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 Estonia

Time Dimension: 2013-A0

Data Provider: EE1

Data Flow: FSS_ESQRS_A:1.0

Eurostat metadata

Reference metadata

For any question on data and metadata, please contact: EUROPEAN STATISTICAL DATA SUPPORT

Download

1. Contact

Top

1.1. Contact organisation	*Please provide the name of the organisation of the contact points for the data or metadata.*
	Statistics Estonia
1.2. Contact organisation unit	*Please specify an addressable subdivision of an organisation.*
	Enterprise and Agricultural Statistics Department
1.5. Contact mail address	*Please specify the postal address of the contact points for the data or metadata.*
	Tatari 51, 10134 Tallinn, Estonia

2. Introduction

Top

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)*

The Agricultural Census (hereinafter AC) 2010 was the sixth AC in Estonia; the previous ones were conducted in 1919, 1925, 1929, 1939 and 2001. In AC 2001 the national threshold was used, but a new threshold was applied after that and the AC 2001 data were recalculated accordingly. On the basis of AC 2001 data, the Farm Register was composed – this is now regularly updated and used as a frame for all agricultural statistics surveys, including AC 2010.
Since 2001, Farm Structure Surveys have been conducted according to the EU legislation.

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.)	There is no special national legal act for FSS. The legal basis is the Official Statistics Act, just as in the case of other statistical surveys.
- the scope and the coverage of the survey	n/a
- the frequency and the reference period of the survey	n/a
- the responsibility for the survey	Statistics Estonia
- the administrative and financial provisions	n/a
- the obligations of the respondents with respect to the survey	The respondents are required to answer all questions and give true and complete answers.
- the identification, protection and obligations of survey enumerators	n/a
- the right of access to administrative data	At the request of Statistics Estonia, chief processors of databases are required to submit data collected in the administrative records.
- confidentiality provisions	Data that permit the direct or indirect identification of a statistical unit, thereby disclosing individual information, are confidential data.

3. Quality management - assessment

Top

[Not requested]

4. Relevance

Top

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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 national characteristics which were surveyed are as follows:

- Land use data with more details than required by the FSS legislation. The sown areas of the following crops were surveyed: separately winter wheat and spring wheat (instead of 2.01.01.01), winter barley and spring barley (instead of 2.01.01.04), triticale, buckwheat and mixed grain (instead of 2.01.01.99), field peas and field beans (instead of 2.01.02.01), winter rape and turnip rape and spring rape and turnip rape (instead of 2.01.06.04), fresh vegetables outdoor or under low protective cover and strawberries outdoor or under low protective cover (instead of 2.01.07.01), fodder roots and fodder brassica (instead of 2.01.05), clover, lucerne

and other leguminous crops (instead of 2.01.09.02.02), cereals harvested green, rape harvested green and other plants harvested green (instead of 2.01.09.02.99), black fallow and green fallow (instead of 2.01.12). These characteristics were added as they are required by EC 543/2009 or the gentlemen's agreement about crop statistics. The reason is that it is not possible to request the data twice – separately for the FSS and then with more details for the Crop Production Survey.

- Agricultural land rents. The following data on land rents were added: rent for arable land, rent for permanent grassland and rent for other agricultural land. Data on land rents were added as Eurostat needs data about agricultural land rents and requests this information from Member States on the basis of a gentlemen's agreement. For previous years, the data about agricultural land rents in Estonia have been collected only from legal persons; but in order to improve the coverage, these characteristics were also included into the FSS.

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.

The reference periods of all EU characteristics were in accordance with EC 1166/2008:

- for land characteristics – 12 months ending on the reference day 01.09.2013;
- for livestock characteristics – the reference day was 01.09.2013;
- for labour force characteristics – 12 months ending on the reference day 01.09.2013;
- for rural development measures – the reference period was 01.01.2011-31.12.2013.

The reference period for national characteristics was the year 2013.

4.2. Relevance - User Satisfaction

[Not requested]

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.

The list of non-existent characteristics is presented in the Annex. Non-existent characteristics are marked as "0" in the dataset transmitted to Eurostat.

[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:

Completeness

4.3.1. Data completeness - rate

[Not requested]

5. Accuracy and reliability

Top

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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.)*

The methodology of the survey, the thorough review of the data and the comparison with administrative data, previous surveys and other sources guarantee the sufficient precision of the key indicators as well as compliance with the EC 1166/2008 requirements.

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.

Information about the applicability of precision requirements is presented in the Annex.

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.

Information about the method used for the estimation of relative errors is presented in the Annex.

Annexes:

Applicability of precision requirements
Method for estimation RSE

5.2.1. Sampling error - indicators

5.2.1.a Relative standard errors (RSEs)

Information about relative standard errors is presented in the Annex.

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.

RSEs are below thresholds.

Annexes:

Relative standard errors

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.

Unit non-response was small and there were no strata with much larger non-response than the average. Therefore, the results of FSS 2013 can be regarded as good. Also, the FSS 2013 data were compared with several other sources. For example, comparisons were made with the Register of Agricultural Animals and the Register of Agricultural Support and Parcels (including land use data for 2013) of the Agricultural Registers and Information Board (ARIB). These registers cover the vast majority of utilised agricultural area and cattle. For example, ARIB's land use data for all subsidy applicants showed 954,331 hectares (0.3% less than the total utilised agricultural area in FSS 2013). The number of cattle in the Register of Agricultural Animals was 0.01% smaller than the number of cattle in FSS 2013.

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.

Frame under-coverage could be considered as non-existent as the frame has been updated on the basis of all available sources.

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.

These units were included in the frame but did not belong to the target population. Mostly, these units had finished their agricultural activity or their agricultural activity had decreased below the threshold. This was detected during data collection and therefore does not cause errors in the survey results. As over-coverage was expected to be the same within the whole population, i.e. within the sample and without the sample, reweighting due to over-coverage was not done. It can be said that the over-covered units in the initial sample represent similar holdings in the population.

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.

All units have been classified on the basis of the newest available information.

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

Contact data have been updated on the basis of all available sources.

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.

Multiple listings may occur when several persons from one holding exist in the frame (have registered themselves in administrative registers). They are discovered during the survey and the questionnaire is completed only once for the whole holding. As duplicates are still very rare, they are treated as errors in the population and sample; thus, when the information is received, the design weights are changed accordingly.

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).

The frame over-coverage was 1,627 units (7.6% of the frame). 1,627 is the estimated over-coverage in the population, taking into account that the population was 20,813 units and the total number of holdings according to the final results was 19,186. Therefore, 20,813 – 19,186 = 1,627 units.

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.

Information about measurement errors is not known. The questionnaires were carefully designed, they were mainly in the electronic format and included several arithmetical and logical checks. A part of the information was collected by trained interviewers. In the case of possible incorrect data items, the holders were contacted again if possible.

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

n/a

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

n/a

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.

There were a few holdings (with unknown eligibility status) who did not complete the questionnaires. Reweighting was used to compensate for non-response.
For adjusting non-response, the set of units belonging to the totally surveyed stratum was divided into subgroups. When compiling the first design, all holdings with SO of at least 8,000 euros were added to the totally surveyed group. After data collection, we compiled new strata from the initial totally surveyed stratum by SO, type of farming and LFA area, similarly as for initial strata. In the final design, only holdings with SO of at least 100,000 euros remained in the totally surveyed stratum.

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.

The characteristic having the highest item non-response rate was the number of working days by contractors, which is an extremely difficult question for respondents as they do not know the number of days but only the cost of the contractor's work. Some other characteristics with higher item non-response rates are presented in the relevant table. Item non-responses which were accounted for by contacting the holder again were not taken into account in the analysis.
In case of item non-responses, the data of the Agricultural Census 2010 were used for imputation. If these data were missing, the hot-deck imputation (nearest neighbour) method was used for imputation. Administrative data were also used if available - mostly they were used to prefill the questionnaires, but there were cases where the relevant administrative data for some units were received later.

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).

During data collection no information was received for 554 units (5.6%) with unknown eligibility status. Reweighting was used to compensate for that.

After dividing the initial total stratum into subgroups and forming a new totally surveyed stratum (with SO of at least 100,000 euros), there were no holdings within the new totally surveyed stratum for which data were missing (including utilised agricultural area and livestock data from administrative sources). There were cases where the holding accepted the administrative data but did not give further information, but this is not unit non-response and has been treated as item non-response. Therefore, unit non-response within the eligible units is 0.

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.

The characteristics with the most item non-responses are presented below:

Characteristic	Item non-response rate
Number of working days by contractors	12%
Other fully mechanised harvesters belonging exclusively to the holding	3%
Wooded area	3%
Permanent grassland no longer used for production purposes and eligible for the payment of subsidies	2%

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.

The data were checked and edited with the help of special data editing software. Due to several arithmetical and logical checks, it is practically impossible for processing errors to exist in the data.

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.

In case of errors, follow-up interviews were used if possible. If it was not possible, imputation was used.

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

If possible, data from the Agricultural Census 2010 were used. If these data were missing, the hot-deck imputation (nearest neighbour) method was used for imputation.

Administrative data were also used if available - mostly these were used to prefill the questionnaires, but there were cases where the relevant administrative data for some units were received later.

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

During data processing, the editing software which was initially produced for the Agricultural Census 2001 was used. The software has been renewed for each FSS. The people authorised to make corrections included permanent data collection and processing staff. One person was also hired temporarily; she has worked on the previous Farm Structure Surveys and therefore has great experience.

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.

Item non-responses which were accounted for by contacting the holder again were not taken into account in the analysis; therefore, the imputation rates are the same as the item non-response rates presented in item 5.3.3.2. The imputation ratios of these characteristics were as follows: number of working days by contractors - 4%, other fully mechanised harvesters belonging exclusively to the holding - 8%, wooded area - 3%, permanent grassland no longer used for production purposes and eligible for the payment of subsidies - 5%. Imputation rate is the percentage of units

that was imputed, and imputation ratio is the percentage of the value that was imputed.

5.3.4.2. Common units - proportion

[*Not requested*]

5.3.5. Model assumption error

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

No models were used.

5.3.6. Data revision

n/a

5.3.6.1. Data revision - policy

Brief description of the revision policy

There are no planned revisions of published data.

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.

See item 5.3.6.1.

5.3.6.3. Data revision - average size

[*Not requested*]

5.3.7. Seasonal adjustment

[*Not requested*]

6. Timeliness and punctuality

Top

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6.1. Timeliness

See below

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.

Preliminary results were released 4.5 months from the last day of the reference period.

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.

Final results were released 13.5 months from the last day of the reference period.

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.

The data have been published at the time announced in the release calendar.

7. Accessibility and clarity

Top

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7.1. Dissemination format - News release

[*Not requested*]

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.

The preliminary data of FSS 2013 were published in the form of a news release. The final results of all data together with metadata were published in the statistical database of Statistics Estonia. Simultaneously, a news release was published.

7.2.b Date of issuing (actual or planned)

The preliminary data were published on 15 January 2014.
The final results were published on 15 October 2014.

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 statistical database of Statistics Estonia is available at www.stat.ee.

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.

In 2013 the online data tables of the Farm Structure Survey were used 13,430 times.

7.4. Dissemination format - microdata access

[*Not requested*]

7.5. Documentation on methodology

7.5.a Available documentation on methodology on FSS national survey
Please provide references.

The national methodological report is delivered to Eurostat. The publications include a short methodological overview.

7.5.b Main scientific references
Please provide references.

n/a

7.5.1. Metadata completeness - rate

[*Not requested*]

7.5.2. Metadata - consultations

[*Not requested*]

7.6. Quality management - documentation

Available documentation on quality
Please provide references.

The national methodological report is delivered to Eurostat.

7.7. Dissemination format - other

[*Not requested*]

8. Comparability

Top

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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.

There are no differences between the national and the EU definition of the holding.

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 are no differences between national survey coverage and the records sent to Eurostat. Still, the initial survey list normally includes some over-coverage which is removed during data processing.

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 handbook REV 10 was used. There were no differences between the national and EU concepts. One Annual Work Unit is considered to include 1,800 hours.

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.

There is no common land in Estonia.

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.

n/a

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.

n/a

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.

n/a

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.

A combined method was used to determine the geographical references of the holdings.
On the basis of register data about land use and/or livestock buildings, the electronic questionnaires were pre-filled with the register numbers of the cadastral units where the main locations of the holdings were expected to be. These register numbers of cadastral units were checked by holders during the survey and new/corrected numbers were added if needed. In a few cases where the location was known only on the level of settlement, the location was fixed to the centre of the settlement.

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).

The geo-coordinates of the holdings were transmitted in the reference system ETRS89.

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).

The geo-coordinates of the holdings were rounded to a grid of 5x5 km, taking into account NUTS level 3 regions. If there was only one holding in the grid cell, the data were added to another grid cell. As a result, each grid cell contains at least two holdings. The centres of the grid cells were delivered to Eurostat. In the grid cells along the boundaries, the centres have been moved so that each holding is located in a real NUTS 3 region.

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 NUTS3 region of the holding is determined on the basis of the holding's main location which is received from the questionnaire.
The main location of the holding is the location of the holding's centre (the location of the major part of the land, if there is no centre). The holding's centre is the holder's place of residence or the location of the holding's buildings on the holding's land. If the office or the holder's residence lies more than 5 kilometres from the place of main activity, it cannot be considered as the reference place.

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).

There are no differences.

[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

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

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:
a. There have been no changes.
b. There have been some changes but not enough to warrant the designation of a break in series.
c. 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 have been no changes.

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:
a. There have been some changes but not enough to warrant the designation of a break in series.
b. 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.

There have been no changes.

8.2.d 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.

There have been no changes.

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 have been no changes.

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.

n/a

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;	19,186	19,613	-2.2%	
UAA (A_3_1), ha;	957,506	940,930	1.8%	
Arable land, ha;	628,312	640,038	-1.8%	
Permanent grassland (B_3), ha;	324,556	296,065	9.6%	
Permanent crops (B_4), ha;	3,445	3,121	10.4%	The increase is related to the increase in the areas of Christmas trees and berries.
Wooded area (B_5_2), ha;	211,452	223,967	-5.6%	
Unutilized agricultural area (B_5_1), ha;	13,352	26,097	-48.8%	The trend is that utilized agricultural area is increasing and, at the same time, unutilized agricultural area is decreasing.
Fallow land (B_1_12_1 + B_1_12_2), ha;	40,964	42,157	-2.8%	
LSU in LSU;	310,075	306,283	1.2%	
Cattle (C_2), head;	261,900	241,025	8.7%	
Family labour force – in persons;	31,358	39,690	-21.0%	The decrease in family labour force is related to the concentration of production into larger holdings while smaller and less efficient holdings are disappearing. Also, natural persons are registering their

				farms as legal persons.
Family labour force – in AWU;	10,217	13,343	-23.4%	The decrease in family labour force is related to the concentration of production into larger holdings while smaller and less efficient holdings are disappearing. Also, natural persons are registering their farms as legal persons.
Non-family labour force – in persons;	13,294	12,921	2.9%	
Non-family labour force – in AWU	11,819	11,773	0.4%	

8.2.1. Length of comparable time series

[*Not requested*]

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

Comparisons of microdata were made with the Register of Agricultural Animals, the Register of Agricultural Support and Parcels (including land use data for 2013), the Organic Farming Register, the Traffic Register, the Database of Certified Seed Producers, the crop production survey and animal surveys.
The differences between microdata were clarified and also corrected if needed. The differences occurred due to differences in definitions, units and methodology. If necessary, the holders were contacted for additional information.
See also item 5.3.3.b.

8.3.b Comparisons at macro level

Comparisons of aggregated data were made with the Register of Agricultural Animals, the Register of Agricultural Support and Parcels (including land use data for 2013), the Organic Farming Register, the Traffic Register, the Database of Certified Seed Producers, the crop production survey and animal surveys.
The differences with registers on the macrodata level were caused by differences in definitions and methodology (not all holdings are applying for subsidies; there is a threshold in the FSS; not all animals have to be registered in the Register of Agricultural Animals, or they have to be registered within a certain time period, etc.). In case of organic farming data, there were practically no differences between FSS 2013 and the Organic Farming Register. Tractors registered in the Traffic Register might not be used for agriculture.
The data of different surveys are in line with each other.

9. Coherence

Top

-

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.

The FSS data are closely related to other agricultural statistics.

9.1.1 Coherence - sub annual and annual statistics

[*Not requested*]

9.1.2. Coherence - National Accounts

[*Not requested*]

9.2. Coherence - internal

[*Not requested*]

10. Cost and Burden

Top

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.

Detailed data about crops were collected in order to avoid duplicate data collection in the Crop Production Survey.
In order to reduce costs, all holdings could provide their data electronically. In order to reduce the burden, administrative data were used as much as possible.

11. Confidentiality

Top

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 dissemination of data collected for the purpose of producing official statistics is guided by the requirements provided for in sections 34 and 35 of the Official Statistics Act.
Scientists can, under special contracts, use confidential microdata for research purposes at the safe centre on Statistics Estonia's premises or through remote access. They can make the analysis but only an employee of Statistics Estonia can send the research results to the user's e-mail address after the disclosure control has been performed.

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 treatment of confidential data is regulated by the Procedure for Protection of Data Collected and Processed by Statistics Estonia: http://www.stat.ee/dokumendid/19410.
The producer of official statistics disseminates data collected for the production of official statistics for public use only in a form that precludes the possibility of direct or indirect identification of a statistical unit. The data are published and transmitted without characteristics that permit the identification of the respondents, and are classified into groups of at least three holdings. Also, the data are not published if the share of data relating to a particular holding in the aggregate data is too high.

12. Statistical processing

Top

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 selection;
3.2. recruitment of interviewers;
3.3. training of interviewers;
3.4. fieldwork;
3.5. evaluation and assessment of fieldwork.

4. data processing and validation:
4.1.data entry and data coding:
4.2. data validation (at record level);
4.3. data correction and imputation.

5. data compilation:
5.1. weight calculation and estimation;
5.2. calculation of derived variables;
5.3. calculation of quality indicators (e.g. non-response rates, relative standard errors, coverage errors, bias etc.);
5.4. aggregation and tabulation;
5.5. validation of aggregated data.

6. data analysis

7. data dissemination

Calendar (overview of work progress)

Key activities of FSS 2013	Time/period
Preparatory works	n/a
Preparing questionnaires, instructions and training materials; describing questionnaires with special software; creating and testing special software; composing survey list and pre-filled data; preparing data collection; hiring staff; promotion etc.	14.08.2012-31.08.2013
Data collection and training interviewers	n/a
Training courses for instructors	27.08-30.08.2013
Data collection from legal persons	02.09-15.11.2013
Data collection from natural persons through the web	02.09-30.09.2013
Training courses for interviewers	03.09-13.09.2013
Data collection from natural persons by interviewers	02.10-15.11.2013
Data collection from administrative registers	01.07.2013-13.01.2014
Data processing	n/a
Data entry (if received by mail), data editing and output tables	02.09.2013-14.10.2014
Dissemination	n/a
Preliminary results available on the website	15.01.2014
Final results available on the website	15.10.2014
Formatting, codification and validation of data and delivery to Eurostat	16.10.2014-31.12.2014

12.b The bodies involved and the split of

The body responsible for the FSS was Statistics Estonia and all related

responsabilies among bodies with respect to the main steps of the survey process	tasks were also performed by Statistics Estonia.
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 were no serious deviations from the established calendar.

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.

The national definition is in accordance with the EU definition.

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.

20,813

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 threshold is in accordance with EC 1166/2008. The survey is representative for NUTS2 (Estonia as a whole).
In the case of holdings with less than one hectare of utilised agricultural area, the physical threshold was used in order to determine potential holdings producing mainly for sale. The threshold was as follows: at least 3 cattle (C2$heads); 10 pigs (C4$heads), sheep (C3_1$heads) or goats (C3_2$heads); 10 swarms of bees (C_7$hives) or 100 heads of poultry (C_5$heads); 0.5 ha of fruit and berry plantations (B_4_1$ha); 0.3 ha of fresh vegetables (B_1_7_1$ha+B_1_7_2$ha); 0.2 ha of nursery (B_4_5$ha); 0.01 ha of outdoor flowers (B_1_8_1$ha), crops under glass (B_1_7_2$ha+B_1_8_2$ha) or arable land seeds (B_1_10$ha). The physical threshold was used if there was no information about products produced for sale, i.e. only for targeting holdings that are producing mainly for sale.

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).

20,813

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.

There is no difference between the national and EU survey coverage.

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*).

There is no difference between the national and EU survey coverage. The initial population was 20,813 and the final number of active holdings on the basis of survey results was 19,186.

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.

4,513 holdings, i.e. 24% of the total number of holdings, have a standard output equal to zero. There are 813 of them in the sample, and these data are sent to Eurostat within the FSS 2013 dataset. These are holdings that have only permanent grassland which is not used for production purposes but only maintained in good agricultural and environmental conditions or fallow land, eligible for subsidies (i.e. the utilised agricultural area is at least 1 hectare). Some of them may also have kitchen gardens.
All holdings that have a utilised agricultural area above the threshold are eligible holdings, even if the entire utilised agricultural area is permanent grassland that is temporarily not used for production purposes but maintained in good agricultural and environmental conditions (and is eligible for financial supports). Thus, they had to be included in 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.*

A higher threshold is not used. The Farm Register is regularly updated on the basis of several sources, which guarantees that all agricultural holdings reaching one of the specified physical thresholds are covered.

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.

FSS 2013 was a sample survey which also included a 100% stratum. Part of the data were received from administrative sources.

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 Statistical Register of Agricultural Holdings (Farm Register) was the frame.

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.

It is a list frame.

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

The statistical Farm Register is regularly updated on the basis of several administrative and statistical sources:
1) Register of Agricultural Support and Agricultural Parcels (together with annual land use data);
2) Register of Agricultural Animals;

3) Organic Farming Register;
4) Business Register for Statistical Purposes of Statistics Estonia (frame for business statistics; it is based on the Commercial Register, the Non-Profit Institutions and Foundations Register, the Register of Taxable Persons and the State Register of State and Local Government Agencies);
5) Population Register;
6) data received from official agricultural statistics surveys.

On the basis of these sources, several data items are regularly updated in the statistical Farm Register. The registers are also used as sources for adding new holdings.

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.

A probability sampling design was used.

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.

Only one sampling stage was used.

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.

Agricultural holding was the sampling unit.

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.

Economic size, type of farming and LFA area were the stratification variables.

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.

Simple random sampling was used.

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).

The full coverage stratum included holdings with a large economic size, holdings with rare types of farming, organic farming holdings and new holdings. The full coverage stratum (including organic farming holdings and new holdings) is compiled first and these holdings are excluded from the part that is further stratified for the sampling.

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.

The sample size was 9,890. It was determined based on the available financial resources combined with the expected rate of active holdings and the data collection method. The sample sizes in the strata were determined by proportional allocation regarding the population 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.

A new sample is drawn for each survey.

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

The SAS software was used for the sample selection.

12.1.d.10 other relevant information, if any

n/a

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.

1) Register of Agricultural Support and Agricultural Parcels (together with annual land use data) (in Annex 4.3 referred to as IACS and Rural Development measures)
The main legal act is the European Union Common Agricultural Policy Implementation Act. The data are continuously updated. The received land use data refer to 2013 and the data on rural development measures refer to the period 2011-2013.

2) Register of Agricultural Animals (in Annex 4.3 referred to as the Bovine Register)
The main legal act is the Infectious Animal Disease Control Act. The data are continuously updated. The data on animals used in the survey refer to the survey reference date.

3) Organic Farming Register
The main legal act is EC No 834/2007 on the EU level and the Organic Farming Act on the national level. The data are continuously updated. The data used refer to 2013. As the data on animals refer to the day of inspection, they are adapted to the survey reference date. The number of animals was updated for the reference date on the basis of survey data. A comparison was made between the number of all animals specified in the questionnaire and the number of animals according to the data received from the Organic Farming Register (the latter divides animals into the following categories: kept as “normal”, under conversion or fully organic). Due to the requirements for organic production, the animals of a particular species and age group can only be organic or non-organic, but not both at the same time.

4) Traffic Register
The main legal act is the Traffic Act. The data are continuously updated. The data on tractors used refer to the survey reference date.

5) Environmental Register (in Annex 4.3 referred to as Genetically modified crops)
The main legal act is the Environmental Register Act. The data are continuously updated. Currently, there are no data on genetically modified crops in the register as these are not grown in Estonia.

6) Database of Certified Seed Producers
The main legal act is the Plant Propagation and Plant Variety Rights Act. The data are continuously updated. The initial data on seed production refer to the day of application and the final data refer to the inspection date.

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.

Register of Agricultural Support and Agricultural Parcels - natural and legal persons who have agricultural area or benefit from rural development measures.

Register of Agricultural Animals - natural and legal persons who own agricultural animals.

Organic Farming Register - natural and legal persons engaged in organic production.

Traffic Register - natural and legal persons who have registered their tractors.

Database of Certified Seed Producers - natural and legal persons who grow seeds and want the relevant fields to be certified.

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

Purpose	**Administrative source** *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).
- to totally replace the survey, on all characteristics and on the whole survey population	n/a
- to replace the survey on some of the characteristics and on the whole survey population. *Please indicate these (groups of) characteristics, the common identifiers and the method(s) of integration (record linkage algorithm).*	Organic Farming Register - data on organic farming. The data were linked with holdings through the client ID, personal ID code and commercial registry code. Register of Agricultural Support and Agricultural Parcels - data on rural supports and the distribution of fallow land between with and without subsidies. The data were linked with holdings through the client ID, personal ID code and commercial registry code.
- to replace the survey on all characteristics and on a part of the survey population	n/a
- to replace the survey on some of the characteristics and on a part of the survey population. *Please indicate these (groups of) characteristics, the common identifiers and the method(s) of integration (record linkage algorithm).*	n/a
- to build/update the (sampling) frame (used for census or for sample survey)	All six administrative and statistical sources presented under item 12.1.c.3 were used for updating the frame.
- to pre-fill answers in the questionnaires which are then checked by farmers during the survey	Register of Agricultural Support and Agricultural Parcels - data on utilised agricultural area, its components (including the total fallow land) and type of tenure, the cadastral units of main locations (see also item 8.1.e.1). The data were linked with holdings through the client ID, personal ID code and commercial registry code. Register of Agricultural Animals - data on cattle, sheep, goats, pigs, horses, beehives and the cadastral units of main locations (see also item 8.1.e.1). The data were linked with holdings through the client ID, personal ID code and commercial registry code. Traffic Register - data on tractors. The data were linked with holdings through the personal ID code and commercial registry code. Database of Certified Seed Producers. The data were linked with holdings through the personal ID code and commercial registry code. In the case of units who did not check the prefilled data, these data were considered to be correct by default.
- to impute item/unit non-response	Register of Agricultural Support and Agricultural Parcels - data on utilised agricultural area, its components and type of tenure. The data were linked with holdings through the client ID, personal ID code and commercial registry code. Register of Agricultural Animals - data on cattle, sheep, goats, pigs, horses, beehives and the cadastral units of main locations (see also item 8.1.e.1). The data were linked with holdings through the client ID, personal ID code and commercial registry code. Traffic Register - data on tractors.

	The data were linked with holdings through the personal ID code and commercial registry code. In the case of units who did not check the prefilled data, these data were considered to be correct by default.
- to validate the survey data (quality control). *Please indicate actions taken in case of large discrepancies*	Register of Agricultural Support and Agricultural Parcels - data on UAA, its components and type of tenure. The data were linked with holdings through the client ID, personal ID code and commercial registry code. Register of Agricultural Animals - data on cattle, sheep, goats, pigs, horses, beehives and the cadastral units of main locations (see also item 8.1.e.1). The data were linked with holdings through the client ID, personal ID code and commercial registry code. Traffic Register - data on tractors. The data were linked with holdings through the personal ID code and commercial registry code. Organic Farming Register - data on organic crops and animals. The data were linked with holdings through the client ID, personal ID code and commercial registry code. Database of Certified Seed Producers. The data were linked with holdings through the personal ID code and commercial registry code. In the case of units who did not check the prefilled data, these data were considered to be correct by default.
- to calibrate of survey estimates. *Please indicate the calibration variables*	n/a
- other (*please specify in the next column*)	n/a

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.*
In the case of all registers, there may be problems with creating links between the units. It is easy to create a link with the holder, but this is difficult when several persons from one holding have registered their lands or animals separately in administrative registers. In the case of the Register of Agricultural Animals, there are problems with coverage as all animals do not have to be registered in this register. In the case of the Traffic Register, there may be problems with definitions as all tractors do not have to be used in agriculture. So, in the case of these data, prefilling has been used and holders can correct their data if needed.

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 *Please specify the name of the administrative source(s) in this column, along with information required for each row.*
-coverage:		
	- over-coverage *If the source covers more units than it should, please provide an assessment of the over-coverage rate and mention whether the out-of-scope units were excluded.*	There is no information on errors in the register. The registrar checks the register data regularly; therefore, we expect the data to be correct. This applies to all the administrative registers used.
	- under-coverage *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.*	There is no information on errors in the register. The registrar checks the register data regularly; therefore, we expect the data to be correct. This applies to all the administrative registers used.
	- misclassification *Please mention whether the information allows for the requested classification of units and whether there are errors in classification variables.*	There is no information on errors in the register. The registrar checks the register data regularly; therefore, we expect the data to be correct. This applies to all the administrative registers used.
	- multiple listings *Please provide an assessment on units which were present more than once in the source and specify how the duplicates were eliminated.*	There is no information on errors in the register. The registrar checks the register data regularly; therefore, we expect the data to be correct. This applies to all the administrative registers used.
	- **rate of unreported events** *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.*	Almost 0. This applies to all the administrative registers used.
- **missing data** (analogue to item and unit non-response errors in a survey).*Please provide an assessment of missing data, specify for which characteristics and how it was accounted for (e.g. by imputation).*		There is no information on errors in the register. The registrar checks the register data regularly; therefore, we expect the data to be correct. This applies to all the administrative registers used.
- **errors in register variables** (analogue to measurement errors in a survey) i.e. erroneous values for certain variables		There is no information on errors in the register. The registrar checks the register data regularly; therefore, we expect the data to be correct. This applies to all the administrative registers used.
- **processing errors.** *Please provide an assessment. You can mention here imputation methods used, if any.*		There is no information on errors in the register. The registrar checks the register data regularly; therefore, we expect the data to be correct. This applies to all the administrative registers used.
		There is no information on errors in the register. The

- **coherence** (comparison to other available data) of the administrative data (ex-ante and/or ex-post)	registrar checks the register data regularly; therefore, we expect the data to be correct. This applies to all the administrative registers used.
- **other drawbacks (if any)** of the use of data from the administrative source. *Please specify the drawbacks in the next column.*	The main drawback is that the units in the register are different from the unit used in agricultural statistics, i.e. agricultural holding.

[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

12.2. Frequency of data collection

(new) Please indicate the frequency of data collection.

Over three or four years.

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.

A mixed data collection mode was used: mainly Internet and telephone interviews supported by CATI technology. The respondents could also print out paper questionnaires from the website of Statistics Estonia and send them by post.

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 mixed data entry mode was used: mainly online data entry by the holder and electronic data capture during telephone interviews. If paper questionnaires were submitted, these were entered manually by data processors.

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.

Several measures were taken to increase response rates: written and telephone reminders; follow-up contacts with respondents who had only partly completed the questionnaires, while the data of larger holdings were treated especially carefully; the mailing list is kept continuously up-to-date; the telephone interviewers have received special training, etc.

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.
Common land holdings (special holdings created to report common land), if any, should not be included in the number of the holdings of any category below. They should be reported in section 8.1.d.4

1.	**Number of holdings in the population covered by the records sent to Eurostat** *Please note that 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.* *In case of a census* **1=3+4+5**	20,813
2.	**Number of holdings in the gross sample** *The number of holdings selected from the sampling frame to be included in the sample.* *This item should be completed only in case of a sample survey, in which case* **2=3+4+5**	9,890
3.	(new) **Number of ineligible holdings** *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.*	756
3.1	**Number of holdings with ceased activities** *This item is a subset of **3**.* **3.1>=3.1.1+3.1.2**	not available
3.1.1	**Number of holdings which definitively ceased i.e. the land is abandoned.** *This item should be completed only if information is available.*	n/a
3.1.2	**Number of holdings with ceased activities following the change of manager** *This item should be completed only if*	n/a

	information is available.	
4	(new) **Number of holdings with unknown eligibility status** *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.*	554
5	(new) **Number of eligible holdings** *The number of surveyed holdings which are eligible* ***5=5.1+5.2***	8,580
5.1	**Number of non-responding holdings** *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**	0
5.1.1	**Number of non-responding holdings – re-weighted**	0
5.1.2	**Number of non-responding holdings – imputed**	0
5.2	**Number of responding holdings** *This item includes holdings which provided completed questionnaires, either entirely or partially.*	8,580

12.3.e Questionnaire(s)

The questionnaire is presented in the Annex.

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:

Questionnaire

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.

Several types of checks were used - data format checks, completeness checks, range checks, relational checks, etc. Inconsistencies compared to administrative data and/or other surveys were identified (see section 8.3).

12.4.b Tools used for data validation

Please mention tools used.

The tools used for data validation were the electronic questionnaire which included arithmetical and logical controls

(Internet and CATI versions) and a special data processing program.

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.

Data validation was done on several levels - holders filling in online questionnaires, telephone interviewers, instructors and finally data processors.

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.

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

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.

The Horvitz-Thompson estimator was used in reweighting.

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.

Adjustment of weights to external data sources was not used.

12.5.a.4 Any other applied adjustment of weights
For example, extreme weights (which increase the variance of the estimates) can be trimmed.

n/a

12.5.b Formulae applied for estimation methods

The formulae applied for estimation methods are presented in the Annex (see item 5.2.b).

12.5.c Other relevant information (if any)

n/a

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.

There are no comments.

13.b Possible improvements in the future

Please suggest possible improvements.
There are no suggestions for improvements.

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).
There are no other annexes.

Related metadata

Top

Annexes

Top