsible for the recording of data on the laptops. The type of data recording may be characterised as “heads up”, given that the tailor-made software application to support the agricultural survey system of Statistics Portugal (SAGR) supplied instantaneous feedback to the staff member using a laptop to record data electronically regarding the information that was being recorded.

12.3.b Data entry modes

Please specify the data entry mode(s) used.

These can be, for example:

- *Optical character recognition (OCR);*
- *Electronic data capture during personal interview;*
- *Entering the data online by the holder etc.*

A generic **management and recording application** was developed, standardisable by survey (set of validation items and rules), to support the agricultural direct collection statistical operations.

The application is composed of the following modules:

- Management of the survey. Import of validation items and rules;
- Management of agricultural holdings. Import and consultation of the sample. Formulation of monitoring lists;
- Management of the chain of collection. Assignment of user profiles and allocation of agricultural holdings to interviewers;
- Management of questionnaires. Includes the recording module;
- Payments. Introduction of generic and specific variables to prepare payment slips;
- Data analysis. Totalisers, ad-hoc selections and comparison with external sources;
- Maps;

- Synchronisation (between the interviewers' laptops and the central database).

A web application was developed with a central environment targeted at survey management and analysis, and a local environment on laptops, targeted at questionnaire recording and validation by interviewers.

Hardware

Hardware used:

- 1 web server/application server (virtual machine, 4 CPU, 4 Gb ram memory)
- 1 database server (16 Gb ram memory)

Software

Software used:

- Java
- Oracle 10 and Oracle Express

Software architecture: see *Physical model of the application* in annex.

Strengths of the collection and recording application

- Solution that may be used in other statistical operations;
- Recording by interviewers. Correction of errors by interviewers;
- Validation rules editor. Time saving in the programming and testing of rules;
- Selection editor (ad-hoc queries). Research by users with no need for programming;
- Update of the local online application;
- Advantages inherent in a web application (broadly-based access, central application update, centralised database, online output).

12.3.c Measures taken to increase response rates

Please specify, for example:

- *call-back strategies, written / telephone reminders, contacting respondents who have only partly completed the questionnaires;*
- *giving priority to more important, for example large holdings;*
- *taking care that the mailing list is based on up to date information;*
- *training staff in handling difficult respondents;*
- *legal actions taken on non-response.*

Promoting and advertising the statistical operation

Before the interviews, letters (circular letters) were sent to agricultural holders informing them on the statistical operation, its purposes, the importance of their cooperation, and the date of the interviews.

Priority of data collection

- Holdings with a location other than the address of the holder – prior to the interviews, interviewers identified the agricultural holdings that had been allocated to them and which were located in a commune other than that of the holder's address. Priority was given to these interviews, especially those located in different agricultural areas. It was thus ensured that the questionnaire would be transferred accordingly and the interview made in due time. In addition, this procedure also permitted to avoid the possibility of the holder returning to the agricultural holding, leading to a new transfer of the questionnaire. Priority contact with these holders could also in a first instance avoid the transfer of the respective questionnaires.
- Large holdings and/or holdings with significant activity in their location area – the evaluation of the holdings' size, as well as the importance of their activity in the respective geographical area, were two crucial factors for interview priority.

Prior scheduling of the interview

With a view to enhancing the success of the interview, in particular the required availability of the agricultural holder to respond to the interview on a single occasion, where possible, the interviewer made an appointment with the agricultural holder. It was thus possible to avoid, for instance, incomplete collection of data, additional visits, and unnecessary further availability for concluding the collection/interview.

“I have been here” message

Reminders were adopted insisting on the need for making the interview and obtaining the necessary information. Therefore, in those cases where interviewers visited the address of the holder or agricultural holding, but could not get in touch with the holder, they left the message “I have been here”, i.e. the indication that they had visited the holding/address of the holder, and informing of a date for a new contact. This was intended to speed up the process, permitting the interviewer to establish a future contact with the holder in order to obtain response.

Interview techniques

With a view to raising the awareness of interviewees, leading them to cooperate and supply the required information, during the interviews interviewees were always informed about the purpose of the survey. They were persuaded, motivated and clarified regarding the importance of their cooperation. Where necessary, interviewers always sought to provide the required explanations, showing dependability and availability. In order to ensure the confidentiality and reliability of data, no third persons were allowed during the interviews, except where that was required by the person responsible for the information supplied.

Reminder that a response must be given

Whenever an interview could not be made, irrespective of the reason (impossibility to locate the holding or to contact the holder, absence of the interviewee, refusal by the holder to answer the interview), every effort was made to reverse the situation. The interviewer could resort to the local technical staff member. The interview would be considered non-achieved only after such conclusion had been drawn by higher hierarchical members in the chain of collection, and the decision communicated to the local technical staff member.

Obtaining alternative contacts

In addition, obtaining alternative contacts whenever it was impossible to contact the holder proved to be quite an important asset in terms of recovering missing interviews.

Payment of non-achieved interviews

The actual payment of non-achieved interviews was a further incentive for the interviewer to take all necessary steps to obtain the interview.

Treatment of refusals – Reminders until interview was considered non-achieved

In those cases where the reason for not making the interview (non-achieved interviews) was refusal, the interviewer tried to reverse the situation, insisting, in person and accompanied by the local technical staff member, on the need for the agricultural holder, or the responsible person, to supply the information required.

When it was not possible to reverse the situation at this level, the section manager was informed and indicated the subsequent step. If the situation remained unchanged (non-achieved interview), the section manager would follow the procedures in force, and request guidance to the regional coordinating body. This body would be responsible for any decision on the impossibility of conducting the interview. This decision alone made it possible to record a questionnaire to an agricultural holding as a non-achieved interview.

Treatment of refusals – Circular letter

In the cases of refusal confirmed by the regional coordinating body, a circular letter was sent to the holder/person responsible for supplying the information, informing them of the mandatory nature of the response and the fines to which they were subject in case of non-compliance with the legal obligation (according to Article 4 (1) of Law No 22/2008 of 13 May and Article 4 (5) of Decree-Law No 166/2007 of 3 May). This made it possible to reverse a number of refusals. The final number of non-achieved interviews due to refusal was rather low at national level (see item 5.3.3.a Unit non-response: reasons and treatment).

12.3.d Monitoring of response and non-response

The following table should be completed only in case of a sample survey or a census.

*It should **not** be completed when data are entirely taken from administrative sources. In the latter case, section 12.1.e.5 provides relevant information.*

The following table aims to collect exact information of the number of holdings in a uniform way. This information allows, among other, calculating response rates according to the definition of response rates in the Eurostat (2009) [ESS Handbook for Quality Reports](#), page 49. These definitions of the response rates are presented in the handbook for sample surveys but, as stated in the same handbook, page 57, they are also applicable to censuses.

The following table refers to the number of holdings covered by the records sent to Eurostat.

- If you send records on all surveyed holdings to Eurostat, then please include all surveyed holdings.*
- If you send records on a subset of surveyed holdings to Eurostat (that, according to Regulation 1166/2008, account for 98% of the utilised agricultural area and 98% of the livestock units), then please consider only the subset of holdings transferred to Eurostat, if possible. If this is not possible, please explain and then include information concerning all holdings surveyed in the country.*

This table refers to the number of holdings according to the EU definition, and, if different from the EU definition [\[4\]](#), according to the national definition. Please specify the case.

1.	<p>Number of holdings in the population covered by the records sent to Eurostat</p> <p><i>Please note that the survey coverage of the records sent to Eurostat can be different from</i></p>	305,163
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	<i>the national survey coverage in case very low (or no) national thresholds are applied. In case of a census 1=3+4+5</i>	
2.	Number of holdings in the gross sample <i>The number of holdings selected from the sampling frame to be included in the sample. This item should be completed <u>only</u> in case of a sample survey, in which case 2=3+4+5</i>	29,558
3.	(new) Number of ineligible holdings <i>The number of surveyed holdings which result to be out-of-scope (the frame is not updated and the data collection reveals that some holdings e.g. fall below set thresholds during the reference period), which do not exist at the selected address, which have the activities ceased during the reference period etc.</i>	2,476
3.1	Number of holdings with ceased activities <i>This item is a subset of 3. 3.1>=3.1.1+3.1.2</i>	2,051
3.1.1	Number of holdings which definitively ceased i.e. the land is abandoned. <i>This item should be completed only if information is available.</i>	Not available
3.1.2	Number of holdings with ceased activities following the change of manager <i>This item should be completed only if information is available.</i>	Not available
4	(new) Number of holdings with unknown eligibility status <i>The number of surveyed holdings which could not be contacted (e.g. in a CATI survey) and for which it is not certain if they are eligible (e.g. in scope) or not.</i>	103
5	(new) Number of eligible holdings <i>The number of surveyed holdings which are eligible 5=5.1+5.2</i>	26,979
5.1	Number of non-responding holdings <i>The number of eligible holdings which: - were contacted but refused to take part in the survey; - were contacted but were unable to participate in the survey for various reasons; - participated in the survey but the entire survey form cannot be used because of poor quality etc. This item refers to holdings for which no data is collected (unit non-response). 5.1>=5.1.1+5.1.2</i>	91
5.1.1	Number of non-responding holdings – re-weighted	91

5.1.2	Number of non-responding holdings – imputed	0
5.2	Number of responding holdings <i>This item includes holdings which provided completed questionnaires, either entirely or partially.</i>	26,888

Note: Common land holdings **are included** in the figures of the table

12.3.e Questionnaire(s)

Please annex the questionnaire(s) used for the data collection, using the "Add file" button. If possible, please provide the questionnaire in English, French or German.

Three different questionnaires were designed, one for the Mainland and one for each Autonomous Region (Azores and Madeira). Although overall similar, they reflect a number of regional specificities, notably as regards the existence/separate identification of certain temporary crops (sugarcane, proteaceae, sweet potato or yam), permanent crops (subtropical fruit and tea), or machinery and equipment. Azores and Madeira questionnaires are only available in portuguese.

[4]See Article 2 of Regulation (EC) 1166/2008 of the European Parliament and of the Council on farm structure surveys and the survey on agricultural production methods and repealing Council Regulation (EEC) 571/88

Annexes:

[Physical model of the application](#)

[Questionnaire FSS 2013 Mainland](#)

[Questionnaire FSS 2013 Azores](#)

[Questionnaire FSS 2013 Madeira](#)

12.4. Data validation

12.4.a Edit rules/checks

Please mention edit rules applied. For example: data format checks, completeness checks, routing (skip) checks, range/outlier checks, relational checks, ratio edits, etc.

Interviewer/staff member using a laptop to record data electronically

The interviewer's functions include data analysis, especially as regards consistency and alignment with local circumstances. Moreover, interviewers/staff using laptops also record, validate and review data in computer-readable format. In order to assist interviewers/staff in this function, 2,060 validation rules were created for recorded data, by resorting to the validation rules editor of SAGR. This editor makes it possible to centrally create strings of rules. A number of fine-tuning interventions and updates were made to the original rules in the course of the operation.

Validation rules triggered errors, which can be broken down into three large groups:

- Intrinsic errors (8) – those usually associated with the introduction of characters that are not accepted in specific recording fields, especially those related to the identification of the holder (e.g. characters not accepted in names, addresses, etc.). Any one of these errors prevents the questionnaire from being recorded;
- Fatal errors (1,368) – this type of error enables the questionnaire to be recorded; however, its validation will undoubtedly result in the questionnaire being labelled as incorrect, which prevents its conclusion. These errors can be mandatory errors (non-compliance with the compulsory filling-in of a certain field; e.g. legal personality not filled in), consistency errors (if a certain field is/is not recorded, another field must be/does not have to be filled in; e.g. existence of irrigated area, where the field irrigated land had not been filled in), arithmetic errors (wrong totals; e.g. wrong total cereal), range errors (data must be included within a certain range, or cannot attain a certain value; e.g. rice fields in Entre Douro e Minho), or sequential errors (non-sequential filling-in of certain fields; e.g. non-sequential filling-in of members of the holder's household). Correction of these errors is mandatory;
- Warning errors (684) – this type of error enables the questionnaire to be recorded and concluded. These errors may also be of the following types: range errors (e.g. rice field in the Algarve or rice exceeding 50 acres in Beira Litoral), consistency errors (e.g. the holding has an irrigation system and does not record irrigated land), non-filling-in errors (e.g. the telephone was not filled in), and variable ratio errors (e.g. irrigated land of temporary crops exceeding 4 times or ¼ smaller than the average irrigated land over the last 3 years). These errors basically play a warning role, and the

interviewer/staff member using a laptop will analyse the data triggering errors and confirm or correct them. Validation may be broadly based, covering the whole national territory (356), or be restricted to the Mainland (519), Madeira (541), the Azores (194) or specific agricultural regions (450). For the Mainland questionnaire, specific validation rules were implemented for each region, so as to identify and validate certain characteristics. Errors in SAGR were automatically triggered during the data recording procedure, enabling the staff member using a laptop to immediately correct/analyse data.

See *Example of the list of errors triggered during the data recording procedure* (in annex, only available in Portuguese).

After the correction of fatal errors and the analysis of warning errors (reflected in confirmations and/or corrections of recorded data), interviewers, where they considered their work to have been concluded regarding the questionnaire/holding in question, would label it as “Concluded” in SAGR (afterwards, they would inform local technical staff members that the recorded information was ready to be analysed).

Local technical staff member

Local technical staff members analysed the information to detect possible inconsistencies in data collected and recorded, as well as incorrectly implemented concepts or misalignments with local/regional circumstances. An analysis was made of the information contained in the questionnaires concluded by the interviewers (those that they deemed ready to be analysed by the local technical staff member). For the purpose, the local technical staff member could/should resort to the Error Report, the Validate function, the Selection module and/or the Comparison with other Sources module. The local technical staff member could introduce corrections/changes, return it to the interviewer (Return to lower level). After a critical appraisal and analysis of the information, the local technical staff member would certify the questionnaire (thereby signalling the regional coordinating body that their work had been concluded and the questionnaire was ready to be analysed).

Regional coordinating body

After analysis, the regional coordinating body could return the questionnaire to the local technical staff member, who could resort to the interviewer, only if necessary for contacting the person responsible for the information supplied.

National coordinating body

In the course of the operation, the national coordinating body, similarly to the other elements in the data collection chain structure of the FSS, prepared regular analyses of data collected and, in order to complement and support regional analyses, submitted the output to be validated at the different levels in the chain of collection. As a result, the analyses implied the justification or correction of data collected. For different geographic levels, it usually covered information regarding:

- Comparison with other sources;
- Frequency of errors;
- Maximum permissible errors;
- Selections;
- Totalisers.

In addition to validating the information registered through warning and fatal errors, aggregate data and microdata in the FSS were also analysed. Information was analysed through the SAGR software application, by using features specifically developed for the purpose, in particular: totalisers, selections of holdings and comparison with external sources (microdata and aggregate data).

The analysis of **totalisers**, i.e. aggregate information per geographic level, is essential to evaluate the consistency of collected data vis-à-vis local circumstances. Totalisers of the different geographic levels were analysed according to profiles in the chain of collection, thereby ensuring that an analysis would be carried out for all geographic levels.

Selections refer to the search for holdings according to selected conditions, with a view to detecting incorrections in data collection. The critical appraisal of aggregate data made it possible to obtain elements for the analysis of microdata, particularly in the identification of overvalued variables and high variable values – maximum permissible errors. Selections were frequently based on the existence of a given warning error (so as to identify potential systematic errors made by interviewers) and were especially adjusted to local agricultural specificities, i.e. a dynamic process.

The comparison of recorded data with other sources was instrumental for validating the information. For further information, see item 8.3.

12.4.b Tools used for data validation

Please mention tools used.

In the FSS interviewers/staff using laptops to record data electronically recorded, validated and analysed data in

computer-readable format. Validation rules for recorded data, loaded to the software application system, triggered errors that, depending on their seriousness/importance, could prevent completion of the questionnaire, and were an invaluable support at an early stage of data analysis/validation. In a central environment, the remaining profiles of the chain of collection conducted a second data analysis and validation, with a module to compare with external sources allowing for comparison of recorded data with other information sources.

For comparison of data with other sources, an analysis tool was of the essence during the operation, allowing for constant monitoring of the data collected and, where applicable, intervention at different levels in the chain of collection to correct /justify significant deviations from the external source.

12.4.c Level of data validation

Please mention. For example, data validation can be done at the level of the interviewer, of the supervisor, of the local collection centre, of the final collection centre.

The levels of validation are:

- Interviewer/staff member using a laptop to record data electronically
- Local technical staff member
- Regional coordinating body
- National coordinating body

Annexes:

[Example of the list of errors triggered during the data recording procedure \(only available in Portuguese\)](#)

[Example of the error report \(only available in Portuguese\)](#)

12.5. Data compilation

Sections 12.5.a and 12.5.b should be completed only in case of sample surveys.

12.5.a Methods for deriving the extrapolation factor (the weight)

Please give a description of the extrapolation procedures used to weight the data of the sampled holdings to the population, discussing the different steps taken, as follows:

12.5.a.1 Design weights

Please explain how design weights were obtained. In case the approach departed from the usual one that consists of taking the inverse of the inclusion probabilities, then the latter should be explained.

Design weights are defined as the inverse of the units' selection probabilities.

See annex: 12.5.a.1 Design weights

12.5.a.2 Adjustment of weights for non-response

Please mention if you applied re-weighting for non-response. If yes, then the method used to determine the correction factors should be explained: reweighted Horvitz-Thompson estimator, ratio estimation, regression estimation, etc.

Please indicate if response homogeneity groups have been created.

See annex: 12.5.a.2 Adjustment of weights for non-response

12.5.a.3 Adjustment of weights to external data sources

Please mention if you adjusted the weights to external sources and if so please describe and mention the variables used from the sources and the sources. Generally, samples are adjusted to external data sources in order to make their accuracy better. For instance, the calibration technique aims at calculating new weights which provide error-free estimates for a certain number of characteristics. If the characteristics are strongly correlated with the variables of interest, then the level of accuracy for most of the survey estimates is improved.

Not applicable.

12.5.a.4 Any other applied adjustment of weights

For example, extreme weights (which increase the variance of the estimates) can be trimmed.

Not applicable.

12.5.b Formulae applied for estimation methods

12.5.c Other relevant information (if any)

None.

Annexes:[12.5.a.1 Design weights](#)[12.5.a.2 Adjustment of weights for non-response](#)**12.6. Adjustment**

[Not requested]

13. Comment[Top](#)**13.a Any regional specification**

Please include relevant information such as on extreme weather conditions in certain region(s) during the agricultural year (reference period), differences in methodology across regions etc.

N/A

13.b Possible improvements in the future

Please suggest possible improvements.

The structure of the quality report was an adaptation to the structure defined for the FSS 2009/2010. Statistics Portugal considers that this version is necessarily provisional and should be improved (simplified in terms of content and improved in terms of structure). For example, the item 12 is redundant with the information reported in many of the previous points.

13.c Other annexes

Please annex any other(s) file(s), deemed as useful, using the "Add file" button.

Please indicate here the nature and purpose of the file(s).

N/A

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