

## 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. Department for Environment Food and Rural Affairs (Defra)  
 Supplementary contacts: Scottish Government (SG) Welsh Government (WG) Department of Agriculture and Rural Development (DARD)  
 Time Dimension: 2013-A0  
 Data Provider: UK6  
 Data Flow: FSS\_ESQRS\_A

### 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 <span style="float: right;"><a href="#">Top</a></span>	
<b>1.1. Contact organisation</b>	<p><i>Please provide the name of the organisation of the contact points for the data or metadata.</i></p> <p>Department for Environment Food and Rural Affairs (Defra)            Supplementary contacts:</p> <ul style="list-style-type: none"> <li>• Scottish Government (SG)</li> <li>• Welsh Government (WG)</li> <li>• Department of Agriculture and Rural Development (DARD)</li> </ul>
<b>1.2. Contact organisation unit</b>	<p><i>Please specify an addressable subdivision of an organisation.</i></p> <p>Farm Surveys Team, Farming Statistics unit</p>
<b>1.5. Contact mail address</b>	<p><i>Please specify the postal address of the contact points for the data or metadata.</i></p> <p>Foss House,            1-2 Peasholme Green,            York. YO1 7PX. UK</p>

2. Introduction <span style="float: right;"><a href="#">Top</a></span>	
<b>2.a. Brief description of the national history of Farm Structure Surveys (FSS)</b>	<p><i>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 <b>brief</b> (expected</i></p>

length of maximum 250 words)

The main source of agricultural statistics in the UK is the annual June survey of agriculture, which collects detailed information on crops area, grassland areas, livestock populations and labour. The survey has been running since 1866 and is a very stable and reliable source. More recently, separate surveys are conducted in England, Wales, Scotland and Northern Ireland by the administrations in these countries with the results compiled at the UK level. In the UK, a farmer must register for a holding number if they intend to buy, sell or move livestock, sell crops for human consumption or claim any agricultural subsidies. Each of the administrations in England, Wales, Scotland and Northern Ireland maintain registers of agricultural holdings and receive regular updates from administrative sources (e.g. CAP payments), particularly offices that issue holding numbers, that capture new holdings and changes to contact details for an existing holding number. The annual surveys are conducted as sample surveys other than in those years when a full census is required.

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

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

<p>- the reference of the national legal base of the FSS survey (Act, Government Decree, etc.)</p>	<p>In the UK, agricultural data is compiled by the administrations in Scotland, Wales and Northern Ireland and in England, by the UK Government's Department for Environment, Food and Rural Affairs. The relevant legislation for the collection of agricultural information are:</p> <p>In <b>England</b>, the Agricultural Statistics Act 1979 as amended by the Agriculture (Amendment) Act 1984, provides the power to obtain statistical information relating to agriculture from any owners or occupiers of land used for agriculture.</p> <p>In <b>Scotland</b>, the Agriculture Act 1947 provides the Scottish Government with the power to obtain statistical information relating to agriculture from any owners or occupiers of land used for agriculture.</p> <p>In <b>Wales</b>, the Agricultural Statistics Act 1979 as amended by the Agriculture (Amendment) Act 1984, provides the power to obtain statistical information relating to agriculture from any owners or occupiers of land used for agriculture. The powers enshrined in this Act were devolved to the National Assembly for Wales following the Government of Wales Act 2006.</p> <p>In <b>Northern Ireland</b>, the Agricultural Statistics (Northern Ireland) Order 2004 provides the Department of Agriculture and Rural Development (Northern Ireland) with the power to obtain agricultural information in relation to any land comprised in an agricultural unit.</p>
<p>- the scope and the coverage of the survey</p>	<p>The legislation provide for the collection of agricultural information from all holdings in the UK for the purposes of producing official statistics and allows new surveys and additional questions.</p>
<p>- the frequency and the reference period of the survey</p>	<p>The legislation allows for the collection of agricultural statistics at any time. In practice, surveys of the agricultural industry are conducted annually. For the 2013 FSS, surveys were conducted in June 2013.</p>
<p>- the responsibility for the survey</p>	<p>Surveys were conducted by the administrations in Scotland, Wales and Northern Ireland and by the UK Government's Department for Environment, Food and Rural Affairs (Defra) in England. Defra were responsible for compiling data at the UK level.</p>
<p>- the administrative and financial provisions</p>	<p>EU funding accounts for a portion of the survey costs with the remainder coming from individual departmental budgets.</p>
<p>- the obligations of the respondents with respect to the survey</p>	<p>Respondents are legally required (if selected) to supply data on core areas such as land, crops, livestock and labour.</p>
<p>- the identification, protection and obligations of survey enumerators</p>	<p>Not relevant.</p>
<p>- the right of access to administrative data</p>	<p>No rights of access to administrative data are defined in legislation. Administrative data may be shared by agreement subject to the provisions of the Data Protection Act 1998.</p>
<p>- confidentiality provisions</p>	<p>The legislation contains restrictions on the disclosure of information, which may only be used for statistical purposes and for a limited number of non-statistical purposes. In addition, personal data is processed in accordance with the Data Protection Act 1998.</p>

### 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 United Kingdom has farms that cover the full range of farm type and sizes. As a result, most items are collected along with a number of additional items that are purely for national interest. The UK does survey a number of items for domestic purposes:

- Estimates for farm labour as at 1 June (not those who carried out farm work on the holding during the 12 months ending on the reference day of the survey) are collected each year.
- In the livestock categories there are a number of instances where we collect more detail than required by the regulation. For example, domestically sheep are quite important and therefore we have additional data categories such as lambs and three different categories for ewes.
- In the vegetable and soft fruit categories, we collect more detail than required by the regulation. For example, we collect raspberries, blackcurrants and other small fruit as three separate categories when the regulation only calls for "berry species".

These characteristics are requested by the UK Government to meet its need for evidence to support the making of Government policy on agriculture.

##### 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.

In the UK the majority of the data was collected on the survey form that arrived with the farmer on 1 June so most of the data collected from it was representative of the period July 2012 to June 2013 (or the 2012/2013 crop year). Exceptions are (a) livestock items which were obtained from the bovine register as at 1 June 2013, and (b) rural development payments, which were recipients in the calendar years 2011, 2012 or 2013 and sourced from administrative data.

#### 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.

A number of items were not collected as they were either not significant or non-existent at the UK level. A list of these and the justification for not collecting the NS items is attached. All other items specified in Regulation (EC) No 1166/2008 were collected at the UK level.

Item 3.07 Bees is not collected under any heading. The remaining NS characteristics are collected under other headings as indicated in the annex.

The SO coefficients of the 'other headings' are not recalculated following the inclusion of the NS characteristics.

Data is marked ':' for NS characteristics and with '0' for NE 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/non-significant items](#)**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.)

As with all sample surveys, the main limitation on the survey is that it is subject to sampling errors. There is also a degree of non-response which may potentially cause a bias in the results. The bias is unquantifiable but the response rate is reasonably high and how the response differs between farm types and size is monitored to try and avoid this possibility. The data are also subject to the vagaries of farmers' interpretation of the categories on the form. The paper and online forms are made as clear as possible, including notes on how to complete the sections, to try and minimise any confusion. A data validation exercise to clean the data prior to processing is carried out to keep the data as accurate as possible.

**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.

See attached.

**Annexes:**[Method used for estimation of relative standard errors \(revised\)](#)[Applicability of precision requirements revised January 2016](#)**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.

**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.

See attached. The problems in achieving the desired level of accuracy for breeding sows, other pigs and poultry are due to the volatile nature of the data. Rapid turnover of pigs and birds means point in time estimates are not ideal. The pig and poultry industries are both dominated by a small number of very large units. These can have a strong influence on the overall results - particularly at lower geographical levels.

**Annexes:**[Relative standard errors \(revised\)](#)**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 the main FSS items probably the biggest error results from non-response. Non-response affects all farm types and whilst this varies slightly with farm type, UK level records of non-response by farm type are not compiled. Comparisons have been made between FSS results and annual crop and animal statistics and all are consistent.

#### 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.*

Under-coverage errors are likely to be minimal for most farm characteristics. Whilst it is not compulsory for farmers to register a holding number a farmer will need one to conduct much of their agricultural business, for example buying, selling or moving livestock and claiming agricultural subsidies. We are therefore aware of most farms. Coverage of the poultry sector is difficult because the rapid turnover on the industry and its dominance by a few very large companies. The survey questions are designed to be a snapshot of the industry at 1 June. It is possible that on the day of the survey a number of producers may have no birds on their farm and be disinfecting their premises. To try and help with coverage, data is collected directly from the head office of the larger companies in a "special poultry exercise".

##### 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.*

As the farm register is kept up to date, we only survey farms with activity above threshold levels. We only receive a small number of ineligible responses (54 in 2013). Ineligible holdings are removed from our population before the final dataset is created. They are therefore not part of the raising factors and the weights are produced after the removal of the ineligible holdings.

##### 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.*

Very low extent. The annual surveys cover a substantial proportion of holdings so information is relatively up to date. We kept the original strata as built at the sampling stage.

##### 5.3.1.d Contact errors

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

Comparisons to other departmental registers ensure contact details are accurate.

##### 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.*

Duplicates can occur where the same land parcel has been assigned two holding identification numbers either with the same farmer or different farmers in the case of land that has been subject to short term rental agreements. Where we identify such units in the survey, we contact the farmer to decide which to remove. The survey weights are calculated at the end of the survey so are only based on the eligible responses with duplicates removed.

##### 5.3.1.f Other relevant information, if any

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#### 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).*

0%

#### 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.

In terms of crop areas and livestock numbers measurement errors are negligible. The larger and more important producers are familiar with our surveys – a number of them are sampled every year for the June Survey. This familiarity means that their forms are filled in with a good degree of accuracy. It tends to be the smaller farms, whose occupiers are less familiar of the requirements of our surveys, that produce more errors in our validation. There is a well-established set of validation rules for these items that make use of past data to detect errors. The survey support team can then contact the farmer to resolve issues. In Scotland the land area data now comes from subsidy claims and is therefore subject to inspection leading to increases in data quality. Similarly a significant portion of the English data is now filled in by online self-completion and the system will not allow the farmer to move to the next section if the data they supply is inconsistent.

A number of data items were collected from administrative data rather than the farmer. Whilst this improves the coverage there are some issues in matching this data to the FSS register and fitting the data to the FSS categories.

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

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

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### 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 is considered to be forms that are not returned at all. Thus far none of the UK administrations have pursued legal action in relation to non-response on FSS because legal advice indicated that a successful prosecution would be unlikely and it was considered that such actions are more likely to lower response to subsequent surveys rather than improve them and would lead to a very significant increase in the costs of the survey. The administrations would prefer to work together with farmers and farming industry to improve survey response. Non-responses are imputed into the results.

#### 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.

There were a number of farmers who were not prepared to complete the questions on farm labour. They returned a form with completed land use and livestock data but found the level of detail required for farm labour to be an excessive burden. As well as the detail some found certain questions intrusive (such as age information) and struggled to understand the reasons why the information was required – particularly the other gainful activity information. The item non-response was corrected for by contacting the farmer or by estimating unit values based on auxiliary information.

#### 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).

Response rate is 52.88%.

#### 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.

50% for spouse data.

### 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.

Our validation rate of checks is around 30% on land and livestock characteristics and around 50% on labour characteristics as farmers find it difficult to understand the complex requirements. Our data keying is of very high quality so we do not see many error from data keying. The main source of data error is farmers incorrectly completing the questionnaire. We carry out validation checks for

these.

#### 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.*

Any records that are flagged with issues (or are partially complete) are contacted via telephone using our own bespoke Computer Aided Telephone Interview (CATI) technology.

For data items collected from administrative data they are considered to offer complete coverage and the data are used in the supplied form. The only changes applied to this data are those to map the data to the correct categories or in the case of the organic data to constrain the organic data to the total organic and inorganic data supplied from the survey.

For the surveyed items when the data is returned a series of validation checks are run against the data, for example, checking the components sum to the total and subtotals, comparing the data against the return from the previous year to flag up large changes and highlighting inconsistent responses in categorical questions. Any records that are flagged with issues (or are partially complete) are investigated by our survey support team. They use additional information such as comments farmers have written on the form, data from other surveys/admin data systems to try to resolve these issues – including data from the previous year (base data). Where they cannot use existing data the farmers are contacted via telephone to resolve the issues. Where a common problem arises, global updates can be applied to streamline the process, for example many farmers omit the section totals so we can automatically set the section total to be the sum of the components. In general less information is available to resolve issues with labour and diversification data than the land area and livestock data hence the former group usually require more telephone calls to farmers to clarify.

Despite our best efforts we do not get responses from every farmer. In addition, despite our call back strategy not all of the responses are fully complete and correct<sup>[1]</sup>. The methods used to complete missing or incorrect sections and deal with non-response changes depending on the data group (labour / diversification and land-use / livestock). For the land-use and livestock categories, there is a well established method of dealing with the non-response and the returned forms that are partially complete or in error following the actions of our survey support team. The data for each holding is broken down into chunks that represent a group of data items such as sheep, grassland, arable crops<sup>[2]</sup>. If there was an error within the group which could not be resolved by the survey support team, the data items for that group are imputed.

<sup>[1]</sup> In some cases we make numerous unsuccessful attempts to contact the farmer or the information that the farmer supplies will not resolve the issue.

<sup>[2]</sup> Note no imputation is required for cattle as these come from the Cattle Tracing System (CTS) administrative system. The Cattle Tracing System is a bovine register that records births, movements and deaths of cattle.

#### 5.3.4.c Imputation methods

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

Ratios of respondents data applied to non-respondents previous year's data.

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

Statistical teams in the administrations for Scotland, Wales and Northern Ireland, and Defra for England data.

##### 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.*

30% of records were imputed to give the full population for England only, for the land and livestock characteristics. No imputation was required in Scotland, Wales or Northern Ireland as they only supplied response data.

##### 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.

We assume normally distributed errors.

#### 5.3.6. Data revision

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##### 5.3.6.1. Data revision - policy

#### Brief description of the revision policy

The UK has a Code of Practice for Official Statistics <sup>[1]</sup> developed for all Official Statistics, which covers the first release of many of the components of FSS. As part of this Code of Practice, each institution publishing Official Statistics must also publish their revisions policy (see hyperlinks below). So far as the FSS dataset is concerned, it is subject to validation by Eurostat and revisions may be made to the dataset until it is approved by Eurostat. Once the dataset has passed Eurostat validation, we do not intend to make any further revisions unless a significant error is found.

**Data revision policy for the 4 institutions producing statistics that form the FSS dataset.**

Defra: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/172885/Statement\\_on\\_Revisions\\_and\\_Errors.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/172885/Statement_on_Revisions_and_Errors.pdf)

- Scottish Government: <http://www.scotland.gov.uk/Topics/Statistics/About/CPsonRevisionsCorrections>
- Welsh Government: <http://gov.wales/statistics-and-research/about/statement-of-compliance/revisions-errors-postponements/?lang=en>
- DARD: <https://www.dardni.gov.uk/sites/default/files/publications/dard/dard-statistics-charter-2012.pdf>

[1] <http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html>

### 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.*

We revised the OGA data as we had incorrectly mapped our own survey categories to the Eurostat categories. We also slightly revised our raising factors due to rounding issues which occurred during data transmission to Eurostat.

### 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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### 6.1. Timeliness

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#### 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.*

Provisional crop areas and livestock populations for the United Kingdom were published on 17 October 2013, four months from the last day of the reference period. This is not an FSS publication but a routine annual statistical release for the UK June survey of agriculture.

#### 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 crop areas, livestock populations and agricultural workforce for the United Kingdom were published on 19 December 2013, six months from the last day of the reference period. This is not an FSS publication but a routine annual statistical release for the UK June survey of agriculture.

### 6.2. Punctuality

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#### 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.*

Three months.

## 7. Accessibility and clarity

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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.

Provisional crop areas and livestock populations for the United Kingdom were published in October 2013 in the form of a statistical release (PDF) and dataset (XLS). Final crop areas, livestock populations and agricultural workforce for the United Kingdom were published in December 2013 also in the form of a statistical release (PDF) and dataset (XLS). These are not FSS publications but routine annual statistical releases for the UK June survey of agriculture. Information on data uses and users, other survey results and publications, and methodology are included in the statistical release.

#### 7.2.b Date of issuing (actual or planned)

The provisional release was published on 17 October 2013, the final release was published on 19 December 2013.

#### 7.2.c References for on-line publications.

All releases, datasets and background information may be found at <https://www.gov.uk/government/collections/structure-of-the-agricultural-industry>

### 7.3. Dissemination format - online database

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

Results are disseminated as MS Excel spreadsheets at <https://www.gov.uk/government/statistical-data-sets/structure-of-the-agricultural-industry-in-england-and-the-uk-at-june>

#### 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.

Not known.

### 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.

No documentation on the methodology of the compilation of FSS dataset per se is published. However, information on data uses and users, other survey results and publications, and methodology of the annual June survey of agriculture are included in the statistical releases described at 7.2.a. A methodology document for the annual survey of agriculture and horticulture may be found at [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/182206/defra-stats-foodfarm-landuselivestock-june-junemethodology-20120126.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/182206/defra-stats-foodfarm-landuselivestock-june-junemethodology-20120126.pdf)

#### 7.5.b Main scientific references

Please provide references.

None.

#### 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.

No documentation on the quality of the FSS dataset is published.

### 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.

None.

### 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.*

The UK totals from the national surveys will be slightly higher than the totals from the FSS (though not by much in the majority of cases) because Scotland, Wales and Northern Ireland use slightly different thresholds in their national surveys (see Section 12.1 for full details of these).

### 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.*

Eurofarm manual for data suppliers Farm Structure Survey 2013 Doc. FSS2013/DSM rev. 5. Handbook on implementing the FSS and SAPM definitions – REV 10 (CPSA/SB/652 Ver.10).

There are no differences between national and EU definitions of characteristics and classifications of characteristics.

1800 hours are taken to be the minimum annual working hours for a fulltime employee, equivalent to 225 working days of eight hours each.

### 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.

The UK methodology for reporting common land is the same as in 2010. Common land information is only available at the regional (NUTS3) level and is reported as 139 special “common land” holdings. These can be identified using FSS category A\_2\_1 (Holding is a common land unit). In the UK common land is always permanent grassland. Much of this common land is found in remote upland areas and in many instances the land has at least one special designation that prevents agricultural improvement of the land. Thus UK common land is (almost) exclusively rough grazing and not pastures or meadows. We do not survey the common land as registers are held in England and Scotland of common land areas (in Scotland the common grazing area is used as a reasonable proxy) and in Wales and Northern Ireland, statisticians use data from administrative systems to capture the area of common land upon which subsidy payments were made and this is aggregated to NUTS3 level estimates. The UK common land areas are carried forward as unchanged from 2010 on the basis that no common land has ceased to exist and no new common land has been created.

All the UK common land holdings are tenure classified as share farming.

#### 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.*

None

**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.

1,195,246 hectares.

**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.

139

**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.

To enable FSS data to be grouped into different geographic areas, such as region or county, every holding must be allocated a grid reference. These are typically held as an Easting and Northing (in metres) that relates to the British National Grid. We convert these into standard latitude/longitude for transmission to Eurostat in the FSS dataset. To maximise existing departmental data and improve consistency, we use the following data in this order of preference:

1. Firstly, where the holding has returned a Single Payment Scheme (SPS) subsidy claim, we use the grid reference provided on SPS. This relates to the grid reference of the land parcels covered by the claim.
2. If no grid reference can be found, we use grid references provided on the Cattle Tracing System (CTS). This relates to the location of the cattle.
3. For the very small number of holdings where no grid reference can be found, the postcode of the farm address is used to estimate a grid reference.

Whilst we have a location for every holding, caution needs to be exercised when using them. Ultimately they are our best point estimate for the centre of a spatial entity which can often cover a large land area. In the UK around 80% of holdings are smaller than 100 ha (1 km<sup>2</sup>) but there are almost 3,500 whose area is at least 500 ha (and this includes 1,100 farms whose area exceeds 1000 ha or 10 km<sup>2</sup>). These estimates provide a very useful aid to interpretation but ultimately should be considered as an indicative location and not a precise one.

**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).

All UK farm locations were converted to ETRS89 format.

**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 UK transmitted the exact coordinates.

**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).

We compare the point estimates described in 8.1.e.1 to national mapped shapefiles (produced by the Office for National Statistics) which outline where the regional boundaries lie. Where the holding point estimate falls within a NUTS3 boundary, we assign the whole holding to that region.

**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).

None. The only standards used in the UK, i.e. the official UK standards, are those in EU Regulations.

[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:

- 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 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:

- 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 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:

- 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.

There have been no changes.

**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.

The 2010 FSS was carried out in the form of a census. The 2013 survey was carried out in the form of a sample survey (other than where administrative data was used) and is thus subject to sampling variability.

**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.

None.

**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 2013	Previous FSS survey 2010	Difference in %	Comments
Number of holdings;	185,193	186,800	-1%	
UAA (A_3_1), ha;	17,096,507	16,881,690	1%	
Arable land, ha;	6,269,160	5,945,510	5%	
Permanent grassland (B_3), ha;	10,791,818	10,899,970	-1%	
Permanent crops (B_4), ha;	35,529	36,200	-2%	
Wooded area (B_5_2), ha;	786,935	711,260	11%	Woodland areas have increased across all the countries in the UK except Wales. Better administrative scheme recording is thought to be a contributing factor.
Unutilised Agricultural area (B_5_1), ha;	210,635	221,470	-5%	
Fallow land (B_1_12_1 + B_1_12_2), ha;	236,341	157,310	50%	Difficult weather conditions in 2013 meant that many farmers were unable to plant certain crops due to waterlogged fields so left large areas of land out of production
LSU in LSU;	13,282,320	13,308,420	-0.2%	
Cattle (C_2), head;	9,804,945	10,063,570	-3%	
Family Labour force - in persons;	327,118	319,060	3%	
Family Labour force - in AWU;	182,849	180,260	-1%	
Non family labour force - in persons;	110,804	99,610	11%	
Non family labour force - in AWU	73,825	66,400	11%	

### 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

None. Data is not collected in such detail elsewhere.

#### 8.3.b Comparisons at macro level

None. The data compiled for the FSS are not collected elsewhere in a suitable form with sufficient coverage or a large enough sample to permit widespread comparisons. Generally the best method of comparison is against previously compiled data. Land, livestock and point in time estimates for labour are collected annually on 1 June thus land use and livestock data compiled for FSS2013 can be compared to data compiled in June 2012 and earlier years to monitor year-on-year changes.

## 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.

They are very similar to those transmitted in the annual crop and livestock statistics but not identical.

#### 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

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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.

Care is taken not to duplicate surveys. Additional questions required by the FSS are incorporated into existing, regular surveys.

## 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.

Data collected under the auspices of the Agricultural Statistics Act 1979, the Agriculture Act 1947 and the Agricultural Statistics (Northern Ireland) Order 2004 (where applicable) are protected by these legislation. They are also protected by the Data Protection Act 1998 and by the United Kingdom's Code of Practice for Official Statistics. In general, private information about individual persons (including bodies corporate) compiled in the production of official statistics is confidential and should be used for statistical purposes only. The legislation permits some limited use of micro-data for research purposes under well-defined criteria. This does not permit Eurostat to share micro-data with external users.

### 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).

Results from all of our surveys are disseminated according to legislation and the United Kingdom's Code of Practice for Official Statistics. In any tabular publications, all cells where there are less than five contributors are to be suppressed (usually represented by #), although where there are zero contributors this is allowed. If a table contains both holding counts and a variable specific estimate (e.g. wheat area or number of pigs) both values must be suppressed. Further where tables have subtotals there is a need to suppress an additional record within the same group in the table to prevent users from deriving the suppressed data through simple differencing.

An additional level of protection is applied if the tables are for spatial scales of NUTS4 or finer. This additional level involves calculating the proportion of the cell total contributed by the highest contributing farm. Where this value exceeds 85%, the cell value is suppressed to protect the identity of this dominant contributor.

#### Confidentiality policy for the four institutions producing statistics that form the FSS dataset.

- Defra: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/401606/statpolicy-dataprotection-05feb15.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/401606/statpolicy-dataprotection-05feb15.pdf)
- Scottish Government: <http://www.scotland.gov.uk/Topics/Statistics/About/CPSconfidentiality>
- Welsh Government: <http://wales.gov.uk/topics/statistics/about/compliance/confidential/?lang=en>
- DARD: <https://www.dardni.gov.uk/sites/default/files/publications/dard/dard-statistics-charter-2012.pdf>

## 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 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

The United Kingdom has a longstanding and well established annual June survey of agriculture that collects information on land use, crops, livestock and labour for national policy and evidence requirements. To meet the requirements of the 2013 FSS, additional questions were included in this survey. Administrative data are used where possible so to minimise the burden on survey respondents. In the UK, separate surveys are conducted in England, Wales, Scotland and Northern Ireland. The statistical teams responsible for these surveys coordinate their work so to meet the requirements of the FSS.

Each of the statistical teams have their own well established timetable and organisation for the survey. Typically, the process is

- Develop the paper questionnaire and online data collection system (where application). Finalise the questionnaire. Test online data collection system. Online system goes live. (April 2012 - December 2012)
- Determine sample strategy and finalise numbers in selection. Complete selection. (February 2013 - April 2013)
- Complete validation specification and coding. (February 2013 - April 2013)
- Survey forms and email invitations to complete survey are sent to respondents. (May 2013)
- Reminders are sent (email and paper). (June 2013 - August 2013)
- Data received is validated, queried and corrected. (June 2013 - October 2013)
- Online collection and paper survey is closed. (September 2013 - October 2013)
- Administrative data is obtained, principally cattle data from the bovine register. (August 2013 - December 2013)
- Statistical analysis is carried out. (August 2013 - December 2013)
- Early results for England, Wales, Scotland and Northern Ireland are compiled and published. This is not a FSS publication but a routine statistics release of the June survey of agriculture results. (August 2013 - October 2013)
- Final results for England, Wales, Scotland and Northern Ireland are compiled and published. This is not a FSS publication but a routine statistics release of the June survey of agriculture results. (September 2013 - December 2013)
- Further work is carried out to prepare the FSS dataset for transmission to Eurostat. (January 2014 - September 2014)

Within the UK, agriculture is a devolved matter, which means that the Scottish and Welsh Governments and the Northern Ireland Assembly have responsibility for agricultural policy and data provision in Scotland, Wales and Northern Ireland. Defra is responsible for compiling and supplying the UK dataset but the devolved administrations are fully responsible for the data collection within their respective countries.

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

These domestic arrangements mean that agricultural policy, data collection methods and data availability can vary slightly between the four countries. As data supplier, Defra tries to harmonise the data collection methodologies where possible but ultimately, as long as they supply the data specified in Regulation (EC) No 1166/2008, Defra has limited powers to influence the methodologies chosen in these countries.

Each administration has its own statistical staff who are responsible for cleaning and analysing their data. A lead statistical analyst in each administration undertakes the bulk of the statistical work with support from additional analysts and a survey support team. When the data is returned to the statistical teams, they run a series of validation checks on the data and the survey support teams follow up these with phone calls where appropriate to ensure data quality.

**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.*

Significant turnover of staff and staff shortages led to a delay in the transmission of data to Eurostat.

## 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 of the holding is as according to the EU definition. We considered the following agricultural activities: the growing of non-perennial crops, the growing of perennial crops, plant propagation, animal production, mixed farming. Holdings exclusively maintaining agricultural land in GAEC are included. Support activities to agriculture and post harvest crop activities are excluded if they are undertaken exclusively.

**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.*

We only monitor holdings with activity levels above thresholds so we do not know the total number including small holdings.

#### 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).*

Different survey thresholds are applied across the four UK devolved agriculture departments. England use the FSS thresholds (Annex II of Regulation 1166/2008) plus additional records with >1ha of hardy nursery stock, any area of mushrooms and holdings with temporarily reduced levels of activity e.g. empty pig/poultry sheds or short term rented out land (land >5ha that has been let on a short term basis at the last survey). Northern Ireland include all active farm businesses with >=1 ha of farmed land, or with any cattle, sheep, goats, pigs, significant poultry or horticultural activity. Wales include all holdings with a Standard Gross Margin (SGM)>0 and Scotland include all holdings with >=0.5ha farmed land or have crops (including temporary grass) or have >1 livestock unit or >=1 worker, have deer or >=20 poultry. For all the UK, the FSS thresholds are implicitly covered in the national survey definition.

**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).*

221,600

#### 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 records included in the UK FSS population are those with activity levels above the thresholds stated in Annex II of Regulation 1166/2008 plus additional records with >1ha of hardy nursery stock or any area of mushrooms. We also include holdings with

temporarily reduced levels of activity e.g. empty pig/poultry sheds or short term rented out land (land >5ha that has been let on a short term basis at the last survey) as we consider these still to be genuine agricultural holdings. For England, the scope of the records sent to Eurostat is the same as the scope of the national survey. For the rest of the UK, the scope of the records sent to Eurostat is smaller than their national survey (see 12.1.a.3 for national threshold definitions).

**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*).

185,193

**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.*

We have 1,367 holdings in our population which have zero standard output and appear to have no farming activity (i.e. UAA=0). These are usually farmers who have contacted us to say they are temporarily out of farming (for example when they rent out all the land on a short-term basis) but we anticipate they will return. It disrupts the population consistency if we remove these records, only to then re-instate them a few years later. All areas included in our "fallow land" with and without subsidies (B\_1\_12\_1 and B\_1\_12\_2) and permanent grassland and meadow no longer for production purposes (B\_3\_3) are all eligible for subsidies, therefore the land is kept in GAEC conditions. If a holding only has fallow or permanent grassland which is no longer being kept in GAEC conditions, it is removed from our holding register. We also have 5 holdings with 'other animals' e.g. farmed deer (for venison) and camelids (alpacas, llamas, etc) farmed for wool. These have zero SO coefficients.

**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.*

As we no longer survey holdings below threshold, we cannot quantify this for 2013. However, when we changed to using thresholds in 2010, our analysis showed that we only excluded 0.9% of UAA and 0.4% livestock units. We still monitor all newly registered holdings and where they record levels of activity above thresholds in the administrative sources i.e. Payment Scheme, Cattle Tracing System, Sheep and Goat Inventory, etc, we automatically include them in our structure survey population. Therefore we are confident we are still capturing the majority of farming activity in the UK. For all the UK, the FSS thresholds are implicitly covered in the national survey definition.

## 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 survey collected data on (non-organic) land use and livestock (except cattle and in Northern Ireland poultry and pigs), farm labour, diversification, machinery, renewable energy production and other gainful activities. Data on organic farming, cattle, rural development payments and common land were collected from administrative sources. In Northern Ireland, data on poultry and pigs were derived from administrative sources and in Scotland, most data on crops and land was collected via an administrative database. The following characteristics have been collected from a sub-sample: labour force, other gainful activities, machinery and equipment, rural development, legal type, A\_3\_3\_1 and A\_3\_3\_2.

## 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 are farm registers compiled from administrative sources.

### 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.*

A list frame approach is used in each country, i.e. a list of agricultural holdings.



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

In the UK any farmer will need to register a holding number for the holding in question if they intend to buy, sell or move livestock, sell crops for human consumption or claim any agricultural subsidies thus there is generally a very strong incentive to register. All of the statistical teams in the UK receive regular updates to their register that capture new holdings (and changes to contact details for an existing holding number). These registers are maintained continuously as they are used for a number of farm surveys.

**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.*

The sampling design is a stratified random sample. A stratified random sampling approach in which holdings are divided into groups (strata) with higher sampling rates being used in the larger strata. The holdings not surveyed in England are all imputed post-survey to give land and livestock characteristics for all holdings.

**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. We select one sample but apply different extrapolation factors depending on the items. For example for some characteristics such as crops and livestock we produce a full holding level imputed dataset using response data to estimate for the non-sampled and non-responding holdings. These items have an extrapolation factor of one (A09). For items where we are unable to impute, we use response data only and use the extrapolation factor A10 to enable grossing up to national totals.

**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.*

Separate samples are carried out for each country. Holdings are stratified by farm size and farm type. Separate strata with higher sampling rates for horticultural holdings are used to ensure adequate precision. NUTS1 region is not used in the sample design as good regional coverage is achieved using farm size and farm type.

**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 within each stratum. Sampling rates increase with farm size, ensuring high coverage of the largest farms.

**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).*

None.

**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.*

Neyman Allocation was used to determine sample size allocation between strata. The allocation was calculated for all land and livestock variables separately using June 2005 data then the mean allocation for each strata was used in each stratum.

**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 each time.

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



The sample is selected with a computer package (a bespoke Farm Survey System) that randomly selects the required number of holdings for each stratum.

#### 12.1.d.10 other relevant information, if any

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#### 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.*

**Organic data:** For holdings within GB, the organic data items within FSS come from data provided by the various organic certification bodies responsible for the monitoring of all organic operators. This data is provided to Defra on an annual basis and comprises land-use areas and livestock numbers. The data is provided to Defra to allow us to make the required annual organics return to Eurostat. Data is provided in arrears at the end of the following January. The data is gathered via annual inspections carried out by the certification bodies. As these inspections are carried out throughout the year this does mean that the data does not relate to a specific point in time but this method of data collection is historic and has been fit for purpose for the provision of the annual Eurostat organic return. In NI, a register of all organic producers is held by a specialist unit at Greenmount Campus (College of Agriculture, Food and Rural Enterprise).

**Rural development payments:** There are a large number of clauses within the rural development payments regulation and it is up to member states to choose how to divide up their pot and which parts of the regulation they will fund. Within the UK each devolved administration has opted to fund slightly different parts of the regulation, but overall the only area where there are significant numbers of beneficiaries is for agri-environment scheme payments. The exact source of the administrative data varies from country to country but basically it comes from the unit who makes the payments. In some cases this is a single central source (as occurs in Wales and NI) or a number of sources (England and Scotland).

**Cattle:** In Great Britain, the headcounts of the numbers of cattle were obtained from the Cattle Tracing System (CTS). In Northern Ireland, the Animal and Public Health Administration (APHIS) system, which is also an EU audited cattle tracing system, is used. These provide a continuous record of the births, deaths and all movements of individual cattle in Great Britain thus it is possible to obtain a snapshot of all cattle on any given date. This date can be chosen to coincide with the reference date of the FSS.

**Crop areas:** In Scotland the Single Application Form (SAF) that farmers complete annually to claim farm subsidies contains detailed crop information. Any holdings that were in-scope for FSS2013 who submitted a Single Farm Payment (SFP) claim had their land data from the SAF dataset automatically integrated into the 2013 FSS dataset.

**Poultry and pigs:** In Northern Ireland, data on poultry and pigs were derived from administrative sources, the Northern Ireland Annual Inventory of Pigs and the Northern Ireland Bird Register Update.

##### 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.*

The same definition of holdings are used for these datasets.

##### 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	-
	<p><b>Organic data:</b> Organic data from the certification bodies is supplied at individual operator level. The data is checked prior to producing the national estimates for Eurostat. The certification bodies provide name and address details for all of their organic operators, and a County Parish Holding (CPH) number is also requested. A valid CPH is the best way of linking this organic data to the rest of the FSS dataset. Unfortunately, the certification bodies struggle to gather CPH numbers so this field can be incomplete or incorrect. In Northern Ireland, a register of all organic producers is held by a specialist unit at Greenmount Campus (College of Agriculture, Food and Rural Enterprise). This consists of the name and address – including postcode – of the participants, coupled with the area currently considered organic or under conversion plus the</p>

<p>- 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></p>	<p>types of enterprises conducted there. A sub-list of poultry producers is also held where the actual area of production may be registered as zero. This data was merged with the FSS dataset using both names and address as key variables.</p> <p><b>Rural development payments:</b> In the case of the agri-environment data, the only recipients are farmers and the data systems hosting the agri-environment payments data, for example the Natural England GenRep system, includes a country parish holding (CPH) reference number and sometimes additional identifiers like a single business identifier (SBI) and Business Reference Number (BRN). These numbers are unique and allow us to link the data directly to our FSS dataset. Where a holding has received an agri-environment payment in the calendar year 2011, 2012 or 2013 the dataset can be amended to 'Y' indicating yes for the appropriate variable. Determining whether these payments are organic or not is straightforward as all organic payments are made through an organic scheme and not the standard agri-environment scheme.</p> <p><b>Cattle:</b> The CTS provides information on cattle age, sex and breed and so we are able to map the data to the categories required by the FSS.</p> <p><b>Crop area:</b> In Scotland, any holdings that were in-scope for FSS2013 who submitted a Single Farm Payment (SFP) claim had their land data from the SAF dataset automatically integrated into the 2013 FSS dataset. These farmers could then receive a simplified survey form.</p> <p><b>Poultry and pigs:</b> In Northern Ireland, data on poultry and pigs were derived from administrative sources, the Northern Ireland Annual Inventory of Pigs and the Northern Ireland Bird Register Update.</p>
<p>- to replace the survey on all characteristics and on a part of the survey population</p>	<p>-</p>
<p>- 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></p>	<p>-</p>
<p>- to build/update the (sampling) frame (used for census or for sample survey)</p>	<p>The Scottish crop areas and UK cattle figures are used in our calculations to determine the farm size and type, which are the variables used to stratify our population for sampling.</p>
<p>- to pre-fill answers in the questionnaires which are then checked by farmers during the survey</p>	<p>-</p>
<p>- to impute item/unit non-response</p>	<p>-</p>
<p>- to validate the survey data (quality control). <i>Please indicate actions taken in case of large discrepancies</i></p>	<p>-</p>
<p>- to calibrate of survey estimates. <i>Please indicate the calibration variables</i></p>	<p>-</p>
<p>- other (<i>please specify in the next column</i>)</p>	<p>-</p>

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

<p><i>For each administrative source used, please briefly describe any difficulties and the way those difficulties were addressed. Examples of difficulties:</i></p> <ul style="list-style-type: none"> <li>- incoherence of concepts/definitions;</li> <li>- incoherence of classification systems;</li> <li>- different population coverage;</li> <li>- problems creating the links between the units: the units in administrative sources do not correspond directly to the definition of required statistical units;</li> <li>- problems creating the links between databases caused by e.g. the lack of common identifiers, obstacles related to IT issues etc.;</li> <li>- impossibilities to establish cooperation with register owners;</li> <li>-(too high) costs charged for the access by the register owners;</li> </ul>
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- *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.*

**Organic data:** For the purposes of compiling the FSS dataset, all CPH data is checked to ensure their validity. Incomplete CPH numbers are checked manually to see if they can be amended to valid and complete, CPH numbers[1]. Where this approach fails, attempts are made to match the contact details for the organic operators against names, addresses and telephone numbers on our register. Where a match can be found this then yields a valid CPH number.

When compiling the final organic data for FSS the organic crop and livestock data is checked against total organic and inorganic crop and livestock data that was collected as part of the main FSS data collection. This is done at the holding level and where the organic variable exceeds that recorded as part of the main FSS data collection[2], the data are amended to prevent this issue. The absence of CPHs for some operators means that not all of the organic data can be matched to a FSS record and some of the organic data is on holdings that are below the threshold for inclusion in FSS. Thus the organic data supplied in the FSS might differ from that provided in the annual returns made to Eurostat for some variables.

**Rural development payments:** The slight problem with agri-environment schemes is that a farmer need not (or possibly cannot) enter their entire farm into the scheme under one agreement. The current generation of agri-environment agreements in the UK tend to run for 5 or 10 years. When the latest generation of schemes were introduced a number of farmers had land within “classic schemes[3]” and could not therefore include all of their land within these new schemes otherwise there would be issues of double funding. Such farmers would make a claim under the new scheme for land that was not covered by any existing schemes and then once their classic agreements come to an end make a second application. Thus there can be situations where a given holding has a number of different agri-environment agreements logged within the database.

The second complication is that an agreement might span across more than one holding. Consider a situation where a father and a son each have a holding (with its own identification number) on adjacent parcels of land. Suppose that if they each submit a claim on their own and the son has an excess of points[4] but the father does not have enough points, only the son would receive payments on his hectareage. If however they complete one application across the two holdings they can achieve enough points to receive a payment based on the combined hectareage without needing to undertake any additional measures. In this situation matching the data to the holdings within FSS becomes more difficult. The dataset does include a main, maximum and minimum CPH reference and an indicator of whether the claim is from an individual or a group. We can use this additional information to assign agri-environment payments to additional holdings. Of course in situations where there is a complex claim involving more than 3 holdings[5] we will not be able to assign a payment marker to all holdings. Bearing in mind the number of holdings (and their total UAA) that have been captured in this way we do not believe that this approach has led to significant losses of agri-environment recipients.

For the remaining measures the data are downloaded from the systems of the appropriate payment body. For example, in England the data are downloaded from the CMEF on-line system[6]. On this English system a registered user can download a list of all of the projects funded under a given rural development measure between point X and Y – in our case 1 Jan 2008 and 31 Dec 2010. The slight problem with this system is that it does not include the CPH reference[7], therefore the data needs to be matched to our farm register on the basis of names, addresses and postcodes. Whilst this matching was quite a manual process it was possible because of the small number of projects claimed upon over the reference period. The devolved administrations used a similar approach to England although often they had the benefit of a CPH or business identifier to aid the matching and weed out the non-agricultural claimants.

### Cattle

Unfortunately whilst the system records whether female cattle have had a registered calf, it does not record if the animal is in calf or if it is in milk. We therefore assign the main herds using females aged at least two years with offspring and assign them as dairy or beef on the basis of their breed[8].

When the UK was considering switching to an administrative system in 2005, we opted to collect data by both methods in 2006 to check the feasibility of switching methods. A considerable amount of background analysis was undertaken at the time.[9] The change of data source did introduce a step change into the series by identifying a higher number of cattle (6% or 360 thousand more in England in June 2006), but the trends were very similar to those of the June Survey.

Where a holding appears in both CTS and our register it is a straightforward task of capturing this data in the FSS dataset. Analysis of data from the CTS and the 2012 June survey found that these holdings account for 97% of the total number of cattle. There are a number of holdings where the same farmer will choose to use a different identifier for their cattle movements to the one they use on our survey register. In these cases we can use name and address matching to assign the cattle data to the correct holding but there remains a small number of cattle on holdings which we cannot assign to a holding in our database (analysis of data from the CTS and the 2012 June survey found that this accounts for less than 3% of the total number of cattle). In these cases, these additional cattle are smeared across the other holdings with the appropriate cattle type in the same county as the unidentified holding. This ensures that the national and local cattle estimates are correct in publications.

[1] CPH numbers are of the form cc/ppp/hhhh and it is common for leading zeros on the parish or holding part to be omitted.

[2] Largely due to the differing data collection periods.

[3] These are the suite of older schemes, like Countryside Stewardship, that have been replaced by the current generation of Environmental Stewardship Schemes.

[4] The current schemes rely on farmers undertaking a number of specific practices on their farm. Each of these practices (or options) earns a number of points. Farmers need to achieve a given average number of points per hectare across their area within the scheme.

[5] Which we would expect to be a rare scenario.

[6] A system for monitoring rural development programme projects.

[7] The reason is that some of the recipients of funding under options such as the encouragement of tourism do not actually need to be farmers.

[8] Around 2% of all female cattle do not have an assigned breed or are of dual breed. These cattle have been allocated to either dairy or beef at the holding level based on the other cattle on the holding or the national split between dairy and beef in that age band if there are no other cattle on the holding.

[9] A report entitled "Request from the UK to Use the Bovine Registers of Great Britain and Northern Ireland in Replacement of Statistical Surveys" is available at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/182225/defra-stats-foodfarm-landuselivestock-june-results-BovineRegisters.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/182225/defra-stats-foodfarm-landuselivestock-june-results-BovineRegisters.pdf)

### 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.

		<b>Administrative source and assessment of errors</b> <i>Please specify the name of the administrative source(s) in this column, along with information required for each row.</i>
<b>-coverage:</b>		
	<b>- over-coverage</b> <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-scope units were excluded.</i>	For organic data, not all of the organic data can be matched to a FSS record and some of the organic data is on holdings that are below the threshold for inclusion in FSS.
	<b>- under-coverage</b> <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>	<b>Cattle Tracing System</b> The registration of cattle on CTS is compulsory by law and so the coverage is likely to be almost universal and the acceptance of animals at slaughterhouses and livestock markets requires the appropriate CTS documentation and so the level of unreported cattle movements is likely to be minimal. Thus the administrative data are believed to provide more reliable information than surveys – especially as we now rarely conduct a full census. Additional confidence in the reliability of tracing data is provided by the mechanisms in place for cross checking and correcting anomalies.
	<b>- misclassification</b> <i>Please mention whether the information allows for the requested classification of units and whether there are errors in classification variables.</i>	For cattle data, the register does not make a distinction between dairy cows and beef (see also 12.1.e.4).
	<b>- multiple listings</b> <i>Please provide an assessment on units which were present more than once in the source and specify how the duplicates were eliminated.</i>	For rural development payments, an agreement might span across more than one holding (see also item 12.1.e.4).
	<b>- rate of unreported events</b> <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>	See comments against 'under-coverage'.
	<b>- missing data</b> (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>	No missing data.
		<b>Crop area</b>

- <b>errors in register variables</b> (analogue to measurement errors in a survey) i.e. erroneous values for certain variables	The overall quality of the majority of the Scottish land data in FSS2010 is very high, as the SAF data is under-pinned by cross-compliance and is subject to audit and inspection. There are financial penalties for incorrect SAF submissions, so the farmers have a much greater incentive to supply accurate data than for a survey form.
- <b>processing errors.</b> <i>Please provide an assessment. You can mention here imputation methods used, if any.</i>	-
- <b>coherence</b> (comparison to other available data) of the administrative data (ex-ante and/or ex-post)	-
- <b>other drawbacks (if any)</b> of the use of data from the administrative source. <i>Please specify the drawbacks in the next column.</i>	-

[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.*

As required.

## 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.*

Data collection varies slightly between each of the four countries in accordance with what administrative systems they have access to. In general terms, the organic data fields, cattle information, rural development payments and common land data are all collected from administrative systems. For all other items on the main FSS items most of data is collected via a postal survey<sup>[1]</sup>.

In England farmers were also offered the chance to complete the survey online. These farmers received an email inviting them to take part instead of a survey form<sup>[2]</sup>. The farmers were then able to log into the website and enter their data. The system uses shaping questions to ensure that the farmer only see questions relevant to them. This online system was advertised in the press so even farmers who received a survey form could opt to log in and complete the form online. Similarly farmers who received the email invite but did not want to complete an online return could contact us and request a paper form.

[1] Scotland has a significant quantity of land-use data available from administrative systems.

[2] The numbers targeted in this way were limited by the number of holdings for which we had captured an email address from previous correspondence.

### 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.

These are professionally printed and dispatched. All of the forms are returned to a professional data capture company who either



key or scan the data. Each of the four countries uses their own service supplier who then returns the electronic data to the statistics teams.

### 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.*

Partially completed forms were treated in the same manner as inconsistent / incorrect forms. They were placed under query and finalised by telephone contact with the farmer. Repeat calls were made if we were not able to contact the farmer initially but of course some gaps remained that we were unable to fill in this manner and ended up being imputed.

The UK does not use face to face interviews for any component of the FSS due to the costs for government and the burden placed upon the farmer involved in collecting such data. Although a number of respondents answered full survey questions over the telephone we would not formally constitute this as an "interview".

One of our key tools to improve response rates is through sending reminders to farmers. The exact nature and timing of these varies slightly between the four countries but the overall process is similar. For the main survey form there were typically two reminders sent in the form of a reminder card. The first is sent two or three weeks after the survey day and the second in early July. In some instances these were followed up with a third reminder. In England and NI these included a duplicate survey form and were targeted towards larger holdings and/or minority sectors (e.g., horticulture) to maximise their impact. Wales targeted larger non-responders through telephone calls instead of a third reminder whilst Scotland did not need one because of the quantity of data that they can access through administrative systems.

Larger farms that are part of composite units (primarily pig and poultry farms) are issued with separate special survey forms to ensure that maximum coverage is achieved. This is a routine operational procedure that we run each year for our regular June Survey and it generates good data. The strategy used is to send the forms to the head office for the company rather than the individual farms. They then collate the information and send it back to us. Some of the larger farming businesses, particularly those involved in horticulture, have multiple holding numbers and often a significant number of staff who work across all of their units. This can make it hard for them to complete the labour data for a 12 month period. To encourage responses we allow them to record all of their farm labour data under a single holding number and not complete the labour section on their other forms. The farm then indicates to us all of the holdings within their group and on which one they have recorded their labour data. We then use our point in time estimates of worker numbers and the activity on the holding to apportion these workers between the holdings that the farmers have not supplied data for.

Our mailing lists and contact details are derived from the live agricultural holdings database in each of the four countries. These are updated on a daily basis.<sup>[1]</sup> All staff, and in particular those recruited on a temporary basis specifically to deal with the survey receive a significant amount of training in advance of the survey. This includes techniques on how to obtain information from difficult farmers and how they can use other information that we already hold about the farm to resolve issues with the supplied data.

<sup>[1]</sup> The updates come from both other government registers / administrative systems, direct contact from the farmer (either comments on our survey forms or telephone calls) and undelivered mail that is returned to us.

### 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 <sup>[4]</sup>, 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.	<p><b>Number of holdings in the population covered by the records sent to Eurostat</b></p> <p><i>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.</i></p>	185.054 (excluding common land units)
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	<i>In case of a census 1=3+4+5</i>	
2.	<p><b>Number of holdings in the gross sample</b>  <i>The number of holdings selected from the sampling frame to be included in the sample.</i>  <i>This item should be completed <u>only</u> in case of a sample survey, in which case 2=3+4+5</i></p>	120.354 (excluding common land units)
3.	<p><b>(new) Number of ineligible holdings</b>  <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></p>	54 (below threshold activity and excluding common land units)
3.1	<p><b>Number of holdings with ceased activities</b>  <i>This item is a subset of 3.</i>  <b>3.1&gt;=3.1.1+3.1.2</b></p>	0
3.1.1	<p><b>Number of holdings which definitively ceased i.e. the land is abandoned.</b>  <i>This item should be completed only if information is available.</i></p>	-
3.1.2	<p><b>Number of holdings with ceased activities following the change of manager</b>  <i>This item should be completed only if information is available.</i></p>	-
4	<p><b>(new) Number of holdings with unknown eligibility status</b>  <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></p>	0
5	<p><b>(new) Number of eligible holdings</b>  <i>The number of surveyed holdings which are eligible</i>  <b>5=5.1+5.2</b></p>	120.300 (excluding common land units)
5.1	<p><b>Number of non-responding holdings</b>  <i>The number of eligible holdings which:</i>  <ul style="list-style-type: none"> <li>- were contacted but refused to take part in the survey;</li> <li>- were contacted but were unable to participate in the survey for various reasons;</li> <li>- participated in the survey but the entire survey form cannot be used because of poor quality etc.</li> </ul> <i>This item refers to holdings for which no data is collected (unit non-response).</i>  <b>5.1&gt;=5.1.1+5.1.2</b></p>	56.686 (excluding common land units)
5.1.1	<b>Number of non-responding holdings – re-weighted</b>	0
5.1.2	<b>Number of non-responding holdings – imputed</b>	18.769 (England) (excluding common land units) We also imputed a number of 52.892 holdings (England) which were not included in the gross sample
5.2	<p><b>Number of responding holdings</b>  <i>This item includes holdings which provided completed questionnaires, either entirely or partially.</i></p>	63.614 (excluding common land units)

**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.

[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:**[Survey form](#)**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.*

For the data collected from the farmer, survey forms were professionally printed, dispatched and electronically captured. Once the data has been returned to the institutions a number of validation checks are carried out. Our survey support teams work to correct issues with the data by contacting farmers and/or using additional data that we store about the farm collected from other sources.

When loaded onto their systems the statisticians run a series of validation checks against this incoming data. These will be things like checking the components sum to the total and subtotals, comparing the data against the return from the previous year to flag up large changes and highlighting inconsistent responses in categorical questions.

All of these basic checks were run whilst the survey was still operational, additional checks were subsequently run.

A validation database was built that mimics all of the Eurostat rules and this highlighted other records needing checking, mainly comparing the organic administrative data against the conventional land/livestock data collected in the FSS.

Once a complete dataset was achieved with suitable source data for every FSS item the data were transferred from our data collection format to that required for FSS. In many cases this was converting numeric data to the Eurostat categorical variables or summing data items together.

**12.4.b Tools used for data validation**

*Please mention tools used.*

IT system. Charts for erroneous values at analysis stage, calculated influential statistics to assess influence of individual data points.

**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.*

There is validation built into the online data collection system which prevents farmers from moving on to the next section if the response they have given is not appropriate (for example they have specified a greater area of crops than their UAA). The validation is carried out separately by each UK country, then the overall validation is carried out at the UK level by Defra.

**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.*

All of the holdings that responded to the survey have an extrapolation factor that is a basic survey weight. Thus each holding in the dataset received a weight based on the inverse sampling fraction for the stratum the holding was in. This approach ensures that when the weights are summed for the records they sum to the population total.

**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.*

For land-use and livestock the imputation is done on an annual basis using a ratio raising process. The data are stratified according to farm size. For non-responders, farm size is based on the last recorded response to DEFRA's annual June survey. For all data items, a strata level ratio is derived between the 2013 responses for the given item and the base data. The base data is usually the 2012 (actual or imputed) response, but equally might be something else that has a good correlation with the variable to be imputed in the case of a new item. This ratio is then multiplied by the base value for all holdings that require an imputed value in that strata. The process then moves on through the strata and items in sequence.

**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.

No.

#### 12.5.a.4 Any other applied adjustment of weights

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

The data were not post stratified for analytical purposes, which in some cases, notably in Wales, can lead to some large survey weights due to low numbers of responses in these strata.

#### 12.5.b Formulae applied for estimation methods

Please annex the formulae applied for estimation methods, using the "Add file" button.

#### 12.5.c Other relevant information (if any)

-

#### 12.6. Adjustment

[Not requested]

### 13. Comment

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#### 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.

-

#### 13.b Possible improvements in the future

Please suggest possible 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).

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