Handbook for EU Agricultural Price Statistics

Version 2.0

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Foreword

The last consolidated handbook covering both Agricultural Price Indices and Absolute Prices was published in 2002 and was 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 and the latest decisions regarding the collection of annual absolute prices using a reduced list of variables since July 2005.

This handbook dose not covers the statistics of Agricultural Land Prices and Rents.

1. Introduction

a) Aims and structure of the present handbook

1.01 Agriculture is a branch of the European Union's 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 the one hand, and agricultural price indices, on the other.

1.02 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 the 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). But this requires methodological compatibility of all these statistics.

1.03 This handbook covers Eurostat's "EU Agricultural Price Indices (output and input)" and its "Statistics on Absolute Agricultural Prices". The EU Agricultural Price Indices are covered first, followed by the Statistics on Absolute Agricultural Prices. The close link between both parts of Agricultural Price Statistics should not be overlooked: generally, they are based on the same information.

1.04 The statistics on "Unit Values of Agricultural Products" form part of Eurostat's "Economic Accounts for Agriculture (EAA)". Unit values are not prices in the true sense of the term. They are obtained by dividing a value component by the corresponding quantity component. Apart from the "pure" price variations from one year to the other, changes in unit values reflect changes in other characteristics which determine products and can affect these prices. This concerns particularly the physical (variety, calibre, quality etc.) and commercial characteristics (sale conditions etc.). Some methodological remarks to the unit values statistics can be found in the EAA/EAF 97 (Rev.1.1) manual (Chapter VI).

b) Co-operation with Member States

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

1.07 Like some other components of agricultural statistics, 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.

1.08 All questions relating to EU Agricultural Price Indices and Absolute Agricultural Price Statistics are discussed by the Working Group on Agricultural Accounts and Prices (AAP), which normally meets once yearly 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 placed on the agenda of the Standing

Committee for Agricultural Statistics (SCAS), which meets two-three times a year, and on which the Member States are represented by the persons in charge of agricultural statistics as a whole.

Time schedule

1.09 The value of publications on agricultural price statistics depends to a large extent on how fresh the data are. EUROSTAT therefore constantly endeavours to keep them as up-to-date as possible. The following deadlines have been agreed between EUROSTAT and the Member States for the transmission of data on agricultural price statistics:

- Quarterly price indices: 45 days after the end of the reference quarter
- Annual price indices: 60 days after the end of the reference year
- Annual estimates of price indices: 45 days before the end of the reference year
- Annual absolute prices: 60 days after the end of the reference year.

c) Treatment of data

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

Conversion into EURO

1.11 The agricultural prices expressed in national currency are converted into EURO by EUROSTAT using the fixed exchange rates or financial market exchange rates, in order to allow comparisons between the Member States.

Conversion into PPS

1.12 For the purpose of calculating indices for the whole EU, the weighting schemes for the EU Agricultural Price Indices of the individual Member States are converted into Purchasing Power Standards (PPS) by Eurostat. The PPS has been chosen as the common unit as certain EURO exchange rates can, for various reasons, be distorted. This facilitates comparisons taking due account of the differences in the general price level between Member States or in the purchasing power of one national currency as compared to others.

Data storage and dissemination

1.13 Data from Agricultural Price Statistics are stored in the Newcronos free dissemination database. Under PRAG domain of FAME database the price series are created and processed. This database is only accessible for EUROSTAT staff who works on the creation and processing of the data. When ready, data are transferred from FAME to the NewCRONOS database. NewCRONOS can be consulted by the external users free of charge via the Eurostat web site (http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1090,1&_dad=portal&_schema=PORTAL).

2. EU Agricultural Price Indices

2.1 General remarks

2.001 The EU Agricultural Price Indices (output and input) comprise:

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

2.002 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. It is therefore useful to have indicators showing how agricultural revenue and expenditure are influenced by their price component.

2.003 The purpose of the price indices is to provide information on trends in producer prices of agricultural products and purchase prices of the means of agricultural production. They are intended to permit a comparison of these trends both between the various Member States and the European Union as a whole and between the 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. They cannot, however, express differences between the Member States in terms of absolute agricultural price levels

2.004 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 output prices with those in input prices, the field of observation of the latter does not cover, as will be seen later, 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 output products.

2.005 In the majority of Member States, national indices of agricultural prices may differ from the EU Agricultural Price Indices in respect of their base, formula or field of observation.

2.2 Field of observation

2.006 The field of observation for a price index covers all the goods and services for which it is desired to measure the price trends. However, there are several concepts which can be distinguished, and these concepts are characterised by a different coverage of agricultural products.

2.007 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.

2.008 When an agricultural price index covers only transactions between the agricultural and other economic sectors, treating the whole agricultural sector as a single holding, the coverage is that of the *national farm*. When also those products sold within the agricultural sector are covered, the concept corresponds to that of an *average farm*. For certain products, the distinction is an important one. Thus, for example, in the former case, sales of cereals as animal feed to other farmers will not be included (though sales of cereals to manufacturers of animal feedingstuffs will be included), whereas in the latter case all sales made by farmers will be included.

2.009 The index of producer prices of agricultural products (output index) is based on the **sales** of the agricultural products, and the input index is based on the **purchases** of the means of agricultural production by the agricultural producers (farm gate prices). In the EAA methodology, and so in Agricultural Price Statistics, the sales concept is extended and includes also sales/purchases of agricultural output between agricultural units (farms) for intermediate consumption purposes, excluding however trade in animals between agricultural units. In contrast to Agricultural Price Indices, the EAA also includes the intra-unit production and consumption of animal feeding stuffs.

Limitation on the field of observation

2.010 A limitation on the field of observation of the index of purchase prices of the means of agricultural production results from the exclusion of the service part of insurance premiums. In contrast these premiums are covered in agricultural accounts.

2.011 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.

Geographical coverage

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

2.3 Structure of the indices

2.013 The general structure of the EU output 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 1.i. However, a number of additional points should also be noted:

Selection of representative price series by Member States

2.014 As the structure of production varies from one country to another, it was left to the discretion of the Member States which representative price series should appear in the subgroup in their own case.

Different coverage of the item *Other products*

2.015 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.

Combined input index

2.016 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 price of Goods and services contributing to agricultural investment (input II).

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

Nomenclature

2.018 The nomenclature applied in the Agricultural Price Indices is harmonised to the greatest possible extend with the nomenclature of EAA. However, it should be noted that few deviations between the two systems exist (agricultural services, FISIM etc.).

2.4 Weighting scheme

a) General remarks

2.019 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.

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

2.021 As the coverage of the EU Agricultural Price Indices are sales and purchases the weights consequently relate to these, and not to production of agricultural products and consumption of the means of agricultural production[1].

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

b) Seasonality

2.023 Seasonality is defined as the expression of the seasonal nature of the agricultural output 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 in principle should be applied by all the Member States for fresh fruits, vegetables and potatoes but it is allowed and recommended for all output 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).

c) Output price index

2.024 The value weight attached to each elementary index in the output index is equal to the value of the sales of this product (exclusive of VAT) over the base period. These figures are derived from the

[1] It has to be taken into account that this choice makes the indices less relevant as a guide to changes in the values of outputs and inputs, and hence to changes in incomes.

Economic Accounts for Agriculture. This kind of weighting scheme differs substantially from a scheme based on values of total agricultural output. The two systems would be identical only if the proportion of sales to other sectors in total output were the same for all products.

2.025 Under the EAA, output is valued at the basic price, which is defined as the price received by the producer after deduction of any taxes or levies on the products and including any subsidies on products. However, practical difficulties arise with the use of the basic price concept for the calculation of the price indices, especially 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). The market price 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[2].

2.026 In the framework of the EU Agricultural Price Indices (output), the value of sales should:

- **include** the value of production sold to dealers;
- **include** the value of direct sales by farmers of crop products made to other agricultural units;
- **include** the value of direct sales by farmers on the domestic market;
- **include** the value of direct sales by farmers abroad (direct exports);
- **include** the value of products processed on the farm, which, except in the case of *olive oil* and *grape must* or *wine*[3], must be calculated on the basis of the quantities and prices of the raw materials from which they are made;
- **include** the value of product related levies/taxes (other than deductible VAT).
- **exclude** the value of any monetary compensation received by farmers in respect of the destruction of given quantities of products;
- **exclude** the value of subsidies on products which farmers might have received;
- **exclude** the value of consumption of own produce on agricultural holdings;
- **exclude** the value of products sold from private, non-agricultural gardens[4];
- **exclude** the value of changes in stock;

2.027 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 regarded as negligible[5] .

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2 The treatment of taxes, levies and subsidies is also considered in paragraphs 2.024, 2.027 and 2.079 to 2.080.

3 It should be noted, that, 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.

4 It should be noted that 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

5 Animal imports are in many cases of very 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.

d) Input price index

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

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

2.030 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.

2.031 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.

2.5 Type of index and calculation

2.032 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[6].

2.033 The EU Agricultural Price Indices are calculated for each Member State on the basis of the Laspeyres formula[7]. 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:

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

where I : index (output 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.

6 See also Section 2.6: *Base period*.

7 Following a decision by the Conference of the Directors-General of the National Statistical Institutes of the Community countries, Fisher indices are preferred to be used for prices, volumes and values. Nevertheless, the use of Laspeyres indices is acceptable for practical reasons, as long as the period between two rebasements is not too long. As the EU Agricultural Price Indices (output and input) are rebased every 5 years, this criterion is considered as being met.

2.034 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.

2.035 Replacing $\frac{p_i^t}{p_i^0}$ by R_i^t in the formula set out in paragraph 2.033, one obtains the following formula:

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

with R_i^t being the elementary price index for the individual product i (or means of production i) in 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.

2.036 There are several possibilities for the calculation of the elementary price indices. The choice of the appropriate method depends essentially on the data available and on the degree of homogeneity of the products or means of production for which prices are recorded. As these circumstances might differ from one Member State to the other, a given elementary price index can be calculated using different methods. The most important of these methods are presented in Annex 2.

Relation between quarterly and annual indices, treatment of complementary payments

2.037 The indices are calculated on a quarterly and 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.

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

2.038 The elementary price of a product should ideally be the weighted mean of the elementary prices of the varieties of the product. Usually the weights are the quantities sold (or purchased in the case of input products). In any case the calculation of the elementary prices will depend on the availability of appropriate data for the weighting coefficients (see Annex 2 of the Handbook for detailed information).

2.039 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.

2.040 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.

2.041 The annual indices can be obtained in two ways: (i) either as a simple or weighted[8] arithmetic mean of the corresponding quarterly 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 output indices, simple arithmetic mean - as a rule - for the input indices).

2.042 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.

Calculation of indices for the EU as a whole

2.043 For the calculation of EU Agricultural Price Indices for the European Union as a whole, the three steps procedure is followed:

- Estimation of the API for the European Monetary Union (EMU) with the national weights
- Conversion of the EMU weight and weights of the non-EMU Member States into Purchasing Power Standards (PPS)
- Calculation of the API for EU with the PPS weights

The PPS are used in order to compensate for distortions resulting from differing price levels in the Member States.

Treatment of seasonal discontinuity of output price series

2.044 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 fictious prices of non-existing products can be avoided. On the other hand, the weighting scheme is different from quarter to quarter. As a consequence, quarterly price indices are only comparable between the corresponding quarters of different years.

Treatment of missing observations

2.045 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) to impute price changes on the basis of prices recorded on other markets for the same product.

[8] In the case of weighted averages, the weights are sales values calculated on the basis of the quarterly sales volumes and average base year prices.

Seasonal adjustment

2.046 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.

2.047 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 3.

2.6 Base period

2.048 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. Furthermore, the term base year is also used when it is referred to the year for which the index is fixed at level 100.

Base period for weighting and base prices[9]

2.049 As outlined in the previous Section 2.5 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[10]. 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 quantity figures for the calculation of the value weights in some cases are 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.

Five-yearly rebasing

2.050 The Conference of the Directors-General of the National Statistical Institutes of the Community decided that the base for the agricultural indices would be changed every five years with effect from 1970. So a rebasing is done for the years ending in "0" and in "5". The indices in a recent base year should be available every five years in the third year following these base years (i.e. years ending in "3" or "8").

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9 Attention has to be given not to mix up the terms *base price* and *basic price* (what is a particular problem for the French readers because in French both terms in principle are translated as *"prix de base"*; to avoid confusion, the term *base price* has been replaced by *base period price* in the French version of this handbook). 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 price statistics.

10 The choice of the base period is thus of particular importance. The index should therefore in principle be constructed with reference to a period when the structure of the agricultural transactions involved is more or less normal. In other words, the base period for a Laspeyres-type index should ideally not be one in which the bulk of transactions in important products took place at abnormal levels of volume or price. Given the substantial differences in production conditions from one country to another, selecting a common base year is quite a problem. For instance, with a view to harmonising the different statistics and facilitating subsequent economic analyses, it may be decided that a particular year will be taken as the base period not only for the indices of agricultural prices but also for other indicators for which the requirements regarding the base period may differ considerably. As part of this effort to harmonise, the base period may even be chosen before its main features regarding agriculture are known.

2.051 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 which have taken place in the last few years in the structure of European agricultural production and in production techniques;

(ii) update of the data used in order to account for changes in the markets; improvement of harmonisation of the concepts and calculation methods used in the Member States.

2.7 Definition of the prices

a) Choice of representative products and considerations related to price formation

2.052 For each index heading[11], a representative product must be selected whose price is to be monitored. The choice of these representative products is in 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).

2.053 Differences in prices which 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 price determining characteristic, 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 output and input price indices. For industrial products (input) these changes are relatively frequent and major, and often represent an improvement in quality.

2.054 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.

2.055 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 output 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.

Treatment of quality changes and product replacement

2.056 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 means of production is selected there may be an associated change in quality or other price determining characteristics. This problem may be dealt with in several ways though, in the following, only the most important practices will be outlined.

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

2.057 Concerning the output 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 adjusted to allow for the change in quality. Also changes in other price determining characteristics (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.

2.058 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.

2.059 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 in parallel 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 into 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.

2.060 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.

b) Marketing stage

2.061 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. 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.

2.062 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.

2.063 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 great 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.

2.064 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).

2.065 Further to what has been said above, it should be recognised that a considerable amount of information on the prices at which agricultural products are sold 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 utilise, relying instead on information collected and processed by others. However they 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. A brief guide to these is therefore provided below.

Product price monitoring at the producer stage

2.066 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.

Direct sales by producers

2.067 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 produce marketed in these ways are, in principle, directly observable though the mechanisms for their observation and recording are not likely to permit comprehensive recording through time and across space.

2.068 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 take 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 that actually received by the farmer.

Records of transactions

2.069 In some instances 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.

(a.3) ***Administered prices***

2.070 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 recent years. There are, however, in some countries and for some products inter-professional agreements covering certain sectors like champagne, starch potatoes or ewe's milk.

Enquiries to bodies collecting or purchasing the produce

2.071 In the case of some products all, or virtually all, of the production is collected by or sold to a single organisation or group of organisations, from which information on the prices paid to farmers can be obtained. These bodies may perhaps be producer co-operatives or first-hand processors of agricultural produce. An example of the collection of product price information collected in this way is provided by that of milk in the United Kingdom. Until 1994, virtually all milk marketed in the UK had to be sold to one of five statutory marketing boards. These have now 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 produce has been obtained from the purchasers of the milk.

Product price monitoring at intermediate stages

2.072 In the course of their production and distribution, goods normally pass through a number of stages between that of 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 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, though, as each becomes successively further removed from the farm-gate, the degree of adjustment needed to derive farm-gate prices becomes ever greater.

Price monitoring at the despatch and transportation stages

2.073 The despatch point is that at which produce collected directly by merchants from producers leave the locality 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 which these enquiries might take will depend upon the precise details of the distribution system.

Survey of prices at necessary stages in the distribution and processing chain

2.074 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.

Prices on wholesale markets and for produce sold on contract

2.075 It is also possible to utilise 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 be representative of the totality of production or of the spread of prices received for that production.

2.076 In particular, with the increasing development and use of direct contract arrangements between agricultural producers, on the 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 and this greater certainty to the parties to the contracts is reflected in greater volatility in the wholesale markets which consequently serve as residual markets.

2.077 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.

Prices paid for the means of production

2.078 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.

c) Treatment of taxes, levies and subsidies

2.079 Under the market price concept (see paragraph 2.025) 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.

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

Value-added tax

2.081 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.

2.082 The EU indices of agricultural prices (output and input) 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[12].

2.083 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.

2.8 Nominal and deflated indices

2.084 The procedures for constructing the indices at differing levels of aggregation, across products and means of production, for each Member State and for the European Union as a whole are described in paragraphs 2.043 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.

2.085 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.

2.086 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.

2.087 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

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[12] Various taxation procedures are used for VAT 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 of the 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.

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.

2.088 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, which 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.

2.089 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.

2.9 Estimates of the EU Agricultural Price Indices

2.090 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.

2.091 Eurostat therefore requires Member States to provide estimates of the output and input indices for the current year as a whole, 45 days before the end of the reference year (see paragraph 1.09).

2.092 The methodology for the production of these estimates is not harmonised across Member States nor usually discussed in detail by the Working Group on Agricultural Accounts and Prices, though that group does examine comparisons between the estimates made and the actual outturns. One reason for this lack of harmonisation 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, depending on the composition of the crops being produced, the normal climatic conditions and the weather in the particular year. Moreover the extent to which the different Member States have up-to-date information on actual prices may differ to some extent, thus affecting the length of the remainder of the year for which estimates are required in order to generate the figures for the year as a whole. However although no particular methodology is stipulated or even advised it may be useful to offer some guidance as to the range and choice of methodologies which Member States may choose to adopt.

2.093 Given that only a single estimate figure is required for each of the specified indices and that this is to cover the year as a whole, considerable use can be made of the actual values of the indices for the period of the year for which they have been compiled and also of any more recent price information which may not yet be compiled into a particular period index. Indeed these may together span a large part of the year up to the point in time at which the estimates are produced.

2.094 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 estimates for the remaining periods of the year, and thus the year as a whole, from the starting point of the latest available figures for the indices or prices. Although there will inevitably be some movement from these over the remainder of the year this movement may not be very great and may, at least to some extent, be predictable on the basis of past patterns of change or knowledge of factors which are likely to affect the prices over the remaining periods of the year. Similar considerations apply to the generation of the estimates for most of the means of production.

2.095 There are often steep jumps in the prices of crop products between marketing years and these tend to coincide closely with the time at which the estimates are required, thus making the generation of the estimates more difficult. It may however be possible to utilise early indications of the scale of the harvest, or of the prices resulting from it, or to make predictions of the harvest — and then of prices — from knowledge of the scale of plantings and of the planting, growing and harvesting conditions. In any case the greater degree of trade between Member States and other countries and developments in technology (e.g. less susceptibility to drought) and in food tastes (e.g. less dependence on particular products) all mean that price fluctuations between years may not be as great as they once were.

2.096 There are a wide range of methods by which estimates of a price or of an index may be generated from its current and past values and knowledge of the factors which may affect its future values. These include ones based solely on its own 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. Other methods include econometric ones in which the index may be related to one or more possible determining variables, knowledge of which may assist in its forecasting.

2.097 However modern methodologies tend to combine the best of these approaches though the degree of sophistication involved may not be necessary or warranted for each of the separate indices for which forecasts are required. Use may also be made of expert knowledge if this is available, though it is good practice to subject estimates produced from this to the same critical appraisal as would be applied in respect of more sophisticated methodologies. Sometimes indications may be provided by particular market mechanisms, for example the prices set on futures markets may be used for the commodities for which such markets exist.

2.098 It may in fact be desirable to draw on a number of methodologies, perhaps running them in parallel so as to compare their actual forecasting performance. Whether or not this is done it is likely that the methodology used to generate the forecasts is likely to change through time in the light of evolving experience about their reliability. This is not in itself a cause for concern, indeed it may be indicative of the importance given to the generation of the estimates, but it is desirable to record the basis for the estimates made, particularly when there is a substantial change in the methodology employed. Similarly the estimates made should be compared with the outturns and the differences analysed, as part of a feedback process in the development of the estimation methodology. However outturns are often affected by some factors which could not have been predicted at the time the estimates were made and that estimation will consequently never be perfect.

2.10 Analysis: Terms of Trade

2.099 Section 2.8 explained how the rates of change shown by the agricultural price indices may be adjusted, to allow for the general rate of inflation in each Member State, so as to make comparisons between Member States and across the EU more meaningful. One form of comparison which may be considered particularly important, and useful in analysing the changing economic position of the industry, is that between the rates of change in the output and input indices.

2.100 This is because the relative movements in these (or the difference between them) are likely to be indicative, at least to some extent, of changes in gross value added, to which the various measures of agricultural incomes are closely related. This is despite the fact that there are several substantial differences between the coverage of the price indices and the aggregate economic accounts for agriculture which make the relationship between the two sets of statistics less close than they might otherwise be.

2.101 Two factors make information on price changes of particular use as a guide to parallel changes in income. The first is that the price indices are available more frequently (i.e. for quarters) than is information on the industry's aggregate incomes or the volumes of its outputs and inputs (much of which is only available annually). The second is that (due to the relative price inelasticity of demand for many agricultural products) changes in prices, and especially output prices, are often of greater numerical importance, than changes in quantities (which they may reflect), in determining changes in gross value added and hence incomes. However is should be noted that the price changes may be more volatile than the associated changes in value since, for example, large price increases for outputs are likely to reflect low levels of production and large price increases for inputs may induce reductions in input usage.

2.102 Eurostat consequently calculates measures which provide direct comparisons of changes in agricultural output and input prices and includes these in the Eurostat's publication which presents the indices. The form of measure which is used by Eurostat is the percentage change in the ratio of the output and input price indices between the most recent quarter (i.e. that being reported upon) and the corresponding quarter of the previous year. This calculation is made on the basis of indices expressed in real terms (i.e. after deflation for the general rate of inflation) and with the input index covering both the goods and services consumed in agriculture and those contributing to agricultural investment.

2.103 It will be seen that this measure indicates the change in the purchasing power of agricultural outputs and inputs expressed in terms of each other. For this reason the measure is entitled the terms of trade[13], which expression in this context, refers to those between agriculture and the rest of the economy (for a given territorial coverage) rather than to comparisons between countries.

2.104 Prior to 1993 Eurostat compared the changes in the output and input price indices using the net price effect. This was based on a weighted average (arithmetic mean) of the changes in the output and input indices, with the lesser weight (reflecting the initial ratio of the value of input to that of output) being given to the change in the input price index. This formula thus indicated the net effect of the price changes on the change in value added. The changes used in this calculation were those in the quarterly indices of outputs and inputs, each expressed in real terms, over the preceding year and the weights related to the latest year for which accounts data were available. For more details see Lund[14]

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13 Sometimes also the term "price scissors" is used.

14 Lund, P.J.: *The Combination of Agricultural Output and Input Price Indices*, Journal of Agricultural Economics, September 1994.

3. Statistics of Absolute Agricultural Prices

3.1. Objectives of the Statistics of Absolute Agricultural Prices

3.01 Whilst the purpose of agricultural price indices is to reveal trends in the prices of individual agricultural products or product groups, the purpose of the Statistics of Absolute Agricultural Prices 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.

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

3.03 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 the prices can still reflect methodological differences (for example different form of commercialisation of the product concerned) and not 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[15].

3.04 The Member States provide EUROSTAT with annual price series. The general structure of the EU output and input absolute prices, i.e. the list of products for which absolute prices should be provided, is shown in Annex 4.

3.2. Definition of the prices

a) Remarks on the comparability of products and means of production

3.05 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 they should be the same for all the prices collected in individual countries.

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

[15] See Section 3.4

b) Marketing stage and marketing conditions

Marketing stage

3.07 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 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

3.08 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 costs of transport 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 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.

3.09 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.

c) Rules for handling taxes, levies and subsidies

3.10 Under the market price concept (see paragraph 2.025, which has been adopted for both agricultural price indices and absolute agricultural prices, 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 taxes or levies (except deductible VAT; see below) and without the addition of subsidies.

The treatment of taxes, levies and subsidies in the agricultural price statistics is the same as their treatment in the economic accounts for agriculture. Further detail may be found in the Regulation No 138/2004 on the economic accounts for agriculture.

Value added tax

3.11 As VAT rates should be established so as not to affect income, EUROSTAT in principle records prices net of VAT. However this applies only to "deductible" VAT. The VAT paid when purchasing means of production is not refunded or compensated for all products and in all countries. This "non-deductible" or "non-reimbursable" VAT, which is paid, , is not deducted from prices[16].

3.3. Product selection

3.12 As outlined above, absolute agricultural prices are often used for economic analyses and in particular for agricultural income analyses. It is therefore evident 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

[16] For more detailed explanations on this subject see paragraphs 2.088-2.092.

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.

3.13 The criteria for product selection are not always compatible. The criterion of comparability for example requires that the products to be compared are identical (in terms of product definition and price-determining characteristics). 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 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.

3.14 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.

3.4. Target definitions for the products selected

a) General remarks on the target definitions

3.15 On the basis of the explanations given for the definition of prices (Section 3.2), 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.

b) Target definitions

3.16 In general the target definitions may be divided in two parts: one part which is more or less product/means of production-specific and another part which is common to at least one group of products or means of production (allowing for possible exceptions). The target definitions are presented in Annex 5[17] of this handbook.

Common part

3.17 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

[17] Annex 5: "*Target definitions of characteristics determining prices as the basis for selecting series of absolute selling prices of crop products, animals and animal products and of purchase prices of means of agricultural production*".

3.18 As outlined in Section 3.2 b) selling prices for products have to be recorded at the first marketing stage excluding transport: “prices from producer to the trade, ex-farm”. 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 olive oil- and 100 items for eggs. As described in Section 3.2 c), the prices have to be recorded net of VAT (with the exception of “non-deductible” or “non-reimbursable” VAT).

Product-specific part

3.19 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 gives 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

Annex 1 — Structure of the EU agricultural price indices Output and Input

Item	API code	Frequency	Description
1. Output			
01	**010000**	A, Q	**CEREALS (including seeds)**
01.1	011000	A, Q	Wheat and spelt
01.1.1	011100	A, Q	Soft wheat and spelt
01.1.2	011200	A, Q	Durum wheat
01.2	012000	A, Q	Rye and meslin
01.3	013000	A, Q	Barley
01.3.1	013100	A, Q	Feed barley
01.3.2	013200	A, Q	Malting barley
01.4	014000	A, Q	Oats and summer cereal mixtures
01.5	015000	A, Q	Grain maize
01.6	016000	A, Q	Rice
01.9	019000	A, Q	Other cereals
02	**020000**	A, Q	**INDUSTRIAL CROPS**
02.1	021000	A, Q	Oil seeds and oleaginous fruit (including seeds)
02.1.1	021100	A, Q	Rape and turnip rape seed
02.1.2	021200	A, Q	Sunflower
02.1.3	021300	A, Q	Soya
02.1.9	021900	A, Q	Other oleaginous products
02.2	022000	A, Q	Protein crops (including seeds)
02.3	023000	A, Q	Raw tobacco
02.4	024000	A, Q	Sugar beet
02.9	029000	A, Q	Other industrial crops
02.9.1	029100	A	Fibre plants
02.9.2	029200	A	Hops
02.9.9	029900	A	Other industrial crops: others
03	**030000**	A, Q	**FORAGE PLANTS**
03.1	031000	A, Q	Fodder maize
03.2	032000	A, Q	Fodder root crops (including forage beet)
03.9	039000	A, Q	Other forage plants
03.9.1	039100	A	Hay
03.9.2	039200	A	Straw
03.9.3	039300	A	Silage
03.9.9	039900	A	Other forage plants: others

Item	API code	Frequency	Description
04	**040000**	A, Q	**VEGETABLES AND HORTICULTURAL PRODUCTS**
04.1	041000	A, Q	Fresh vegetables
04.1.1	041100	A, Q	Cauliflower
04.1.2	041200	A, Q	Tomatoes
04.1.9	041900	A, Q	Other fresh vegetables
04.1.9.1	041910	A	Cabbage
04.1.9.2	041920	A	Lettuce
04.1.9.3	041930	A	Spinach
04.1.9.4	041940	A	Cucumbers
04.1.9.5	041950	A	Carrots
04.1.9.6	041960	A	Onions
04.1.9.7	041970	A	Green beans
04.1.9.8	041980	A	Pulses
04.1.9.9	041990	A	Peas
04.1.9.9.9	041999	A	Other fresh vegetables: other
04.2	042000	A, Q	Plants and flowers
05	**050000**	A, Q	**POTATOES (including seeds)**
05.1	051000	A, Q	Potatoes for consumption
05.1.1	051100	A, Q	Early potatoes
05.1.2	051200	A, Q	Main crop potatoes
05.2	052000	A, Q	Seed potatoes
05.9	059000	A, Q	Other potatoes
06	**060000**	A, Q	**FRUIT**
06.1	061000	A, Q	Fresh fruit
06.1.1	061100	A, Q	Dessert apples
06.1.2	061200	A, Q	Dessert pears
06.1.3	061300	A, Q	Peaches
06.1.9	061900	A, Q	Other fresh fruit
06.1.9.1	061910	A	Cherries
06.1.9.2	061920	A	Plums
06.1.9.3	061930	A	Strawberries
06.1.9.4	061940	A	Nuts and dried fruit
06.1.9.4.1	061941	A	Nuts
06.1.9.4.2	061942	A	Dried fruit
06.1.9.9	061990	A	Other fresh fruit: other

Item	API code	Frequency	Description
06.2	062000	A, Q	Citrus fruit
06.2.1	062100	A	Sweet oranges
06.2.2	062200	A	Mandarins
06.2.3	062300	A	Lemons
06.2.9	062900	A	Other citrus fruit
06.3	063000	A, Q	Tropical fruit
06.4	064000	A, Q	Grapes
06.4.1	064100	A	Dessert grapes
06.4.9	064900	A	Other grapes, fresh
06.5	065000	A, Q	Olives
06.5.1	065100	A	Table olives
06.5.9	065900	A	Other olives
07	**070000**	A, Q	**WINE**
07.1	071000	A, Q	Table wine
07.1.1	071100	A	“Vin de pays” or “Vinho regional” or “Vino de la tierra”
07.1.9	071900	A	Other table wine
07.2	072000	A, Q	Quality wine
07.9	079000	A, Q	Other wine
08	**080000**	A, Q	**OLIVE OIL**
09	**090000**	A, Q	**OTHER CROP PRODUCTS**
09.1	091000	A, Q	Vegetable materials used primarily for plaiting
09.2	092000	A, Q	Seeds
09.9	099000	A, Q	Other crop products: others
10	**100000**	A, Q	**CROP OUTPUT (010000 TO 090000), including fruit (060000) and vegetables (040000)**
10.1	**101000**	A, Q	**CROP OUTPUT (010000 TO 090000), excluding fruit (060000) and vegetables (040000)**
11	**110000**	A, Q	**ANIMALS**
11.1	111000	A, Q	Cattle
11.1.1	111100	A, Q	Cattle excluding calves
11.1.2	111200	A, Q	Calves
11.2	112000	A, Q	Pigs
11.3	113000	A, Q	Equines
11.4	114000	A, Q	Sheep and goats
11.5	115000	A, Q	Poultry

11.5.1	115100	A, Q	Chickens
Item	**API code**	**Frequency**	**Description**
11.5.9	115900	A, Q	Other poultry
11.9	119000	A, Q	Other animals
12	**120000**	A, Q	**ANIMAL PRODUCTS**
12.1	121000	A, Q	Milk
12.1.1	121100	A, Q	Cows' milk
12.1.9	121900	A, Q	Other milk types
12.2	122000	A, Q	Eggs
12.9	129000	A, Q	Other animal products
13	**130000**	A, Q	**ANIMAL OUTPUT (110000+120000)**
14	**140000**	A, Q	**AGRICULTURAL GOODS OUTPUT (100000+130000), including fruit (060000) and vegetables (040000)**
14.1	**141000**	A, Q	**AGRICULTURAL GOODS OUTPUT (101000+130000), excluding fruit (060000) and vegetables (040000)**
2. Input 1 (Goods and services currently consumed in agriculture)			
20	**200000**	A, Q	**GOODS AND SERVICES CURRENTLY CONSUMED IN AGRICULTURE (INPUT 1)**
20.1	201000	A, Q	SEEDS AND PLANTING STOCK
20.2	202000	A, Q	ENERGY; LUBRICANTS
20.2.1	202100	A, Q	Electricity
20.2.2	202200	A, Q	Fuels for heating
20.2.3	202300	A, Q	Motor fuels
20.2.4	202400	A, Q	Lubricants
20.3	203000	A, Q	FERTILISERS AND SOIL IMPROVERS
20.3.1	203100	A, Q	Straight fertilisers
20.3.1.1	203110	A, Q	Nitrogenous fertilisers
20.3.1.2	203120	A, Q	Phosphatic fertilisers
20.3.1.3	203130	A, Q	Potassic fertilisers
20.3.2	203200	A, Q	Compound fertilisers
20.3.2.1	203210	A, Q	NP fertilisers
20.3.2.2	203220	A, Q	PK fertilisers
20.3.2.3	203230	A, Q	NPK fertilisers
20.3.9	203900	A, Q	Other fertilisers, soil improvers
20.4	204000	A, Q	PLANT PROTECTION PRODUCTS AND PESTICIDES
20.4.1	204100	A, Q	Fungicides
20.4.2	204200	A, Q	Insecticides

Item	API code	Frequency	Description
20.4.3	204300	A, Q	Herbicides
20.4.9	204900	A, Q	Other plant protection products
20.5	205000	A, Q	VETERINARY EXPENSES
20.6	206000	A, Q	ANIMAL FEEDINGSTUFFS
20.6.1	206100	A, Q	Straight feeding stuffs
20.6.1.1	206110	A, Q	Cereals and milling by-products
20.6.1.2	206120	A, Q	Oilcakes
20.6.1.3	206130	A, Q	Products of animal origin
20.6.1.9	206190	A, Q	Other straight feeding stuffs
20.6.2	206200	A, Q	Compound feeding stuffs
20.6.2.1	206210	A, Q	Compound feeding stuffs for calves
20.6.2.2	206220	A, Q	Compound feeding stuffs for cattle excluding calves
20.6.2.3	206230	A, Q	Compound feeding stuffs for pigs
20.6.2.4	206240	A, Q	Compound feeding stuffs for poultry
20.6.2.9	206290	A, Q	Other compound feeding stuffs
20.7	207000	A, Q	MAINTENANCE OF MATERIALS
20.8	208000	A, Q	MAINTENANCE OF BUILDINGS
20.9	209000	A, Q	OTHER GOODS AND SERVICES

3. Input 2 (Goods and services contributing to agricultural investment)

Item	API code	Frequency	Description
21	**210000**	A, Q	**GOODS AND SERVICES CONTRIBUTING TO AGRICULTURAL INVESTMENT (INPUT 2)**
21.1	211000	A, Q	MATERIALS
21.1.1	211100	A, Q	MACHINERY AND OTHER EQUIPMENT
21.1.1.1	211110	A, Q	Rotovators and other 2 wheel equipment
21.1.1.2	211120	A, Q	Machinery and plant for cultivation
21.1.1.3	211130	A, Q	Machinery and plant for harvesting
21.1.1.4	211140	A, Q	Farm machinery and installations
21.1.1.4.1	211141	A, Q	Farm machinery and installations for crop production
21.1.1.4.2	211142	A, Q	Farm machinery and installations for animal production
21.1.1.4.9	211149	A, Q	Other farm machinery and installations
21.1.2	211200	A, Q	TRANSPORT EQUIPMENT
21.1.2.1	211210	A, Q	Tractors
21.1.2.9	211290	A, Q	Other vehicles

Item	API code	Frequency	Description
21.2	212000	A, Q	BUILDINGS
21.2.1	212100	A, Q	FARM BUILDINGS (NON-RESIDENTIAL)
21.2.9	212900	A, Q	OTHER WORKS EXCEPT LAND IMPROVEMENTS (OTHER BUILDINGS, STRUCTURES, ETC.)
21.9	219000	A, Q	OTHER
22	220000	A, Q	**INPUT TOTAL (INPUT 1 + INPUT 2)**

Annex 2 — Calculation of the elementary 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

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

Annex 3 — Example of the calculation method of the Agricultural Price Indices

Example of the calculation method of the Agricultural Price Indices

Preliminary remarks

The calculation method described below is made using only fresh fruits and cereals as the example, but it is applicable for all agricultural products (output and input)

In the example, the index is calculated for each quarter of a given year (yyyy) and for the year as a whole.

Weighting scheme

Step 1: The quarterly value weights should reflect the actual distribution of the quarterly sales quantities in the base period, allowing seasonality for all output products (crop and animal). The quarterly value weights are calculated by multiplying the quarterly sales quantities and the annual average price of the base year. The input products are considered to be non-seasonal products and therefore should have an equal distribution of the annual value weight in all quarters (25% of the annual value weight in each quarter). The quarterly weight for each product will be obtained by calculating the quantities sold during the corresponding quarter of the base period at the annual average base price of the product.

Step 2: The sum of the quarterly weights is always equal to the annual weight (horizontal aggregation), at every level of aggregation (product and group level)

Step 3: The sum of product weights is always equal to the weight of the product group (vertical aggregation) quarterly and annually.

Calculation of elementary indices

Step 4: 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.

Aggregation of indices

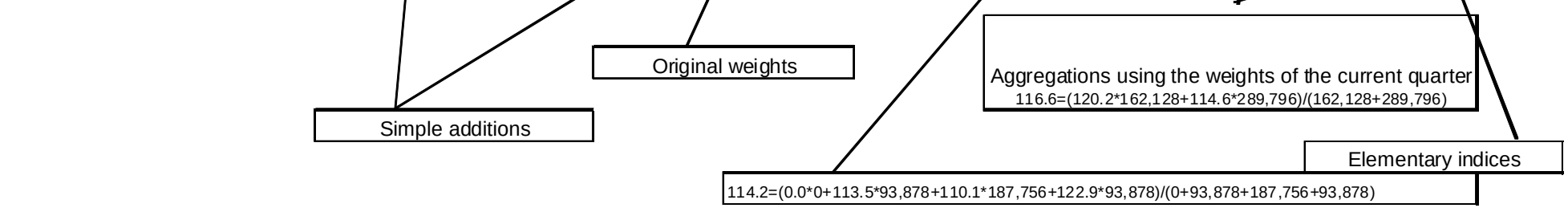
Step 5: Calculation of annual product aggregates in the current year (horizontal aggregation). In general, the annual indices are obtained by aggregating the quarterly elementary indices of the products by the quarterly weights from the weighting scheme (see the numerical example). However, in some exceptional cases, annual indices can be derived from other annual data sources (see paragraph 2.041). In this case, consistency (vertical aggregation) between quarterly and annual indices should be ensured by adjusting the quarterly indices according to the annual index.

Step 6: Calculation of quarterly and annual product group aggregates in the current year (vertical aggregation). These 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.

EXAMPLE FOR THE CALCULATION OF THE AGRICULTURAL PRICE INDICES *

Weighting scheme
Step 1: The weighting scheme reflects the actual distribution of the products volume in the base period
Step 2: The sum of the quarterly weights is always equal to the annual weight (horizontal aggregation),
Step 3: The sum of products weights is always equal to the weight of the product group (vertical aggregation)
Elementary indices
Step 4: Calculation of the elementary indices at product level
Aggregation of indices
Step 5: Calculation of annual product aggregates in the current year (horizontal aggregation).
Step 6: Calculation of quarterly and annual product group aggregates in the current year (vertical aggregation).

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	**375,511**	0	93,878	187,756	93,878	Horizontal	**114.2**	0.0	113.5	110.1	122.9
013000	Barley	**196,340**	0	68,250	73,625	54,465		**121.4**	0.0	129.3	115.0	120.3
010000	**Cereals**	**571,851**	**0**	**162,128**	**261,381**	**148,343**	Vertical	**116.7**	**0.0**	**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	0.0	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**	**1,971,151**	**215,978**	**451,924**	**776,902**	**526,348**		**111.1**	**81.2**	**116.6**	**122.6**	**101.8**



* This agregation method is applicable for both seasonal and non-seasonal products

Annex 4 — List of products for Annual Agricultural Absolute Prices

Group of products	Code	Products
OUTPUT 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
	04191300	Savoy cabbage: all classes
	04192100	Lettuce in the open: all classes
	04192200	Lettuce under glass: all classes

Group of products	Code	Products
FRESH VEGETABLES	04193000	Spinach
	04194100	Cucumbers in the open: all classes
	04194200	Cucumbers under glass: all classes s
	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
POTATOES	05110000	Early potatoes
	05120000	Main crop potatoes
	05200000	Seed potatoes
	05900000	Other potatoes

Group of products	Code	Products
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
WINE	07110000	Vin de pays/Vinho regional/Vino de la tierra
	07190000	Other table wine
	07200000	Quality wine
	07900000	Other wine
OLIVE OIL	08100000	Extra virgin
	08500000	Virgin
	08400000	Lampante

Group of products	Code	Products
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
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

Group of products	Code	Products
INPUT 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)
	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

Group of products	Code	Products
ANIMAL FEEDINGSTUFFS	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 sacks)
	20619902	Milk replacer for fattening calves (in bulk)
	20621100	Complementary feed for rearing calves
	20622101	Complementary feed for cattle fattening (in sacks)
	20622102	Complementary feed for cattle fattening (in bulk)
	20622111	Proteinrich compl. feed for cattle fattening (in sacks)
	20622112	Proteinrich compl. feed for cattle fattening (in bulk)
	20622910	Complementary feed for dairy cattle at grass
	20622921	Complementary feed for dairy cattle (stallfed) (in sacks)
	20622922	Complementary feed for dairy cattle (stallfed) (in bulk)
	20622931	Proteinrich compl. feed for dairy cattle (stallfed) (in sacks)
	20622932	Proteinrich compl. feed for dairy cattle (stallfed) (in bulk)
	20623101	Complete feed for rearing pigs (in sacks)
	20623102	Complete feed for rearing pigs (in bulk)
	20623201	Complete feed for fattening pigs (in sacks)
	20623202	Complete feed for fattening pigs (in bulk)
	20623301	Complete feed for sows (in sacks)
	20623302	Complete feed for sows (in bulk)

Group of products	Code	Products
ANIMAL FEEDINGSTUFFS	20624101	Baby chick feed (in sacks)
	20624102	Baby chick feed (in bulk)
	20624201	Complete feed for rearing pulle (in sacks)
	20624202	Complete feed for rearing pulle (in bulk)
	20624301	Complete feed for battery laying hens (in sacks)
	20624302	Complete feed for battery laying hens (in bulk)
	20624501	Complete feed for broiler production (in sacks)
	20624502	Complete feed for broiler production (in bulk)

Annex 5 — Target definitions for series of absolute agricultural prices

Target definitions of characteristics determining prices as the basis for selecting series of absolute selling prices of crop products, animals and animal products and of purchase prices of means of agricultural production

In the light of the general explanations to the system of target definitions given in Sub-chapter 3.4, 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”.

As outlined in Sub-chapter 3.4, 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 annex.

CROP PRODUCTS

1. Cereals and rice

As far as the prices for cereals are concerned, standard qualities for individual types of cereals are laid down in Commission Regulation (EC) n°824/2000.

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 1.

Table 1 European Union standard qualities for individual types of cereals and rice

	Soft wheat	Durum wheat	Rye	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%	14.5%	14.5%
Percentage of:						-
• broken grains	5%	6%	5%	5%	10%	-
• grain impurities	7%	5%	5%	12%	5%	-
• sprouted grains	4%	4%	4%	6%	6%	-
• miscellaneous impurities	3%	3%	3%	3%	3%	-
Total	12%	12%	12%	12%	12%	-
Weight in kilograms per hectolitre	73	78	70	62		
Yield of wholly milled rice, in whole grains (by weight) of which:	-	-	-	-	-	63%
• chalky grains	-	-	-	-	-	3%
• grains striated with red	-	-	-	-	-	3%
• spotted grains	-	-	-	-	-	1%
• stained grains	-	-	-	-	-	0.5%
• yellow grains	-	-	-	-	-	0.05%
• amber grains	-	-	-	-	-	0.125%

Cereals destined for use as seed or animal feed are excluded from the target definition of soft wheat. The prices of all cereals should be adjusted for variations in moisture content.

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	Soft wheat	• Destined for human consumption only
01120000	Durum wheat	-
01200000	Rye	-
01300000	Barley	-
01310000	Feed barley	
01320000	Malting barley	-
01400000	Oats	-
01500000	Maize	-
01600000	Rice	• Paddy rice
01910000	Sorghum	
01920000	Triticale	

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. 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

4. Fresh vegetables

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 definitions 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.

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
041194100	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
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

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	-

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 consumer[18].

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.

[18] With the exception of dried fruit.

6.1 Fresh and dried fruit (other than citrus 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
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

6.2 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

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
07110000	Vin de pays/Vihno regional/Vino de la tierra	-
07190000	Other Table wine	
07200000	Quality wine	
07900000	Other wine	

8. Olive oil

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

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

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

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	• 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

ANIMALS AND ANIMAL PRODUCTS

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.

1.1 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).

1.1.1 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

1.1.2 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

1.2 Pigs

In the Community scale for grading pig carcases (Council Regulation (EEC) No 3220/84[19]), the following specifications are laid down from grade E to grade P; subsequently the grade S was added:

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

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

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

[19] See OJ L 301 of 20 November 1984, p. 2.

1.3 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

1.4 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	Gees (slaughtered)	• Price quotations at meat markets; prices ex slaughterhouse, ex-market • Price per 100 kg slaughtered weight

1.5 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

2. Animal products

2.1 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 super-levy however has to be ignored in the price calculation as it was not charged on a regular basis.

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
• Prices ex-farm • Prices per 100 kg, excluding VAT • The super-levy should not be taken into account • 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

2.2 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

2.3 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

MEANS OF AGRICULTURAL PRODUCTION

1. Electricity and Fuels

Consumer behaviour must be taken into account in defining fuels. Products cannot generally be characterised 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
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

Code	Designation	Specific reference targets 'Fuels': individual series
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

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:

- concentration of nutritive substance (content)
- combination of nutritive substances (proportion)
- form of nutritive substances
- 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:

- 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.

  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).

- Deviations in the concentration of nutritive substances are standardised simply by converting the price.
- 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:

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

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.

2.1 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

2.2 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

Code	Designation	Specific reference targets 'Compound fertilisers': individual series
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
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. 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.

3.1 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

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

3.2 Compound feedingstuffs

3.2.1 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

Code	Designation	Specific reference targets 'Straight feedingstuffs': individual series
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
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
20622	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

3.2.2 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

Code	Designation	Specific reference targets 'Compound feedingstuffs for pigs and poultry': individual series
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 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