

## AGRICULTURAL PRICE INDICES (2019)

### NATIONAL REFERENCE METADATA IN SINGLE INTEGRATED METADATA STRUCTURE (SIMS)

#### **CONCEPT 1 - CONTACT**

##### **Sub-Concept 1.1: Contact organisation**

National Statistics Office (NSO) - Malta

##### **Sub-Concept 1.2: Contact organisation unit**

Environment, Agriculture and Fisheries 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 (NSO),  
Lascaris, Valletta VLT 2000, Malta.

##### **Sub-Concept 1.6: Contact e-mail address**

[ronald.tanti@gov.mt](mailto: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**

2<sup>nd</sup> March 2021.

##### **Sub-Concept 2.2: Metadata last posted**

4<sup>th</sup> March 2021.

##### **Sub-Concept 2.3: Metadata last update**

4<sup>th</sup> March 2021.

## **CONCEPT 3 – STATISTICAL PRESENTATION**

### **Sub-Concept 3.1: Data description**

Agricultural Price Indices (output and input) comprise of:

- The index of producer prices of agricultural products; and
- The index of purchase prices of the means of agricultural production.

The purpose of price indices is to provide information on trends in producer prices of agricultural products and purchase prices of the means of agricultural production.

### **Sub-Concept 3.2: Classification system**

The structure of the output and input indices, (i.e. the list of groups, subgroups, classes, subclasses and categories for which partial indices are calculated), is based on Annex I of the [Handbook for EU Agricultural Price Statistics](#).

The nomenclature applied in the Agricultural Price Indices is harmonised to the greatest possible extent with the [Nomenclature of Economic Accounts for Agriculture](#) (EAA) which is an integral part of the European system of accounts and therefore, for their compilation, Eurostat's general classification of economic activities [NACE](#) is used.

### **Sub-Concept 3.3: Sector coverage**

The index of Producer Prices of Agricultural Products (Output index) is based on the sales of the agricultural products, while the input index is based on the purchases of the means of agricultural production by the agricultural producers (Farm gate prices).

### **Sub-Concept 3.4: Statistical concepts and definitions**

The index of Producer Prices of Agricultural Products (Output index) is based on the sales of the agricultural products, while the input index is based on the purchases of the means of agricultural production. The Laspeyres index is used as the basis of the index calculation. The value weight attached to each elementary index in the output index is equal to the value of the sales of this product, exclusive of VAT, over the base period.

The elementary indices for the prices of animals refer to slaughtered animals and the weight is calculated as the value of the corresponding sales.

By analogy with the output index, the expenditure incurred by farmers in purchasing the means of production, including the purchases of crop products from other agricultural units for intermediate consumption over the base period, constitutes the basic value for calculating the value weights for the input index. This expenditure too is expressed excluding (deductible and reimbursable) VAT.

Means of production have to be valued at the purchase price, that is, the price the purchaser actually pays for the products. It includes taxes less subsidies on products (but excludes deductible taxes like deductible VAT).

The weights used in the index for goods and services contributing to agricultural investment represent the expenditure incurred by farmers over the base period in purchasing this kind of goods and services.

### **Sub-Concept 3.5: Statistical unit**

The basic units are the products such as vegetables, fruit, milk, meat and eggs that the farmer and the breeder produce on their agricultural holding. The prices of such products are recorded at the first marketing stage, and these are the actual producer prices received by farmers and/or breeders.

Similarly, agricultural products such as pesticides, fertilizers, and animal feeding stuffs used for the production on the farm, are the basic units. The prices of these are recorded at the time that such products arrive on the farm.

### **Sub-Concept 3.6: Statistical population**

The Agricultural Price Indices are based on data compiled from the official markets, the civil abattoir and private slaughterhouses as well as data collected from the main agricultural shops in Malta.

### **Sub-Concept 3.7: Reference area**

The Agricultural Price Indices refer to Malta at a national level. No indices are produced at a regional level.

### **Sub-Concept 3.8: Time coverage**

Annual and quarterly data are available from the year 2000 onwards.

### **Sub-Concept 3.9: Base period**

2015=100

## **CONCEPT 4 – UNIT OF MEASURE**

Agricultural Price Indices are based on absolute prices which are expressed in percentage form.

## **CONCEPT 5 – REFERENCE PERIOD**

The reference period is the calendar year for annual indices and the quarter for the quarterly indices.

## **CONCEPT 6 – INSTIUTIONAL MANDATE**

### **Sub-Concept 6.1: Legal acts and other agreements**

[The Malta Statistics Authority \(MSA\)](#) 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.

There is no official regulation. Data are collected and transmitted according to an informal agreement with Eurostat.

## **Sub-Concept 6.2: Data sharing**

There is no official regulation. Data are only transmitted to Eurostat according to an informal agreement.

## **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**

Agricultural Price Statistics are represented in index or percentage form (rates) and are therefore not treated for confidentiality, being not sensitive in nature.

## **CONCEPT 8 – RELEASE POLICY**

### **Sub-Concept 8.1: Release Calendar**

Not applicable. The data are presently not being published locally.

### **Sub-Concept 8.2: Release Calendar access**

Not applicable.

### **Sub-Concept 8.3: User access**

The data are not published on a local/national basis but are , however, available and accessible on the Eurostat website (within the European Commission).

## **CONCEPT 9 – FREQUENCY OF DISSEMINATION**

Not applicable.

## **CONCEPT 10 – ACCESSIBILITY AND CLARITY**

### **Sub-Concept 10.1: News release**

Not applicable.

### **Sub-Concept 10.2: Publications**

Not applicable.

### **Sub-Concept 10.3: Online Database**

Not applicable.

### **Sub-Concept 10.4: Micro-data access**

Not applicable.

### **Sub-Concept 10.5: Other**

The data are not published on a local/national basis but are , however, available and accessible on [the Eurostat website](#) (within the European Commission).

### **Sub-Concept 10.6: Documentation on methodology**

Work processes and procedures for the compilation of Agricultural Price Indices 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. GSBPM is only available internally and may be accessed by all NSO employees.

The data collected for Price Statistics are in line with the methodology provided by the [Handbook for EU Agricultural Price Statistics](#) Version 2.0. of March 2008.

#### **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**

The procedures used for the analysis of data are documented in line with the GSBPM model and made available to NSO staff members only.

SIMS reports covering Agricultural Price Statistics are available to the public on the [NSO's metadata website including concepts related to metadata and quality](#).

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 accuracy of Agricultural Price statistics is ensured by adherence to the methodological handbook specified in sub concept 10.6.

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.

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**

The accuracy of Agricultural Price statistics is ensured by adherence to the methodological handbook specified in sub concept 10.6.

## **CONCEPT 12 - RELEVANCE**

### **Sub-Concept 12.1: User needs**

Eurostat is the sole user of these statistics.

### **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.

### **Sub-Concept 12.3: Data Completeness**

The data completeness rate stands at 100%. 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**

All data collected for the reference period are inputted by a statistician. Such process is checked again by another staff member. Besides, the data are compared with data from the previous period and if any large discrepancies in the prices used in the compilation of the indices are noted, the data are checked in detail and where necessary, the administrative source is re-contacted.

### **Sub-Concept 13.2: Sampling errors**

Not applicable.

### **Sub-Concept 13.3: Non-sampling error**

Potential sources of non-sampling error relate to measurement and processing errors. Nonetheless, every effort is made to minimise any measurement errors by having in place checks across time as well as various re-checks and automatic validations and processing. Moreover, A series of checks (including automatic and in-built validation checks) and re-checks are in place across the compilation process to minimise processing errors.

### **Sub-Concept 13.3.1: Coverage error**

Not applicable.

#### **Sub-Concept 13.3.1.1: Over Coverage**

Not applicable.

#### **Sub-Concept 13.3.1.2: Common Units Proportion**

Not applicable. Only administrative sources are used.

#### **Sub-Concept 13.3.2: Measurement error**

Every effort is made to minimise any measurement errors by having in place checks across time as well as various re-checks and automatic validations and processing.

#### **Sub-Concept 13.3.3: Non-response error**

Not applicable since all the required variables are collected from the administrative sources.

##### **Sub-Concept 13.3.3.1: Unit non-response**

Not applicable since all the required variables are collected from the administrative sources.

##### **Sub-Concept 13.3.3.2: Item non-response**

Not applicable since all the required variables are collected from the administrative sources.

#### **Sub-Concept 13.3.4: Processing error**

A series of checks (including automatic and in-built validation checks) and re-checks are in place across the compilation process to minimise the processing errors.

#### **Sub-Concept 13.3.5: Model assumption error**

Not applicable.

### **CONCEPT 14 – TIMELINESS AND PUNCTUALITY**

#### **Sub-Concept 14.1: Timeliness**

Quarterly price indices: Data for the respective Quarter of year  $n$  are transmitted to Eurostat 40 days after the end of the quarter.

Annual price indices: Annual data for year  $n$  are transmitted to Eurostat 40 days after the end of the year  $n$ .

#### **Sub-Concept 14.2: Punctuality**

Not applicable. The data are invariably submitted to Eurostat on schedule.



## **CONCEPT 15 – COHERENCE AND COMPARABILITY**

### **Sub-Concept 15.1: Comparability – Geographical**

The data are comparable to the data of other European countries since all the countries follow the established methodological guidelines in compiling the price indices.

### **Sub-Concept 15.2: Comparability – Over Time**

Annual indices are comparable while the comparison between quarterly price indices can be made only between the corresponding quarters of different years. This is due to the variation among weights from quarter to quarter for the output products.

### **Sub-Concept 15.3: Coherence – Cross Domain**

Not applicable.

#### **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**

All the data collection together with the data inputting and analysis are done by a statistician. Costs are kept to a minimum since data collection is majorly via email, and partly over the phone.

## **CONCEPT 17 – DATA REVISION**

### **Sub-Concept 17.1: Data revision – Policy**

Since the data received from the administrative sources are validated and checked thoroughly, the data compiled are not normally subject to revision unless the data are revised by the administrative source (this has happened only on rare occasions).

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**

Since the data received from the administrative sources are validated and checked thoroughly, the data compiled are not normally subject to revision unless the data are revised by the administrative source (this has happened only on rare occasions).

## **CONCEPT 18 – STATISTICAL PROCESSING**

### **Sub-Concept 18.1: Source data**

- Output price indices: Are calculated using producer prices, i.e. prices obtained by farmers, excluding subsidies.
- Input price indices: Are calculated using purchase prices of raw and auxiliary materials and services. Both the output and input prices used in the calculation of output and input indices are calculated net of VAT.
- Administrative sources: Are mainly used in the compilation of the output price index, whilst major retail outlets specialising in the provision of agricultural products are used for intermediate consumption providing quarterly data on input prices.

### **Sub-Concept 18.2: Frequency of data collection**

Data are collected on a quarterly basis.

### **Sub-Concept 18.3: Data Collection**

Data from the administrative sources together with data from the major retail outlets are collected via email.

### **Sub-Concept 18.4: Data Validation**

When the data are received and inputted in the respective file, the data are checked against the previous validation quarter. If there are any major discrepancies in the average prices of agricultural products, the administrative source and/ or the retail outlet is queried. Besides, the quarterly indices are compared to the previous year and if any discrepancies arise, the data are checked in detail and where necessary, the respective administrative source is contacted again for verification.

### **Sub-Concept 18.5: Data Compilation**

#### Weights:

The source of the Agricultural Price Indices weights is the [Economic Accounts for Agriculture and the Farm Accountancy Data Network](#) survey (FADN). The quarterly value weights reflect the actual distribution of the quarterly sales quantities in the base period, allowing seasonality for all output products (crops and animal). The quarterly value weights are calculated by multiplying the quarterly sales quantities and the annual average price of the base year.

The input products are considered to be non-seasonal products and therefore should have an equal distribution of the annual value weight in all quarters. The quarterly weight for each product will be

obtained by calculating the quantities sold during the corresponding quarter of the base period at the annual average base price of the product.

Computation of Indices:

These are calculated based on the Laspeyres formula. The fixed weighting structure is representative of the base year.

Treatment of seasonal items:

Seasonal Items include fresh vegetables and fresh fruit. When a product pertaining to these classes is out of-season, its weight for that particular quarter is set to zero.

**Sub-Concept 18.5.1: Imputation**

Not applicable.

**Sub-Concept 18.6: Adjustment**

Not applicable.

**Sub-Concept 18.6.1: Seasonal Adjustment**

Treatment of seasonal items:

Seasonal Items include fresh vegetables and fresh fruit. When a product pertaining to these classes is out of-season, its weight for that particular quarter is set to zero.

**CONCEPT 19 - COMMENT**

No further comments.