Agricultural product and input price statistics

Handbook
2020 Edition

eurostat

Acknowledgements

Improvement in the quality of statistics is a continuous process and the everyday objective of statisticians. The present handbook will thus continue to be improved in the future.

Eurostat is the publisher of the present handbook, but this is the outcome of:

- decades of discussions in the Working Group on Agricultural Accounts and Prices, involving Member State delegates and European Commission staff;
- voluntary investment of national experts towards an ambitious quality benchmark for agricultural price statistics involving the best of national practices and compromises in the common interest of the European Union;
- good will of Member States, which enabled regular statistical production of agricultural prices under a gentlemen's agreement, having enabled their staff to spend time in improving European agricultural statistics, and for the common interest.

Eurostat (the statistical office of the European Union) is grateful to them all.

Abbreviations and acronyms

Code	Description
AGRIPROD	Agricultural products
API	Agricultural Price Indices
DG AGRI	Directorate-General for Agriculture and Rural Development
DGAS	Directors' Group for Agricultural Statistics
EAA	Economic Accounts for Agriculture
EU	European Union
EWA	EDAMIS Web Application
EWP	EDAMIS Web Portal
FISIM	Financial Intermediation Services Indirectly Measured
Mio	Million
MS	Member State(s)
n.e.c.	Not elsewhere classified
NSI	National Statistical Institute
NUTS	Nomenclature of Territorial Units for Statistics
PDO	Protected Designation of Origin
PGI	Protected Geographical Indication
QWPSR	Quality Wine Produced in a Specific Region
SAIO	Statistics on Agricultural Input and Output
SCL	Standard Code List

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1 Introduction

1.1 Presentation

1.1.1 Background

The handbook on agricultural price statistics is normally reviewed for the re-basing exercises, i.e. the change in the reference for their calculation. The changes concern not only the time period used as a reference index of 100, but it is also the opportunity to update the list of products. Meanwhile, no additional change should be introduced.

A consolidated handbook covering both Agricultural Price Indices and Absolute Prices was published in 2002 and followed by a revised version covering only Agricultural Price Indices in January 2005. The methodology of EU Agricultural Price Statistics (version 1.0 February 2002) was updated to incorporate the changes in data collection of Agricultural price indices from monthly to quarterly indices as well as the latest decisions regarding the collection of annual absolute prices using a reduced list of variables since July 2005.

In the framework of the rebasing 2005=100 a new handbook was published in March 2008, consolidating the methodology for collecting both Agricultural price indices as well as Agricultural Absolute Prices. The handbook was slightly updated in 2015 after the rebasing 2010=100.

The present handbook considers the changes related to rebasing 2015=100 and clarifies some methodological issues not yet covered.

The statistics on Agricultural land prices and rents are not covered by the present handbook although they are part of Agricultural Price Statistics. For clarity, the present handbook refers explicitly to products and input prices only. Methodology of Agricultural Land Prices and Rents is covered by a separate handbook.

1.1.2 Purpose

The handbook, revised 2020, has been released in December 2020. It is based on the previous years' handbooks and is designed in line with the common template for the handbooks in agricultural statistics.

The current methodology for EU Agricultural Products and Inputs Price Statistics is build up based on the information from the previous version (2015) organised within the new common structure for methodological handbooks and taking into consideration the latest developments as regards the data collection and validation methods. Reference to products and input has been introduced because the agricultural land prices and rents statistics are not covered by the present handbook while they are agricultural price statistics.

The present handbook aims first to describe the methodology of agricultural prices statistics as agreed over the years by the Agricultural Accounts and Prices Working Group. It includes methodological information on:

- Agricultural Price Indices (API)
  - Achieved price indices (provisional and final)
  - Early estimates of price indices
  - Price weighting scheme
- Agricultural Absolute Prices (AAP)
  - Absolute producer prices of the agricultural products,
  - Absolute purchase prices of the means of agricultural production (input).

1.1.3 Structure of the handbook

The structure of the present handbook follows the process description, from data collection and elaboration by the Member States to data interpretation by the data users, with statistical activities involving Eurostat meanwhile.

1.2 User needs

Agriculture is a branch of the European Union economy, which has long been covered by a common policy. Information on the prices of products and the means of production are indispensable to allow individual targets in the EU agricultural policy to be determined, the necessary measures to be taken and the effects of the policy to be monitored. Differences between prices in Member States and temporal price trends are of interest here. Basic tools for the measurement of price variations and price trends are absolute agricultural prices, on one hand, and agricultural price indices, on the other.

User needs assessment

The main use for absolute agricultural prices is to compare price levels between Member States and to study sales channels. On the other hand, agricultural price indices are used primarily to analyse price developments and their effect on agricultural income. In some Member States, absolute agricultural prices and agricultural price indices are also used in the Economic Accounts for Agriculture (EAA), therefore methodological compatibility of all these statistics is required. Also, elaboration of price indices requires absolute prices, which is a further need. Finally, the price indices are used as auxiliary information in the EU FADN and EU Agricultural policy market analysis.

1.2.1 Agricultural price indices (products and inputs)

The EU Agricultural Price Indices comprise:

- the index of producer prices of agricultural products,

- the index of purchase prices of the means of agricultural production (input).

Along with the physical quantities, the selling prices of agricultural products and purchase prices of the means of production have a decisive influence on farmers' incomes. These indicators showing how agricultural revenue and expenditure are influenced by their price component are therefore connected with Economic Accounts for Agriculture (EAA). Methodological compatibility of all these statistics is required.

The purpose of the price indices is to provide information on trends in producer prices of individual agricultural products or groups of products and purchase prices of the means of agricultural production. They are intended to allow a comparison of these trends between various Member States and the European Union as a whole as well as between different products within a Member State or the European Union. They are also intended to facilitate comparisons between trends in producer prices and trends in purchase prices of the means of agricultural production. However, they cannot express differences between the Member States in terms of absolute agricultural price levels.

1.2.1.1 ACHIEVED PRICE INDICES (QUARTERLY AND ANNUAL)

The price indices are calculated quarterly and, in some Member States, monthly, to provide the data users with fresh information on the trends. The annual indices are derived from them for economic analysis. The Economic Accounts for Agriculture (EAA) base some of their calculations on these indices.

One refers to *achieved* indices to distinguish the indices based on recorded prices from the early estimates of annual indices.

1.2.1.2 EARLY ESTIMATES OF PRICE INDICES

Although the indices relating to the prices of agricultural products and means of production in each quarter are calculated relatively quickly (within 45 days of the end of the relevant quarter), and usually much more quickly than statistics relating to the associated quantities and values, there is a demand for yet more up-to-date information. This inevitably involves the generation of estimates, whether for the prices of individual items or at the more aggregated levels of the price indices.

Eurostat therefore requires Member States to provide estimates of the product and input indices for the current year as a whole, 45 days before the end of the reference year (see 2.5.1.7).

The early estimates of price indices aim to provide fresh indices based on sufficient information to guarantee a certain quality, although partly sacrificed to timeliness. They are the first annual results derived from the quarterly indices.

Early estimates of price indices concentrate on the most significant indices.

1.2.1.3 WEIGHTING SCHEME

The users of weighting schemes are not the users of the prices indices, but the national and EU statisticians involved in their elaboration.

To enable indices of groups of products or an overall index to be compiled from the various elementary indices of prices, it is essential to have a weighting scheme, and the weighting problem is exacerbated in the case of an international index covering several countries.

In principle, price indices can relate either to production of agricultural products and consumption of means of production or to sales and purchases. However, regardless of the pairing chosen, the weights must be consistent with them.

As the coverage of the EU Agricultural Price Indices are sales and purchases, the weights consequently relate to them, and not to production of agricultural products and consumption of the

means of agricultural production. It has to be taken into account that this choice makes the indices less relevant as a guide to changes in the values of agricultural products and inputs, and hence to changes in incomes.

1.2.2 Absolute prices

The purpose of the Statistics of Absolute Agricultural Prices transmitted to Eurostat is above all a dual one: they are used for:

- (1) comparisons between Member States and
- (2) for economic analyses.

Absolute agricultural prices (especially aggregated prices) are needed for many model calculations and for the determination of price elasticities.

This means that two objectives have to be met. The first one is that absolute prices must be comparable between Member States. The second one is that the products for which the prices are to be recorded must be of economic relevance for the respective Member State. These objectives are not necessarily compatible and some compromise may be necessary.

The Member States provide Eurostat with annual price series.

As a strong need, elaboration of price indices is normally based on absolute prices. Finally, secondary use of absolute prices, because they exist, is to be noted, e.g. for calculation of standard output or proxy of the cost unit values in the models.

1.3 Changes from previous versions

Additionally to the structural changes already mentioned under 1.1.1, the methodology has been slightly updated between the basis years 2010 and 2015.

1.3.1 Wine classification

The wine classification used for the agricultural product price indices was no longer relevant since the 2008 revision of the Common Market Organisation (Regulation (CE) No 479/2008).

The quality wines, previously known as 'QWPSR' (Quality Wine Produced in a Specific Region) and 'Table Wine' have been replaced by PDO (Protected Designation of Origin) and PGI (Protected Geographical Indication) wines.

The PDO identifies products that are produced, processed and prepared in a specific geographical area, using the recognised know-how of local producers and ingredients from the region concerned.

The PGI identifies products whose quality or reputation is linked to the place or region where it is produced, processed or prepared, although the ingredients used need not necessarily come from that geographical area.

The new classes as presented in below replaced the old classes.

Table 1 – Old and new classes of wine classification

API Code	Description
070000	**Wine**
	Old classes
071000	Table wine
071100	"Vin de pays" or "Vinho regional" or "Vino de la tierra"
071900	Other table wine
072000	Quality wine
079000	Other wine
	New classes
073000	PDO and PGI
073100	PDO
073200	PGI
078000	Wines, other than PDO or PGI

1.4 Legal basis

1.4.1 Gentlemen's agreement

Legal basis

The EU Agricultural Price Statistics are based on voluntary agreements between Eurostat and the Member States. The foundations for these were laid in the early seventies.

1.4.2 Governance

The national authorities of the Member States (National Statistical Offices and/or Ministries of Agriculture) are responsible for collecting absolute prices in a wider sense and for calculating corresponding average prices for their country, as well as for calculating price indices and periodically updating the weights.

All questions relating to EU Agricultural Products and Inputs Price Statistics are discussed by the Working Group on Agricultural Accounts and Prices (AAP), which normally meets once a year in Luxembourg. The Member States are represented in this Working Group by officials of the National Statistical Service and/or Ministry of Agriculture responsible for agricultural price statistics. Matters of fundamental importance are also on the agenda of the Directors' Group for Agricultural Statistics (DGAS), which meets each year. At these meetings the Member States are represented by the persons in charge of agricultural statistics as a whole.

2 Methodology

2.1 General remarks

The EU Agricultural Price Indices should be interpreted in the light of the following:

- The national weights for agricultural products and inputs indices reflect the sales and purchases during the base year. The aggregate indices are therefore diversely impacted by the structure of the national weighting schemes within the various Member States.
- The input prices do not cover the whole operating expenditure of the agricultural sector, which should be considered when comparing the indices of products and inputs.
- Comparison of quarterly price indices is meaningful only for the same quarter of different years.

In addition, interpretation of the national indices of agricultural prices must consider the possible deviations from the EU Agricultural Price Indices regarding their base, formula or field of observation.

2.2 Statistical variables

2.2.1 Measurements

2.2.1.1 PRICE

Market price

The **market price** of agricultural products is defined as the price received by the producer without the deduction of taxes or levies (except deductible VAT) and without the inclusion of subsidies. The treatment of taxes, levies and subsidies is also considered under 2.4.2.Value of sales at market price.

The market price as defined in the domain of price statistics must not be confused with a price "on the market", i.e. **wholesale price**.

Base (period) price

The base price is the average annual absolute price for an agreed reference year (base year). It applies to elementary indices.

Differences with basic price are explained in box “Base price vs. Basic price”, under 2.5.1.10.1.

Price index

For the EU agricultural price statistics, a price index is the percentage change in prices relatively to a stable reference in time, the base price. By agreement, the index of every price for the base year is 100 and the base years are those finishing in “0” or “5”.

A Laspeyres index compare the price of the same basket of products along the years.

Basic price

The **basic price** is defined as the price received by the producer after deduction of any taxes or levies on the products, including any subsidies on products.

2.2.1.2 PRODUCT PRICE INDEX

The index of producer prices of agricultural products (product index) is based on the **sales** of the agricultural products (farm gate prices).

Under the EAA, output is valued at the basic price. However, practical difficulties arise with the use of the basic price concept for the calculation of the price indices, especially the quarterly ones. Thus, the Working Party on Agricultural Price Statistics decided to use the *market price* concept (called *producer price* concept in the context of agricultural accounts).

In the framework of the EU Agricultural Price Indices (products), the value of sales at the market price:

Includes

- the value of sold products
- the value of own products processed on the farm, which, except in the case of *olive oil* and *grape must* or *wine* (see below note), must be calculated on the basis of the quantities and prices of the raw materials from which they are made
- the value of product related levies/taxes (other than deductible VAT)

Excludes

- the value of any monetary compensation received by farmers in respect of the destruction of given quantities of products
- the value of subsidies on products which farmers might have received

Elementary indices

The **elementary indices** are directly calculated by comparison of the absolute prices of current period with those of the base year. They are then used to calculate **aggregated indices** (see 4.2).

The elementary indices for **the prices of animals** refer to animals leaving agriculture (slaughter or export) and the weight is calculated as the value of the corresponding sales. Imports of animals are not considered. Animal imports are in many cases of minor importance compared to the other components of animal output and so this assumption is usually acceptable. If it cannot be assumed that prices move in parallel, the proper solution would be to introduce a negative weighting factor for imported animals and to establish an index for this category of animals.

Coherence with EAA scope

The EAA scope indicates whether and where the farm gate is to be considered when collecting prices.

Under the EAA, the production of wine and olive oil (exclusively using grapes and olives grown by the same holding) is considered as a characteristic agricultural activity. The production of wine or olive oil by units closely linked to agricultural holdings (e.g. agricultural cooperatives) is also treated as a characteristic agricultural activity. In contrast, the production of wine or olive oil by agro-food businesses is excluded.

Under the EAA a distinction is made between units engaged in subsistence farming and units for which the agricultural activity represented solely a leisure activity, including the output of units engaged in subsistence farming in the EAA while excluding the agricultural output from leisure activities.

2.2.1.3 INPUT PRICE INDEX

The input index is based on the **purchases** of the means of agricultural production by the agricultural producers (farm gate prices).

By analogy with the product 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).

2.2.2 Measurement units

Agricultural price indices are calculated based on absolute prices data collected in national currency.

The weights provided by each country are transmitted in million (Mio) of national currency.

The absolute prices are expressed in national currency for a quantity of product reflecting usually a weight or a volume (liquids or gases), or the useful unit (e.g. kg of nitrogen for fertilisers or kWh for electricity).

2.3 Field of observation

The field of observation for a price covers all the goods and services for which it is desired to measure the price trends. As a measure of changes in producer prices of agricultural products, the agricultural product price is based on the sales of agricultural products. The input price is based on the purchases of the means of agricultural production by the farmers (farm gate prices). However, in agriculture, there are several concepts that can be distinguished, and these concepts are characterised by a different coverage of agricultural products.

Depending on their end use, agricultural products can be divided into two groups:

- products sold outside the agricultural sector (for direct utilisation or utilisation after processing) or for export;
- products to be sold within the agricultural sector as means of production, such as animal feedingstuffs, seeds or rearing animals.

In the EAA methodology, as well as in Agricultural Products and Inputs Price Statistics, the sales concept is extended and includes also sales/purchases of agricultural products between agricultural units (farms) for intermediate consumption purposes, excluding however trade in animals between agricultural units. In contrast to the EAA, Agricultural Price Indices do not include the intra-unit production and consumption of animal feedingstuffs, not sold nor bought.

In the framework of the EU Agricultural Price Indices (products), the transactions:

Include

- the sales to dealers
- the direct sales by farmers of crop products made to other agricultural units
- the direct sales by farmers on the domestic market
- the direct sales by farmers abroad (direct exports)
- the removal of own products processed by farmers (separable activities)

Exclude

- the consumption of own produce on agricultural holdings
- the products sold from private, non-agricultural gardens
- the vegetables delivered for processing
- the sales of products from other farms
- the changes in stock

2.3.1 Limitations in the field of observation

The service part of insurance premiums is excluded from purchase prices of means of agricultural production whereas it is included in EAA, which limits their comparability.

By definition, the index of purchase prices of the means of agricultural production does not cover factors of production. Thus, wages and wage costs, rent, interest payments, purchases of land and fixed asset animals are not part of the field of observation.

As the wages and wage costs are excluded, the costs for agricultural services are not considered, as they constitute the hire of machines and equipment with the corresponding labour. Vice versa, the rental paid for the use of other capital assets such as the hire of machines and equipment without operating staff is included.

Regarding the investments the API consider only the fixed assets: machines, transport equipment, farm buildings, etc. but exclude plantations and livestock.

2.3.2 Geographical coverage

The EU Agricultural Price Indices refer to the Member States (national level). They are not calculated on a regional level.

2.4 Data sources

2.4.1 Observation points for prices

2.4.1.1 MARKETING STAGE

First marketing stage for product prices received

Prices should be recorded at points which are as close as possible to those of the transactions which the farmer actually undertakes. This means that product prices should be recorded at the first marketing stage, so as to best indicate the actual producer prices received by farmers.

Last marketing stage for purchase prices paid (input)

Similarly the prices paid by farmers for their means of production should be recorded at the last marketing stage, that at which the items arrive on the farm, so as to best indicate the purchase prices paid by farmers.

It is generally easier to fulfil this objective for the purchase prices of the means of production than for the selling prices of agricultural products. This is because agricultural products are marketed through a wide range of channels and prices are not always determined at the points through which the farmer markets his products. The prices to be received by farmers for their products may, in some cases, be determined at later stages; for example, when they have been transported from the farm, perhaps stored for some time and even processed in some way. It is therefore necessary to distinguish between several sources of information on product prices, each reflecting the ways in which the products are marketed.

This need also arises because of the impracticality of collecting price information from quarterly surveys of farmers. The number of farmers which would need to be covered would be too big and the delays in collecting and processing the information too long to allow this to be a practical possibility. The number of channels through which the produce flows, and the number of the purchasing persons and organisations is usually much lower than the number of producers, thus making it, in many instances, more practical and cheaper to collect price information from observation of these channels or from the purchasers of the produce. Moreover given the potentially sensitive nature of information on agricultural prices, it may be desirable for the collection process to be as detached as possible from those who might be affected by its outcome.

This latter point favours the use of price information from the direct observation of markets, whether this is done by those compiling the statistics or by organisations whose role includes the monitoring of agricultural prices. However and especially when it is likely to affect the price movements to be indicated by the indices, attempts should be made to evaluate the price likely to have been received by farmers (the farm-gate price) by deducting transport, storage and processing costs and the margins and taxes which the products attract upstream, in so far as these are relevant and quantifiable (possibly through periodic ad hoc surveys rather than continuous monitoring).

Further to what has been said above, it should be recognised that a considerable amount of information on the selling prices of the agricultural products is often collected, compiled and made available in summary form by a variety of organisations. These include statutory or quasi-statutory bodies, associations representing the interests of agricultural producers or those involved in its processing or distribution and specialist parts of the media (e.g. journals aimed at a farming readership). It may not therefore be necessary for those compiling the agricultural price indices to organise the collection of all the basic information which they will use, relying instead on information collected and processed by others. Data collection can be summarised by an inventory (catalogue) of the data sources corresponding to the various prices and covering, where appropriate, direct price collection. The data preparers should be aware of the basic types of information on prices which may be available, or which they may otherwise have to collect directly, and of the advantages and disadvantages of these different types of information.

2.4.1.2 PRODUCT PRICE MONITORING AT THE PRODUCER STAGE

Even the prices received directly by producers may be monitored in several different ways, reflecting the marketing channels used and the characteristics of the products and any associated administrative or support system.

2.4.1.3 DIRECT SALES BY PRODUCERS

In some cases farmers may sell their products directly to merchants at local fairs and markets or to final consumers, both at such markets or at the farm-gate or through farm shops. Direct sales of this nature are particularly common in the case of fruit, vegetables (including potatoes), flowers and eggs but may also occur for other products. The prices received by farmers for produces marketed as described above are, in principle, directly observable though the mechanisms for their observation and recording and are not likely to allow comprehensive recording through time and across space.

Some form of sampling is therefore likely to be required for the collection of such price information. Moreover, there may be practical difficulties in discovering the prices at which transactions actually took place, since bargaining between the two parties may be common and transactions between individuals are not usually publicised or generally known. On the other hand, the prices may be readily observable, particularly when they are established through public auctions or by price committees. It should however be noted that the person or organisation making such sales, and particularly those at fairs and markets, may not be the producing farmer but a merchant or merchandising organisation who has bought the produce from a farmer and whose price is thus likely to differ from and probably exceed the one actually received by the farmer.

2.4.1.4 RECORDS OF TRANSACTIONS

In some cases, the prices at which sales of produce are made may be recorded in some systematic way as part of an administrative process which may be utilised by those compiling the price indices. For example in France, sales of wine by producers are recorded as part of the tax procedures and one copy of the relevant documentation is sent to the professional bodies, which then publish statistics on the quantities and prices of wine sold by producers.

2.4.1.5 ADMINISTERED PRICES

The market for certain products may be officially administered by public authorities who set the parameters for production and for payments to farmers. The number of sectors covered in this way has been largely reduced in the recent years. However, in some countries and for some products, there are inter-professional agreements covering certain sectors like champagne, starch potatoes or ewe's milk.

2.4.1.6 ENQUIRIES TO BODIES COLLECTING OR PURCHASING THE PRODUCTION

As far as some products are concerned, all or virtually all of the production is collected by or sold to a single organisation or group of organisations, from which can be obtained the information on the prices paid to farmers. These bodies may perhaps be producer co-operatives or first-hand processors of agricultural produce.

Enquiries to bodies collecting data on milk production

An example of the collection of product price information collected this way is milk. In the past, almost all milk marketed had to be sold to marketing boards. They have then been replaced by a larger number of registered purchasers of the milk but, under both sets of marketing arrangements, the information on the prices received by farmers for the milk they produced has been obtained from the purchasers of the milk.

2.4.1.7 PRODUCT PRICE MONITORING AT INTERMEDIATE STAGES

In the course of their production and distribution, goods normally pass through a number of stages between the production of the raw materials (from which they are produced) and their ultimate sale to the final consumer. This also happens for much of the agricultural production, for example as raw agricultural production is (eventually) refined and processed and the processed products pass through the distribution chain. This allows prices to be observed at a number of different points in the process. However, as each becomes successively further removed from the farm-gate, the degree of adjustment, needed to derive farm-gate prices, becomes even greater.

2.4.1.8 PRICE MONITORING AT THE DISPATCH AND TRANSPORTATION STAGES

The dispatch point is when the produce collected directly by merchants from producers leaves the location within which they were produced. The prices received by farmers at this point may be determined from direct enquiries to the operators involved in the transportation and onward distribution of the produce. The form these enquiries might take may depend upon the precise details of the distribution system.

2.4.1.9 SURVEY OF PRICES AT NECESSARY STAGES IN THE DISTRIBUTION AND PROCESSING CHAIN

It is sometimes possible to obtain information on prices when the produce passes through a particular stage in the distribution and processing chain. This possibility is especially relevant when it is necessary for all the produce to pass through a particular stage. An example is provided by the slaughtering of livestock, preceding or following which transaction prices may be recorded.

2.4.1.10 PRICES ON WHOLESALE MARKETS AND FOR PRODUCE SOLD ON CONTRACT

It is also possible to use information relating to later stages in the distribution chain even when it is not necessary for all produce to pass through them. An important example is the use of information on wholesale prices for which good quality information can often be obtained on the produce actually passing through such markets. Wholesale markets are particularly common and potentially useful sources of price information for horticultural produce. Furthermore, in certain cases it is the first marketing stage. However, it needs to be recognised that neither the actual production passing

through such markets, nor the prices received for it, need to be representative of the totality of production or of the spread of prices received for that production.

In particular, with the increasing development and use of direct contract arrangements between agricultural producers, on one hand, and the food processing and retailing industries, on the other, it needs to be recognised that both the quality of the produce sold on such markets and the prices prevailing on such markets may be more volatile than for the totality of the production. One of the purposes of contract arrangements is to give greater certainty (about availability, quality and price) to both parties than would otherwise be obtainable. This greater certainty to the parties to the contracts is reflected in greater volatility in the wholesale markets which consequently serve as residual markets.

Unfortunately price information relating to contract arrangements is not usually readily obtainable. This creates a problem for indices which are intended to reflect the prices received for all forms of sale and whose weights will reflect the value of all sales (subject, of course, to the problem of correctly estimating prices for contract sales in the base year). It is therefore necessary to devise some means of estimating or allowing for the prices received for contract sales. While these may be related, to some extent, to prices currently prevailing on wholesale markets, they are likely to be less volatile than those latter prices which should consequently not be used, without careful consideration or amendment, as indicators in the construction of the price indices. It has to be admitted that this is a difficult area, and one of growing importance, on which the experience of different Member States may be made known and compared to mutual advantage.

2.4.1.11 PRICES PAID FOR THE MEANS OF PRODUCTION

The prices paid by farmers for their means of production may also be collected through a variety of ways, each reflecting the nature of the supply of the particular means of production and their own characteristics.

2.4.2 Treatment of taxes, levies and subsidies

2.4.2.1 TAXES, LEVIES AND SUBSIDIES (EXCLUDING VAT)

Under the market price concept (see 2.2.1.2) the prices received from the sale for products and paid for the purchase of the means of production should be recorded without the deduction of product linked taxes or levies (except deductible VAT; see below) and without the addition of subsidies.

The treatment of taxes, levies and subsidies in the agricultural products and inputs price statistics is the same as their treatment in the economic accounts for agriculture. Further detail may be found in the Regulation (CE) No 138/2004 of the European Parliament and of the Council on Economic Accounts for Agriculture in the Community.

2.4.2.2 VALUE-ADDED TAX (VAT)

This leaves the question of value-added tax (VAT), which presents a particular problem on account of both the amounts involved and the different systems applicable to agriculture. The principles adopted for the EU Agricultural Price Indices are as follows.

The EU agricultural prices (products and inputs) are calculated exclusive of value added tax. The value added tax received by farmers on their sales is used to offset the value added tax paid on their purchases of the means of agricultural production; it cannot be regarded as a component of the selling price and must therefore be deducted. In the same way, the value added tax paid must not be regarded as a component of the purchase price since it is offset by the value added tax received on the sales refunded in another form.

The only exception to the principle of recording prices net of VAT concerns the value added tax on purchases of certain means of agricultural production for which there is neither compensation nor refund. This “non-deductible” or “non-reimbursable” VAT which is paid, for example, on certain fuels in France, is not deducted from prices. It is the only one which is regarded as a component of purchase prices for the purpose of the EU Statistics on Agricultural Prices.

VAT taxation procedures in the Member States

Basically a distinction is made between normal taxation procedures (“standard systems”) and simplified systems or “flat rate systems”.

Farmers who have opted for the standard system are liable to pay the fiscal authorities the difference between the VAT invoiced on their sales and the “deductible” VAT paid on their purchases of the means of production. Parallel to this, there is a flat rate system representing a special provision for agriculture in which it is assumed that the deductible VAT already paid is balanced by the VAT received on sales. The majority of farmers in the European Union have opted for this type of taxation system, which does not require extensive book-keeping. There are two basic types of flat rate system used in the European Union:

- **(1) farmers sell their products at a gross price including VAT. The VAT received is retained by the farmer as compensation for the VAT paid when purchasing the means of production. This procedure is used in most Member States;**
- **(2) farmers sell their products at a net price without invoicing the VAT. On application to the tax office they receive a refund equal to the VAT paid on their purchases of the means of production, up to the limit of the flat rate VAT applied to the value of their sales. This system is used in France.**

If the flat rates applicable to sales are calculated so that the VAT received and the deductible VAT paid cancel each other out, the flat rate system has no effect on income. In this case the agricultural prices should be recorded net of VAT, as for the standard system. However, if this is not the case, prices net of VAT are not wholly reliable indicators of income in agriculture.

2.5 Concepts and definitions

2.5.1 Price indices

2.5.1.1 TYPE OF INDEX AND CALCULATION

Several types of indices can be chosen according to the nature of the phenomena they are to describe and to the sources of information available. In most cases however, the principle of the Laspeyres index is at the basis of the index calculation.

It can be calculated for a period of several years without being necessary to alter the basket of representative products or the weights. Furthermore the parameters used for the calculation of the indices are well known at the time the base is established. Changes only need to be made when the evolution of the products used and of their relative importance have made the basic structure inappropriate.

2.5.1.1.1 The Laspeyres index

The EU Agricultural Price Indices are calculated for each Member State on the basis of the Laspeyres formula. The fixed weighting structure is representative of the base year. The following formulas show the Laspeyres index in its basic and in its weighted price relative form:

$$I^t = \frac{\sum_{i=1}^{k} p_i^t \, q_i^0}{\sum_{i=1}^{k} p_i^0 \, q_i^0} * 100 = \sum_{i=l}^{k} \frac{p_i^t}{p_i^0} * \frac{p_i^0 q_i^0}{\sum_{i=1}^{k} p_i^0 q_i^0} * 100$$

where I : index (product or input);

p : prices of products (or means of production);

q : quantities sold of products (or quantities purchased of means of production);

i : product i (or means of production i), (i = 1, 2, …k);

t : observation period;

0 : base period.

2.5.1.1.2 Representative price

However, in practice there are in most cases several price quotations for a given product i. It is then necessary to calculate separately, on the basis of the available prices, a representative price relative for the product concerned. The Laspeyres formula can rarely be applied at this level, given that the weighting of the individual price series is not always known.

When replacing $\frac{p_i^t}{p_i^0}$ by R_i^t in the above formula, one obtains the following formula:

$$I^t = \sum_{i=1}^{k} R_i^t * \frac{p_i^0 q_i^0}{\sum_{i=1}^{k} p_i^0 q_i^0} * 100$$

with R_i^t being the elementary price index for the individual product i (or means of production i) in the observation period t (i.e. the index of each product or means of production or the smallest grouping of them for which an index weight is used). In this formula the index is expressed in the form of the weighted average of the elementary indices with fixed base weights. The weights used are values (of sales or purchases) and not quantities. This formula allows one to adapt the calculation of the elementary indices to the different practical circumstances.

2.5.1.1.3 Calculation of elementary price indices

The elementary price of a product should ideally be the weighted mean of the elementary prices of the varieties of the product. The calculation of the elementary prices will depend on the availability of appropriate data for the weighting coefficients (see Annex II for detailed information).The most important of these methods are presented under Annex II.

The elementary quarterly index of the price of a product is obtained by relating the quarterly price to the reference price, i.e. to the average price of the elementary product in the base year. The aggregated quarterly indices (for a group of products or for all products) are obtained by calculating the weighted average of the elementary indices of the group or of all products.

In some countries, only an annual price (and therefore an annual index) is available for certain products. An example of this is sugar beet, for which the annual index (or the index of the crop year) is used in the quarter(s) where the sales take place.

The general structure of the EU agricultural product and input indices, i.e. the list of groups, subgroups, classes, subclasses and categories for which partial indices should be calculated, is shown in Annex I.

2.5.1.2 SELECTED REPRESENTATIVE PRICES

2.5.1.2.1 Selection of representative products (products and inputs) for price indices series by Member States

As the structure of production varies from one country to another, it remains to the discretion of the Member States which representative products should be considered in the subgroup in their own case. The list of representative products for which price indices series are followed is set up by each country within the provided weighting scheme. The set up structure is used as long as the specific weighing scheme is used (base year).

For each index heading[1], a representative product must be selected and its price is to be monitored. The choice of these representative products lies under the Member States' responsibility. It must be noted that the selected products should have an important share in the sales or purchases of the country in question so that the corresponding price series represent what the farmer actually receives (selling price) or pays (purchase price).

In practice, the set of representative products is chosen by a judgmental (purposive) method to ensure a representative sample. It may be selected beyond a cut-off point if they are deemed representative for the values of concerned group of products.

Differences in prices that are related, for example, to changes in quality, variations in the tonnage delivered, changes in the list of survey points or changes to any other characteristic influencing the price must be eliminated by the Member States from the data forwarded, so that, as far as possible, only "pure" price variations are taken into account. The requirement regarding changes in quality applies to both product and input price indices. For industrial products (input) these changes are relatively frequent and major, and often represent an improvement in quality.

In order to avoid changes in prices, which might be caused by differences in quality, variety, packaging or terms of delivery etc., the selected products or services must be defined as to the quality, variety, weight, packaging and other characteristics which influence the prices.

Loosely defined specifications, or the use of unit values, may cause considerable "unit value bias", i.e. distortions due to the fact that for instance quality or variety changes are treated as price changes. For example, if in the case of the product price indices the unit value is taken for an agricultural product, an improvement of the quality and a tendency towards production of more highly priced varieties would result in an increase of the product's average price (unit value). In the case of the input price indices, if the quality of a means of production, for example of ternary fertilisers, is loosely defined (i.e. 1-1-2) and an important quality characteristic such as the concentration of N-P-K is omitted from the definition and the price observed is the average price (unit value) of the same product with different ratio of N-P-K, then this average price may increase simply for the reason that the concentration of N-P-K was increased between the two periods.

[1] i.e. product or means of production or the smallest grouping of them for which an index weight is used.

2.5.1.2.2 Different coverage of the item "other products"

When the breakdown of a given level of the classification does not fully cover all the items in the level, a new item "others" has been added. The content of this heading could also vary from one country to another quite considerably.

2.5.1.2.3 Treatment of quality changes and product replacement

It is sometimes necessary to change one of the selected products or means of production whose price is being used in the index. When this is done and a replacement product or mean of production is selected there may be an associated change in quality or other characteristic influencing the price. This problem may be dealt with in several ways. However, below, only the most important practices will be outlined.

Concerning the product price indices, changes in the definitions of the collected prices do not happen frequently. The effects of changes in quality on price may be readily quantified and the observed price of the item may be adjusted to allow for the change in quality. Also, the changes in other other characteristic influencing the price (for instance in packaging, place of delivery, terms of payment etc.) in most cases can be valued and taken into account in a satisfactory way.

Changes in the definitions are more frequent in the case of the input price indices and concern chiefly the quality of the input. Frequent quality changes can occur particularly for compound feedingstuffs, fertilisers and, above all, agricultural tools and machinery. In the case where a defined input becomes unavailable, either generally or in a particular district, then a new product is chosen to replace the old one. If however an existing input is replaced by another of differing quality, then the problem is to assess how much of the price difference is attributable to differences in quality between the substitute and the replaced input. On this basis, the price of the new product is adjusted to be in accordance with the quality level of the replaced product.

If however the change in quality is so great or difficult to quantify that no such adjustment can be made, then the old product is replaced by the new one. If both products existed at the same time during the period before substitution, then the price of the new product is recorded both for the period of substitution and the preceding period. The substitute product is linked to the index and a fictitious reference price is imputed for it on the basis of the rise in the elementary index of the replaced item from the base period.

$$p'^{(0)}_i = \frac{p'^{(t-1)}_i}{i^{(t-1)}_i} \cdot 100$$

Where $p'^{(0)}_i$: imputed base price of the substitute product (or means of production) i;

$p'^{(t-1)}_i$: price of substitute product i in the preceding period;

$i^{(t-1)}_i$: elementary index in the preceding period.

If no reliable information on the actual price of the substitute product in the preceding period can be provided, then the price of the preceding period is estimated according to the price changes of similar products and a fictitious base price is calculated for the new product.

2.5.1.3 RELATION BETWEEN QUARTERLY AND ANNUAL INDICES

The indices are calculated on a quarterly and on an annual basis. There are two options for the calculation of the **elementary quarterly indices**:

- Option 1: In cases where Member States collect API data on a monthly basis for their national purposes: starting from monthly indices, the quarterly indices are calculated as a weighted average of the monthly indices using the monthly weights.
- Option 2: Starting from quarterly prices. This option means that the Member State collects API data quarterly.

Regardless of the option chosen for the calculation of the quarterly price indices, the prices should reflect the average price of all sales and purchases in the quarter.

The **annual indices** can be obtained in two ways: (i) either as a simple or weighted arithmetic mean of the corresponding quarterly or monthly indices or (ii) on the basis of an annual mean price, possibly stemming from other data sources. Eurostat advocates the first method, which is used in most cases (weighted arithmetic mean for the product indices, simple arithmetic mean as a rule for the input indices).

2.5.1.4 TREATMENT OF COMPLEMENTARY PAYMENTS

However, inconsistencies will arise if the components of annual, quarterly and base prices are not the same. In some Member States, producers receive a preliminary payment for certain products when selling the product and a complementary payment afterwards (possibly at the end or after the marketing year). Such complementary payments are part of the price and are not subsidies. Complementary (or final) payments should be included both in the annual and in the quarterly price indices. If at the time of calculating a given quarterly or annual index the amount of the complementary payment is not yet known, an estimate of this payment should be made. Once information on the complementary payment is available, the indices concerned should be revised.

2.5.1.5 TREATMENT OF MISSING OBSERVATIONS

Member States often fail to collect the intended number of representative prices (in other words, when there is weight but the corresponding price data is not available), which leads to “missing observations”. The procedures which are mainly followed by countries are:

- (i) repetition of the last recorded price. In the case of a high rate of inflation, it may be appropriate to adjust the last recorded price.
- (ii) repetition of the last recorded price by applying the normal seasonal pattern to it.
- (iii) imputation of price changes on the basis of prices recorded on other markets for the same product.

2.5.1.6 TREATMENT OF SEASONAL DISCONTINUITY OF PRODUCT PRICE SERIES

When there are no transactions and therefore no prices for certain products in some quarters, the quarterly weight is zero and the related product should not be taken into account in the calculation of the quarterly aggregated index. This method reflects the actual market situation better and computation with fictitious prices of non-existing products can be avoided. On the other hand, the weighting scheme differs from one quarter to another. As a consequence, quarterly price indices are only comparable between the corresponding quarters of different years.

2.5.1.7 SEASONAL ADJUSTMENT

Many quarterly series of agricultural prices or price indices show a marked seasonal pattern. However, no seasonally adjusted indices are calculated. Discussion is limited to comparisons with

the corresponding period (quarter) of the previous year. Annual rates of change are thus calculated and their interpretation is limited to an evaluation of the development of prices compared to their previous year's level.

The description of the method applicable for the compilation of weighting scheme and the calculation of elementary and aggregated agricultural price indices is described in Annex II.

2.5.1.8 EARLY ESTIMATES OF PRICE INDICES

The methodology for the production of the early estimates of annual price indices is not harmonised across Member States. One reason is that, at the points in time at which the estimates are required, the annual crop harvests in the Member States may have progressed to very different extents. Moreover the extent to which the different Member States have up-to-date information on actual prices may differ, thus affecting the length of the remainder of the year for which forecasts are required to generate estimates for the year as a whole.

An early estimate is compile on the basis of two main components:

- Available information on the actual prices observed since the beginning of the year, already or not yet compiled as indices;
- Forecasted prices for the remaining part of the year.

Such information is particularly likely to be available and of use for those agricultural products which are produced continuously throughout the year, namely animals and livestock products such as eggs and milk. For these products it is not very difficult to generate forecasts for the remaining periods of the year. Similar considerations apply to the generation of the estimates for most of the means of production.

No forecast is needed for products which are not sold during the last part of the year.

There are often steep jumps in the prices of crop products between marketing years, making the generation of the forecasts more difficult. Early indications of the scale of the harvest, or of the prices resulting from it, from knowledge of the scale of sown / planted areas and of the growing and harvesting conditions may help to better forecast the harvest — and then the prices.

A wide range of methods may generate estimates a price or of an index from its current and past values, and from knowledge of the factors affecting its future values. These include those based solely on current and past values, ranging from very simplistic projections, through methods allowing for growth and seasonality, to more complex methods of univariate analysis and forecasting. The index may also be related to one or more possible determining variables in econometric methods.Available expert knowledge may also be used to validate or elaborate the forecasts.

2.5.1.9 WEIGHTS

All Member States should provide a complete weighting scheme (using annual and quarterly data). This should reflect the seasonal character of all products (when data are available) and an equal distribution of the annual weights through the quarters for all input products.

2.5.1.9.1 Weight Values

The weight attached to each elementary index in the product index is equal to the value of the sales of this product (exclusive of VAT) over the base period. These figures are derived from the Economic Accounts for Agriculture. This kind of weighting scheme differs substantially from a scheme based on values of total agricultural output.

2.5.1.9.2 API weights vs. EAA values

The API weights for products represent the values of the actual sales. They have to be coherent with the EAA values, while these EAA values cover all produced products, sold or not, i.e. including also intra-unit consumption, own consumption, and increase in stocks. Intra-unit consumption that are considered by the EAA are consumption of crop output for animal production (feedingstuffs) or the other way round (e.g. manure for horticulture).

The API weights for means of production represent the values of the actual purchases. They have to be coherent with the EAA values, while these EAA values cover all consumed means of production, purchased or not, i.e. including also intra-unit consumption (feedingstuffs).

If some part of the products are used for processing on own farm or for direct consumption by the farmer and his family as well as for intra-units consumption, their values are considered in the EAA values but not in the weights.

In these cases, the values for the weights can only be lower than EAA-values if stocks are stable, and are representing:

API value weights	=	EAA value
	-	value of intra-unit (feedingstuffs) consumption
	-	value of use for final human consumption by the farmers/families (products)
	-	increase in stocks (products) or
	+	decrease in stocks (products)

In the case of the EU Agricultural Price Indices (input), it is assumed by convention that the fertilisers and feedingstuffs purchased are used in the same production period and that there are no stocks on farm. Intra-unit consumption covers the crop products used in animal feed (feedingstuffs). Animal (by-)products used by crop production are not part of the agricultural output in EAA.

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, plantations and livestock being excluded from the price indices.

2.5.1.9.3 Seasonality

Seasonality is defined as the expression of the seasonal nature of the agricultural products. Depending on the grade of seasonality, certain products completely disappear from the market in certain quarters (the value weight for a certain quarter equals zero) or the quarterly weights vary from quarter to quarter. Seasonality should be applied by all the Member States for fresh fruits, vegetables and potatoes but it is allowed and recommended for all products (crop and animal), if information is available.

Inputs of agricultural production are treated as non-seasonal and therefore the annual value weight is distributed equally over each quarter at product and product group level (25% of the annual value weight in each quarter).

2.5.1.10 BASE PERIOD

The concept of base period is involved in the calculation of a price index, (i) in determining the weights for each product in the field of observation (weighting year) and (ii) in determining the base prices for these products. [The latest sentence, further to be unclear, does not add information.

2.5.1.10.1 Base period for weighting and base prices

As outlined in the chapter 2, the EU Agricultural Price Indices, as well as the Laspeyres index on which they are based, have a fixed weighting structure which is assumed to be representative of the base year. While in the case of the Laspeyres index, the base periods for weights and base prices are the same, for the EU Agricultural Price Indices, some Member States have chosen different base periods for weights and base prices. For instance, the value weights may be based not on a single year, but on a period covering a number of years centred on the base year. The base price always refers to the base year solely.

The choice of the base period is of particular importance. In principle the index should be constructed with reference to a period when the structure of the agricultural transactions involved is more or less normal. Given the substantial differences in terms of the production conditions from one country to another, selecting a common base year is difficult. The base period may even be chosen before its main features regarding agriculture are known.

Base price vs. Basic price

Attention has to be given not to mix up the terms 'base price' and 'basic price'. While the term 'base price' relates to indices, the term 'basic price' is used in the Economic Accounts for Agriculture where the 'basic price' is a concept which has to be seen as being opposed to the concept of the producer price which corresponds to the concept of the market price in agricultural products and inputs price statistics. Where confusion is possible, reference to 'base period price' can be used.

2.5.1.10.2 Five-yearly rebasing

According to the latest agreements, a rebasing is regularly done for the years ending in "0" and "5". The indices in a recent base year should be available every five years in the third year following the base year (i.e. years ending "3" or "8").

The five-yearly rebasing comprises three major changes:

- (i) change of the reference year;
- (ii) change of the weighting coefficients to adapt them to changes that have taken place in the last few years in terms of the structure of European agricultural production and production techniques;
- (ii) update of the set of representative products used in order to account for changes in production system and/or in the markets; improvement of harmonisation of the concepts and calculation methods used in the Member States.

2.5.2 Absolute prices

2.5.2.1 ABSOLUTE PRICES PRODUCT SELECTION

As outlined above, absolute agricultural prices are often used for economic analyses and in particular for agricultural income analyses. It is therefore obvious that the products for which prices are collected fulfil certain criteria. First of all the selected products should be economically relevant in terms of their share in the value of agricultural production. Here it may be useful to consider also products which have not yet an important market share, but which are gaining more and more

importance. In the light of inter-country comparisons it is important that the products selected are comparable.

The criteria for product selection are not always compatible. The criterion of comparability requires that the products to be compared are identical (in terms of product definition and characteristics determining the price). However, there are limits to such identity, as the characteristics of a product cannot all be described so comprehensively as to exclude variations between the products being surveyed. As products also vary from one Member State to another, there seems little point in such a precise description of products. Some Member States might not be able to forward price series for products thus defined, if they were not normally found on their market. If they did forward them there would be a risk that the price series available would only cover products of secondary significance in the country's agricultural production.

To carry out economic analyses, the economic relevance of the products is more important than the comparability aspect. Of course, the prices must be determined by the same method here as well, but the decisive criterion is that of "economic relevance". The price series should thus be checked to ensure that they reflect the special circumstances of agriculture in each Member State which may vary according to climatic and other conditions.

In the future, Eurostat may restrict its collection of absolute prices to a limited, well defined basket of input prices only. This would aim to improve comparability of those EU prices covered.

2.5.2.2 ABSOLUTE PRICES TARGET DEFINITIONS FOR THE PRODUCTS SELECTED

2.5.2.2.1 General remarks on the target definitions

On the basis of the explanations given for the definition of prices a set of target definitions has been established. These target definitions comprise definitions for the most important of the "characteristics determining prices". When recording prices, the Member States should as far as possible remain within the terms of reference established by Eurostat in agreement with the Working Group on Agricultural Accounts and Prices.

2.5.2.2.2 Target definitions

In general the target definitions may be divided in two parts: one part that is more or less product/mean of production-specific and another part that is common to at least one group of products or means of production (allowing possible exceptions). The target definitions are presented in heading 3.1.2 of this handbook.

Common part

The common part of the target definitions in most cases refers to the marketing stage, the price unit and to the treatment of taxes, levies and subsidies. The following box gives an example for the common part of the target definitions for Olive oil:

General reference targets 'Olive oil': all series
• Prices from producer to wholesale trade or to the industry • Prices per 100 l, excluding VAT

The common part of the target definitions in most cases refers to the marketing stage, the price unit and to the treatment of taxes, levies and subsidies. The following box gives an example for the common part of the target definitions for Straight fertilisers:

General reference targets 'Straight fertilisers': **all series except series 20311202 and 20311400**
• Prices from the trade or the co-operative to the farmer; free on farm for deliveries of approximately 5 t in 50 kg bags • Prices per 100 kg of nutritive substances, excluding VAT

The selling prices for means of production have to be recorded at the latest marketing stage including transportation: "prices from the trade to the producer, at farm gate". In most cases the quantity to which the prices relate are 100 kg. It will be 100 l in the case of liquid products – such as fuel. The prices have to be recorded net of VAT (with the exception of "non-deductible" or "non-reimbursable" VAT).

Product-specific part

The product/means of production-specific part of the target definitions contains a short product definition. This definition may refer to existing EU standards or may give information on the qualities and varieties to be considered. The following box provides an example for the product-specific part of the target definitions for Olive oil:

Code	Designation	Specific reference targets 'Olive oil': individual series
08100000	Extra virgin	• Having a maximum free acidity , in terms of oleic acid, of 0.8g per 100 g
08500000	Virgin olive	• Having a maximum free acidity , in terms of oleic acid, of 2g per 100 g
08400000	Lampante	• Having a free acidity , in terms of acid oleic, of more than 2g per 100 g

2.5.2.3 REMARKS ON THE COMPARABILITY OF PRODUCTS AND MEANS OF PRODUCTION

The comparability of products and means of production for which price series are recorded depends on a certain number of specific characteristics linked to the product under consideration, the procedure for recording the prices and their statistical processing. All these characteristics could have an influence on the price level of a specific product (or means of production). Hence, strict comparability between Member States would require that the characteristics should be the same for all the prices collected in individual countries.

In reality however, full harmonisation of all the characteristics determining the price between Member States is not feasible. Nevertheless, general agreement has been achieved on the marketing stage in terms of some of the marketing conditions and on the treatment of taxes, levies and subsidies.

*[Single sub-heading at this level: to be dropped]**Marketing stage***

The use of prices as indicators for income in agriculture means that prices must be measured at the level at which they contribute directly to the farmers' incomes. Selling prices should thus be recorded at the first marketing stage ("prices from the producer to the trade") and purchase prices of the means of production at the last marketing stage ("prices from the trade to the producer").

Marketing conditions

When agricultural income is the centre of interest, it is not sufficient to define only the marketing stage. It is also important to exclude the transport costs from the product prices and to take them into account for the prices of the means of production. That means that the place of delivery has to be "ex-farm" for products and "free on farm" for the means of production. Neglecting this, the recorded prices would comprise an element of non-agricultural activity. However, if prices are not recorded at the producer level (i.e. "ex-farm" for products and "free on farm" for means of production), an attempt has to be made to convert them by deducting those elements which have been added between the producer level and the place of recording.

A given price always refers to a certain quantity. This quantity has to be specified in the target definitions. Attention has to be given to the fact that these quantities are not necessarily identical with the units in which products or means of productions are sold. Many products and means productions are sold in large quantities (of several tons), either in bulk or in sacks. The quantities for which the price quotations are obtained are specified for each type of product (heading "packing conditions", category "marketing conditions") and are not defined on a general basis.

2.6 Precision requirements

The precision of price statistics cannot be assessed similarly to the precision of additive or accumulative variables (production, inventory, etc.). For instance, sampling error cannot be assessed. The statistical concepts basing the price index calculation are incompatible with such an assessment.

2.7 Reference period

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

The reference period for the weights may be either a calendar year (base year) or a 3- calendar-year period centred on that year.

The reference period for the absolute prices is the calendar year.

3 Classification

3.1 Nomenclature of farm products and means of production

3.1.1 Specific definitions and concepts

3.1.1.1 MAPPING OF THE LISTS

The nomenclature applied in the Agricultural Price Indices is harmonised to the greatest possible extent with the nomenclature of EAA. However, it should be noted that few deviations between the two systems exist (agricultural services, FISIM etc.). At the product levels, the codes have been mapped with the other agricultural statistics, i.e. with the harmonised code list of agricultural products (AGRIPROD) and the code list of inputs (AGR_INP). This mapping is currently indicative, and further work is needed to assess relevance of further adjustments.

3.1.1.2 PRICE INDICES

The list of price indices and of their codes is displayed in Annex I.

The list of early estimated price indices is a sub-list of price indices. It is also displayed in Annex I. As a sub-list of price indices, the aggregation rules do not necessarily fully apply.

The structure of the **weighting scheme** is exactly the same as the structure of indices for the base year, with four quarterly weights and an annual weight by index.

3.1.1.3 SELECTION OF REPRESENTATIVE PRODUCTS

As the structure of production (products) and means of production (inputs) varies from one country to another, it remains to the discretion of the Member States, which representative products and means of production from the common list provided in Annex III should be considered in the subgroup in their own case. The list of representative products and means of production for which price indices series are followed is set up by each country within the weighting scheme provided. The set up structure is used as long as the specific weighing scheme is used (base year).

3.1.2 Target definitions for absolute prices

In the light of the general explanations to the system of target definitions given in 2.5.2.2.2, the reference targets relating to these characteristics for individual groups of products and of the means of production are presented in detail below.

The reference targets for the individual products or means of production generally refer to the categories “Product definition”, “Marketing stage and sales channel” and “Marketing conditions”.

The target definitions are split up into two parts: one part which is common to at least one group of products or means of productions (allowing for possible exceptions) and another part which is more or less product-specific.

In the following, the crop products will be treated first, followed by the animals and animal products. The reference targets for the means of production are to be found at the end of this heading.

3.1.2.1 CROP PRODUCTS

3.1.2.1.1 Cereals and rice

General reference targets 'Cereals and rice': all series
• EU standards (see table above)
• Prices from producer to co-operatives or to the trade, ex-farm
• Prices per 100 kg, excluding VAT
• **include** the value of product related levies/taxes (other than deductible VAT).
• **exclude** the value of subsidies on products which farmers might have received

Code	Designation	Specific reference targets 'Cereals and rice': individual series
01110000	Common wheat	Destined for human consumption only
01120000	Durum wheat	-
01200000	Rye	-
01300000	Barley	-
01310000	Fodder barley	-
01320000	Malting barley	-
01400000	Oats	-
01500000	Maize	-
01600000	Rice	Paddy rice
01910000	Sorghum	
01920000	Triticale	

As far as the prices for cereals are concerned, standard qualities for individual types of cereals are laid down in Commission Regulation (EC) No 2016/1238[2].

As far as possible the standard qualities should conform to the average qualities of cereals harvested in the European Union.

The product definitions for the absolute agricultural price series correspond to these standards and cover the quality characteristics as presented in Table 2.

[2], Commission Delegated Regulation (EU) 2016/1238 of 18 May 2016 supplementing Regulation (EU) No 1308/2013 of the European Parliament and of the Council with regard to public intervention and aid for private storage. *OJ L 206, 30.7.2016, p. 15–43.* http://data.europa.eu/eli/reg_del/2016/1238/oj
except for rye:
Commission Regulation (EC) No 824/2000 of 19 April 2000 establishing procedures for the taking-over of cereals by intervention agencies and laying down methods of analysis for determining the quality of cereals. *OJ L 100, 20.4.2000, p. 31–50*, http://data.europa.eu/eli/reg/2000/824/oj.

Table 2 - European Union standard qualities for individual types of cereals and rice

	Soft wheat	Durum wheat	Rye[2]	Barley	Maize	Rice
Grain of sound and fair marketable quality free of live pests	x	x	*x*	x	x	Round grain rice of a sound and fair marketable quality corresponding to the "Balilla" variety
Maximum moisture content	14.5%	14.5%	*14.5%*	14.5%	13.5%	14.5%
Percentage of:						-
broken grains	5%	6%	*5%*	5%	5%	-
grain impurities	7%	8.5%	*5%*	12%	5%	-
sprouted grains	4%	4%	*4%*	6%	6%	-
miscellaneous impurities	3%	4.5%	*3%*	3%	3%	1%
Total	12%	12%	*12%*	12%	12%	-
Weight in kilograms per hectolitre	73	78	*70*	62		
Minimum protein content	11%	11.5%				
Yield of wholly milled rice, in whole grains (by weight) of which:	-	-	-	-	-	65%
chalky grains	-	-	-	-	-	6%
grains striated with red	-	-	-	-	-	10%
spotted and stained grains	-	-	-	-	-	4%
yellow grains	-	-	-	-	-	0.175%
amber grains	-	-	-	-	-	1%

3.1.2.1.2 Potatoes

Four price series, “main crop food potatoes”, “early potatoes”, “seed potatoes” and “other potatoes” are recorded.

In the case of “main crop food potatoes” and “early potatoes” only potatoes which are sold from the producer to the trade for sale fresh to the consumer have to be taken into account, excluding potatoes for processing and potatoes sold direct from the producer to the consumer. Prices relate to sales in bulk.

For the “seed potatoes” and “other potatoes” only the sales from the producers to the processors should be recorded. Prices relate to sales in bulk.

General reference targets ‘Potatoes’: all series
• Prices ex-farm for sales in bulk • Prices per 100 kg, excluding VAT

Code	Designation	Specific reference targets ‘Potatoes’: individual series
05120000	Main crop food potatoes	Diameter 35-85 mm
05110000	Early potatoes	Diameter 25-80 mm
05200000	Seed potatoes	
05900000	Other potatoes	

3.1.2.1.3 Sugar beet

For the sugar beet only the unit value series are to be recorded.

General reference targets ‘Sugar beet’: all series
• Price ex-farm (i.e. excluding transport costs) • Plus value of pulps • **include** the value of product related levies/taxes (other than deductible VAT). • **exclude** the value of subsidies on products which farmers might have received • Price per 1000 kg, excluding VAT

Code	Designation	Specific reference targets ‘Sugar beet’: individual series
02400000	Sugar beet: unit value	Actual sugar content, average of all qualities

3.1.2.1.4 Fresh vegetables

General reference targets 'Fresh vegetables': all series
• Fresh vegetables from producer to the trade for sale fresh to the consumer, i.e. fresh vegetables for processing and fresh vegetables sold direct from the producer to the consumer should both be excluded • Prices ex-farm • Prices per 100 kg, excluding VAT

Code	Designation	Specific reference targets 'Fresh vegetables': individual series
04110000	Cauliflowers: all classes	Average of all classes and varieties
04199909	Brussels sprouts: all classes	Average of all classes and varieties
04191100	White cabbage: all classes	Average of all classes and varieties
04191200	Red cabbage: all classes	Average of all classes and varieties
04191300	Savoy cabbage: all classes	Average of all classes and varieties
04199912	Celeriac: all classes	Average of all classes and varieties
04192100	Lettuce in the open: all classes	Average of all classes and varieties
04192200	Lettuce under glass: all classes	Average of all classes and varieties
04199910	Asparagus: all classes	Average of all classes and varieties
04121000	Tomatoes in the open: all classes	Average of all classes and varieties
04122000	Tomatoes under glass: all classes	Average of all classes and varieties
04194100	Cucumbers in the open: all classes	Average of all classes and varieties
04194200	Cucumbers under glass: all classes	Average of all classes and varieties
04199913	Melons	All classes and varieties
04199914	Water melons	All classes and varieties
04195000	Carrots: all classes	Average of all classes and varieties
0419600	Onions: all classes	All classes, diameter ≥ 40 mm
04199000	Green peas: all classes	Average of all classes and varieties
04198100	French beans: all classes	All classes, < 9 mm
04199901	Cultivated mushrooms: all classes	Average of all classes and varieties
04199911	Courgettes	Average of all classes and varieties
04199902	Chicory in the open	Average of all classes and varieties
04199903	Leeks in the open	Average of all classes and varieties
04199904	Capsicum (under glass)	Average of all classes and varieties
04197000	Green beans	Average of all classes and varieties
04199905	Beetroot	Average of all classes and varieties

Code	Designation	Specific reference targets 'Fresh vegetables': individual series
04199906	Garlic	Average of all classes and varieties
04199907	Kohlrabi	Average of all classes and varieties
04199908	Radish	Average of all classes and varieties
04193000	Spinach	Average of all classes and varieties

Problems in price recording for fresh vegetables

Price trends for these products vary sharply from one year to the next. Fluctuations can be both substantial and erratic even within a Member State. It is thus extremely difficult to calculate a meaningful average price.

Approach for surveying prices

This approach provides for a rough overall definition of the products for which price series are recorded. All qualities and sizes of a product are surveyed. These are product aggregates (e.g. Brussels sprouts: all qualities and varieties), which should be as comprehensive as possible (all types and qualities). The prices might thus be termed unit values. They are considered as being the best indicators of overall trends.

Exclusion of the products used for processing

The target definition of fresh vegetables is restricted to sales to the trade of produce to be sold fresh to the consumer. This takes account of the fact that the prices of products sold to the processing industry are often contractually fixed and, as they are of strategic importance to the processing companies concerned, are not available for statistical purposes.

3.1.2.1.5 Flowers

General reference targets 'Flowers': all series
• All varieties, • Prices from producer to the trade for sale to the consumer, i.e. flowers sold direct from the producer to the consumer should be excluded • Prices per 100 items, excluding VAT

Code	Designation	Specific reference targets 'Flowers': individual series
04210000	Roses	-
04220000	Carnations	-
04230000	Chrysanthemums	-
04240000	Gladioli	-
04250000	Tulips	-

04260000	Freesias	-

3.1.2.1.6 Fresh and dried fruit, citrus fruit

Price trends for fresh fruit fluctuate sharply just as for fresh vegetables. The problems outlined under Chapter 4 of this Annex ("Fresh vegetables") thus apply here as well. The price surveys are also conducted in accordance with the concept used in the vegetable sector. The price series for fresh fruit surveyed are unit values for all varieties and classes. The target definitions for fresh and dried fruit have been restricted to sales to the trade of produce to be sold fresh to the consumer3.

The price survey should take place at the first marketing stage, i.e. ex-farm if possible. If no better information is available producer prices in their broader sense as "prices received by the producer" (incl. transport costs) can also be used.. Packing is not to be taken into account either in terms of weight or price. Prices of imported products are not included in the price survey.

For calculating national average prices of individual products, a preference is given to a method based on the calculation of medians (median of distribution). From the medians observed at individual markets over a week an average value is calculated after additional weighting of the median prices. In the first type of survey average prices are weighted on the basis of actual quantities which change from one season to another. If this is not possible, predetermined weightings based on a number of years can be used. In this case, however, the weightings must be checked regularly (at least every 10 years). For the second type of survey weighted averages are determined using weightings (calculated for specific countries) on the basis of various years. Unit prices (per bunch, etc.) are converted into prices per 100 kg using coefficients.

Fresh and dried fruit

General reference targets 'Fresh and dried fruit (other than citrus fruit)': all series
• Fresh and dried fruit (other than citrus fruit) from producer to the trade for sale fresh to the consumer, i.e. fresh and dried fruit for processing and fresh and dried fruit sold direct from the producer to the consumer should both be excluded • Prices ex-farm • Prices per 100 kg, excluding VAT

Code	Designation	Specific reference targets 'Fresh and dried fruit (other than citrus fruit)': individual series
06110000	Dessert apples: all varieties	Average of all varieties and classes
06120000	Dessert pears: all varieties	Average of all varieties and classes
06130000	Peaches: all varieties	Average of all varieties and classes
06199100	Apricots: all varieties	Average of all varieties and classes
06191100	Cherries: sweet cherries	Class I, diameter ≥ 17 mm

3 With the exception of dried fruit.

Code	Designation	Specific reference targets 'Fresh and dried fruit (other than citrus fruit)': individual series
06191200	Cherries: sour cherries	Class I, diameter ≥ 17 mm
06192000	Plums: all varieties	Average of all varieties and classes
06194110	Walnuts	Average of all varieties and classes Unshelled
06194120	Hazelnuts	Average of all varieties and classes Unshelled
06194130	Almonds	Average of all varieties and classes Unshelled
06194140	Chestnuts	Average of all varieties and classes
06194200	Dried fruit	Average of all species and varieties
06310000	Fresh figs	Average of all varieties and classes
06193100	Strawberries in the open	Average of all varieties and classes
06193200	Strawberries under glass	Average of all varieties and classes
06193000	Strawberries: all types of production	Average of all varieties and classes
06199200	Raspberries	Average of all varieties and classes
06199300	Blackcurrants	Average of all varieties and classes
06410000	Dessert grapes: all varieties	Average of all varieties and classes
06490000	Grapes for wine production	Average of all varieties and classes

Citrus fruit

General reference targets 'Citrus fruit': all series
• Prices from producer to the trade, ex-farm • Prices per 100 kg, excluding VAT

Code	Designation	Specific reference targets 'Citrus fruit': individual series
06210000	Oranges: all varieties	Average of all varieties and classes
06220000	Mandarins: all varieties	Average of all varieties and classes
06230000	Lemons: all varieties	Average of all varieties and classes
06290000	Other citrus fruit	Average of all varieties and classes

3.1.2.1.7 Wine

Individual types of wine are national specialities which are difficult to compare from one country to another. Therefore data are collected only for broad categories of wine in line with the Agricultural Price Indices, the comparability of these price series between Member States is rather limited.

The target definitions are restricted to wine produced on agricultural holdings (wine growers) and in co-operatives whose owners/members are agricultural holdings (wine growers).

General reference targets 'Wine': all series
• Prices from producer or co-operative to the trade; buyer's container • Prices per 100 l, excluding VAT

Code	Designation	Specific reference targets 'Wine': individual series
07310000	PDO	-
07320000	PGI	
07800000	Wines, other than PDO or PGI	

3.1.2.1.8 Olive oil

General reference targets 'Olive oil': all series
• Prices from producer to wholesale trade or to the industry • Prices per 100 l, excluding VAT

Virgin olive oils are classified and described according to the annex of Council Regulation (EC) No. 1513/2001.

Code	Designation	Specific reference targets 'Olive oil': individual series
08100000	Extra virgin	Having a maximum free acidity , in terms of oleic acid, of 0.8g per 100 g
08500000	Virgin olive	Having a maximum free acidity , in terms of oleic acid, of 2g per 100 g
08400000	Lampante	Having a free acidity , in terms of oleic acid, of more than 2g per 100 g

3.1.2.1.9 Industrial crops, olives

General reference targets 'Other crop products': all series
• Prices from producer to the trade, ex-farm • Prices per 100 kg, excluding VAT

Code	Designation	Specific reference targets 'Other crop products': individual series
02210000	Dried peas	-
02992000	Chick peas	Human consumption
02220000	Dried beans	-
02230000	Broad beans (dry)	-
02991000	Lentils	Human consumption
02110000	Rape seeds	All varieties
02120000	Sunflowers	All processing varieties
02130000	Soya	All processing varieties
02911000	Cotton (including seed)	-
02300000	Raw tobacco: all varieties	All varieties
02920000	Hops: all varieties	All varieties
06510000	Table olives	Average of all varieties and classes
06590000	Other Olives	Average of all varieties and classes

3.1.2.2 ANIMALS

3.1.2.2.1 Live and slaughtered animals

For the different categories of animals, a basic distinction is made here between the market prices of live animals for slaughter, animals for fattening and rearing and slaughtered animals.

3.1.2.2.2 Cattle

The cattle price series observed in absolute price statistics excludes the prices of slaughtered animals. Prices on slaughtered animals are collected weekly by Directorate-General for Agriculture and Rural Development (DG AGRI).

Live cattle for slaughter

General reference targets 'Live cattle for slaughter': all series
• Price quotations at livestock markets; prices from producer (or buyer) to the trade; ex-farm (or market) • Price per 100 kg live-weight, excluding VAT

Code	Designation	Specific reference targets : 'Live cattle for slaughter': individual series
11120000	Calves	Approx. 3 months old; well fleshed; live-weight 140-180 kg
11110000	Young cattle	16-24 months old; well fleshed

11112000	Heifers	Less than 3 years old; well-fleshed
11113000	Cows	Female animals which have already calved
11114000	Bullocks	More than 3 years old; well fleshed

Store cattle

General reference targets 'Store cattle': all series
• Price quotations at livestock markets; prices from producer (or buyer) to the trade; ex-farm (or market) • Price per animal, excluding VAT

Code	Designation	Specific reference targets 'Store cattle': individual series
11121000	Calves (of a few days)	A few days old; for milk feeding and slaughtering as calves
11122000	Calves (of a few weeks)	A few weeks old; for rearing and slaughtering at an age of over 1 year
11111000	Young cattle (store)	Young cattle between 8 and 12 months old; for feeding from approx. 8 months
11112100	Heifers (store)	Dairy breed; ready to calve

3.1.2.2.3 Pigs

In the Community scale for grading pig carcases (Council Regulation (EEC) No 3220/84[4]), the following specifications are laid down from grade E to grade P; subsequently the grade S was added:

General reference targets 'Pigs': all series
• Prices ex-farm (or market) • Price excluding VAT

Lean meat as percentage of carcase weight	Grade
60 or more	S
55 or more but less than 60	E
50 or more but less than 55	U
45 or more but less than 50	R
40 or more but less than 45	O
less than 40	P

4 See OJ L 301 of 20 November 1984, p. 2.

Code	Designation	Specific reference targets 'Pigs': individual series
11210000	Pigs (light)	Fully-fleshed, approx. 75-85 kg Price quotations at livestock markets; prices from producer (or buyer) to the trade; ex-farm (or market) Price per 100 kg live-weight
11220000 11230000	Pig carcases: grade S Pig carcases: grade E	Prices from producer or buyer to the slaughterhouse; Price per 100 kg by carcase weight, cold weight
11240000	Piglets	Approx. 18-23 kg Price quotations at livestock markets; prices from producer (or buyer) to the trade; ex-farm (or market) Price per 100 kg live-weight

3.1.2.2.4 Sheep and goats

General reference targets 'Sheep and goats': all series
• Prices ex-farm (or market) • Price per 100 kg live weight, excluding VAT

Code	Designation	Specific reference targets 'Sheep and goats': individual series
11411000	Suckling lambs	Less than 2 months old, well fleshed Price quotations at livestock market or slaughterhouse; prices from producer (or dealer) to the trade
11412000	Fattening lambs	between 2 and 12 months old, well fleshed Price quotations at livestock market or slaughterhouse; prices from producer (or dealer) to the trade
11410000	Sheep	More than 12 months old, well fleshed Price quotations at livestock market or slaughterhouse; prices from producer (or dealer) to the trade
11421000	Kids	Less than 12 months old, average of all classes Price quotations at livestock markets; prices from producer (or buyer) to the trade
11420000	Goats	More than 12 months old, average of all classes Price quotations at livestock markets; prices from producer (or buyer) to the trade

3.1.2.2.5 Poultry

All the series for slaughtered animals are at wholesale level and include the slaughtering costs in the "ex-market" prices. The prices for live animals are at farm gate level.

General reference targets 'Poultry': all series
• Prices excluding VAT

Code	Designation	Specific reference targets 'Poultry': individual series
11510000	Chickens (live, 1st choice)	First choice, more than 8 weeks old; over 1,4 kg live weight Farm gate price. Price per 100 kg live weight
11511000	Boiling fowl (slaughtered)	Approx. 15 months old Price quotations at meat markets; prices ex slaughterhouse, ex-market Price per 100 kg slaughtered weight
11591000	Ducks (slaughtered)	Price quotations at meat markets; prices ex slaughterhouse, ex-market Price per 100 kg slaughtered weight
11592000	Turkeys (slaughtered)	Price quotations at meat markets; prices ex slaughterhouse, ex-market Price per 100 kg slaughtered weight
11593000	Geese (slaughtered)	Price quotations at meat markets; prices ex slaughterhouse, ex-market Price per 100 kg slaughtered weight

3.1.2.2.6 Other animals

Series (PRAG code)	Designation	Reference targets 'Other animals'
11300000	Horses	Prices from producer or buyer to the slaughterhouse; delivered to the slaughterhouse Price per 100 kg by carcase weight
11910000	Rabbits	Live animals Price quotations at livestock markets; prices from producer (or buyer) to the trade; ex-farm (or market) Prices per 100 kg live weight, excluding VAT

3.1.2.3 ANIMAL PRODUCTS

3.1.2.3.1 Milk

The price series published under code numbers 12111000 and 12112000 are for all milk irrespective of its use. Both milk for direct consumption and milk for processing, i.e. all deliveries to dairies, have to be taken into account. The protein content of series 12111000 should be standardised in addition to the fat content. However, each Member State is free to decide at which level to make the standardisation.

The bonuses and refunds paid to producers by the milk collection centre are always to be incorporated in the milk price.

General reference targets 'Milk': all series except series 12113000[This code is invalid]
• Prices ex-farm • Prices per 100 kg, excluding VAT • Prices taking into account bonuses and refunds

Code	Designation	Specific reference targets 'Milk': individual series
12111000	Raw cows' milk, 3.7% fat content	Fat content by weight 3.7%, all deliveries of milk to the dairy Protein content standardised on national level Prices from producer to the dairy
12112000	Raw cows' milk, actual fat content (unit value)	Average prices, all milk deliveries to dairies Prices from producer to the dairy
12191000	Raw sheep milk	Average of all qualities (actual fat content) Prices from producer to the processor
12192000	Raw goats' milk	Average of all qualities (actual fat content) Prices from producer to the processor
12113000	Whole cows' milk for human consumption	Fat content by weight 3.5% Wholesale prices from the dairy to the retail trade, ex-dairy, including packing Prices per 100 l, excluding VAT

3.1.2.3.2 Eggs

Code	Designation	Reference targets 'Eggs'
12200000	Fresh eggs (whole country)	Hens' eggs in the shell; whole country, all sales channels and weight classes Prices from producer to the trade, ex-farm, including packaging (tray) Prices per 100 items, excluding VAT

Specific reference target	Grade
less than 47,5 gram	S
47,5 or more but less than 57,5 gram	M
57,5 or more but less than 67,5 gram	L
67,5 or more but less than 72,5 gram	XL

3.1.2.3.3 Other animal products

General reference targets 'Other animal products': all series
• Prices per 100 kg, excluding VAT

Code	Designation	Specific reference targets 'Other animal products': individual series
12910000	Raw wool	Unwashed, bound fleece Prices from sheep farm to collector or market, ex-sheep farm or free market
12920000	Honey	Natural honey Prices from producer to trade, including packing (1 kg packs); ex-producer

3.1.2.4 MEANS OF AGRICULTURAL PRODUCTION

3.1.2.4.1 Electricity and Fuels

Consumer behaviour must be taken into account in defining fuels. Products cannot generally be characterized by their designations; as in different countries the same name does not always apply to the same product. They are thus broken down into categories not only by characteristics, but also by sector of use.

The distinction between diesel oil and heating gas oil lies mainly in their uses, and the price differences result from different taxation.

It should be noted that precise octane, cetane and viscosity figures could not be used for defining products, as there were considerable variations between countries.

EUROSTAT in principle records prices net of VAT as VAT rates generally are considered as being established so as not to affect income. This however applies only to "deductible" VAT. "Non-deductible" or "non-refundable" VAT has not to be deducted from the prices. Furthermore, the description of the price series for fuels does not provide all the indications desired on the subsidies existing in several countries. The granting of subsidies mostly depends on certain conditions which can change in the course of time and not all farmers of a country always benefit from them. For this reason it is almost impossible to draw up general rules for handling these subsidies.

General reference targets 'Electricity and Fuels': all series except series 20210000
• Prices excluding deductible or reimbursable VAT

Code	Designation	Specific reference targets 'Fuels': individual series
20210000	Electricity	Electricity used for agricultural production Prices the supplier to the farmer Prices per 1000 KW, excluding deductible or reimbursable VAT [In eDAMIS webform the stated price of electricity refer to 100 kW. To be clarified]
20221000	Heating gas oil	Fuel used to heat greenhouses and other agricultural buildings Prices per 100 l from trade to the farmer; free on farm for purchases of at least 1000 l in bulk in the buyer's container
20222000	Residual fuel oil	Fuel used in large heating or drying plant with viscosity of 3500 S Prices per 100 l from trade to the farmer; free on farm for purchases of at least 5 t
20231000	Motor spirit	Fuel used in motor vehicles, tractors, agricultural vehicles, etc. with petrol engines, generally less than 95 octane, unleaded Prices per 100 l from trade to the farmer; ex petrol pump; prices are for small purchases in bulk in the buyer's container
20232000	Diesel oil	Motor fuel used in motor vehicles, tractors and agricultural machines, etc. with diesel engines, with approximately 50-55% cetane Prices per 100 l from trade to the farmer; free on farm for purchases of at least 1000 l in bulk in the buyer's container

3.1.2.4.2 Fertilisers

The nutritive content of fertilisers is expressed in terms of N (nitrogen), P_2O_5 (phosphorus pentoxide) and K_2O (muriate of potash). This applies in particular to compound fertilisers, in which the proportion of nutritive substances is often marked simply N-P-K (instead of N-P_2O_5-K_2O).

Strict product definition (in conformity with the principle of identity) is not possible in the case of fertilisers. There are considerable differences in the (representative) fertilisers used in the individual Member States in respect of the following characteristics:

a) concentration of nutritive substance (content)

b) combination of nutritive substances (proportion)

c) form of nutritive substances

d) other quality characteristics

This applies less to **straight fertilisers** than to compound fertilisers. Straight fertiliser prices are expressed per 100 kg of nutritive content, which is generally comparable.

Compound fertilisers are defined here according to the proportions of the various nutritive substances and the target concentration of each. Some Member States deviate from the target definition for reasons of availability or representativeness of the corresponding price series.

If the proportion or concentration of nutritive substances varies, two price series for a specific compound fertiliser are published. The first series (20322100, 20323100, 20323201, 20323202, 20323700 and 20323400) quotes the price for the respective fertiliser in the individual Member States, irrespective of any deviations from the target definition. In addition, a price series is compiled with standardised proportion and concentration (20322200, 20323600, 20323301, 20323302, 20323800 and 20323500). This is determined on the basis of the first series in the following manner:

e) Deviations in the proportions of N, P_2O_5 and K_2O are compensated for by adding (or subtracting) the value for the shortfall (or excess) quantity of a nutritive substance at cost price.

f) Generally speaking, correction is made for the potash or nitrogen component. Only in exceptional cases is the correction made to the phosphorus component, which is more complex in respect of the form of the nutritive substance and price comparability. The prices used for K_2O, N and P_2O_5 are taken from the series 20313100 (muriate of potash), 20311201 (ammonium nitrate) and 20312100 (superphosphate).

g) Deviations in the concentration of nutritive substances are standardised simply by converting the price.

h) If the product definition for one country deviates from the target definition in that other nutritive substances (e.g. MgO) are contained, a standardised price series is not prepared.

An example is the series 20323700: N-P-K: 1-1-2. In this case the prices of an N-P-K fertiliser with a ratio of 13-13-21 are recorded, though the target definition for series 20323800 is 9-9-18.

The conversion is made by applying the following formula:

$$\left(p_{20323700} + \frac{5}{100} p_{20313100} \right) * \frac{9}{13} \Rightarrow p_{20323800}$$

or expressed differently (in terms of concentration ratio):

$$\left[13 - 13 - (21 + 5)\right] * \frac{9}{13}$$

First of all, the proportion is corrected by adding the price of 5 kg of K_2O to the price of the compound fertiliser, giving an N-P-K ratio of 13-13-26. When the sum is multiplied by 9/13, the price for the 9-9-18 concentration is obtained.

An example:

$$p_{7785} = \left(€39.87 + \frac{5}{100} €68.18 \right) * \frac{9}{13} = (€39.87 + €3.41) * \frac{9}{13} = €29.96$$

In the standardised price series (20322200, 20323600, 20323301, 20323302, 20323800 and 20323500), the price is derived, as pointed out above. The characteristics determining this price do not therefore need to be described. For these price series, the calculation formula used for standardisation is given, together with corresponding references to the price series used and the organisation responsible for the calculation.

As far as the form of the nutritive substances is concerned, the compound fertilisers compared are as similar as possible, e.g. the potash component has to be in the form of muriate rather than sulphate.

More precise information on the form of the nutritive substances in compound fertilisers is not available. As fertilisers vary in quality and effect due to differences in the form of these substances, price comparisons within fertiliser categories are not always possible.

In addition there are differences in quality in respect of fertiliser structure (grain size, granulation) for both straight and compound fertilisers. This results in varying characteristics in respect of storage and application, which also limits the possibilities of price comparisons.

Straight fertilisers

General reference targets 'Straight fertilisers':
all series except series 20311202 and 20311400

- Prices from the trade or the co-operative to the farmer; free on farm for deliveries of approximately 5 t in 50 kg sacks
- Prices per 100 kg of nutritive substances, excluding VAT

Code	Designation	Specific reference targets 'Straight fertilisers': individual series
20311100	Sulphate of ammonia (in sacks)	Nutritive content: 21% N
20311201	Ammonium nitrate (26-27% N) (in sacks)	Nutritive content: 26-27% N
20311202	Ammonium nitrate (26-27% N) (in bulk)	Nutritive content: 26-27% N Prices free on farm for bulk deliveries of at least 5 t in bulk
20311301	Ammonium nitrate (33% N) (in sacks)	Nutritive content: 33% N
20311400	Urea	Nutritive content: 46% N Prices free on farm in quantities of approx. 2000 l
20312100	Superphosphate (18-20% P_2O_5)	Nutritive content: 18-20% P_2O_5
20312200	Triple superphosphate (43-46% P_2O_5)	Nutritive content: 43-46% P_2O_5
20313100	Muriate of potash	Nutritive content (KCl): 40% K_2O
20313200	Sulphate of potash	Nutritive content (K_2SO_4): 50% K_2O

Compound fertilisers

General reference targets 'Compound fertilisers': all series except series 20323202 and 20323302
• Prices from trade or co-operative to the farmer; free on farm for deliveries of approximately 5 t in 50 kg sacks • Prices per 100 kg merchandise, excluding VAT

Code	Designation	Specific reference targets 'Compound fertilisers': individual series
20321100	Binary fertilisers 1-1-0	Nutritive content (%): N-P_2O_5-K_2O: 20-20-0
20322100	Binary fertilisers 0-1-1	Nutrient ratio: N-P_2O_5-K_2O: 0-1-1, if possible with a nutritive content of (%): 0-20-20
20322200	Binary fertilisers 0-20-20	Nutritive content (%): N-P_2O_5-K_2O: 0-20-20 Prices are taken either directly from series 20322100, if the nutritive content is the same, or derived from this series following conversion to the standard concentration and proportion of nutritive substances
20323100	Ternary fertilisers 1-0.5-0.5	Nutrient ratio: N-P_2O_5-K_2O: 1-0.5-0.5, if possible with a nutritive content of (%): 20-10-10
20323600	Ternary fertilisers 20-10-10	Nutritive content (%): N-P_2O_5-K_2O: 20-10-10 Prices are taken either directly from series 20323100, if the nutritive content is the same, or derived from this series following conversion to the standard concentration and proportion of nutritive substances
20323201	Ternary fertilisers 1-1-1 (in sacks)	Nutrient ratio: N-P_2O_5-K_2O: 1-1-1, if possible with nutritive content of (%): 17-17-17
20323301	Ternary fertilisers 17-17-17 (in sacks)	Nutritive content (%): N-P_2O_5-K_2O: 17-17-17 Prices are taken either directly from series 20323201, if the nutritive content is the same, or derived from this series following conversion to the standard concentration and proportion of nutritive substances
20323202	Ternary fertilisers 1-1-1 (in bulk)	Nutrient ratio: N-P_2O_5-K_2O: 1-1-1, if possible with nutritive content of (%): 17-17-17 Price free on farm for bulk deliveries of at least 5 t in bulk
20323302	Ternary fertilisers 17-17-17 (in bulk)	Nutritive content (%): N-P_2O_5-K_2O: 17-17-17 Prices are taken either directly from series 20323202, if the nutritive content is the same, or derived from this series following conversion to the standard concentration and proportion of nutritive substances
20323700	Ternary fertilisers 1-1-2	Nutrient ratio: N-P_2O_5-K_2O: 1-1-2, if possible with a nutritive content of (%): 9-9-18
20323800	Ternary fertilisers 9-9-18	Nutritive content (%): N-P_2O_5-K_2O: 9-9-18 Prices are taken either directly from series 20323700, if the nutritive content is the same, or derived from this series following conversion to the standard concentration and proportion of nutritive substances
20323400	Ternary fertilisers 1-2-2	Nutrient ratio: N-P_2O_5-K_2O: 1-2-2, if possible with a nutritive content of (%): 10-10-20

Code	Designation	Specific reference targets 'Compound fertilisers': individual series
20323500	Ternary fertilisers 10-20-20	Nutritive content (%): N-P_2O_5-K_2O: 10-10-20 Prices are taken either directly from series 20323400, if the nutritive content is the same, or derived from this series following conversion to the standard concentration and proportion of nutritive substances

3.1.2.4.3 Feedingstuffs

For practical reasons the product definitions for feedingstuffs only cover isolated indicators of quality such as nutritive content and form of supply, although in principle quality assessment ought to involve all the relevant characteristics; i.e. botanical purity, toxic substances, freshness, digestibility and taste.

For straight feedingstuffs the definition of the nutritive content is mostly limited to raw protein and fibre quantity, though for certain products it also includes mineral elements, fat, vitamins and sugar. Starch is not normally taken into account.

In these statistics compound feedingstuffs are defined exclusively according to content and not by the basic substances, e.g. straight feedingstuffs, used to manufacture them. This is because the value of feedingstuffs is determined by content and not by composition. Furthermore, it would otherwise be impossible to maintain any consistency, as the composition of compound feedingstuffs changes constantly.

It is particularly difficult to harmonise product definitions for feedingstuffs, as the characteristics which determine nutritive value vary greatly from region to region owing to natural differences and different marketing and conservation methods, and changes can occur within short spaces of time. The comparability of the price series surveyed on the basis of these definitions is therefore limited and strictly speaking, these series represent average value statistics.

Straight feedingstuffs

General reference targets 'Straight feedingstuffs': all series
• Prices from the trade or co-operative to the farmer • Prices per 100 kg, excluding VAT

Code	Designation	Specific reference targets 'Straight feedingstuffs': individual series
20611100	Feedingstuffs: fodder wheat	Weight: min. 70 kg per hl Prices free on farm for purchases of at least 1 t in bulk
20611200	Feedingstuffs: barley	Weight: 55-70 kg per hl Prices free on farm for purchases of at least 1 t in bulk
20411300	Feedingstuffs: oats	Weight: 45-55 kg per hl Prices free on farm for purchases of at least 1 t in bulk
20611400	Feedingstuffs: maize	Weight: 65-80 kg per hl Prices free on farm for purchases of at least 1 t in bulk
20611500	Feedingstuffs: wheat bran	Raw protein: min. 13%, raw fibres: max. 13% Prices free on farm for purchases of at least 1 t in bulk
20611600	Feedingstuffs: ground barley	Raw fibre: max. 8% Prices free on farm for purchases of at least 1 t in bulk
20611700	Feedingstuffs: ground maize	Raw fibre: max. 4% Prices free on farm for purchases of at least 1 t in bulk
20612100	Linseed cake (expeller)	Raw protein: min. 30%, raw fibre: max. 7% Prices for purchases of at least 100 kg, in 50 kg sacks
20612200	Toasted extracted soybean meal	Raw protein: min. 44%, raw fibre: max. 7% Prices for purchases of at least 100 kg, in 50 kg sacks
20613100	Animal meal	Raw protein: min. 55%, raw fat: max. 10%, phosphor: max. 5% Prices for purchases of at least 100 kg in 50 kg sacks
20613200	Fish meal	Raw protein: min. 65%, raw fat: max. 10% Prices for purchases of at least 100 kg in 50 kg sacks
20619100	Dried sugar beet pulp	Water: max. 13%. Overall sugar content (as saccharose): max. 6% Prices free on farm for purchases of at least 100 kg in 50 kg sacks
20619200	Meadow hay	Commercial grade Prices free on farm for purchases of at least 1 t in bulk
20619300	Dried lucerne	Raw protein: min. 16%, carotene: min. 0.009% Prices free on farm for purchases of at least 100 kg in 50 kg sacks

Code	Designation	Specific reference targets 'Straight feedingstuffs': individual series
20619400	Cereal straw	Commercial grade (15-30 kg bales) Prices free on farm for purchases of at least 1 t in bulk

Compound feedingstuffs

Compound feedingstuffs for cattle

General reference targets 'Compound feedingstuffs for cattle': all series
• Prices from the trade or co-operative to the farmer • Prices per 100 kg, excluding VAT

Code	Designation	Specific reference targets 'Compound feedingstuffs for cattle': individual series
20621100	Complementary feed for rearing calves	Crude protein: 17-20%, fats: 2-4%, crude fibre: max. 7%, Vitamin A: min. 4000 IU/kg, Vitamin D: min. 500 IU/kg Prices free on farm for purchases of at least 1 t in bulk
20619901	Milk replacer for fattening calves (in sacks)	Crude protein: 22-27%, fats: 12-20%, crude fibre: max. 1.5%, Vitamin A: min. 15000 IU/kg, Vitamin D2 or D3: 2000/10000 IU/kg, skimmed milk powder: min. 40% Prices free on farm for purchases of at least 100 kg and up to 1 t in 50 kg sacks
20619902	Milk replacer for fattening calves (in bulk)	Crude protein: 22-27%, fats: 12-20%, crude fibre: max. 1.5%, Vitamin A: min. 15000 IU/kg, Vitamin D2 or D3: 2000/10000 IU/kg, skimmed milk powder: min. 40% Prices free on farm for purchases in bulk
20622910	Complementary feed for dairy cattle at grass	Crude protein: max. 15%, fats: 1-6%, crude fibre: max. 16% Prices free on farm for purchases of at least 2 t in bulk
20622921	Complementary feed for dairy cattle (stall fed) (in sacks)	Crude protein: 20-24%, fats: 1-6%, crude fibre: max. 20-24%, Vitamins A and D desirable Prices free on farm for purchases of up to 1 t in sacks

Code	Designation	Specific reference targets 'Compound feedingstuffs for cattle': individual series
20622922	Complementary feed for dairy cattle (stall fed) (in bulk)	Crude protein: 20-24%, fats: 1-6%, crude fibre: max. 20-24%, Vitamins A and D desirable Prices free on farm for purchases of at least 8 t in bulk
20622931	Protein-rich complementary feed for dairy cattle (stall fed) (in sacks)	Crude protein: over 24%, fats: 1-6%, crude fibre: max. 20-24%, Vitamins A and D desirable Prices free on farm for purchases of up to 1 t in sacks
20622932	Protein-rich complementary feed for dairy cattle (stall fed) (in bulk)	Crude protein: over 24%, fats: 1-6%, crude fibre: max. 20-24%, Vitamins A and D desirable Prices free on farm for purchases of at least 8 t in bulk
20622101	Complementary feed for cattle fattening (in sacks)	Crude protein: 11-22%, raw fat: 2-4%, crude fibre: max. 14%, Vitamin A: min. 4000 IU/kg, Vitamin D2 or D3: min. 500/4000 IU/kg Prices free on farm for purchases of up to 1 t in sacks
20622102	Complementary feed for cattle fattening (in bulk)	Crude protein: 11-22%, raw fat: 2-4%, crude fibre: max. 14%, Vitamin A: min. 4000 IU/kg, Vitamin D2 or D3: min. 500/4000 IU/kg Prices free on farm for purchases of at least 8 t in bulk
20622111	Protein-rich complementary feed for cattle fattening (in sacks)	Crude protein: min. 28%, fats: max. 10%, crude fibre: max. 15%, Vitamin A: min. 10000 IU/kg, Vitamin D: min. 2000 IU/kg Prices free on farm for purchases of up to 1 t in sacks
20622112	Protein-rich complementary feed for cattle fattening (in bulk)	Crude protein: min. 28%, fats: max. 10%, crude fibre: max. 15%, Vitamin A: min. 10000 IU/kg, Vitamin D: min. 2000 IU/kg Prices free on farm for purchases of at least 8 t in bulk

Compound feedingstuffs for pigs and poultry

General reference targets 'Compound feedingstuffs for pigs and poultry': all series
• Prices from the trade or co-operative to the farmer • Prices per 100 kg, excluding VAT

Code	Designation	Specific reference targets 'Compound feedingstuffs for pigs and poultry': individual series
20623101	Complete feed for rearing piglets (in sacks)	Crude protein: 15-20%, fats 2-3%, crude fibre: max. 6%, Vitamin A: min. 10000 IU/kg, Vitamin D: min. 1500 IU/kg, antibiotics Prices free on farm for purchases of at least 100 kg and up to 1 t in 50 kg sacks
20623102	Complete feed for rearing piglets (in bulk)	Crude protein: 15-20%, fats: 2-3%, crude fibre: max. 6%, Vitamin A: min. 10000 IU/kg, Vitamin D: min. 1500 IU/kg, antibiotics Prices free on farm for purchases of at least 8 t in bulk
20623301	Complete feed for sows (in sacks)	Crude protein: 12-18%, fats: 2-3%, crude fibre: max. 6%, Vitamin A: 12000 IU/kg, Vitamin D: 2000 IU/kg Prices free on farm for purchases of at least 100 kg and up to 1 t in 50 kg sacks
20623302	Complete feed for sows (in bulk)	Crude protein: 12-18%, fats: 2-3%, crude fibre: max. 6%, Vitamin A: 12000 IU/kg, Vitamin D: 2000 IU/kg Prices free on farm for purchases of at least 8 t in bulk
20623201	Complete feed for fattening pigs (in sacks)	Crude protein: 12-18%, fats: 2-3%, crude fibre: max. 8%, Vitamin A: min. 3000 IU/kg, Vitamin D: min. 400 IU/kg Prices free on farm for purchases of at least 100 kg and up to 1 t in 50 kg sacks
20623202	Complete feed for fattening pigs (in bulk)	Crude protein: 12-18%, fats: 2-3%, crude fibre: max. 8%, Vitamin A: min. 3000 IU/kg, Vitamin D: min. 400 IU/kg Prices free on farm for purchases of at least 8 t in bulk
20624101	Baby chick feed (in sacks)	Crude protein: 20-24, fats: 2-4%, crude fibre: max. 5%, Vitamin A: min. 8000 IU/kg, Vitamin D2 or D3: 1000-2000 IU/kg, other vitamins, coccidiostatics and antibiotics desirable Prices free on farm for purchases of at least 100 kg and up to 1 t in 50 kg sacks
20624102	Baby chick feed (in bulk)	Crude protein: 20-24, fats: 2-4%, crude fibre: max. 5%, Vitamin A: min. 8000 IU/kg, Vitamin D2 or D3: 1000-2000 IU/kg, other vitamins, coccidiostatics and antibiotics desirable Prices free on farm for purchases of at least 8 t in bulk
20624201	Complete feed for rearing pullets to lay (in sacks)	Crude protein: 13-17%, fats: 2-4%, crude fibre: max. 9%, Vitamin A: min. 4000 IU/kg, Vitamin D2 or D3: 500-2000 IU/kg; other

Code	Designation	Specific reference targets 'Compound feedingstuffs for pigs and poultry': individual series
		vitamins, coccidiostatics and antibiotics desirable Prices free on farm for purchases of at least 100 kg and up to 1 t in 50 kg sacks
20624202	Complete feed for rearing pullets to lay (in bulk)	Crude protein: 13-17%, fats: 2-4%, crude fibre: max. 9%, Vitamin A: min. 4000 IU/kg, Vitamin D2 or D3: 500-2000 IU/kg, other vitamins, coccidiostatics and antibiotics desirable Prices free on farm for purchases of at least 8 t in bulk
20624301	Complete feed for battery-laying hens (in sacks)	Crude protein: 18-20%, fats: 2-4%, crude fibre: max. 8%, Vitamin A: min. 6000 IU/kg, Vitamin D2 or D3: 700-3000 IU/kg; other vitamins desirable Prices free on farm for purchases of at least 100 kg and up to 1 t in 50 kg sacks
20624302	Complete feed for battery-laying hens (in bulk)	Crude protein: 18-20%, fats: 2-4%, crude fibre: max. 8%, Vitamin A: min. 6000 IU/kg, Vitamin D2 or D3: 700-3000 IU/kg; other vitamins desirable Prices free on farm for purchases of at least 8 t in bulk
20624501	Complete feed for broiler production (in sacks)	Crude protein: 16-22%, fats: 2-4%, crude fibre: max. 7%, Vitamin A: min. 4000 IU/kg, Vitamin D2 or D3: 500-2000 IU/kg, other vitamins, coccidiostatics and antibiotics desirable Prices free on farm for purchases of at least 100 kg and up to 1 t in 50 kg sacks
20624502	Complete feed for broiler production (in bulk)	Crude protein: 16-22%, fats: 2-4%, crude fibre: max. 7%, Vitamin A: min. 4000 IU/kg, Vitamin D2 or D3: 500-2000 IU/kg, other vitamins, coccidiostatics and antibiotics desirable Prices free on farm for purchases of at least 8 t in bulk

3.2 Other classifications

No other classification is reported in the handbook.

The territorial units are the economic territories of the Member States (NUTS Regulation)

The sectoral coverage is defined as the framework of agricultural holdings, as providers of agricultural goods or services, or as purchasers of means of production.

4 Data processing

4.1 Introduction

This chapter refers to specific instructions for processes that are run by Member States to process agricultural price indices.

4.2 Calculation of national aggregates

4.2.1 Steps to be followed for the calculation of API

4.2.1.1 STEP 1. WEIGHTING SCHEME

1.1: The weighting scheme reflects the actual distribution of the products values (reflecting their volume) in the base period

1.2: The sum of the quarterly weights is always equal to the annual weight (horizontal aggregation)

1.3: The sum of products weights is always equal to the weight of the product group (vertical aggregation)

4.2.1.2 STEP 2. ELEMENTARY INDICES

2.1: Calculation of the elementary indices at product level

4.2.1.3 STEP 3. AGGREGATION OF INDICES

3.1: Calculation of annual product aggregates in the current year (horizontal aggregation)

3.2: Calculation of quarterly and annual product group aggregates in the current year (vertical aggregation)

Annex II provides a numeric example on aggregation of the indices.

4.2.2 Calculation of quarterly weights

The quarterly value weight for each product is calculated by multiplying the quarterly sales quantities by the annual average price of the product for 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 (25% of the annual value weight in each quarter).[AT: The last sentence tells exactly the same as the first one]

4.2.3 Calculation of elementary indices

Elementary indices at product level are calculated by relating the quarterly product price of the current year to the annual average price of the base year.

4.2.4 Aggregation of quarterly into annual indices

Annual product indices in the current year (horizontal aggregation) are obtained by aggregating the quarterly elementary indices of the products by the quarterly weights from the weighting scheme (see the numerical example, Annex II). In every case, consistency (vertical aggregation) between quarterly and annual indices should be ensured by adjusting the quarterly indices according to the annual index (see Annex II).

5 Data structure

5.1 Introduction

Dataset Structure Definition (DSD) describes how information in a specific dataset is structured. Knowledge of the structure is important, because it allows to later filtering out desired information very precisely based on criteria to limit specific dimensions.

5.2 Dataset structure definition

The structure of the agricultural price data sets is based on:

- The reference area (country);
- The reference period(s), either as quarters or as calendar years;
- The general structure of the EU products and input indices, i.e. the list of groups, subgroups, classes, subclasses and categories for which partial indices should be calculated, is shown in Annex I.

5.3 Data types

The data types are especially numeric values and, where applicable, codes for specific flags (see 6.6). When pasting data from MS Excel or another source into the webform, the user is asked to indicate the grouping separator (for 3-digit groups indicating the thousands, in general space, coma or point) and the decimal separator (in general coma or point). The grouping separator will be dropped and the decimal separator converted into a decimal point in the webform.

The other data types are predefined by the structure definition of the webform template.

6 Data transmission

6.1 Deadlines for data submission

The deadlines presented have been agreed between Eurostat and the Member States for the transmission of data on agricultural products and inputs price statistics.

Table 3 – Deadlines for the transmission of data on agricultural products and inputs price statistics

Collections		Transmission date via EDAMIS	
Agricultural price indices			
Quarterly price indices		1 month + 15 days	After the end of the reference period
Annual price indices		2 months	
Annual early estimates of price indices		1 month + 15 days	Before the end of the reference period
Weighting scheme and rebased indices		The timetable is established by the Agricultural Accounts and Prices Working Group for each exercise.	
Agricultural absolute price			
Annual absolute prices		2 months	After the end of the reference period

See below the deadlines as calendar dates.

6.1.1 Price indices

6.1.1.1 ACHIEVED INDICES

Quarterly price indices:

- 1st quarter year N: 15th May N
- 2nd quarter year N : 15th August N
- 3rd quarter year N : 15th November N
- 4th quarter year N : 15th February N+1

Annual price indices: 1st March N+1.

6.1.1.2 EARLY ESTIMATES

Annual estimates of price indices: 15 November of the reference year

6.1.1.3 WEIGHTS

The weights are collected based on the timetable of the re-basing project.

6.1.1.4 REBASED PRICE INDICES

The series of price indices re-calculated with a new base year are collected based on the timetable of the re-basing project.

6.1.2 Absolute prices

Annual absolute prices: 1st March N+1.

6.2 Data precision and accuracy

The figures to be transmitted must be representative at national level.

6.3 Templates for data submission

EDAMIS webforms for price indices can be found on the EDAMIS webpage (access limited to EDAMIS granted users) at https://webgate.ec.europa.eu/edamis.

6.3.1 Price indices

6.3.1.1 ACHIEVED INDICES

- Quarterly: PRAG_IND2015_Q_GR (GR stands for "grouped")

  includes the dataset PRAG_IND15IN_Q for quarterly input indices and PRAG_IND15OU_Q for quarterly product indices (basis 2015=100)

- Annual: PRAG_IND2015_A_GR

  includes the datasets PRAG_IND15_IN_A for annual input indices and PRAG_IND15OU_A for annual product indices(basis 2015=100)

6.3.1.2 EARLY ESTIMATES

- Annual: PRAG_FORCST_A_GR

  includes the datasets PRAG_FOR15IN_A for input indices and PRAG_FOR15OU_A for product indices

6.3.1.3 WEIGHTS

The MS Excel file for weights data transmission contains the information on (quarterly and annual) weights reflecting the list of indices as presented in Annex I.

6.3.2 Absolute prices

- Annual: PRAG_PRICES_A_GR

  includes the datasets PRAG_PRIANI_A for animal product prices, PRAG_PRICRO_A for crop product prices and PRAG_PRIINP_A for input prices

6.4 Transmission method (EDAMIS)

The tool to be used for delivery of data to Eurostat is Eurostat's data transmission program EDAMIS.

The data providers can use the EDAMIS Web Portal (EWP) to access the web interface EDAMIS webforms (EWF). This is an internet based solution, available through an internet browser, which does not require a local installation. The Eurostat EDAMIS support team will provide access.

For information concerning EDAMIS and EWF, or data transmission to Eurostat in general, you can contact directly the support team (estat-support-EDAMIS@ec.europa.eu).

6.4.1 Eurostat single entry point

The Single Entry Point (SEP) concept is that data for all statistical domains should arrive at a common reception area in Eurostat, so they can be automatically monitored, checked and delivered into the target production environment, with a set of common informatics tools. The SEP implies that incoming data files are identified as being instances of a dataset which is included in the inventory of datasets to be transmitted by Member States to Eurostat. The aim of this activity is to ensure efficient, secure and monitored transmission of statistical data from Member States to Eurostat.

The SEP is an organisational concept which is implemented through EDAMIS (Electronic Data files Administration and Management Information System), an integrated family of IT applications, which assure secure transmission of data files, as well as monitoring and delivery to production units.

6.4.2 EDAMIS webforms

EDAMIS is an integrated set of tools for the transmission of statistics from Member States to Eurostat via the Single Entry Point. EDAMIS is installed in all National Statistical Institutes (NSIs) and in several other organisations (ministries, agencies, central banks…). Data senders who do not have an EDAMIS installation at their disposal can connect to the EDAMIS Web Portal on Internet and directly upload their data.

From the perspective of Member States, there are two visible components of EDAMIS:

- EDAMIS Web Application (EWA): NSIs normally send data through EWA. This application is installed on one server at the NSI and can be accessed by authorised NSI staff members on their intranet, through a web browser interface. EWA can also be used for fully automatic transmission of data files to Eurostat.

- EDAMIS Web Portal (EWP): Eurostat receives data from around 600 different national authorities. Unlike NSIs, many of these send small numbers of data files to Eurostat, so few that they cannot be expected to use applications which require a local installation. EWP is a web portal2 through which data files can be directly uploaded to Eurostat. This is a simple solution for national authorities other than NSIs that currently send data by email. EWP requires no local installation as it is used via a normal Internet connection and a web browser. Some Web Forms are also becoming available in EDAMIS for direct entry of small volume of data.

The Management Information System (MIS), accessed through the EDAMIS portal, gives access to online traffic reports, which are updated in real time and show the actual reception date as well as the indicative deadline for each dataset occurrence. It also gives access to reports on datasets, users and organisations.

Annex IV provides summary guidelines for data transmission.

6.5 Completeness

Completeness of the agricultural price indices is determined based on the correlation between the EAA and weights data on one side and weights data and elementary price index on the other side (see heading 7.3.3.3).

6.6 Flags for data transmission

6.6.1 Observation status flags

Observation status refers to particular information linked to the status of a single value in the data transmission. It transfers important information to Eurostat and/or the end users of the data. The observation status flags are listed and explained in Table 4 below.

Table 4 – Observation status flags

Code value	Code description	Detailed explanation	Visible on the website
E	Estimated value	Observation obtained through an estimation methodology (e.g. to produce back-casts) or based on the use of a limited amount of data or ad hoc sampling and through additional calculations (e.g. to produce a value at an early stage of the production stage while not all data are available). This flag is used for both MS and Eurostat estimates in situations when estimates are calculated for missing data.	(Value) e

P	Provisional value	An observation is characterised as "provisional" when the source agency – while it bases its calculations on its standard production methodology – considers that the data, almost certainly, are expected to be revised.	(Value) p

This table may be amended on the request of the Working Group on Agricultural Accounts and Prices to introduce additional flags.

6.6.2 Confidentiality status flags

The confidentiality status flag list is presented in Table 5 below.

Table 5 – Confidentiality status flags

Code value	Code description	Detailed explanation	Visible on the website
C	Confidential statistical information	Confidential statistical information (primary confidentiality) due to identifiable respondents. Measures also should be taken to prevent not only direct access, but also indirect deduction or calculation by other users and parties, probably by considering and treating additional observations as “confidential” (secondary confidentiality management). No other use than the above mentioned is allowed.	:c

6.7 Revision

Currently no strict calendar for data revision exists. The possible revisions of the data (weights or price indices) made by countries due to different methodological developments are transmitted to Eurostat together with the reason behind the revision (see also 9.2). After validation of the new received data the information is uploaded to the database.

7 Data validation

7.1 Introduction

Validation is a key task performed in all statistical domains.

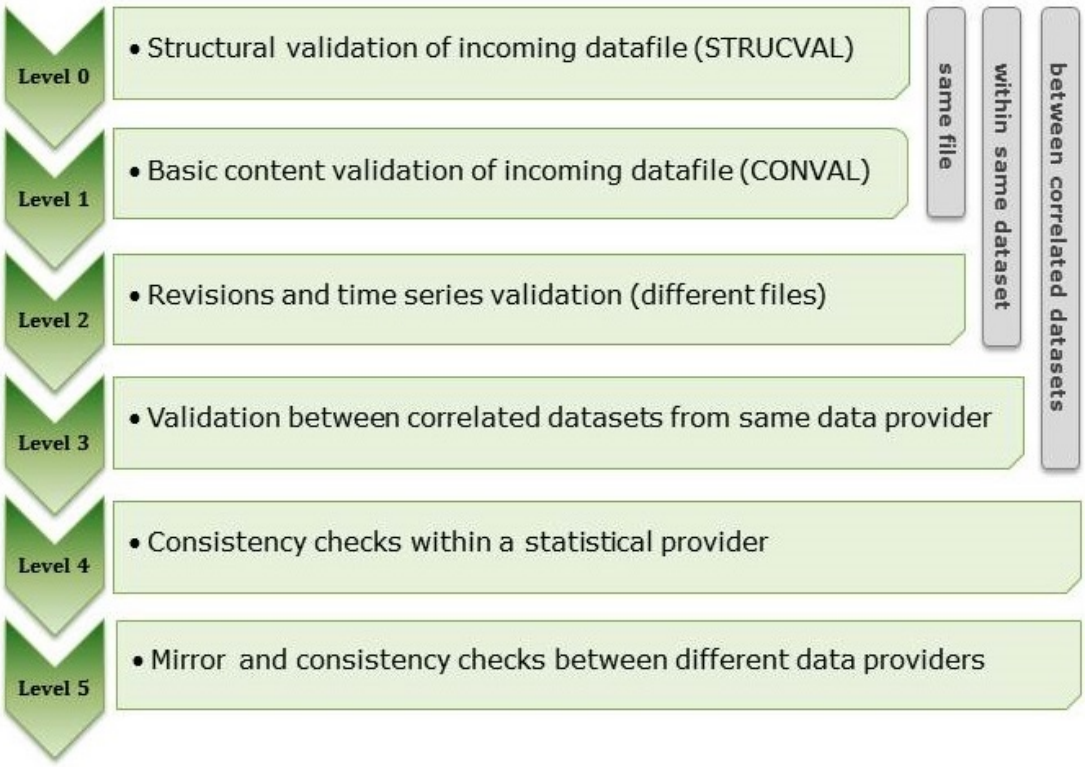
Data validation is implemented at several stages in the process:

- During data entry by the data providers (data transmission tool),
- Before data loading in the Eurostat production database, manual validation
- In the Eurostat production database as part of the automated process
- Out of the data process, compliance of the national methodology is checked against the EU requirements.

Efficient data validation is essential for high quality statistics. Guidelines for assigning validation responsibilities within the whole production chain, standard validation levels, a good selection of validation rules, standards for validation reports and error/warning messages and common documentation standards of the validation process are important elements of a good data validation policy.

In principle all data validation processes share a common approach, which is shown in the diagram below.

Figure 1 – Validation

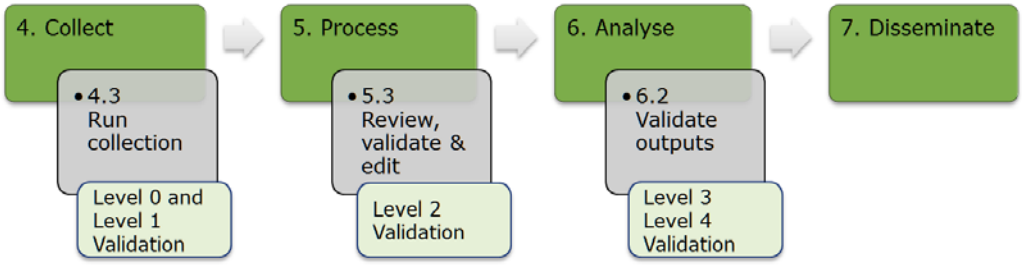


7.2 Validation procedure

Eurostat checks the absolute agricultural prices and agricultural price indices which it receives from the Member States. Any queries are dealt with on a bilateral basis with the competent experts in the Member States.

The data supplied to Eurostat are validated according to the following procedure:

Figure 2 – Validation process (GSBPM notation)



Step 4.3 is the first sub-process of GSBPM where validation checks are done. Those checks are purely related to one instance of a dataset.

Eurostat's EDAMIS web portal uses the corresponding SDMX files, therefore the data files are created automatically and this implies that they are syntactically correct and well formed. This corresponds to a level 0 structural validation.

Closely linked is a level 1 validation, which is a basic content validation. There, a basic checking of the records within the data file is done. Firstly a semantic check of the records itself is made. Then a set of validation rules for an intra-file check is applied.

Step 5.3 is the part of the process where a level 2 validation takes place. In GSBPM this sub-process is specifically referred to validation, it is in fact named ‘review & validate’. This sub-process examines data to try to identify potential problems, errors and discrepancies. It can also be referred to as input data validation. At this stage of the process, the new data file is checked against the corresponding time series. The new data are checked using predefined validation rules in a set order. In case problems are found, suspicious or erroneous data are marked for manual inspection. It is also checked whether all data for the reference year were reported, i.e. a check for completeness.

Step 6.2 is named 'Validate outputs'. In this sub-process statisticians validate the quality of the outputs produced in accordance with a general quality framework and with expectations.

In practice this is an iterative process. After those validation steps data are disseminated.

Eurostat checks the data received from the Member States. Any issue is clarified with the experts in the Member States before acceptance of the data. The data can then be published.

7.2.1 Completeness

The completeness of the file is verified.

7.3 Validation rules

7.3.1 Validation of absolute prices

Absolute prices are checked against the time series (outliers), which avoids unit errors, and change in status of confidential prices..

7.3.2 Validation of the price indices

The code lists used for the various indices, the reference areas and periods are predefined in the webforms.

The indices are expected to be positive numbers. Based on the weighting scheme received from the countries, the vertical and, where applicable, horizontal aggregations of the indices are checked. The outliers are identified and needed clarifications are followed with each MS concerned.

7.3.2.1 VALIDATION OF ACHIEVED INDICES AND OF EARLY ESTIMATES

For this type of validation, an internal tool based on Excel exists at Eurostat, designed to quickly analyse the data transmitted. It highlights the items for which a difference between reported indices and calculated ones is larger than the threshold value established to 0.5%. This tolerance is more than sufficient to consider possible rounding error accumulation, even starting from aggregation of monthly prices.

7.3.2.2 VALIDATION OF THE EARLY ESTIMATE OF PRICE INDICES

The early estimates transmitted by the Member States are checked by Eurostat as follows.

- Presence of the expected indices is checked.
- Based on the annual estimate and on the three first quarterly indices, the forecasted index for the 4th quarter can be calculated. It is then compared to the previous index for the 4th quarter (warning on plausibility).
- Vertical aggregation of the indices is checked where applicable.

7.3.2.3 COHERENCE OF THE QUARTERLY AND ANNUAL INDICES

Eurostat checks coherence of the annual indices based on the quarterly indices and the weighting scheme. Where the annual indices are based on the annual mean absolute price (see 2.5.1.3) and are significantly different from those which would be obtained with the first method, the set of quarterly and annual indices is not coherent. Therefore:

- the annual EU indices must not be derived from the annual national indices, but from the quarterly EU indices;
- in the cases of incoherence between annual and quarterly indices, the user must be warned that calculation of the annual indices deviates from the standard method, i.e. by a flag on the annual indices.

7.3.3 Validation of the weighting scheme

7.3.3.1 SEASONALITY

Seasonality should, in principle be taken into account by all Member States for fresh fruit, vegetables and potatoes. For all other agricultural products (crop and animal products) the application of seasonality is not compulsory but recommended to Member States that find it relevant and where the information is available.

In the case of input products, seasonality should not be reflected (each quarterly weight should be one quarter of the annual weight).

7.3.3.2 COHERENCE

Member States should provide a full weighting scheme (annual and quarterly data for all products), in line with the following criteria:

- the weighting scheme should reflect the actual distribution of the product volumes in the base period (including the quarters), even at the aggregated level (if data are available);
- the quarterly weights for each product should be obtained by valuing the quantities sold during the corresponding quarter of the base period at the annual average base price of the product;
- the sum of product weights should always equal the weight of the product group (vertical aggregation); and
- the sum of the quarterly weights should always equal the annual weight (horizontal aggregation), at every level of aggregation, both quarterly and annually.

7.3.3.3 COMPARISON OF WEIGHTS DATA WITH EAA DATA

The following operations are made for data validation at Eurostat level.

For the validation of the weighting schemes received from the Member States, Eurostat makes a cross-check (million national currency) between the weighting schemes with the EAA current price data.

As the price statistics are following only the agricultural prices of producer sales (products) and purchases (input), the weighting scheme in a certain year should represent a part of the total value of the EAA. The purpose of the comparison is to check the connection to EAA figures for the base year.

The validation focuses on the following issues:

- for all products having an EAA value, a corresponding weight in API should exist;
- API weights should normally not exceed EAA values;
    - the share of API weights in EAA data represents the values of sales from EAA for all products;
    - the value of purchases for all input products which represents around 100% of EAA value, except for those products which intra-unit consumption is taken into consideration by EAA (mainly feedingstuffs).

7.4 Methodology compliance

Where evidence for non-compliance of the methodology is met, Eurostat considers the received data as non-publishable. Especially, these data are not comparable with the other series, and therefore non-usable for aggregation of the EU results.

8 Quality reports

8.1 Introduction

No quality report is currently collected from the Member States or drafted by Eurostat.

8.2 Quality reports

[Not applicable]

8.3 Transmission method (ESS-MH)

[Not applicable]

9 Data dissemination

9.1 Confidentiality

The Commission is to respect the confidentiality of the data transmitted in line with Regulation (EC) No 223/2009 of the European Parliament and of the Council. The necessary protection of confidentiality of data should be ensured, among other means, protection of individual information on the statistical units by appropriate aggregation when publishing statistics. For that reason a harmonised approach for the protection of confidentiality and quality aspects for data dissemination should be developed. MS can invoke the data confidentiality if only a few transactions are recorded in the calculation of a certain index, if these transactions involve only few particular enterprises, or if the transactions of one of them clearly dominates the result.

9.1.1 Data storage and dissemination

Data from Agricultural Products and Inputs Price Statistics are stored in Eurostat's public dissemination database. In the FAME database, the indices price series are created and processed. In the MDT database, the absolute price series are created and processed. These databases are only accessible for Eurostat staff members working on the creation and processing of the data. When ready, the data are transferred from the production databases to the public database. The public database can be consulted by the external users free of charge via the Eurostat web site (https://ec.europa.eu/eurostat/web/agriculture/data/database)

9.2 Flags for data dissemination

The flags used for data dissemination by Eurostat are the same as for the data transmission by the Member States. However, the flag "F" (forecast) is currently used for early estimated indices, when the achieved annual indices are published, the flag "F" is removed. As long as these indices are taken as provisional, a flag "P" is attached to them. It is removed when the final indices are loaded. Further adaptation of the indices is then considered as a revision.

The confidentiality flag ("C"), cannot be combined with any other flag (e.g. with P) which would be meaningless for the data users.

Table 6 – Observation status flags

Code value	Code description	Detailed explanation	Visible on the website
F	Forecast	Value deemed to assess the magnitude that a quantity will assume at some future point of time (as distinct from "estimated value" which attempts to assess the magnitude of an already existent quantity).	(Value) f
P	Provisional		(Value) p
E	Estimate		(Value) e

9.3 Codes in data dissemination

As far as possible, the codes that are used for data collection are also used in data dissemination.

9.4 Calculation of EU aggregates

9.4.1 Calculation of indices for the EU as a whole

The EU Agricultural Price Indices are obtained by aggregation of the national indices taking into account the relative share of each Member State.

For the calculation of EU Agricultural Price Indices for the European Union as a whole, the following steps are followed:

- Calculation of the API for the Euro Area with the national weights;
- Conversion into Euro of the weights of the non-Euro Member States;
- Calculation of the weights for each level of aggregation, summing up the weights of the products belonging to the same group;
- Calculation of the API for the EU with the Euro weights. The EU index is the weighted average of the indices of each country (if such an index does not exist in one or more Member States, no weight is applied). This method is used for each level of aggregation and for both quarterly and annual indices.

9.5 Production of dissemination products

9.5.1 Conversion of agricultural prices into Euro

The agricultural prices expressed in national currency are converted into Euro by Eurostat using the fixed exchange rates, in order to allow comparisons between the Member States.

9.5.2 Nominal and deflated indices

The procedures for constructing the indices at different levels of aggregation, across products and means of production, for each Member State and for the European Union as a whole are described in heading 9.4.1 above. These procedures yield indices which reflect the movements of the prices of agricultural products and means of production within their particular coverage. They allow a wide range of meaningful comparisons to be made within each Member State, for example between the several products and means of production, both individually and in total.

However, these indices do not, by themselves, necessarily allow meaningful comparisons to be made between Member States when those Member States have experienced different rates of general inflation through time. For example although Member State A might have had a faster rate of product price increases (say 8%) than Member State B (say 4%), the impression given by the difference between these changes in product prices would have to be heavily qualified if the rate of general inflation had been 10% in A but only 2% in B. In those circumstances product prices would have increased by more than the rate of inflation in B but by less than it in A. Such a pattern is commonly expressed by saying that product prices have fallen “in real terms” (or that “real” product prices have fallen) in A, but risen in B.

The relevance of comparing changes in the indices of the prices of products or of means of production is not however limited to comparisons between countries. It also helps to put the figures for individual countries in perspective and is helpful when examining changes for the EU as a whole.

For example if the EU level indices indicated price increases for crop products of say 7% and for animal products of say 5% one would naturally conclude that the price increases had been greater for crops than for animals. However if the crop products had been produced in Member States with relatively high rates of inflation, say 9%, and the animal products in ones with relatively low rates of inflation, say 3%, the picture is rather different. In this case there would have been a fall in real product prices in the Member States producing crops and a rise in real product prices in the Member States producing animals. While the overall EU level rates of increase in the prices of crop and animal products might each be compared with the overall EU level rate of inflation, say 6%, this would still indicate a real increase in the prices of crop products and a real fall in those of animal products. It is therefore desirable to first adjust for inflation at Member State level and then compile EU wide indices of real changes from corresponding indices at Member State level.

The main problem with the calculation of changes in indices in real terms lies in the selection of the indicator of general inflation with which the change in the particular index in question is to be compared. Preference is often given to the price index relating to GDP or to one relating to an associated national income aggregate, which is derived from comparison of these aggregates at current and constant prices. However, such a choice would present practical problems in the context of the indices of prices of agricultural products and means of production. This is because these are compiled with only a relatively short lag, whereas the GDP indices are available after a longer lag. Moreover, given the method of their derivation, they are inevitably subject to periodic revisions through time. Those revisions would affect the estimates of changes in real terms in the agricultural price indices. Preference has therefore been given to the use of the Harmonised Consumer Price Index which is calculated monthly, and with a relatively short lag, for each Member State.

The precise method of calculating changes in real terms in a particular price index is to divide that index by that of the chosen deflator, the Harmonised Consumer Price Index. The changes in the resulting series are then the desired ones in real terms. Ideally, both the particular price index and the deflator will be expressed relative to the same reference period (= 100) so that the “real price” series resulting from their division (which might usefully be multiplied by 100) will have the same reference period though this is not essential and does not affect the resulting indications of changes in real terms.

9.5.3 Combined input index

Eurostat publishes a combined input price index which comprises the index of the prices of Goods and services for current consumption in agriculture (input I) and the index of prices of Goods and services contributing to agricultural investment (input II).

The combined input index does not cover all input items of the agricultural branch and it varies from one country to another in its composition.

9.6 Disseminated data

The price series received from the Member States are disseminated, with the exception of the confidential and invalid figures.

EU series calculated by Eurostat are disseminated together with them.

9.7 Interpretation of results

9.7.1 EU and national set of representative indices

The national sets of indices cover those indices that the Member States have identified as representative. The EU indices are derived from these diverse national sets and, therefore, an EU index may be derived from less national indices than the number of Member States.

Whereas the statement would also be valid for absolute prices, no EU price is derived from the national ones.

9.7.2 Price indices

The following points should be borne in mind when interpreting the EU Agricultural Price Indices:

- As regards spatial comparisons, the structures of the weights with respect to products and means of production reflect the sales and purchases in each country during the base year. The weights therefore differ from one country to another and this obviously has an effect on trends in the aggregate indices.
- In comparing the trends in product prices with those in input prices, the field of observation of the latter does not cover the whole of the operating expenditure of the agricultural sector.
- The comparison between quarterly price indices can be made only between the corresponding quarters of different years. The reason is the variation of the weights from quarter to quarter for the products.

Absolute prices

Although much progress has already been made in the harmonisation of the time series across Member States, caution must still be exercised when comparing the actual agricultural prices among Member States. Differences in prices can still reflect the methodological differences (for example different form of commercialisation of the product concerned) and not the factual differences in every case in the prices themselves. Hence, the user of the data should always refer to the description of the data as provided by the target definition.

Annex I – Structure of the EU agricultural price indices for products and inputs

A correspondence between the API code and SCL codes was build up on the structure of EU agricultural price indices (products and input). Where the label differs, a row was inserted to display the standard code list (SCL) label[5]. The correspondence does not mean that the target definition is the same, but that the price item represents the SCL item. For instance price of calves refers to Calves Approx. 3 months old; well fleshed; live-weight 140-180 kg while the SCL item refers to Calves, less than 8 months. Where the definitions are not fully compatible, the SCL row is shaded in yellow.

The SCL codes are displayed in separate rows where their label is different from the index ones, in green row where the concepts fit or yellow otherwise.

In the EAA column, mark "X" indicates the correspondence of the index and the EAA item. Where the correspondence also reveals difference in the used codes, the EAA code is indicated.

Only the price indices marked with "X" in column "Early estimates" are collected.

Agricultural products

Item	API code	SCL code	Fre-quen-cy	EAA	Early esti-mates	Description
01	010000	C0000	A, Q	X	X	CEREALS (including seeds)
01.1	011000	C1100	A, Q	X	X	Wheat and spelt
01.1/1	011100		A, Q	X	X	Soft wheat and spelt
		C1110				Common wheat and spelt
01.1/2	011200	C1120	A, Q	X	X	Durum wheat
01.2	012000		A, Q	X	X	Rye and Meslin
		C1200				Rye and winter cereal mixtures (maslin)
01.3	013000	C1300	A, Q	X	X	Barley
01.3.1	013100		A, Q			Feed barley
		C1300F				Fodder barley
01.3.2	013200	C1320M	A, Q			Malting barley
01.4	014000		A, Q	X	X	Oats and summer cereal mixtures
		C1400				Oats and spring cereal mixtures (mixed grain other than maslin)
01.5	015000	C1510	A, Q	X	X	Grain maize
01.6	016000	C2000	A, Q	X	X	Rice

[5] SCL Agriprod: see https://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&StrNom=CL_AGRIPRO&StrLanguageCode=EN&IntPcKey=&StrLayoutCode=HIERARCHIC

Item	API code	SCL code	Fre-quen-cy	EAA	Early esti-mates	Description
01.9	019000		A, Q	X	X	Other cereals
		C1900				Other cereals n.e.c.
02	020000	I0000	A, Q	X	X	INDUSTRIAL CROPS
02.1	021000		A, Q	X	X	Oilseeds and oleaginous fruit (including seeds)
		I1000				Oilseeds and oleaginous fruit
02.1.1	021100	I1110	A, Q	02.1/1		Rape and turnip rape seed
02.1.2	021200		A, Q	02.1/2		Sunflower
		I1120				Sunflower seed
02.1.3	021300	I1130	A, Q	02.1/3		Soya
02.1.9	021900		A, Q	02.1/4		Other oleaginous products
		I1900				Other oilseeds and oleaginous fruits
02.2	022000		A, Q	X	X	Protein crops (including seeds)
		P0000				Dry pulses and protein crops for the production of grain (including seed and mixtures of cereals and pulses)
02.3	023000	I3100	A, Q	X	X	Raw tobacco
02.4	024000		A, Q	X	X	Sugar beet
		R2000				Sugar beet (excluding seed)
02.9	029000	I9000AM	A, Q	02.5	X	Other industrial crops
02.9.1	029100		A	02.5/1		Fibre plants
		I2000				Fibre crops
02.9.2	029200	I4000	A	02.5/2		Hops
02.9.9	029900	I9900AM	A	02.5/3		Other industrial crops: others
03	030000	FOP	A, Q	X	X	FORAGE PLANTS
03.1	031000		A, Q	X		Fodder maize
		G3000				Green maize
03.2	032000	R9100	A, Q	X		Fodder root crops (including forage beet)
03.9	039000	FOP9	A, Q	03.3		Other forage plants
03.9.1	039100	FOP91	A			Hay
03.9.2	039200	FOP92	A			Straw
03.9.3	039300	FOP93	A			Silage
03.9.9	039900	FOP99	A			Other forage plants: others
04	040000	V0000_PLF	A, Q	X	X	VEGETABLES AND HORTICULTURAL PRODUCTS
04.1	041000		A, Q	X	X	Fresh vegetables
		V0000				Fresh vegetables (including melons)
04.1.1	041100	V1110	A, Q	04.1/1		Cauliflower

Item	API code	SCL code	Fre-quen-cy	EAA	Early esti-mates	Description
04.1.2	041200	V3100	A, Q	04.1/2		Tomatoes
04.1.9	041900	V9000AM	A, Q	04.1/3		Other fresh vegetables
04.1.9.1	041910	V1300	A			Cabbage
04.1.9.2	041920	V2300	A			Lettuce
04.1.9.3	041930	V2500	A			Spinach
04.1.9.4	041940	V3200	A			Cucumbers
04.1.9.5	041950	V4100	A			Carrots
04.1.9.6	041960	V4210	A			Onions
04.1.9.7	041970		A			Green beans
		V5200				Fresh beans
04.1.9.8	041980		A			Pulses
		V5000AM				Fresh pulses (agri-monetary)
04.1.9.9	041990		A			Peas
		V5100				Fresh peas
04.1.9.9.9	041999	V9900AM	A			Other fresh vegetables: other
04.2	042000	PLF	A, Q	X	X	Plants and flowers
05	050000	R1000	A, Q	X	X	POTATOES (including seeds)
05.1	051000		A, Q			Potatoes for consumption
		R1100				Potatoes for fresh consumption
05.1.1	051100	R1120	A, Q			Early potatoes
05.1.2	051200		A, Q			Main crop potatoes
		R1110				Main harvest potatoes
05.2	052000	R1920	A, Q			Seed potatoes
05.9	059000	No code	A, Q			Other potatoes
06	060000		A, Q	X	X	FRUIT
		FERUAM				Fruits, citrus fruits, berries (including strawberries), nuts, grapes, olives and dried fruits (agri-monetary)
06.1	061000	F0000AM	A, Q	X	X	Fresh fruit
06.1.1	061100		A, Q	X		Dessert apples
		F1111				Apples for fresh consumption
06.1.2	061200		A, Q	X		Dessert pears
		F1121				Pears for fresh consumption
06.1.3	061300	F1210	A, Q	X		Peaches
06.1.9	061900	F9000AM	A, Q	/4		Other fresh fruit
06.1.9.1	061910	F1240	A			Cherries

Item	API code	SCL code	Fre-quen-cy	EAA	Early esti-mates	Description
06.1.9.2	061920	F1250	A			Plums
06.1.9.3	061930	S0000	A			Strawberries
06.1.9.4	061940	F4000_5000AM	A			Nuts and dried fruit
06.1.9.4.1	061941	F4000	A			Nuts
06.1.9.4.2	061942	F5000AM	A			Dried fruit
06.1.9.9	061990	F9900AM	A			Other fresh fruit: other
06.2	062000	T0000	A, Q	X	X	Citrus fruit
06.2.1	062100	No code	A	X		Sweet oranges
		T1000				Oranges
06.2.2	062200	T2910	A	X		Mandarins
06.2.3	062300		A	X		Lemons
		T30000				Lemons and acid limes
06.2.9	062900		A	06.2/4		Other citrus fruit
06.3	063000		A, Q	X	X	Tropical fruit
		F2000				Fruits from subtropical and tropical climate zones
06.4	064000	W1000	A, Q	X	X	Grapes
06.4.1	064100		A	06.4/1		Dessert grapes
		W1200				Grapes for table use
06.4.9	064900	W1900AM	A	06.4/2		Other grapes, fresh
06.5	065000	O1000	A, Q	X	X	Olives
06.5.1	065100		A	06.5/1		Table olives
		O1100				Olives for table use
06.5.9	065900	O1900	A	06.5/2		Other olives
07	070000	W3000	A, Q	X	X	WINE
07.3	073000	W3100	A, Q			PDO and PGI
07.3.1	073100	W3110	A			PDO
07.3.2	073200	W3120	A			PGI
07.8	078000		A			Other wines than PDO and PGI
		W3200				Wines without geographical indication (PDO/PGI), including varietal wines
08	080000	O2000	A, Q	X	X	OLIVE OIL
09	090000	CRP9	A, Q	X	X	OTHER CROP PRODUCTS
09.1	091000		A, Q	X	X	Vegetable materials used primarily for plaiting
		Z1000				Vegetative materials used primarily for plaiting

Item	API code	SCL code	Fre-quen-cy	EAA	Early esti-mates	Description
09.2	092000	E1000	A, Q	X	X	Seeds
09.9	099000	No code	A, Q	X	X	Other crop products: others
10	100000	No code	A, Q	X	X	TOTAL CROP (010000 TO 090000), including fruit (060000) and vegetables (040000)
10.1	101000	No code	A, Q		X	TOTAL CROP (010000 TO 090000), excluding fruit (060000) and vegetables (040000)
11	110000	ANIMALS	A, Q	X	X	ANIMALS
11.1	111000		A, Q	X	X	Cattle
		A2500				Live cattle
11.1.1	111100	No code	A, Q		X	Cattle excluding calves
11.1.2	111200		A, Q		X	Calves
		A2511				Calves, less than 8 months
11.2	112000		A, Q	X	X	Pigs
		A 3100				Live swine, domestic species
11.3	113000		A, Q	X		Equines
		A 1000				Live horses, asses, mules and hinnies
11.4	114000		A, Q	X	X	Sheep and goats
		A4000				Live sheep and goats
11.5	115000		A, Q	X	X	Poultry
		A5000				Live poultry
11.5.1	115100		A, Q			Chickens
		A5100				Chicken (species)
11.5.9	115900	A5300	A, Q			Other poultry
11.9	119000	A6000	A, Q	X	X	Other animals
12	120000	No code	A, Q	X	X	ANIMAL PRODUCTS
12.1	121000		A, Q	X	X	Milk
		D1100				Milk or Raw milk
12.1.1	121100		A, Q			Cows' milk
		D1110				Raw cows' milk
12.1.9	121900	No code	A, Q			Other milk types
12.2	122000	D8000	A, Q	X	X	Eggs
12.9	129000	No code	A, Q	X	X	Other animal products
13	130000	No code	A, Q	X		TOTAL ANIMAL (110000+120000)
14	140000	No code	A, Q	X		TOTAL AGRICULTURAL GOODS (100000+130000), including fruit (060000) and vegetables (040000)
14.1	141000	No code	A, Q			TOTAL AGRICULTURAL GOODS (101000+130000), excluding fruit (060000) and

Item	API code	SCL code	Fre-quen-cy	EAA	Early esti-mates	Description
						vegetables (040000)

Input 1 – Goods and services currently consumed in agriculture

Item	API code	SCL code	Fre-quen-cy	EAA	Early esti-mates	Description
20	200000	No code	A, Q	19	X	GOODS AND SERVICES CURRENTLY CONSUMED IN AGRICULTURE (INPUT 1)
20.1	201000	SED	A, Q	19.01	X	SEEDS AND PLANTING STOCK
20.2	202000	NRG_LUB	A, Q	19.02	X	ENERGY; LUBRICANTS
20.2.1	202100	NRG_E	A, Q	19.02/1		Electricity
				19.02/2		Gas
				19.02/3		Fuels and propellants, other than gas
20.2.2	202200	NRG_FH	A, Q			Fuels for heating
20.2.3	202300	NRG_FM	A, Q			Motor fuels
				19.02/4		Energy and lubricants, other, other than electricity, fuels and propellants
20.2.4	202400	LUB	A, Q			Lubricants
20.3	203000	FER	A, Q	19.03	X	FERTILISERS AND SOIL IMPROVERS
20.3.1	203100	FER_S	A, Q			Straight fertilisers
20.3.1.1	203110	FER_S_N	A, Q			Nitrogenous fertilisers
20.3.1.2	203120	FER_S_P	A, Q			Phosphatic fertilisers
20.3.1.3	203130	FER_S_K	A, Q			Potassic fertilisers
20.3.2	203200	FER_C	A, Q			Compound fertilisers
20.3.2.1	203210	FER_C_NP	A, Q			NP fertilisers
20.3.2.2	203220	FER_C_PK	A, Q			PK fertilisers
20.3.2.3	203230	FER_C_NPK	A, Q			NPK fertilisers
20.3.9	203900	FER_OTH	A, Q			Other fertilisers, soil improvers
20.4	204000	**No code**	A, Q	19.04	X	PLANT PROTECTION PRODUCTS AND PESTICIDES
20.4.1	204100		A, Q			Fungicides
		PES_F				Fungicides and bactericides
20.4.2	204200		A, Q			Insecticides
		PES_I				Insecticides and acaricides
20.4.3	204300	**No code**	A, Q			Herbicides
20.4.9	204900	ZR99	A, Q			Other plant protection products
20.5	205000		A, Q	19.05	X	VETERINARY EXPENSES
		VET				Veterinary services
20.6	206000	FDS	A, Q	19.06	X	ANIMAL FEEDINGSTUFFS

Item	API code	SCL code	Fre-quen-cy	EAA	Early esti-mates	Description
20.6.1	206100	FDS_S	A, Q			Straight feedingstuffs
20.6.1.1	206110	FDS_S_CM	A, Q			Cereals and milling by-products
20.6.1.2	206120	FDS_S_OC	A, Q			Oilcakes
20.6.1.3	206130	FDS_S_ANI	A, Q			Products of animal origin
20.6.1.9	206190	FDS_S_OTH	A, Q			Other straight feedingstuffs
20.6.2	206200	FDS_C	A, Q			Compound feedingstuffs
20.6.2.1	206210	FDS_C_CAL	A, Q			Compound feedingstuffs for calves
20.6.2.2	206220	FDS_C_CATXCAL	A, Q			Compound feedingstuffs for cattle excluding calves
20.6.2.3	206230	FDS_C_PIG	A, Q			Compound feedingstuffs for pigs
20.6.2.4	206240	FDS_C_PLT	A, Q			Compound feedingstuffs for poultry
20.6.2.9	206290	FDS_C_OTH	A, Q			Other compound feedingstuffs
20.7	207000	No code	A, Q	19.07	X	MAINTENANCE OF MATERIALS
20.8	208000	MNT_BLD	A, Q	19.08	X	MAINTENANCE OF BUILDINGS
20.9	209000	No code	A, Q	19.09-11	X	OTHER GOODS AND SERVICES

Input 2 – Goods and services contributing to agricultural investment

Item	API code	SCL code	Fre-quen-cy	EAA	Early esti-mates	Description
21	210000		A, Q		X	GOODS AND SERVICES CONTRIBUTING TO AGRICULTURAL INVESTMENT (INPUT 2)
21.1	211000		A, Q		X	MATERIALS
		MTL				Material and small tools
21.1.1	211100	MAC	A, Q		X	MACHINERY AND OTHER EQUIPMENT
21.1.1.1	211110	MAC_2WHL	A, Q			Rotovators and other 2 wheel equipment
21.1.1.2	211120		A, Q			Machinery and equipment for cultivation
		MAC_CLT				Machinery and plant for cultivation
21.1.1.3	211130		A, Q			Machinery and equipment for harvesting
		MAC_HVT				Machinery and plant for harvesting
21.1.1.4	211140	MAC_INS	A, Q			Farm machinery and installations
21.1.1.4.1	211141	MAC_INS_CRP	A, Q			Farm machinery and installations for crop production
21.1.1.4.2	211142	MAC_INS_ANI	A, Q			Farm machinery and installations for animal production
21.1.1.4.9	211149	MAC_INS_OTH	A, Q			Other farm machinery and installations
21.1.2	211200	MAC_TSP	A, Q		X	TRANSPORT EQUIPMENT
21.1.2.1	211210	MAC_TSP_TRT	A, Q			Tractors
21.1.2.9	211290	MAC_TSP_OTH	A, Q			Other vehicles
21.2	212000		A, Q	21.2	X	BUILDINGS
		BLD				Buildings and structures
21.2.1	212100	BLD_FRM	A, Q			FARM BUILDINGS (NON-RESIDENTIAL)
21.2.9	212900	No code	A, Q			OTHER WORKS EXCEPT LAND IMPROVEMENTS (OTHER BUILDINGS, STRUCTURES, ETC.)
21.9	219000	No code	A, Q		X	OTHER
22	220000	No code	A, Q		X	INPUT TOTAL (INPUT 1 + INPUT 2)

Annex II – Calculation of the indices

Calculation of the elementary price indices

This presentation focuses on the calculation of a given elementary price index on the basis of various price series, but it should be born in mind that in many countries the elementary price indices themselves are calculated by aggregating the indices of several regions, varieties, types of sources etc. Furthermore, this annex is not meant to give an exhaustive overview of all the techniques employed.

In the case of homogenous products, many countries prefer the ratio of mean prices for compiling price indices for the elementary aggregates. In the case of non-homogenous products, the mean of price relatives is often used. But it is also possible to calculate for a non-homogenous product in a first step indices by variety, quality etc. using the method of ratio of (arithmetic) mean prices, and then to aggregate these indices in order to obtain the elementary index of the product concerned. Many times also the ratio of geometric mean prices is used.

Ratio of mean prices

In principle arithmetic and geometric mean prices may be unweighted or weighted. The ratio of weighted geometric mean prices however is rarely used in this context. The use of weights depends mainly on the availability of appropriate data for the weighting coefficients. It has to be mentioned that in the case of the unweighted means a weighting can be reintroduced by varying the number of recording places in a given region.

(a) ratio of unweighted arithmetic mean prices

$$R_i^t = \frac{\frac{1}{n}\sum_{j=1}^{n} p_{ij}^t}{\frac{1}{n}\sum_{j=1}^{n} p_{ij}^0}$$

(b) ratio of weighted arithmetic mean prices

$$R_i^t = \frac{\sum_{j=1}^{n} p_{ij}^t G_{ij}^0}{\sum_{j=1}^{n} p_{ij}^0 G_{ij}^0}$$

(c) ratio of unweighted geometric mean prices

$$R_i^t = \frac{\left[\prod_{j=1}^{n} p_{ij}^t\right]^{\frac{1}{n}}}{\left[\prod_{j=1}^{n} p_{ij}^0\right]^{\frac{1}{n}}}$$

where R_i^t : elementary price index for the individual products i (or means of production i) in observation period t;

p : collected prices of products (or means of production);

G : weighting coefficient;

i : product i (or means of production i), (i = 1, 2, …k);

j : price j recorded for product i (or means of production i), (j= 1, 2, …n);

t : observation period;

0 : base period.

Mean of price relatives

As in the case of mean prices, the mean of (arithmetic or geometric) price relatives may also be unweighted or weighted. It has to be noted that the unweighted geometric mean of price relatives and the ratio of unweighted geometric mean prices lead to the same results, and one can be derived from the other.

(a) un-weighted arithmetic mean of price relatives

$$R_i^t = \frac{1}{n}\sum_{j=1}^{n}\frac{p_{ij}^t}{p_{ij}^0}$$

(b) weighted arithmetic mean of price relatives

$$R_i^t = \sum_{j=1}^{n}\frac{p_{ij}^t}{p_{ij}^0}\cdot G_{ij}^0$$

Aggregation of products into groups of products

Quarterly and annual product group in the current year (vertical aggregation) are obtained by aggregating the elementary price indices for the component products, which make up these groups using the corresponding quarterly weights from the weighting scheme.

Figure 3 - Example for calculation of the agricultural prices indices

Code	Description	Weighting scheme (unadjusted)					Type of aggregation	Aggregation of indices				
		bbbb	Q1	Q2	Q3	Q4		yyyy	Q1	Q2	Q3	Q4
011000	Wheat and spelt	375,512	0	93,878	187,756	93,878	Horizontal	114.2	-	113.5	110.1	122.9
013000	Barley	196,340	0	68,250	73,625	54,465		121.4	-	129.3	115.0	120.3
010000	**Cereals**	**571,852**	**0**	**162,128**	**261,381**	**148,343**	Vertical	**116.7**	**-**	**120.2**	**111.5**	**121.9**
061100	Dessert apples	662,300	212,167	104,717	46,781	298,635	Horizontal	86.1	81.0	87.3	87.9	89.0
061200	Dessert pears	45,200	2,039	0	15,829	27,332		52.6	60.8	-	56.0	50.0
061900	Other fresh fruits	691,800	1,772	185,079	452,911	52,038		134.4	125.0	130.0	135.0	145.0
060000	**Fruits**	**1,399,300**	**215,978**	**289,796**	**515,521**	**378,005**	Vertical	**108.9**	**81.2**	**114.6**	**128.3**	**93.9**
140000	**Output, total**	**1,971,152**	**215,978**	**451,924**	**776,902**	**526,348**		**111.2**	**81.2**	**116.6**	**122.6**	**101.8**

Simple additions

Original weights

Elementary indices

$$114.2 = \frac{(0.0 \times 0 + 113.5 \times 93{,}878 + 110.1 \times 187{,}756 + 122.9 \times 93{,}878)}{(0 + 93{,}878 + 187{,}756 + 93{,}878)}$$

Aggregations using the weights of the current quarter

$$116.6 = \frac{(120.2 \times 162{,}128 + 114.6 \times 289{,}796)}{(162{,}128 + 289{,}796)}$$

Annual indices drawn from annual absolute price

Where annual indices are derived from sub-quarterly data sources (e.g. monthly), consistency (horizontal aggregation) between quarterly and annual indices should be ensured by adjusting the quarterly indices according to the annual index (see 4.2.4).

In the above example (based on weights for current year), for item 061900 Other fresh fruits, the annual index derived from the weighting scheme (i.e. weights for base year) can be significantly different from 134.4. If the annual index obtained for fresh fruits from another source were 133, the quarterly indices would have to be adjusted afterwards so that their aggregation results in 133. The result would be a series of quarterly indices at 125, 130, 135 and 145 respectively for 1st to 4th quarter instead of 126.3, 131.4, 136.4 and 146.5 as initially reported, as illustrated below.

Code	Description	Weighting scheme (unadjusted)					Type of aggregation	Aggregation of indices				
		bbbb	Q1	Q2	Q3	Q4		yyyy	Q1	Q2	Q3	Q4
Original indices (Eurostat calculation)												
011000	Wheat and spelt	375,512	0	93,878	187,756	93,878	Horizontal	114.2	-	113.5	110.1	122.9
013000	Barley	196,340	0	68,250	73,625	54,465		121.4	-	129.3	115.0	120.3
010000	**Cereals**	**571,852**	**0**	**162,128**	**261,381**	**148,343**	Vertical	**116.7**	-	**120.2**	**111.5**	**121.9**
061100	Dessert apples	652,455	215,224	114,741	58,870	263,620	Horizontal	86.1	81.1	87.4	88.0	89.1
061200	Dessert pears	45,732	1,633	0	18,543	25,556		52.6	60.6	-	55.8	49.8
064900	Other fres fruits	697,291	25,664	267,462	386,129	18,036		134.4	126.3	131.4	136.4	146.5
060000	**Fruits**	**1,395,478**	**242,520**	**382,203**	**463,543**	**307,212**	Vertical	**108.9**	**85.7**	**118.2**	**127.0**	**89.2**
140000	**Output, total**	**1,967,330**	**242,520**	**544,331**	**724,924**	**455,555**		**111.2**	**85.7**	**118.8**	**121.4**	**99.9**
Adjusted indices (annual index from other source)												
011000	Wheat and spelt	375,512	0	93,878	187,756	93,878	Horizontal	114.2	-	113.5	110.1	122.9
013000	Barley	196,340	0	68,250	73,625	54,465		121.4	-	129.3	115.0	120.3
010000	**Cereals**	**571,852**	**0**	**162,128**	**261,381**	**148,343**	Vertical	**116.7**	-	**120.2**	**111.5**	**121.9**
061100	Dessert apples	652,455	215,224	114,741	58,870	263,620	Horizontal	86.1	81.1	87.4	88.0	89.1
061200	Dessert pears	45,732	1,633	0	18,543	25,556		52.6	60.6	-	55.8	49.8
064900	Other fres fruits	697,291	25,664	267,462	386,129	18,036		133.0	125.0	130.0	135.0	145.0
060000	**Fruits**	**1,395,478**	**242,520**	**382,203**	**463,543**	**307,212**	Vertical	**108.4**	**85.6**	**117.2**	**125.9**	**89.1**
140000	**Output, total**	**1,967,330**	**242,520**	**544,331**	**724,924**	**455,555**		**110.8**	**85.6**	**118.1**	**120.7**	**99.8**

Annex III – List of products for Annual Agricultural Absolute Prices

Agricultural products

Group of products	Code	Products
CEREALS	01110000	Soft wheat
	01120000	Durum wheat
	01200000	Rye
	01300000	Barley
	01310000	Feed barley
	01320000	Malting barley
	01400000	Oats
	01500000	Maize
	01600000	Rice
	01910000	Sorghum
	01920000	Triticale
INDUSTRIAL CROPS	02110000	Rape
	02120000	Sunflowers
	02130000	Soya
	02210000	Dried peas
	02220000	Dried beans
	02230000	Broad beans (dry)
	02300000	Raw tobacco: all varieties
	02400000	Sugar beet: unit value
	02911000	Cotton (including seed)
	02920000	Hops: all varieties
	02991000	Lentils
	02992000	Chick peas
FRESH VEGETABLES	04110000	Cauliflowers: all classes
	04121000	Tomatoes in the open: all classes
	04122000	Tomatoes under glass: all classes s
	04191100	White cabbage: all classes
	04191200	Red cabbage: all classes

Agricultural products

Group of products	Code	Products
FRESH VEGETABLES	04191300	Savoy cabbage: all classes
	04192100	Lettuce in the open: all classes
	04192200	Lettuce under glass: all classes
	04193000	Spinach
	04194100	Cucumbers in the open: all classes
	04194200	Cucumbers under glass: all classes
	04195000	Carrots: all classes
	04196000	Onions: all classes
	04197000	Green beans
	04198100	French beans: all classes
	04199000	Green peas: all classes
	04199901	Cultivated mushrooms: all classes
	04199902	Chicory in the open
	04199903	Leeks in the open
	04199904	Capsicum (under glass)
	04199905	Beetroot
	04199906	Garlic
	04199907	Kohlrabi
	04199908	Radish
	04199909	Brussels sprouts: all classes
	04199910	Asparagus: all classes
	04199911	Courgettes
	04199912	Celeriac: all classes
	04199913	Melons
	04199914	Water melons
PLANTS AND FLOWERS	04210000	Roses
	04220000	Carnations
	04230000	Chrysanthemums
	04240000	Gladioli
	04250000	Tulips
	04260000	Freesias

Agricultural products

Group of products	Code	Products
POTATOES	05110000	Early potatoes
	05120000	Main crop potatoes
	05200000	Seed potatoes
	05900000	Other potatoes
FRUIT	06110000	Dessert apples: all varieties
	06120000	Dessert pears: all varieties
	06130000	Peaches: all varieties
	06191100	Cherries: sweet cherries
	06191200	Cherries: sour cherries
	06192000	Plums: all varieties
	06193000	Strawberries: all types of production
	06193100	Strawberries in the open
	06193200	Strawberries under glass
	06194110	Walnuts
	06194120	Hazelnuts
	06194130	Almonds
	06194140	Chestnuts
	06194200	Dried fruit
	06199100	Apricots: all varieties
	06199200	Raspberries
	06199300	Blackcurrents
	06210000	Oranges: all varieties
	06220000	Mandarins: all varieties
	06230000	Lemons: all varieties
	06290000	Other citrus fruit
	06310000	Fresh figs
	06410000	Dessert grapes: all varieties
	06490000	Grapes for wine production
	06510000	Table olives
	06590000	Other olives

Agricultural products

Group of products	Code	Products
WINE	07300000	PDO and PGI
	07310000	PDO
	07320000	PGI
	07800000	Other wines than PDO and PGI
OLIVE OIL	08100000	Extra virgin
	08500000	Virgin
	08400000	Lampante
ANIMALS	11110000	Young cattle
	11111000	Young cattle (store)
	11112000	Heifers
	11112100	Heifers (store)
	11113000	Cows
	11114000	Bullocks
	11120000	Calves
	11121000	Calves (of a few days)
	11122000	Calves (of a few weeks)
	11210000	Pigs (light)
	11220000	Pigs (carcasses) (grade S)
	11230000	Pigs (carcasses) (grade)
	11240000	Piglets
	11300000	Horses
	11410000	Sheep
	11411000	Suckling lambs
	11412000	Fattening lambs
	11420000	Goats
	11421000	Kids
	11510000	Chickens (live, 1st choice)
	11511000	Broiling fowl (slaughtered)
	11591000	Ducks (slaughtered)
	11592000	Turkeys (slaughtered)
	11593000	Geese (slaughtered)
	11910000	Rabbits

Agricultural products

Group of products	Code	Products
ANIMAL PRODUCTS	12111000	Raw cows' milk; 3.7% fat content
	12112000	Raw cows' milk; actual fat content
	12113000	Whole cows' milk for human consumption
	12191000	Raw sheep milk
	12192000	Raw goats' milk
	12200000	Fresh eggs (whole country)
	12910000	Raw wool
	12920000	Honey

Agricultural inputs

Group of products	Code	Products
ELECTRICITY AND FUELS	20210000	Electricity
	20221000	Heating gas oil
	20222000	Residual fuel oil
	20231000	Motor spirit
	20232000	Diesel oil
FERTILISERS AND SOIL IMPROVERS	20311100	Sulphate of ammonia
	20311201	Ammonium nitrate (26% N) (in sacks)
	20311202	Ammonium nitrate (26% N) (in bulk)
	20311301	Ammonium nitrate (33% N) (in sacks)
	20311400	Urea
	20312100	Suphosphate (18% P205)
	20312200	Triple Suphosphate (46% P205)
	20313100	Muriate of potash
	20313200	Sulphate of potash
	20321100	Binary fertilisers: 1 – 1 – 0
	20322100	Binary fertilisers: 0 – 1 – 1
	20322200	Binary fertilisers: 0 – 20 – 20
	20323100	Ternary fertilisers: 1 – 0;5 – 0;5
	20323201	Ternary fertilisers: 1 – 1 – 1 (in sacks)
	20323202	Ternary fertilisers: 1 – 1 – 1 (in bulk)

Agricultural inputs

Group of products	Code	Products
FERTILISERS AND SOIL IMPROVERS	20323301	Ternary Fertilisers: 17 – 17 – 17 (in sacks)
	20323302	Ternary Fertilisers: 17 – 17 – 17 (in bulk)
	20323400	Ternary fertilisers: 1 – 2 – 2
	20323500	Ternary fertilisers: 10 – 20 – 20
	20323600	Ternary fertilisers: 20 – 10 – 10
	20323700	Ternary fertilisers: 1 – 1 – 2
	20323800	Ternary fertilisers: 9 – 9 – 18
ANIMAL FEEDINGSTUFFS	20611100	Feedingstuffs: fodder wheat
	20611200	Feedingstuffs: barley
	20611300	Feedingstuffs: oats
	20611400	Feedingstuffs: maize
	20611500	Feedingstuffs: wheat bran
	20611600	Feedingstuffs: ground barley
	20611700	Feedingstuffs: ground maize
	20612100	Linseed cake (expeller)
	20612200	Toasted extracted soyabean meal
	20613100	Animal meal
	20613200	Fish meal
	20619100	Dried sugar beet pulp
	20619200	Meadow hay
	20619300	Dried lucerne
	20619400	Cereal straw
	20619901	Milk replacer for fattening calves (in bags)
	20619902	Milk replacer for fattening calves (in bulk)
	20621100	Complementary feed for rearing calves
	20622101	Complementary feed for cattle fattening (in bags)
	20622102	Complementary feed for cattle fattening (in bulk)
	20622111	Protein rich compl. feed for cattle fattening (in bags)
	20622112	Protein rich compl. feed for cattle fattening (in bulk)
	20622910	Complementary feed for dairy cattle at grass
	20622921	Complementary feed for dairy cattle (stallfed) (in bags)
	20622922	Complementary feed for dairy cattle (stallfed) (in bulk)

Agricultural inputs

Group of products	Code	Products
ANIMAL FEEDINGSTUFFS	20622931	Protein rich compl. feed for dairy cattle (stallfed) (in bags)
	20622932	Protein rich compl. feed for dairy cattle (stallfed) (in bulk)
	20623101	Complete feed for rearing pigs (in bags)
	20623102	Complete feed for rearing pigs (in bulk)
	20623201	Complete feed for fattening pigs (in bags)
	20623202	Complete feed for fattening pigs (in bulk)
	20623301	Complete feed for sows (in bags)
	20623302	Complete feed for sows (in bulk)
	20624101	Baby chick feed (in bags)
	20624102	Baby chick feed (in bulk)
	20624201	Complete feed for rearing pullet (in bags)
	20624202	Complete feed for rearing pullet (in bulk)
	20624301	Complete feed for battery laying hens (in bags)
	20624302	Complete feed for battery laying hens (in bulk)
	20624501	Complete feed for broiler production (in bags)
	20624502	Complete feed for broiler production (in bulk)

Annex IV – Data transmission

AGRICULTURAL PRICE INDICES

DATA TRANSMISSION with EDAMIS Webform

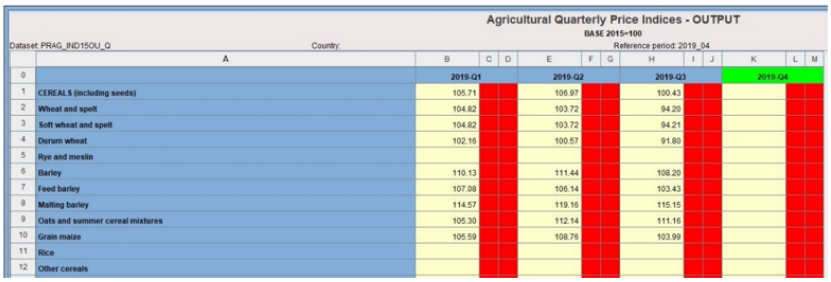
For national staff dealing with transmission of
the agricultural price indices to Eurostat

This fact sheet intends to complement the Edamis Webform user guide for data providers[1], but focusing on the datasets of agricultural price indices, i.e.:

a. The quarterly indices: *PRAG_IND15IN_Q + PRAG_IND15OU_Q*
b. The annual indices: *PRAG_IND15IN_A + PRAG_IND15OU_A*
c. The early estimate indices: *PRAG_FOR15IN_A + PRAG_FOR15OU_A*

1. Transmission of quarterly indices

The Webforms have been designed for reporting the latest quarterly data of a given year. They are pre-filled with the latest information transmitted, i.e. latest data transmitted for the previous period (new quarterly indices) or the latest data transmission for the same reference period (revised quarterly indices). This way of pre-filling is the most user-friendly, in the data providers' opinion. The heading of the reference period is displayed on a flashy green background (Figure 1).



Agricultural Quarterly Price Indices - OUTPUT

BASE 2015=100

Dataset: PRAG_IND15OU_Q Country: Reference period: 2019_04

	A	B	C	D	E	F	G	H	I	J	K	L	M
0		2019-Q1			2019-Q2			2019-Q3			2019-Q4		
1	CEREALS (including seeds)	105.71			106.97			100.43					
2	Wheat and spelt	104.82			103.72			94.20					
3	Soft wheat and spelt	104.82			103.72			94.21					
4	Durum wheat	102.16			100.57			91.80					
5	Rye and meslin												
6	Barley	110.13			111.44			108.20					
7	Feed barley	107.08			106.14			103.43					
8	Malting barley	114.57			119.16			115.15					
9	Oats and summer cereal mixtures	105.30			112.14			111.16					
10	Grain maize	105.59			108.76			103.99					
11	Rice												
12	Other cereals												

Figure 1. Webform for the fourth quarter, just instantiated, before entering any data

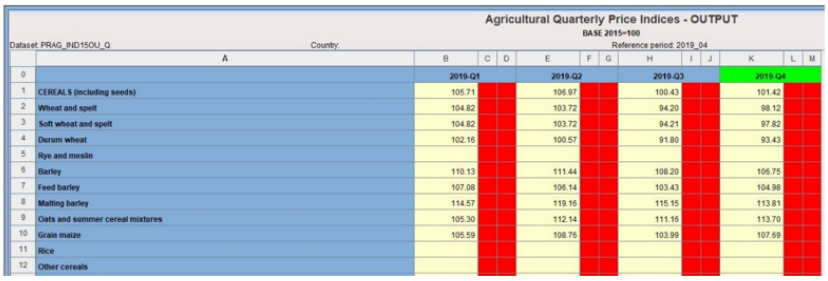
The data provider must fill in the reference period column with the indices, either by entering the values cell by cell or by pasting them from the clipboard (e.g. copy of an Excel table). In the later case, he will be asked (message box) to indicate the decimal and thousand separator that he uses.

Indices from the previous periods are intended to avoid the data provider scale errors, but they can also be used to revise previous data transmissions.

In case there is no revision for the previous quarters, the columns with the pre-filled original data should be left unchanged and the new data will be entered in the empty column. (See Figure 2.)

[1] EDAMIS Web Form user guide for data providers - https://circabc.europa.eu/d/a/workspace/SpacesStore/92d6d870-dc30-447d-bc8b-3420a5508ebd/QUG-02-2014-07-30%20%5bQUG%5d%20(EDAMIS%20Web%20Forms%20for%20data%20providers).pdf

Page **1** of **2**



Agricultural Quarterly Price Indices - OUTPUT

BASE 2015=100

Dataset: PRAG_IND15OU_Q Country: Reference period: 2019_04

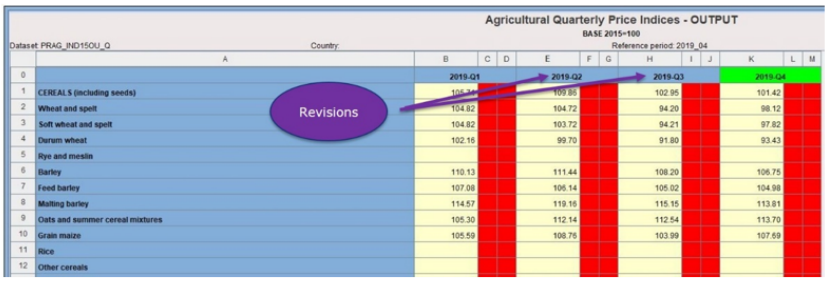
	A	B	C	D	E	F	G	H	I	J	K	L	M
0		2019-Q1			2019-Q2			2019-Q3			2019-Q4		
1	CEREALS (including seeds)	105.71			106.97			100.43			101.42		
2	Wheat and spelt	104.82			103.72			94.20			98.12		
3	Soft wheat and spelt	104.82			103.72			94.21			97.82		
4	Durum wheat	102.16			100.57			91.80			93.43		
5	Rye and meslin												
6	Barley	110.13			111.44			108.20			106.75		
7	Feed barley	107.08			106.14			103.43			104.98		
8	Malting barley	114.57			119.16			115.15			113.81		
9	Oats and summer cereal mixtures	105.30			112.14			111.16			113.70		
10	Grain maize	105.59			108.79			103.99			107.69		
11	Rice												
12	Other cereals												

Figure 2. Webform entry for the fourth quarter

2. Revision of quarterly indices

For clarity of the revisions, Eurostat asks the data senders to revise the quarterly indices of a given year as a new version of the latest quarterly indices transmitted, even if the revision does not concern this period. For instance, if the fourth quarter was already transmitted, revision of the first, second and/or third quarter is expected in a new version of the fourth quarter. By this way, data coherence will be preserved and the latest delivered quarter will reflect the freshest version of all the quarterly indices of this year.

The example below (Figure 3.) shows the way to revise the second and third quarter while keeping the first and fourth quarter unchanged.



Agricultural Quarterly Price Indices - OUTPUT

BASE 2015=100

Dataset: PRAG_IND15OU_Q Country: Reference period: 2019_04

	A	B	C	D	E	F	G	H	I	J	K	L	M
0		2019-Q1			2019-Q2			2019-Q3			2019-Q4		
1	CEREALS (including seeds)	105.71			106.97			102.95			101.42		
2	Wheat and spelt	104.82			104.72			94.20			98.12		
3	Soft wheat and spelt	104.82			103.72			94.21			97.82		
4	Durum wheat	102.16			99.70			91.80			93.43		
5	Rye and meslin												
6	Barley	110.13			111.44			108.20			106.75		
7	Feed barley	107.08			106.14			105.02			104.98		
8	Malting barley	114.57			119.16			115.15			113.81		
9	Oats and summer cereal mixtures	105.30			112.14			112.54			113.70		
10	Grain maize	105.59			108.79			103.99			107.69		
11	Rice												
12	Other cereals												

Figure 3. Webform files with revision of the second and third quarter

3. Confidentiality flags

In EDAMIS, confidential values must be flagged with "C", in the appropriate (red) column. Proper protection of the confidential values, so that no disclosure of individual respondent information is possible, is under responsibility of the Member State. Eurostat is responsible that the values flagged with "C" are not disseminated. For an efficient protection, the flags must be coherent for confidentiality along the time periods (horizontally) and amongst the indices (vertically).

4. Provisional data

Provisional values, i.e. the values intended to be revised later, must be flagged with "P" in the red cell next to the value.

- Coherence between "P" flags at quarterly and annual level is required.
- The provisional data must be updated as soon as the final indices are available.

Bibliography

- Handbook for EU Agricultural Price Statistics 2015

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Cover page picture: European Commission