

FARM STRUCTURE SURVEY - 2016

NATIONAL REFERENCE METADATA IN SINGLE INTEGRATED METADATA STRUCTURE (SIMS)

CONCEPT 1 - CONTACT

Sub-Concept 1.1: Contact organisation

National Statistics Office (NSO)

Sub-Concept 1.2: Contact organisation unit

Environment, Transport and Agriculture Statistics Unit

Sub-Concept 1.3: Contact name

Mr. Ronald Tanti

Sub-Concept 1.4: Contact person function

Head of Unit

Sub-Concept 1.5: Contact mail address

National Statistics Office
Lascaris, Valletta,
VLT2000.

Sub-Concept 1.6: Contact e-mail address

ronald.tanti@gov.mt

Sub-Concept 1.7: Contact phone number

+356 2599 7333

CONCEPT 2 – METADATA UPDATE

Sub-Concept 2.1: Metadata last certified

19th December 2019.

Sub-Concept 2.2: Metadata last posted

6th January 2021.

Sub-Concept 2.3: Metadata last update

6th January 2021.

CONCEPT 3 – STATISTICAL PRESENTATION

Sub-Concept 3.1: Data description

In the farm structure survey, the following data on the structure of the farms are collected:

- Legal personality of the agricultural holding;
- Area of the different fruit and vegetables cultivated;
- The number of animals reared by type;
- The workforce on the farm;
- Whether the holding was entitled for rural development measures in the previous 3 years.

Sub-Concept 3.2: Classification system

Farm typology

It is a uniform classification of the holdings based on their type of farming and their economic size. Both are determined on the basis of the standard output (SO) which is calculated for each crop and animal production. The farm type is determined by the relative contribution of the different productions to the total standard output of the holding.

The farm typology is bound by the [Commission Implementing Regulation \(EU\) 2015/220](#).

Sub-Concept 3.3: Sector coverage

The FSS statistics cover agricultural holdings undertaking agricultural activities as listed in item 3.5 below. For FSS 2016, the agricultural holdings were classified according to their type of farm and the standard output. For the latter they were split into 3 size classes.

Sub-Concept 3.4: Statistical concepts and definitions

All variables collected in the survey and their definitions are in line to the ones mentioned in [Commission Regulation \(EU\) 2015/1391](#).

Sub-Concept 3.5: Statistical unit

Agricultural holding means a single unit, both technically and economically, which has a single management, and which undertakes the following agricultural activities either as its primary or secondary activity:

- Growing of non-perennial crops, mainly vegetables and melons, roots and tubers, flowers, fodder;
- Growing of perennial crops, mainly grapes, citrus, pome fruits and stone fruits;
- Plant propagation;
- Animal production;
- Mixed farming;
- Holdings maintaining only agricultural land in good agricultural and environment conditions are included.

Sub-Concept 3.6: Statistical population

The dataset refers to the agricultural holdings in Malta and Gozo. For the FSS 2016, the number of agricultural holdings amounted to 12,438.

Sub-Concept 3.7: Reference area

The Maltese Islands at NUTS 3 level. For all the farmers that live in Malta, all the land they work is in Malta, whereas for all the farmers that live in Gozo and Comino all the land they work is in Gozo and Comino.

Sub-Concept 3.8: Time coverage

The following reference periods were used:

- Permanent crops, arable land, mushrooms, and organic land: 1 September 2015 – 31 August 2016.
- Cattle, sheep, goats and poultry: 1 September 2016.
- Pigs: 1 December 2016. Detailed data on pigs are collected in the annual census among the pig breeders held every year while for the cattle, sheep and goats, administrative data are used.
- Labour force: the 12 months preceding the reference day of the survey (1 September 2015-31 August 2016).
- Rural development measures: the last 3 calendar years i.e. 2013, 2014, 2015.

Sub-Concept 3.9: Base period

Not applicable.

CONCEPT 4 – UNIT OF MEASURE

Two kinds of units are generally used:

1. The units of measurement for the characteristics (area in hectares, livestock in heads or LSU (livestock units), labour force in persons and AWU (annual working units)) and
2. The number of agricultural holdings having these characteristics.

CONCEPT 5 – REFERENCE PERIOD

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- Labour force: the 12 months preceding the reference day of the survey (1 September 2015-31 August 2016).
- Rural development measures: the last 3 calendar years i.e. 2013, 2014, 2015.

CONCEPT 6 – INSTITUTIONAL MANDATE

Sub-Concept 6.1: Legal acts and other agreements

[The Malta Statistics Authority Act, 2000.](#) The Act empowers the NSO to collect, compile, extract and release official statistics related to demographic, social, environment, economic and general activities and conditions of Malta.

The rules governing the farm structure surveys are laid down in the following Regulations:

- Characteristics – [Commission Regulation \(EU\) 715/2014](#)
- Definitions – [Commission Regulation \(EU\) 2015/1391](#)
- Typology – [Commission Implementing Regulation \(EU\) 2015/220](#)

Sub-Concept 6.2: Data sharing

Microdata are disseminated to Eurostat.

CONCEPT 7 - CONFIDENTIALITY

Sub-Concept 7.1: Confidentiality – Policy

At National level:

The NSO requests information for the compilation of official statistics according to the articles of the MSA Act – Cap. 422 and the Data Protection Act – Cap. 586 of the Laws of Malta implementing the General Data Protection Regulations (GDPR).

Article 40 of the MSA Act stipulates the restrictions on the use of information while Article 41 stipulates the prohibition of disclosure of information. Furthermore, Section IX of the Act (Offences and Penalties) lays down the measures to be taken in case of unlawful exercise of any officer of statistics regarding confidentiality of data.

Since its inception, the NSO has always assured that all data collected remains confidential and that it is used for statistical purposes only according to the articles and derogations stipulated in the laws quoted above. The Office is obliged to protect the identify of data providers and refrain from divulging any data to third parties that might lead to the identification of persons or entities.

During 2009, the NSO has set up a Statistical Disclosure Committee to ensure that statistical confidentiality is observed, especially when requests for microdata are received.

Upon employment, all NSO employees are informed of the rules and duties pertaining to confidential information and its treatment. In line with stipulations of the MSA Act, before commencing work, every employee is required to take an oath of secrecy whose text is included in the same Act.

An internal policy on anonymisation and pseudo-anonymisation is in place to ascertain that adequate methods are used for the protection of data which the office collects and shares with the public in its capacity as the National Statistics Office. The policy is meant to safeguard confidentiality of both personal and business data entrusted to the NSO. The document provides guidance for all NSO employees who process data on a daily basis as to how anonymisation and pseudo-anonymisation methods should be applied. The policy applies to all confidential, restricted and internal information, regardless of form (paper or electronic documents, applications and databases) that is received, processed, stored and disseminated by the NSO.

At European level:

[Regulation \(EC\) No 223/2009](#) on European statistics (recital 24 and Article 20(4) of 11 March 2009 (OJ L 87, p. 164), stipulates the need to establish common principles and guidelines ensuring the confidentiality of data used for the production of European statistics and the access to those confidential data with due account for technical developments and the requirements of users in a democratic society.

Sub-Concept 7.2: Confidentiality – Data Treatment

Microdata disseminated to Eurostat are checked for confidentiality following a number of guidelines. A number of categorical variables are recoded, and top coding is considered for a number of scale variables. Outlier values are replaced by the average.

CONCEPT 8 – RELEASE POLICY

Sub-Concept 8.1: Release Calendar

An advance release calendar is maintained by the NSO and published on the NSO website. The calendar projects three months of news releases (including the current and two subsequent months).

Sub-Concept 8.2: Release Calendar access

https://nso.gov.mt/en/News_Releases/Release_Calendar/Pages/News-Release-Calendar.aspx

Sub-Concept 8.3: User access

An internal policy on dissemination is in place to govern the dissemination of official statistics in an impartial, independent and timely manner, making them available simultaneously to all users.

The NSO's primary channel for the dissemination of official statistics is the NSO website. Tailored requests for statistical information may also be submitted through the NSO website.

Data from the 2016 FSS was not published on a local level. Information is accessible on the Eurostat's website.

CONCEPT 9 – FREQUENCY OF DISSEMINATION

Not available.

CONCEPT 10 – ACCESSIBILITY AND CLARITY

Sub-Concept 10.1: News release

Not applicable.

Sub-Concept 10.2: Publications

A number of selected indicators were included in the [Regional Statistics publication 2019](#).

Sub-Concept 10.3: Online Database

Not applicable.

Sub-Concept 10.4: Micro-data access

Not applicable.

Sub-Concept 10.5: Other

Not applicable.

Sub-Concept 10.6: Documentation on methodology

Work processes and procedures for the compilation of the Farm Structural Survey are documented in a standardised reporting template and aligned to the GSBPM model. The model covers all phases of the statistical production process, from the initial stages of identifying what statistics are needed and the scope of the particular survey, to the final stages of dissemination and evaluation. The GSBPM report is only available internally and may be accessed by all NSO employees.

Methodological notes are also included in the quality report sent to Eurostat.

Sub-Concept 10.6.1: Metadata completeness rate

Information about all required metadata concepts (and sub-concepts thereof) are provided.

Sub-Concept 10.7: Quality Documentation

SIMS reports related to the compilation of the FSS are available to the public on the [NSO's metadata website including concepts related to metadata and quality](#).

A quality report is additionally sent to Eurostat.

The NSO has developed an internal Quality Management Framework (QMF) which is built on common requirements of the ESS Code of Practice (ESS CoP). A document was prepared to include a set of general quality guidelines spanning over all statistical domains. Assuring methodological soundness is an integral part of the QMF, nonetheless, the document spans also on other areas related to institutional aspects.

CONCEPT 11 – QUALITY MANAGEMENT

Sub-Concept 11.1: Quality Assurance

The NSO ensures the accuracy of data released to the public and prepares clear methodological notes which explain the processes involved in the collection and production of official statistics.

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Every five to seven years, the NSO participates in a Peer Review exercise through which the compliance of its operations with principles of the ESS CoP is assessed by an expert team. Peer Reviews are indeed part of the European Statistical System (ESS) strategy to implement the ESS CoP. Each NSI is expected to provide information as requested by a standard self-assessment questionnaire. Following this an expert team visits the office to meet NSI representatives and main stakeholders. Peer Reviews result in a compliance report and the listing of a set of Improvement Actions which need to be followed up by the NSI. The next round of Peer Reviews is planned to be carried out in 2022.

Sub-Concept 11.2: Quality Assessment

Data are collected by applying high standards in compliance to the methodological guidelines and ensuring a high degree of comparability.

CONCEPT 12 - RELEVANCE

Sub-Concept 12.1: User needs

Main data users include Eurostat and DG AGRI.

Sub-Concept 12.2: User satisfaction

The last User Satisfaction Survey was held in 2014 with the aim to collect information about key users' satisfaction with statistical output.

The NSO keeps record of the number of News Releases and publications disseminated on its website; the users to whom statistical products are provided; as well as the number of requests that are processed every year.

News Releases and tailor-made statistical outputs were assessed on account of their quality, timeliness, and on their ability to meet users' needs.

Sub-Concept 12.3: Data Completeness

All the data required by Eurostat are compiled and sent within the respective deadlines.

CONCEPT 13 – ACCURACY AND RELIABILITY

Sub-Concept 13.1: Overall accuracy

The FSS survey is characterised by a degree of sampling and non-sampling error. The latter is attributed to the unit non-response which amounted to 1 holding and to the different classification of some of the holdings before and after the survey.

Sub-Concept 13.2: Sampling errors

The following table presents the margin of error estimated at a 95% confidence level for main selected variables.

	Estimate	Margin of error	Confidence interval (95%)
Utilised Agricultural Area (ha)	11,929	606	11,929 ± 606
Arable land (ha)	9,402	482	9,402 ± 482
Permanent crops (ha)	1,311	75	1,311 ± 75
Kitchen gardens (ha)	1,217	23	1,217 ± 23
Fallow land (ha)	1,117	43	1,117 ± 43
Bovine	14,717	1,474	14,717 ± 1,474
Pigs	41,643	3,633	41,643 ± 3,633
Broilers	438,624	37,021	438,624 ± 37,021
Layers	337,254	49,154	337,254 ± 49,154

Sub-Concept 13.3: Non-sampling error

Refer to information in sub concepts of 13.3 below.

Sub-Concept 13.3.1: Coverage error

The survey reveals 4 new units. These are included in both the population frame and in the sample. An additional 3 units are included in the sample. Such holdings emerged from holdings that their land was transferred to other existing holdings in the population. These were not considered as new units because they already existed in the population frame.

Sub-Concept 13.3.1.1: Over Coverage

A total of 25 holdings that were in the sample frame, did not belong to the target population, hence such holdings have been removed. In addition, there were 30 holdings removed from the data published by Eurostat as they had only kitchen gardens or performed no agricultural activities during the reference year.

Sub-Concept 13.3.1.2: Common Units Proportion

Not applicable.

Sub-Concept 13.3.2: Measurement error

A thorough check of completed questionnaires is an integral part of the processing system. Data control starts at the collection stage. In order to avoid errors during the initial stages of data

collection, all interviewers were instructed to interview not more than five holdings and return the booklets to the unit for an assessment to identify any mistakes undertaken. This exercise helped the interviewers to reduce the number of errors in the remaining questionnaires. Also, the interviewers were obliged to verify the totals for consistency during the actual filling in of the questionnaire. Once field checking was completed, interviewers had to submit the questionnaires for the process of manual verification in order to confirm completeness. In cases where information was either missing or not clear, the holder was contacted by telephone for clarification.

The above measures were taken in order to minimise as much as possible any chance of measurement errors. When it comes to the variable 'Family and non-family persons working on the holding', some measurement error can be expected. This is because some respondents would not be able to provide accurate answers regarding the age and the number of working hours of the individuals working on the holding.

Sub-Concept 13.3.3: Non-response error

Non-response refers to those holdings which, either refused to co-operate or holdings that could not be contacted. These were accounted for by re-weighting.

Sub-Concept 13.3.3.1: Unit non-response

The number of non-respondents amounted to 1 holding which was unreachable. There is no non-response bias given that the unit non-response rate is so low.

Sub-Concept 13.3.3.2: Item non-response

There were no partly completed questionnaires.

Sub-Concept 13.3.4: Processing error

When the data collected from the census resulted in discrepancies, the relevant participants were contacted again in order to confirm the data provided.

No processing errors were found as a result of thoroughly checking the data during the input stage.

Sub-Concept 13.3.5: Model assumption error

Not applicable.

CONCEPT 14 – TIMELINESS AND PUNCTUALITY

Sub-Concept 14.1: Timeliness

Data collection was on time.

Sub-Concept 14.2: Punctuality

The data is invariably submitted to Eurostat on schedule.

CONCEPT 15 – COHERENCE AND COMPARABILITY

Sub-Concept 15.1: Comparability – Geographical

The variables that are collected for the survey are comparable across EU member states since there are no discrepancies in the definitions used.

Sub-Concept 15.2: Comparability – Over Time

The data collected are comparable to previous FSS survey results (2003, 2005, 2007 and 2013). These results can also be compared to the Census of Agriculture which was carried out in 2010.

Sub-Concept 15.3: Coherence – Cross Domain

Data on livestock collected in the FSS is comparable to the annual administrative data obtained from the bovine register and also the data collected in the annual pig census, both of which are carried out in December.

Sub-Concept 15.3.1: Coherence – Sub-Annual and Annual statistics

Not applicable.

Sub-Concept 15.3.2: Coherence – National Accounts

Not applicable.

Sub-Concept 15.4: Coherence – Internal

Not applicable.

CONCEPT 16 – COST AND BURDEN

75% of the total costs for compiling the FSS relate to staff costs.

During 2016, besides the FSS there was also the FADN (which is carried out also by the National Statistics Office according to an agreement with the Agriculture and Rural Payment Agency). Such sample consists of 536 questionnaires. To reduce the burden on the farmers, a number of questions were included in the FADN Survey to cater for the variables for the FSS.

CONCEPT 17 – DATA REVISION

Sub-Concept 17.1: Data revision – Policy

At the NSO, there is currently no internal policy governing revisions that occur for all statistics produced. Nonetheless, a revisions policy is being drafted to safeguard a coordinated revisions system across statistical domains.

This policy will take account of the need and causes for revisions; time and frequency of revisions; data and other statistical products affected by such revisions; and length of periods revised.

Sub-Concept 17.2: Data revision – Practice and Data Revision

Not applicable.

CONCEPT 18 – STATISTICAL PROCESSING

Sub-Concept 18.1: Source data

The FSS 2016 was based on a sample survey. Some of the variables were obtained directly from the administrative sources.

The sample was stratified by farm type, economic size and region. Maltese agriculture is diverse and limited in size. As a result, it was not feasible to sample all farm types at the 3-digit level of typology. In order to overcome this phenomenon and to obtain a representative sample from each stratum, certain farm types were grouped according to the following typology codes.

Farm type	Typology codes
1	161, 166, 615, 833, 843
2	211, 212, 213, 221, 222, 223, 231, 232, 233, 611, 612, 616
3	351, 352, 353, 354, 613
4	361, 362, 365, 370, 380, 614
5	450, 460, 470, 841, 842
6	481, 482, 483, 484, 741, 834, 844
7	511, 512, 513, 521, 522, 523, 530, 731, 732, 742

Besides, the economic size classes were grouped as follows:

	Lower limit of the economic size classes	Upper limit of the economic size classes
1-3		8,000
4-7	8,000	100,000
>=8	100,000	

The optimum allocation method was the preferred method for selecting agricultural holdings by minimising the variance within the strata. Thus, the holdings in each stratum, except for those exhaustively surveyed, were chosen on the proportion of the total standard deviation of the total standard output of the holdings within each stratum. The formula for extracting the number of holdings to be surveyed under the optimum allocation method is:

$$n_h = S_{rs} \cdot \frac{\sigma_{SO_h} - N_h}{\sum_{h=1}^H (\sigma_{SO_h} - N_h)}$$

where S_{rs} is the sample size for those holdings to be sampled using sampling techniques

N_h is the total number of holdings in the population within each stratum

n_h is the total number of holdings in the sample within each stratum

σ_{SO_h} is the standard deviation of the holdings within each population stratum

h is from stratum 1 to stratum H

1	Number of holdings in the survey frame plus possible (new) holdings added afterwards <i>In case of a census 1=3+4+5</i>	9,276
2	Number of holdings in the gross sample plus possible (new) holdings added to the sample <i>Only for sample survey, in which case 2=3+4+5</i>	1,525
3	Number of ineligible holdings	55
3.1	Number of ineligible holdings with ceased activities <i>This item is a subset of 3.</i>	25
4	Number of holdings with unknown eligibility status <i>4>4.1+4.2</i>	0
4.1	Number of holdings with unknown eligibility status – re-weighted	0
4.2	Number of holdings with unknown eligibility status – imputed	0
5	Number of eligible holdings <i>5=5.1+5.2</i>	1,470
5.1	Number of eligible non-responding holdings <i>5.1>=5.1.1+5.1.2</i>	1
5.1.1	Number of eligible non-responding holdings – re-weighted	1
5.1.2	Number of eligible non-responding holdings – imputed	0
5.2	Number of eligible responding holdings	1,469
6	Number of the records in the dataset	1,469

Sub-Concept 18.2: Frequency of data collection

The data collection is conducted every 3 to 4 years.

Sub-Concept 18.3: Data Collection

The surveyed agricultural holdings were split into two groups; holdings with an economic size class of three (3) and less, and those with an economic size class of four (4) and more. All the farmers chosen were interviewed at the holder's address. A total of seventeen (17) enumerators were engaged for the data collection. All the interviewers had previous experience in other surveys carried out by the Unit.

Supervision was carried out and monitored on a daily basis and the performance of the enumerators was checked for consistency.

On average, it took around 30 minutes to compile the questionnaire. Since the compilation of data was carried out by NSO officials, the filled in questionnaires were collected on a weekly basis and were checked instantly for any inconsistencies. Data entry started during the third week of September 2016.

For the FSS 2016, apart from the data collected directly from the farmers, data from three different administrative sources were also used:

Bovine register – This register is maintained by the Veterinary Regulatory Directorate at the Civil Abattoir within the Ministry of Environment, Sustainable Development and Climate change was set up in 2002 in accordance with [Regulation \(EC\) 1760/2000](#) (establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef

products). Identification and registration of all animals is carried out and registered in the database. Decision 2004/588/EC recognises the fully operational character of the Maltese database for bovine animals.

Organic Register - The organic register is in accordance with the [Council Regulation No. 834/2007](#). Data in the organic register are updated throughout the year and the list is forwarded to our office. The Standards and Metrology Institute within the Malta Competition and Consumer Affairs Authority is the office responsible for granting certification to farmers. Periodic surveillance visits (at least annually) are carried out on certified organic farms / producers. Clients are required to keep all records on how they grow or process organic products and what chemicals, fertilizers, etc. are used. Such records are inspected during every visit and tests for illegal use of pesticides, chemicals, etc. are carried out when it is suspected that the client is not practicing organic farming as required by [Council Regulation \(EC\) No. 834/2007](#).

Agriculture and Rural Payment Agency – This agency operates an effective administrative set-up to ensure an efficient, effective and timely processing of claims. It also provides information to the Commission, the local entities and to the farming community. The Paying Agency is set up in accordance with [Regulation \(EU\) No. 1306/2013](#) of the European Parliament and of the Council and Commission [Regulations \(EC\) No. 883/2006](#) and [885/2006](#).

Sub-Concept 18.4: Data Validation

The process of checking completed questionnaires is an integral part of the processing system. Data control starts at the collection stage where the interviewer is obliged to verify the totals (for consistency purposes) whilst the questionnaire is being conducted.

Once field checking is completed, interviewers submit the questionnaires to the National Statistics Office, where the questionnaires are subject to a manual verification for completeness. In cases where information is either missing or not clear, the holder is contacted by telephone for clarification.

This phase is then followed by the data entry stage where computer validations of the individual data are made. This involves logic and consistency checks with previous data, checks for extreme values and reconciliation of the total declared area information to the area declaration covered by the crop. The system used for these checks allows for a dialog box to display an error message should an error be encountered.

After the data inputting stage, all data are validated and verified through Eurostat's validation rules as laid out in Annex 6 of the regulation. The locally built program has been designed to minimise errors encountered through the validation rules as stipulated in Annex 6. The validations set up by Eurostat helped to clear any final anomalies. The data was then converted into the format required by Eurostat.

Sub-Concept 18.5: Data Compilation

By using the data collected in the FSS together with a set of weights in which the data are grossed up, the total amount of agricultural land, the amount of livestock by type, the distribution of legal personality of the agricultural holdings, the total number of workers and their employment status, and the amount of annual work units (AWU) by type of holding are compiled at NUTS level 2.

Sub-Concept 18.5.1: Imputation

Not applicable.

Sub-Concept 18.6: Adjustment

Not applicable.

Sub-Concept 18.6.1: Seasonal Adjustment

Not applicable.

CONCEPT 19 - COMMENT

No further comments.