# Commodity Classifications

The FAOSTAT commodity list (FCL)[[1]](#footnote-2) is the classification of commodities, which has been used in FAOSTAT since the 1960’s. Originally it was based on the UN Standard International Trade Classification (SITC)[[2]](#footnote-3). It includes **683 commodities**, grouped in **20 chapters** (or groups, Figure **1**) and covers crops, livestock and their derived products (Figure 1). It excludes agricultural inputs (such as fertilizers, pesticides and machinery), fishery and forest products, for which different classifications and lists are used in FAOSTAT.

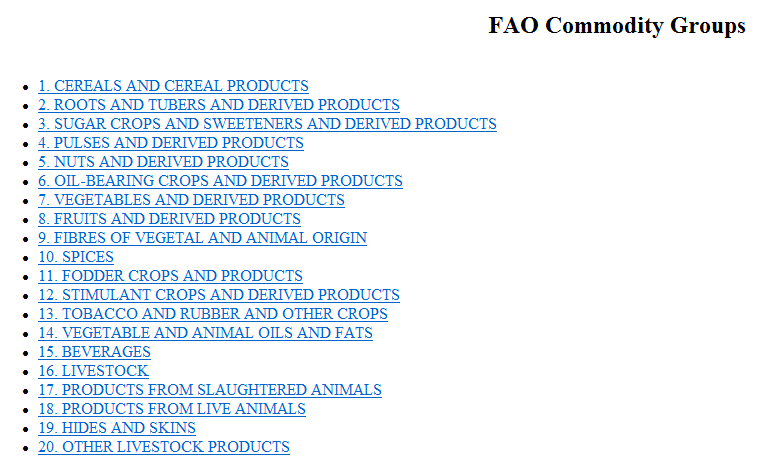
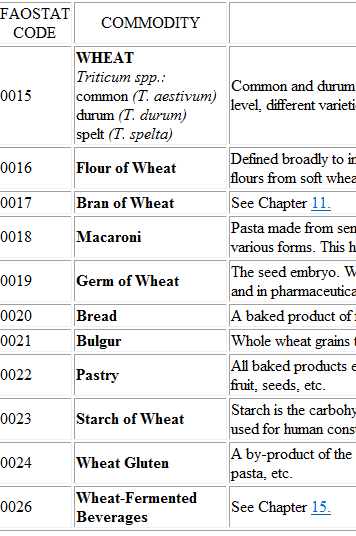


Figure 1: Printed version of the FAOSTAT commodity list (extract)

The purpose of the FCL is to provide a framework for collecting and analysing data on production and trade and, ultimately, to compile the Supply Utilization Accounts and Food Balance Sheets (SUA/FBS). SUA and FBS “*provide a picture of the pattern of a country’s food supply during a specified reference period*”[[3]](#footnote-4) and are at the basis of food security and undernourishment statistics in FAO.

## ESS collects **production data** through a production questionnaire (PQ) that is sent to National Statistical Offices and Ministries of Agriculture around the world on annual basis.

## Overview of classification systems

The FAO Statistics Division (ESS) is revising the classification system in use in FAOSTAT and replacing the FAOSTAT Commodity List (FCL)[[4]](#footnote-5) with the Harmonized System (HS) for trade variables and with the UN Central Product Classification expanded for FAO purpose for all other variables in the balance. Commodities in Food Balance Sheets (FBS) are defined in terms of primary equivalents and follow an *ad hoc* codification as in the old system.

The change in the classification system was a challenging process that required significant resources and a major collaboration effort amongst Divisions in FAO and with other International Organizations. However, efficiency gains are expected in the long run.

The Harmonized System[[5]](#footnote-6) is developed and maintained by the World Customs Organization (WCO), it is the trade nomenclature most widely used in the world: more than 200 countries, territories or customs or economic unions utilize it as the basis for Customs tariffs and for the compilation trade statistics. In HS, commodities are generally classified according to raw or basic material, to the degree of processing, to the use or function and economic activities. It comprises about 5,000 commodity groups identified by a 6-digit code, binding for contracting parties. Countries can also expand their national HS creating additional sub-headings at the lower level (generally 8, 10, 12 digits). Lower levels are country-specific. The maintenance of the HS includes measures to secure uniform interpretation of the HS and its periodic updating in light of developments in technology and changes in trade patterns. The WCO manages this process through the Harmonized System Committee and the HS Review Sub-Committee. Each review cycle typically lasts five years.

The Central Product Classification is developed and maintained by the United Nations Statistics Division (UNSD). It is a comprehensive classification of products*[[6]](#footnote-7)*, in a system of categories that are both exhaustive and mutually exclusive and based on a set of internationally agreed concepts, definitions, principles and classification rules. CPC has a five-level hierarchical structure where each digit provides information on product grouping.

The latest CPC version (2.1) will be complemented with an official annex developed by FAO to meet the needs of agricultural statistics; this structure is called “*CPC expanded for agricultural statistics*”. The CPC expanded provides additional details on agricultural commodities (primary products) and is obtained by adding one level (two digits) to the lowest level of the standard CPC[[7]](#footnote-8) (Figure 3).



The CPC classifies products based on the *physical properties and the intrinsic nature* of the products, as well as on the principle of *industrial origin* (harmonized with ISIC - although in some cases products can be the output of severalISIC industries). **HS** subheadings are used as building blocks for the goods part of the CPC: high harmonization with the HS is therefore ensured.

The CPC is a general-scope classification, i.e. it covers products of all economic activities (not sector specific) but it can be customized for sector-specific applications. It is also a general-purpose classification, so that potential applications range from production, to trade, prices and consumption.

Here are some of the benefits from using CPC:

* It is an international classification, constantly updated and reviewed by the Expert Group on International Classification (chaired by UNSD, participants are countries and international organizations).
* It is used by other organizations and statistical domains: allows data comparability across statistical domains.
* It is used by countries: thus, its use at FAO will reduce reporting burdens. In addition CPC expanded is designed not only for FAO but also for countries engaged in the collection and dissemination of data on agriculture and food products: it provides a flexible tool that allows increased granularity at the lower level, including local species and varieties, while maintaining comparability across countries at the higher level.
* It aligns with ISIC and HS: when these classifications are updated, the CPC is also updated.
* As it is highly aligned with HS, data conversion for SUA/FBS is improved compared to FCL (65% of the HS 2007-CPC Ver.2 correspondences are one-to-one or many-to-one vs. 35% in the case of HS-FCL, even higher alignment is between HS 2012 and CPC Ver.2.1), see (Figure 28).

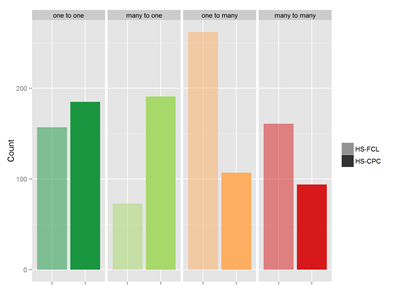


Figure 28: Quality of links between HS – FCL (shaded) and HS - CPC

The latest CPC Ver. 2.1[[8]](#footnote-9)is complemented with an official annex developed by FAO to meet the needs of agricultural statistics; such structure is called “*CPC expanded for agricultural statistics*”. CPC expanded provides additional detail on agricultural commodities (primary products) and is obtained adding one level (two digits) at the lower of the standard CPC[[9]](#footnote-10) (Figure 29).

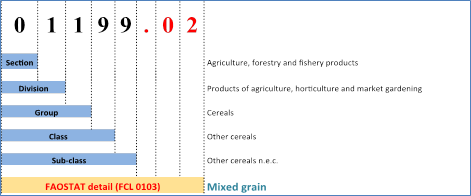


Figure 29: CPC expanded code for “Mixed grain” (0103 in FCL)

## CPC implementation in the production and trade domains

The FAO Statistics Division (ESS) collects production data through a production questionnaire (PQ) that is sent on an annual basis to National Statistical Offices and Ministries of Agriculture around the world (supplementary sources are also used for selected commodities and countries). Product lists included in PQs are country-specific, which means that the number and type of commodities can vary from country to country. The generic template of the PQ includes 209 primary commodities (167 crops and 42 livestock) and 47 processed products (34 vegetable oils and cakes, 4 dried fruits, 6 alcoholic beverages, and 3 sugar products). The classification currently used is the CPC expanded for agricultural statistics, in place of the FCL.

Trade data in ESS are not collected through a questionnaire: countries used to send to ESS their full trade files while now data are mainly received from the UN Statistics Division (through Comtrade database). In the past, trade data were eventually converted from HS to FCL format. From now on trade series will be published in HS format while they will be converted to CPC to compile Supply and Utilization Accounts (SUA).

A prerequisite for the implementation of CPC in the new system was to increase detail on agriculture, forest and fishery products in CPC. To this end, over the past ten years FAO contributed significantly to CPC ver.2 and ver.2.1 together with UNSD and the Expert Group on International Classifications.

In addition, a CPC expanded for agricultural statistics was developed and added as an official annex to CPC Ver.2.1. When detail in CPC 2.1 expanded is not sufficient, the classification is expanded further in FAOSTAT according to FAO needs and data available. In this way high harmonization between FCL and CPC is ensured.

CPC is planned to be used for future data collection and to be applied to old time-series~~,~~ in order to allow data comparability over time and avoid breaks in the series.

Although the basic condition for data back cast is to have double coded data for at least one year, it seemed difficult for FAO to increase its data request to countries: additional burden on national offices might have lowered the response rate and hampered the data collection process. Therefore ESS identified alternative solutions to allow progress in the change of the classification and data back cast, while reducing the cost of this operation. The solution adopted depended on the type of link encountered and allowed full alignment between FCL and CPC:

* **One-to-one** cases are resolved quite easily as old data are transferred to the new classification assigning codes and definitions according to the new classification while data remain the same (“key method”[[10]](#footnote-11)).
* Also for **many-to-one** cases data conversion is straightforward as data in FCL are aggregated into the target classification (CPC). Such an aggregation entails a loss of information, as CPC is less detailed than FCL. In order to avoid losing information in FAOSTAT, many-to-one cases have been turned into one-to-one correlations: first the target classification is expanded further according to the detail available in FCL and then the “key method” is applied. When detail in CPC 2.1 expanded is not sufficient, the classification is expanded further for FAOSTAT purpose.

More difficulties are faced for one-to-many and many-to-many types of links. In these cases data are converted based on statisticians’ best judgment according to the *dominant* correspondence. Coefficients of conversion have not been calculated, given the lack of information in both formats for at least one year, therefore there is a risk threatening data quality in the conversion. Conversion keys used are 1 and 0 exclusively:

* **One-to-many** relations between FCL and CPC are managed identifying the dominant correlation based on statistician’s best judgement and assigning the conversion key “1” accordingly.
* In **many-to-many** cases, which represent a minority in the FCL-CPC correlations, the target classification is modified and aligned to the source one.

Details and examples are provided in Appendix 1.

## CPC implementation for SUA and FBS

The compilation of SUA and FBS is based on commodity trees. What is called a “commodity tree” in FAO should not be confused with a classification tree or “hierarchy”.

A **commodity tree** (CT) is a “*symbolic representation of the flow from a primary commodity to various processed products derived from it, together with the conversion factors from one commodity to another*”[[11]](#footnote-12).

A **statistical classification** is “*a set of categories which may be assigned to one or more variables”* where “the *categories are defined in terms of one or more characteristics of a particular population of units of observation. A statistical classification may have a flat, linear structure or may be hierarchically structured, such that all categories at lower levels are sub-categories of a category at the next level up.*”[[12]](#footnote-13)

The FAOSTAT commodity list is a flat classification (or “a list”) where commodities are listed following an ascendant order (in most cases). The FCL itself does not set the relations amongst commodities as all categories are on the same level: to distinguish primary from processed products the printed version of the FCL uses capital letters, which is not a classification feature (Figure 30). It is the commodity tree that sets the links amongst commodities listed in FCL through the application of extraction rates. Extraction rates “*indicate, in percentage terms, the amount of the processed product concerned obtained from the processing of the parent/originating product, in most cases a primary products*”[[13]](#footnote-14) (Figure 31).

**Group 1: Cereals**

0070 MILLET

0080 Flour of millet

0081 Bran of millet

0082 Beer of millet

Figure 30: Classification of millet and its derived products in FCL

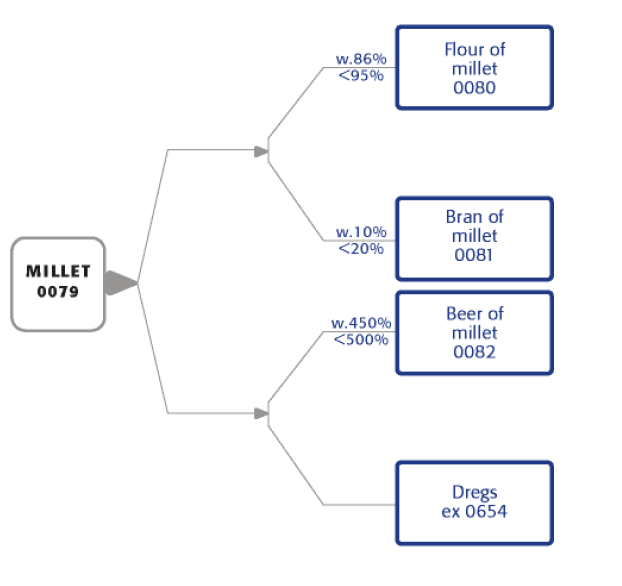


Figure 31: Commodity tree of millet (a simple example as it only includes 1st level processed products)

As long as single commodities are identified in the reference product classification (one-to-one and one-to-many correspondences), commodity trees can be developed. Commodity trees are “independent” from the statistical classification used, or better: their structure does not depend on the reference classification hierarchy. Indeed, relationships set in the trees should not be confused with the classification hierarchy. In a hierarchical classification, items at the lower level can be grouped/aggregated into an item at the higher level. For example: millet, wheat, barley and maize can be grouped into “cereals” or seeds and grains of millet can be grouped into “millet”. This is not true for commodity trees where flour, bran and beer cannot be grouped into millet unless quantities are first expressed in terms of primary equivalents by applying extraction rates.

**The new SWS will be able to manage different trees i.e. CPC classification tree (Box 2) and commodity trees. Through the FCL-CPC conversion table it** is **possible to translate CT from FCL to CPC (Figure 6).**

Box 2: Classification of millet and its derived products in CPC[[14]](#footnote-15);

**Section 0: Agriculture, forestry and fishery products**

Division 01: Products of agriculture, horticulture and market gardening

Group 011: Cerals

Class **0118: MILLET**

**Section 2: Food products, beverages and tobacco [...]**

Division 23: Grain mill products, starches and starch products; other food products

Group 231: Grain mill products

Class 2312: Other cereals flour

Subclass 23120: Other cereal flours

FAO Expansion **23120.05 Flour of millet**

Division 24: Beverages

Group 243: Malt liquors and malt

Class 24310: Beer made from malt

FAO Expansion **24310.03 Beer of millet**

**Section 3: Other transportable goods**

Division 39: Wastes or scraps

Group 391: Wastes from food and tobacco industry

Class 3912: Bran and other residues from the working of cereals or legumes

Subclass 39120: Bran and other residues from the working of cereals or legumes

FAO Expansion **39120.07: Bran of millet**



Figure 6: Commodity tree of millet in CPC

## Open questions for the new SWS

Challenges in the compilation of SUA/FBS are related to the data conversion process from HS to FCL. In particular, except for the primary commodity on the left of the tree (209), all related commodities in the trees are processed (474). Out of the 474 processed products listed in the FCL, production data are available for only **47** through the production questionnaire (secondary sources are also used for some other processed products). This means that **for 90% of the processed commodities used in commodity trees (60% of total** commodities**) official data come from trade only, while production and other variables** in **the SUA are estimated/calculated/imputed. In** terms of **classifications, commodity trees are HS-driven.**

Some challenges are related to the use of HS for SUA/FBS, given the current methodology:

*Less detail* primary equivalents, will continue to follow the *ad hoc* codification as in the old system (with links built to CPC). For example: Millet in FBS is coded 2517 (as in the old system) and is defined as millet (0118) and the following processed products expressed in terms of primary equivalent: flour of millet including groats, meal and pellets (23120.05); bran of millet (39120.07).

The classification scheme used in the new system is summarized in Figure 34.

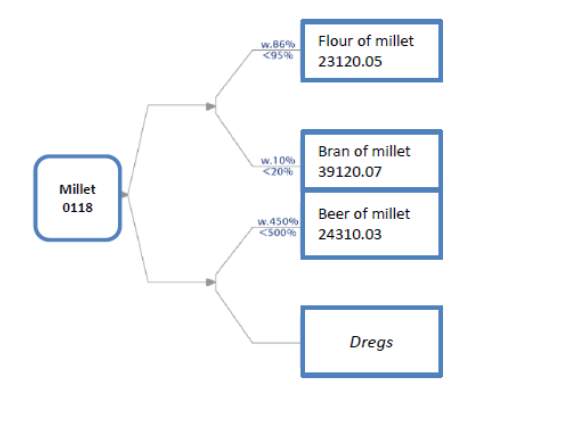


Figure 32: Commodity tree of millet in CPC

*Figure 33: Classification of millet and its derived products in CPC; CPC hierarchy reflects the economic activity of origin*

**Section 0: Agriculture, forestry and fishery products**

Division 01: Products of agriculture, horticulture and market gardening

Group 011: Cerals

Class **0118: MILLET**

**Section 2: Food products, beverages and tobacco [...]**

Division 23: Grain mill products, starches and starch products; other food products

Group 231: Grain mill products

Class 2312: Other cereals flour

Subclass 23120: Other cereal flours

FAO Expansion **23120.05 Flour of millet**

Division 24: Beverages

Group 243: Malt liquors and malt

Class 24310: Beer made from malt

FAO Expansion **24310.03 Beer of millet**

**Section 3: Other transportable goods**

Division 39: Wastes or scraps

Group 391: Wastes from food and tobacco industry

Class 3912: Bran and other residues from the working of cereals or legumes

Subclass 39120: Bran and other residues from the working of cereals or legumes

FAO Expansion **39120.07: Bran of millet**

SUA

**CPC expanded**

FBS

***ad hoc* codification & definitions**

Trade domain

**HS**

Production domain

**CPC expanded**

Figure 34: Classification scheme used in the new system

## Appendix 1

The following are examples of solutions adopted to convert FAOSTAT data on agricultural commodities from FCL to CPC format.

In **one-to-one** cases old data are transferred to the new classification, i.e. codes and definitions are re-assigned according to the new classification while data remain the same (Example 1).

Example 1: Data conversion from FCL to CPC in case of one-to-one type of link

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| FCL | | | FCL🡪CPC  conversion factor | CPC ver. 2.1 | | |
| code | descriptor | data (old format)  production quantity | code | descriptor | data (new format)  production quantity |
| 0125 | cassava | **4,082,903 tonnes** | **1** | 01520 | cassava | **4,082,903 tonnes** |

*Data are taken as example and refer to the production of cassava in Cameroon, 2011 (source: FAOSTAT)*

Also for **many-to-one** cases data conversion is straightforward as data in FCL are aggregated into CPC. Such an aggregation entails a loss of information, as the target classification is less detailed than the source one (Example 2).

Example 2: Data conversion from FCL to CPC in case of many-to-one link

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| FCL | | | FCL🡪CPC  conversion factor | CPC ver.2.1 | | |
| code | descriptor | data (old format)  production quantity | code | descriptor | data (new format)  production quantity |
| 0430 | okra | **5,784,000 tonnes** | **Σ** | 01239 | other fruit bearing vegetables | 5,784,000+  27,557,000=  **33,341,000 tonnes** |
| 0463 | other vegetables | **27,557,000 tonnes** |

*Data refer to the production of okra and other fresh vegetables in India, 2011 (source: FAOSTAT)*

In order to not lose information in FAOSTAT, many-to-one cases are turned into one-to-one correlations: first the target classification is expanded further according to the detail available in FCL (new CPC expanded codes 01239.01 and 01239.90 in Example 3) and then the “key method” is applied as in Example 1. When detail in CPC 2.1 expanded is not yet sufficient, the classification is expanded further for FAOSTAT purpose.

Example 3: FCL - CPC data conversion when many-to-one links are turned into one-to-one correlations (codes in **bold blue** text are the CPC expanded codes)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| FCL | | | FCL🡪CPC  conversion factor | CPC ver.2.1 expanded | | |
| code | descriptor | data (old format)  production quantity | code | descriptor | data (new format)  production quantity |
| n/a | n/a | n/a |  | 01239 | other fruit-bearing vegetables | 33,341,000 tonnes |
| 0430 | okra | **5,784,000 tonnes** | **1** | **01239.01** | okra | **5,784,000 tonnes** |
| 0463 | other vegetables | **27,557,000 tonnes** | **1** | **01239.90** | other fruit-bearing vegetables n.e.c. | **27,557,000 tonnes** |

*Data refer to the production of okra and other fresh vegetables in India, 2011 (source: FAOSTAT)*

More difficulties are faced for one-to-many and many-to-many types of links. In these cases data have been converted based on statisticians’ best judgment according to the *dominant* correspondence. Coefficients of conversion have not been calculated, given the lack of information in both formats for at least one year and, therefore, the risk to threaten data quality in the conversion. The conversion keys assigned are 1 and 0 exclusively.

**One-to-many** relations between FCL and CPC mainly concern agricultural (primary) vs. industrial (processed) products. For example, fresh and dried fruit in FCL are sometimes classified together while they are separated in CPC. This is due to the fact that CPC is closely linked to the International Standard Industrial Classification of All Economic Activities (ISIC) and dried fruit is considered as an output of the manufacturing industry and not of agriculture. The solution adopted for data conversion in FAOSTAT when dried fruit is not dedicated to a specific class (as in the case of dates) is to associate FCL data only to the items in the agricultural section of CPC, leaving blanks in correspondence of the industrial goods section. In Example 4 below, the one-to-many correlation is converted into one-to-one, assigning the conversion factor “1” to the class that, based on statistician’s best judgment, is the one better covering the FCL boundaries (dominant correspondence). In the metadata it will be noted that 01314 may, in some years for some countries, include information on dates dried on farm.

Example 4: Data conversion from FCL to CPC in case of one-to-many type of link

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| FCL | | | FCL🡪CPC  conversion factor | CPC ver.2.1 expanded | | |
| code | descriptor | data (old format)  production quantity | code | descriptor | data (new format)  production quantity |
| 0577 | dates (fresh+dried) | **724 894 tonnes** | **1** | 01314 (agriculture) | dates, fresh | **724,894 tonnes** |
| **0** | 214190.03 (industrial) | dates, dried | **0** |

*Data refer to the production of dates in Algeria, 2011 (source: FAOSTAT)*

In **many-to-many** cases, which represent a minority of cases in the FCL-CPC correlations, CPC is modified and aligned to FCL.

In Example 5, the FCL code 0619 put “subtropical fruit” together with “fruit fresh n.e.c.” while in CPC subtropical fruit is classified with “other tropical and subtropical fruits, n.e.c.” (01319). This generates a mismatch between the two classifications. Given the impossibility of estimating split ratios, and to avoid introducing breaks in the series, CPC is adapted and aligned to FCL (Example 6): the component “subtropical fruit” in CPC is moved under “other fruits n.e.c.” as in FAOSTAT (01359.90). Definitions in the metadata are adjusted accordingly.

Example 5: many-to-many correlations between FCL and CPC concerning tropical, subtropical and other fruit n.e.c.

|  |  |  |  |
| --- | --- | --- | --- |
| FCL | | CPC ver.2.1 expanded | |
| code | descriptor | code | descriptor |
| 0603 | fruit tropical fresh, n.e.c. | 01319 | other tropical and subtropical fruit, n.e.c. |
| 0619 | fruit fresh, n.e.c. (incl. subtropical) |
| 01359.90 | other fruits, n.e.c. |

Example 6: Data conversion from FCL to CPC in case of many-to-many type of link

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| FCL | | | FCL🡪CPC conversion factor | CPC ver.2.1 expanded | | |
| code | descriptor | data (old format)  production quantity | code | descriptor | data (new format)  production quantity |
| 0603 | fruit tropical fresh, n.e.c. | **52,684 tonnes** | **1** | 01319 | other tropical **and subtropical** fruit, n.e.c. 🡪 other tropical fruit, n.e.c. (excluding subtropical fruit) | **52,684 tonnes** |
| 0619 | fruit fresh, n.e.c. (incl. subtropical) | **193,686(E) tonnes** | **1** | 01359.90 | other fruit, n.e.c. 🡪 other fruit, n.e.c. (**including** subtropical fruit) | **193,686(E) tonnes** |

*Data refer to the production of tropical fruit n.e.c and fruit n.e.c. in Ecuador, 2011 (source: FAOSTAT; (E) = FAO estimates)*

**Appendix 2**

***Proposal for a working group to review definitions in the FCL***

As all commodities in the FCL have been duplicated in the CPC ver.2.1 expanded, forming a working group to review the commodities in the FCL and their definitions to ensure that all items need to be kept is recommended. The aim should be to improve definitions and delete redundancies, inconsistencies or obsolete items or components.

The group should be allocated adequate resources and activities should be included in PEMS to ensure participation: work is extremely time consuming and requires dedicated staff. Unsuccessful attempts of working groups have already been made in the past: due to low participation, activities were interrupted.

Out of 683, not all commodities in the FCL need to be verified: to start with the work a subset of most difficult cases has been identified:

* one-to-many and many-to-many cases in the FCL-CPC correspondences

one-to-many and many-to-many cases in the HS-FCL correspondences

# Concepts and Definitions used in FAO Food Balance Sheets

## Commodity Coverage

All potentially edible commodities, in principle, should be taken into account in preparing food balance sheets (FBS) regardless of whether they are actually eaten or used for non-food purposes.

Generally, FBS are constructed for primary crops~~,~~ livestock and fish[[15]](#footnote-16) commodities. They include processed products at different stages of processing even though it is difficult to obtain data for all the different forms of processed products, and even more difficult, to always accurately trace the components of the processed composite products.

Commodities are grouped and coded for FBS purposes, and defined in terms of primary equivalent. Links to CPC Version 2.1 Expanded are provided in brackets. Default composition can be adjusted by countries according to the availability of commodities at national level.

Example of default composition and commodity codes in FBS:

FBS ad hoc code

Default composition in primary equivalent with links to CPC2.1Expanded

FBS descriptor

### FBS 2517 – Millet

Includes millet (0118) and the following processed products: flour of millet, including groats, meal and pellets (23120.05; 23130\*) and bran of millet (39120.07).

Millet includes small-grained cereals of different botanical species and with different local names, whether or not processed, including among all:

*Echinocloa frumentacea* (barnyard or Japanese millet)

*Eleusine coracana* (ragi, finger or African millet)

*Panicum miliaceum* (common, golden or proso millet)

*Paspalum scrobiculatum* (koda or ditch millet)

*Pennisetum glaucum* (pearl or cattail millet)

*Setaria italic* (foxtail millet)

It does not include indian, large african millet, and teff (*Eragrostis abyssinica*) cf. 01199.01.

Description of the primary commodity

## Cereals and cereal products

CEREALS are generally of the gramineous family and, in the FAO concept, refer to crops harvested for dry grain only. Crops harvested green for forage, silage or grazing are classified as fodder crops. Also excluded are industrial crops, e.g. broom sorghum (Crude organic materials n.e.c.) and sweet sorghum when grown for syrup (Sugar crops n.e.c.). For international trade classifications, fresh cereals (other than sweet corn), whether or not suitable for use as fresh vegetables, are classified as cereals. Cereals are identified according to their genus. However, when two or more genera are sown and harvested as a mixture they should be classified and reported as "mixed grains".

Production data are reported in terms of clean, dry weight of grains (12-14% moisture) in the form usually marketed. Rice, however, is reported in terms of paddy. Apart from moisture content and inedible substances such as cellulose, cereal grains contain, along with traces of minerals and vitamins, carbohydrates - mainly starches - (comprising 65-75% of their total weight), as well as proteins (6-12%) and fat (1-5%). Cereal products derive either from the processing of grain through one or more mechanical or chemical operations, or from the processing of flour, meal or starch.

### FBS 2511 - Wheat

Includes: wheat (0111) and the following processed products expressed in terms of primary equivalent: bread and wafers (23410; 23490); breakfast cereals (23140.03); bulgur (23140.02); flour of wheat (23110; 23130.01); macaroni (23710); pastry (23420; 23430); starch of wheat (23220.01); bran of wheat (39120.01), germ of wheat (23140.01), gluten of wheat (23220.02), mixes and doughs and food preparations of flour (23180), meal or malt extract (23999.02).

Wheat, species of *Triticum*, *T. aestivum* (common wheat), *T. durum* (durum) *and T. spelta* (spelt). Common and durum wheat are the main types. Among common wheat, the main varieties are: spring and winter, hard and soft, red and white, whether or not processed.

It includes meslin (a mixture wheat/rye).

### FBS 2805 - Rice (Milled Equivalent)

Includes: rice (0113) and the following processed products expressed in terms of primary equivalent:

* Rice husked (23162); starch of rice (23220.03); rice flour (23120.01); rice gluten (39130.01) and bran of rice (39120.02);
* Rice, semi- or wholly milled (23161)
  + milled (husked) rice (23161.01);
  + rice milled (23161.02);
  + rice broken (23161.03).

Rice, species of *Oryza*, mainly *oryza sativa*, not husked, also known as rice in the husk and rough rice. Used mainly for human food.

### FBS 2513 - Barley

Includes: barley (0115) and the following processed products expressed in terms of primary equivalent: pot barley (23140.04); barley pearled (23140.05); malt (24320); malt extract (23999.01); bran of barley (39120.03), barley flour and grits (23120.02).

Barley, species of *Hordeum*, mainly *H. disticum* (two-row barley), *H.* *hexasticum* (six-row barley)and *H. vulgare* (four-row barley), whether or not processed, including with husk and without (naked).

Barley tolerates poorer soils and lower temperatures better than wheat and it is used as a livestock feed, for the manufacture of malt and, when polished or pearled, for preparing foods. The roasted grains are a coffee substitute.

Barley does not include sprouted barley (malt), nor roasted malt, roasted barley (coffee substitutes), malt sprouts separated from the malted grain during the kilning process and other brewing wastes.

### FBS 2514 - Maize

Includes: maize (0112) and the following processed products expressed in terms of primary equivalent: flour of maize (23120.03); starch of maize (23220.04); gluten feed and meal (39130.04); germ of maize (23140.06), bran of maize (39120.04), maize gluten (39130.02).

Maize, species of *Zea mays* (corn, Indian corn, mealies), is a grain with a high germ content. At the national level, hybrid and ordinary maize should be reported separately owing to widely different yields and uses. Used largely for animal feed and commercial starch production.

It includes:

* Corn seed; maize, hybrid, seed; maize seed.
* White maize (not considered necessary for popcorn);
* Corn, unmilled, golden-yellow or white;
* Corn, unmilled, reddish-brown or mottled;
* Corn-on-the-cob, fresh (excl. sweet corn);
* Grain, maize, not hushed or otherwise worked;
* Kernels, corn, fresh, suitable for human consumption;
* Maize in sheaves, cobs or threshed;
* Maize not husked or otherwise worked;
* Maize, cut before maturity, complete with husks;
* Maize, unmilled;
* Popcorn, on or off the cob, not popped.

Maize does not include green corn (01290.01).

### FBS 2515

Includes: rye (0116) and the following processed products expressed in terms of primary equivalent: flour of rye including groats, meal and pellets (23120.04); bran of rye (39120.05).

Rye, species of *Secale cereale*, whether or not processed, including rye denatured and unmilled, is a grain that is tolerant of poor soils, high latitudes and altitudes. Mainly used in making bread, whisky and beer. When fed to livestock, it is generally mixed with other grains.

### FBS 2516 – Oats

Includes: oats (0117) and the following processed products expressed in terms of primary equivalent: oats rolled (23140.07); bran of oats (39120.06).

Oats, species of *Avena sativa,* grains with their husks as well as those which in their natural state have no husk or hull, whether or not processed, is plant with open, spreading panicle-bearing large spikelets.

There are two main kinds of oats: grey (or black) oats and white (or yellow) oats.

Used primarily in breakfast foods, it makes excellent fodder for horses.

It includes unmilled oats.

### FBS 2517 - Millet

Includes: millet (0118) and the following processed products expressed in terms of primary equivalent: flour of millet including groats, meal and pellets (23120.05); bran of millet (39120.07).

Millet includes small-grained cereals of different botanical species and with different local names, whether or not processed, including among all:

*Echinocloa frumentacea* (barnyard or Japanese millet)

*Eleusine coracana* (ragi, finger or African millet)

*Panicum miliaceum* (common, golden or proso millet)

*Paspalum scrobiculatum* (koda or ditch millet)

*Pennisetum glaucum* (pearl or cattail millet)

*Setaria italic* (foxtail millet)

It does not include indian, large african millet, and teff (*Eragrostis abyssinica*) cf. 01199.01.

### FBS 2518 - Sorghum

Includes: sorghum (0114) and the following ~~P~~processed products expressed in terms of primary equivalent: flour of sorghum including groats, meal and pellets (23120.06); bran of sorghum (39120.08).

Sorghum, species of *Sorghum*, mainly *S. guineense* (guinea corn), *S. vulgare* (common, milo, feterita, kaffir corn), *S. dura* (durra, jowar, kaoliang), is a cereal that has both food and feed uses. Sorghum is a major food grain in most of Africa, where it is also used in traditional beer brewing. It is desirable to report hybrid and other varieties separately.

It includes unmilled Doura (durra), Federita (feterita), Grain sorghum, Kafir, Kaoliang, Milo, Sorghum.

Sorghum does not include forage sorghums (which are used for making hay or silage) such as halepensis (halepense), grass sorghums (which are used for grazing) such as sudanensis (sudanense) or sweet sorghums (which are used primarily for the manufacture of syrup or molasses) such as saccharatum. It also excludes broomcorn (*Sorghum vulgare var. technicum*).

### FBS 2520 - Cereals, other

Includes, inter alia: buckwheat (01192), quinoa (01194), fonio (01193), triticale (01191), canary seed (01195), mixed grain (01199.02), cereals n.e.c. (01199.90), and the following processed products expressed in terms of primary equivalent: flour of buckwheat (23120.07; 23130.08), flour of fonio (23120.08; 23130.09), flour of mixed grain (23120.10; 23130.11), flour of cereals n.e.c. including groats, meal and pellets (23120.90), cereal preparations, n.e.c. (23140.08; 23130.90), bran buckwheat (39120.09), bran of fonio (39120.10), bran of triticale (39120.11), bran of mixed grains (39120.12), bran of cereals (39120.13).

Buckwheat, *Fagopyrum esculentum* (Polygonaceae), is a cereal cultivated primarily in northern regions. Buckwheat is considered a cereal, although it does not belong to the gramineous family.

Quinoa, *Chenopodium quinoa* (Chenopodiaceae), is a cereal, which tolerates high altitudes, quinoa is cultivated primarily in Andean countries. Used for food and to make chicha, a fermented beverage.

Fonio, *Digitaria spp.* mainly *Digitaria exilis* (fonio or findi) and *Digitaria iburua* (black fonio or hungry rice), is a cereal of importance in West Africa where it is eaten in place of rice during famines. The seeds are cooked by steaming the whole grain.

Triticale is a cross between wheat and rye, combining the quality and yield of wheat with the hardiness of rye.

Canary seed is a cereal normally used as bird feed.

Mixed grain is a mixture of cereal species that are sown and harvested together. It does not include: meslin (a mixture wheat/rye) that is included under wheat.

Other cereals not elsewhere classified are also here included.

## Roots and Tubers and Derived Products

ROOTS AND TUBERS are plants yielding starchy roots, tubers, rhizomes, corms and stems. They are used mainly for human food (as such or in processed form), for animal feed and for manufacturing starch, alcohol and fermented beverages including beer. The denomination "roots and tubers" excludes crops which are cultivated mainly for feed (mangolds, swedes) or for processing into sugar (sugar beets), and those classified as "roots, bulb and tuberous vegetables" (onions, garlic and beets). It does include starch and the starchy pith and flour obtained from the trunk of the sago palm and the stem of the Abyssinian banana (*Musa ensete*). Certain root crops, notably bitter cassava, contain toxic substances, particularly in the skins. As a result, certain processes must be undertaken to make the product safe for human consumption.

Apart from their high water content (70-80%), these crops contain mainly carbohydrates (largely starches that account for 16-24% of their total weight) with very little protein and fat (0-2% each). Methods of propagating root crops vary. A live potato tuber or seed must be planted but only part of the live yam tuber and a piece of the stalk (not the root) in the case of cassava. Production data of root crops should be reported in terms of clean weight, i.e. free of earth and mud.

### FBS 2520 – Cassava

Includes: cassava (01520) and the following processed products expressed in terms of primary equivalent: flour of cassava (23170.01); tapioca of cassava (23230.02); cassava dried (01520.01); cassava starch (23220.06).

Cassava, species of *Manihot esculenta; Manihot utilissima* (manioc, mandioca, yuca), *Manihot palmata; Manihot dulcis* (yuca dulce).

A semi-permanent crop grown in tropical and subtropical regions. Sometimes bitter and sweet cassavas are referred to as separate species, the former being M. esculenta and the latter M. palmata, but this is incorrect since the toxicity varies according to location. Cassava is the staple food in many tropical countries. It is not traded internationally in its fresh state because tubers deteriorate very rapidly.

It includes among all cassava, fresh or dried, whole or sliced; root, manioc, fresh or dried, whole or sliced; pellets, of manioc, whether or not disintegrated (manioc pellets may be disintegrated, but are classified here provided that they are identifiable by physical characteristics: non**‑**homogeneous particles with broken pieces of manioc pellets, brownish colour with black spots, pieces of fibre visible to the naked eye and a small quantity of sand or silica left in).

### FBS 2531 – Potatoes

Includes: potatoes (01510) and the following processed products expressed in terms of primary equivalent: flour of potatoes (21392) meal, including powder, flakes, granules and pellets of potatoes; frozen potatoes (21313); tapioca of potatoes (23230.01); starch potatoes (23220.05).

Potatoes, species of *Solanum tuberosum* (Irish potato).

A seasonal crop grown in temperate zones all over the world, but primarily in the northern hemisphere.

It includes, inter alia, fresh or chilled potatoes of all kinds, seed potatoes intended for sowing and new potatoes.

Potatoes does not include sweet potatoes (01530).

### FBS 2533 - Sweet potatoes

Includes: sweet potatoes (01530).

Sweet potatoes, species of *Ipomoea batatas*, a seasonal crop grown in tropical and subtropical regions. Used mainly for human food. Trade data cover fresh and dried tubers, whether or not sliced or in the form or pellets made either from pieces of the roots or tubers of this heading or from their flours, meals or powders.

### FBS 2535 - Yams

Includes: yams (01540).

Yams, tubers from vines of the genus *Dioscorea*, include among all *D. batatas*, *D. trifida*, *D. alata*, *D. bulbifera*, *D. rotunda*, *D. cayenensis*, *D. exculenta*, *D. dumetorum*.

The principal edible yams are widely grown throughout the tropics. A starchy staple foodstuff, normally eaten as a vegetable, boiled, baked or fried. In West Africa they are consumed mainly as "fufu", a stiff glutinous dough. Trade data cover both fresh and dried yams.

It includes fresh, chilled, frozen or dried, whether or not sliced or in the form of pellets made either from pieces of the roots or tubers of this heading or from their flours, meals or powders.

### FBS 2534 - Roots, other

Includes, inter alia: yautia (01591), taro (01550), other edible roots and tubers with high starch or inulin content, n.e.c. (01599), and the following processed products expressed in terms of primary equivalent: flour of roots and tubers (23170.02); roots and tubers dried (01599.10).

* Yautia, *Xanthosoma spp* mainly *X. sagittifolium* (malanga, new cocoyam, ocumo, tannia). Several plants are included in this group, some with edible tubers and others with edible stems (also called aroids). Yautia is grown mainly in the Caribbean and is used for food.
* Taro, *Colocasia esculenta* (Dasheen, eddoe, taro, old cocoyam), aroids cultivated for their edible starchy corms or underground stems. Taro is grown throughout the tropics for food.

It includes among all other tubers, roots or rhizomes, fresh, that are not identified separately because of their minor relevance at the international level. Because of their limited local importance, some countries report roots and tubers under this commodity heading that are classified individually by FAO:

* *Arracacoa xanthorrhiza* (arracacha)
* *Maranta arundinacea* (arrowroot)
* *Cyperus esculentus* (chufa)
* *Metroxylon spp.* (sago palm)
* *Oxalis tuberosa and Ullucus tuberosus* (oca and ullucu)
* *Pachyrxhizus erosus, Pachyrxhizus angulatus* (yam bean, jicama)
* *Tropaeolum tuberosum* (mashua)
* *Helianthus tuberosus* (Jerusalem artichoke, topinambur)

Products included may be fresh, chilled, frozen or dried, whether or not sliced or in the form of pellets made either from pieces (e.g., chips) of the roots or tubers of this heading or from their flours, meals or powders.

Other roots and tubers not elsewhere classified are also here included.

## Sugar crops and sweeteners and derived products

In addition to providing the source for the manufacture of sugar, SUGAR CROPS are used to produce alcohol and ethanol. In certain countries, sugar cane is eaten raw in minor quantities. It also is used in the preparation of juices and for animal feed. There are two major sugar crops: sugar beets and sugar cane. However, sugar and syrups are also produced from the sap of certain species of maple trees, from sweet sorghum when cultivated explicitly for making syrup and from sugar palm. Sugar beets that are cultivated solely as a fodder crop and red or garden beets that are classified as vegetable crops are excluded from the FAO list of sugar crops. Sugar cane is a perennial grass (replanted at intervals using pieces of the cane stalks) that is cultivated mainly in the tropics. Sugar beet is an annual crop that is propagated by the seeds of the flowers. It is cultivated in cooler climates than sugar cane, mainly above the 35th parallel of the Northern Hemisphere. Both sugar beets and sugar cane have a high water content, accounting for about 75% of the total weight of the plants. The sugar content of sugar cane ranges from 10 to 15% of the total weight, while that of sugar beets is between 13 and 18%. The protein and fat content of both beets and cane is almost nil.

Under the name SWEETENERS, FAO includes products used for sweetening that are derived from sugar crops, cereals, fruits or milk, or that are produced by insects. This category includes a wide variety of monosaccharides (glucose and fructose) and disaccharides (sucrose and saccharose). They exist either in a crystallized state as sugar, or in thick liquid form as syrups. The traditional sources of sugar are sugar cane and sugar beets. But in recent years, ever larger quantities of cereals (mainly maize) have been used to produce sweeteners derived from starch.

OTHER DERIVED PRODUCTS. In addition to sugar, molasses is also obtained with various degrees of sugar content. The by-product obtained from the extraction of sugar is called bagasse in the case of sugar cane, and beet pulp in the case of sugar beets.

### FBS 2536 - Sugar cane

Includes: sugar cane (01802)

Sugar cane, species of *Saccharum officinarum,* fresh, chilled, frozen or dried, whether or not ground*,* in some producing countries, marginal quantities of sugar cane are consumed, either directly as food or in the form of juice.

Sugar cane does not include bagasse, the fibrous portion of the sugar cane remaining after the juice has been extracted

### FBS 2537 - Sugar beet

Includes: sugar beet (01801)

Sugar beet, species of *Beta vulgaris var. altissima*, fresh, chilled, frozen or dried, whether or not ground, in some producing countries, marginal quantities are consumed, either directly as food or in the preparation of jams.

### FBS 2541 - Sugar non-centrifugal

Includes: sugar non centrifugal (23511.02)

Sugar non centrifugal, generally derived from sugar cane through traditional methods without centrifugation

in the form of brown crystals or other solid forms, the colour being due to the presence of impurities, generally destined for processing into refined sugar products. . Raw sugar may, however, be of such a high degree of purity that it is suitable for human consumption without refining.

### FBS 2827 - Sugar (Raw Equivalent)

Sugar (Raw Equivalent), a non-refined, crystallized material derived from the juices of sugar-cane stalk and consisting either wholly or essentially of sucrose, and from the juices extracted from the root of the sugar beet (raw, in solid form, not containing added flavouring or colouring matter) and consisting either wholly or essentially of sucrose.

### FBS 2543 - Sweeteners, Other

Includes: sugar crops n.e.c. (01809) and the following processed products expressed in terms of primary equivalent: fructose, chemically pure (23210.01), maltose, chemically pure (23210.02), maple sugar and syrups (23530), glucose and dextrose (23210.05), lactose (23210.06), isoglucose (23210.08), molasses (23540), other fructose and syrup (23210.03), beverages, non-alcoholic (24490), sugar n.e.c. (23210.04).

* Fructose, chemically pure, or levulose, monosaccharide, present with glucose in sweet fruits and honey.
* Maltose, chemically pure, produced industrially from starch by hydrolysis with malt diastase. Used in the brewing industry. Invert sugar and other sugar and sugar syrup blends containing in the dry state 50% by weight of fructose are included.
* Maple sugar and syrups, is produced by atmospheric boiling of maple obtained from the sap of varieties of the maple tree, chiefly the Acer saccharum and the Acer nigrum, in an open-pan evaporator. Continuing the evaporation process until the syrup crystalizes yields maple sugar.
* Sugar crops n.e.c., including among all *Sorghum saccharatum* (sugar palm) and *Arenga saccharifera* (sweet sorghum). This subclass does not include: sugar cane (01802), sugar beet (01801), sugar beet seeds (01803), locust beans (carobs) (01356).
* Other fructose and syrup, monosaccharide found in fruits and honey, commercially produced from glucose, sucrose or by hydrolysis of inulin (polysaccharide found mainly in the tubers of the dahlia and the Jerusalem artichoke), containing in the dry state more than 50 % by weight of fructose, excluding invert sugar. Especially suitable for use by diabetics.   
  Both commercial and chemically pure fructose are included.
* Sugar and Syrups n.e.c. includes invert sugar, caramel, golden syrup, artificial honey, maltose other than chemically pure, sorghum and palm sugars. See also the general note in the introduction.   
  Invert sugar and other sugar and sugar syrup blends containing in the dry state 50 % by weight of fructose are included.
* Glucose and dextrose, a monosaccharide produced by hydrolysing starch with acids and/or enzymes. Dextrose is chemically pure glucose. Used in the food industry, in brewing, in tobacco fermentation and in pharmaceutical products.

It includes glucose and glucose syrup, not containing fructose or containing in the dry state less than 20 % by weight of fructose, as well as containing in the dry state at least 20 % but less than 50 % by weight of fructose.

Invert sugar is not included.

* Lactose, also known as milk sugar. Produced commercially from whey. Such products must contain by weight more than 95 % lactose, expressed as anhydrous lactose, calculated on the dry matter. Both commercial and chemically pure lactose included.
* Isoglucose, also known as HFCS (high-fructose corn syrup), HFSS (high-fructose starch syrup), HFGS (high-fructose glucose syrup). Isoglucose is a new type of starch syrup where glucose has been isomerized to fructose by using one or more isomerizing enzymes. Most important of the sweeteners manufactured from maize starch. Widely used in the production of food and soft drinks.
* Beverages, non-alcoholic, includes sweetened or flavoured mineral waters and other non-alcoholic beverages, such as lemonade, orangeade, cola, etc. Excludes fruit and vegetable juices. It includes waters, including mineral waters and aerated waters, containing added sugar or other sweetening matter or flavoured, and other non-alcoholic beverages, not including fruit or the following vegetable juices orange juice, grapefruit (including pomelo) juice, juice of any other single citrus fruit, pineapple juice, tomato juice, grape juice (including grape must), apple juice, cranberry (*Vaccinium macrocarpon, Vaccinium oxycoccos, Vaccinium vitis‑idaea*) juice, mixtures of juices, and juice of any other single fruit or vegetable.

Molasses, a by-product of the extraction or refining of beet or cane sugar or of the production of fructose from maize. Used for feed, food, industrial alcohol, alcoholic beverages and ethanol.

Other sugar crops not elsewhere classified are also here included.

### FBS 2745 - Honey

Includes: natural honey (02910)

Honey produced by bees (*Apis mellifera*) or by other insects, centrifuged, or in the comb or containing comb chunks, provided that neither sugar nor any other substance has been added.

It excludes artificial honey and mixtures of natural and artificial honey.

## Pulses and derived products

PULSES are annual leguminous crops yielding from one to 12 grains or seeds of variable size, shape and colour within a pod. They are used for both food and feed. The term "pulses" is limited to crops harvested solely for dry grain, thereby excluding crops harvested green for food (green peas, green beans, etc.) which are classified as vegetable crops. Also excluded are those crops used mainly for oil extraction (e.g. soybeans and groundnuts) and leguminous crops (e.g. seeds of clover and alfalfa) that are used exclusively for sowing purposes. In addition to their food value, pulses also play an important role in cropping systems because of their ability to produce nitrogen and thereby enrich the soil. Pulses contain carbohydrates, mainly starches (55-65% of the total weight); proteins, including essential amino acids (18-25%, and much higher than cereals); and fat (1-4%). The remainder consists of water and inedible substances. Production data should be reported in terms of dry clean weight, excluding the weight of the pods. Certain kinds of pulses can be skinned and partially crushed or split to remove the seed-coat, but the resulting products are still considered raw for classification purposes.

### FBS – 2546 Beans

Includes: beans dry (01701).

Beans dry, species of *Phaseolus and Vigna spp*, P*. vulgaris* (kidney, , including white pea beans and haricot bean), *P. lunatus* (lima, butter bean), *P. angularis or Vigna angularis* (adzuki bean), *P. aureus* (mungo bean, golden, green gram), *P. mungo or Vigna mungo* (black gram, urd), *P. coccineus* (scarlet runner bean), *P. calcaratus* (rice bean), *P. aconitifolius* (moth bean), *P. acutifolius* (tepary bean), *Vigna radiata* and *Vigna aconitifolia*, dried, shelled, whether or not skinned or split.

The class does not include: *Vigna sinensis* (Cow peas) (01706), *Vigna or Voandzeia subterranea* (Bambara beans) (01708); soya beans (0141); green beans (01241); lentils, green (01241.02); bean shoots and sprouts, (01290); locust beans (carobs) (01356); castor beans (01447); broad beans and horse beans (01243); garbanzo beans (chickpeas) (01703); lentils, dry (01704).

### FBS 2547 – Peas

Includes: peas dry (01705).

Peas, species of *Pisum sativum* (garden pea) and *Pisum arvense* (field pea), dried, shelled, whether or not skinned or split

It includes: dried peas, shelled, whether or not skinned or split; peas for fodder, dried, shelled; green peas, dried, shelled, whether or not skinned or split; peas seed, dried

### FBS 2549 – Other pulses ~~and products~~

Includes, inter alia: broad beans (01702), chick-peas (01703), cow peas (01706), pigeon peas (01707), lentils (01704), bambara beans (01708), lupins (01709.02), vetches (01709.01), other pulses n.e.c. (01709.90) and the following processed products expressed in terms of primary equivalent: flour of pulses (23170.03); bran of pulses (39120.14).

Other pulses and products includes the following commodities (dried and shelled, of a kind used for human or animal consumption, even if intended for sowing or for other purposes):

* Broad beans, horse beans, species of *Vicia faba,* mainly *V. faba var. equina* (horse-bean), *V. faba var. major* (broad bean) and *V. faba var. minor* (field bean);
* Chick-peas, species of *Cicer arietinum* (chickpea, Bengal gram, garbanzos);
* Cow peas, species of *Vigna unguiculata*;
* Pigeon peas, species of *Cajanus cajan*;
* Lentils and dhal;
* Bambara beans, species of Vigna subterranea or Voandzeia subterranean;
* Lupines, vetches and similar forage products, fresh or dried, whole, cut, chopped or pressed. These products remain in the heading whether or not they have been salted or otherwise treated in a silo to prevent fermentation or deterioration.

Seeds of vetches (other than broad beans and horse beans) are not included.

Other pulses not elsewhere classified are also here included.

## Nuts and derived products

Tree NUTS are dry fruits or kernels enclosed in woody shells or hard husks, which in turn are generally covered by a thick, fleshy/fibrous outer husk that is removed during harvest. Similar products, such as groundnuts, sunflower seeds and melon seeds, although often used for similar purposes, are included with oil-bearing crops. FAO includes in this group only dessert or table nuts. Nuts that are used mainly for flavouring beverages and masticatory and stimulant nuts should be excluded. An exception is made for areca nuts and kola nuts, which FAO considers to be inedible nuts, but which are included with the nut and derived products group to be consistent with international trade classifications. Nuts used mainly for the extraction of oil or butter, (e.g. sheanuts) as well as nuts contained in other fruits (e.g. peaches) are excluded. It should be noted that some countries report certain nut crops (chestnuts, pignolia nuts) with forestry products. Production data relate to the weight of nuts in the shell or husk, but without the outer husk. The weight of the kernel contained in the nut ranges from as low as 30% for cashew nuts to as high as 80% in the case of chestnuts. The edible portion of nut kernels is, with the major exception of chestnuts, very rich in fat content at between 50% and 65%. Protein content makes up 15-20% and carbohydrate content is between 10% and 15%. Starch and saccharose are the main components of dry chestnuts, accounting for about 75%.

NUT PRODUCTS include shelled nuts, whole or split, and further processed products, including roasted nuts, meal/flour, paste, oil, etc. Nut oils are not separately identified in the FAO classification; instead they are included under the heading "oil of vegetable origin n.e.c.". The most commonly marketed oils are almon oil and cashew nut oil and its derivative cardol.

### FBS 2551 – Nuts

Includes, inter alia: brazil nuts (01377), cashew nuts (01372), almonds (01371), walnuts (01376), pistachios (01375), kolanuts (01379.02), hazelnuts (01374), arecanuts (01379.01), other shelled nuts n.e.c (21429.90), other nuts (excluding wild edible nuts and groundnuts), in shell, n.e.c. (01379.90) and the following processed products expressed in terms of primary equivalent: nuts, uncooked or cooked, frozen (21493.02), nut purree and nut pastes (21494.02 ), other prepared nuts (21495.90), nuts, provisionally preserved, not for immediate consumption (21496.02), other prepared and preserved nuts, n.e.c. (21499.03).

* Brazil nuts, species of *Bertholletia excelsa* (Brazil, Para or cream nut).
* Cashew nuts, species of *Anacardium occidentale*, produced mainly in East Africa, India and Brazil.
* Chestnuts, species of *Castanea spp, C. vesca, C. vulgaris, C. sativa*, produced mainly in Europe and Asia.
* Almonds, species of *Prunus amygdalus*, *P. communis* and *Amygdalus communis*, produced mainly in Mediterranean countries, the United States and Asia.
* Walnuts, species of *Jugland spp., J. regia*, produced in temperate zones of the Northern Hemisphere, particularly in the United States.
* Pistachios, species of *Pistacia vera*, produced mainly in the Near East and the United States.
* Kolanuts, species of *Cola nitida; Cola vera; Cola acuminata* (kola, cola, Sudan cola nut), produced mainly in Africa. Kola nuts, containing 2.4 to 2.6% caffeine, are commonly chewed by the local population. Much used in Europe and America in the production of beverages.
* Hazelnuts (Filberts), species of *Corylus avellana*, produced mainly in Mediterranean countries and the United States.
* Arecanuts, species of *Areca catechu* (areca, betel nut), produced mainly in the Far East. Areca nuts are used mainly as masticatory. These nuts contain alkaloids (arecoline and arecaidine).
* Nuts n.e.c., including among all:
* *Carya illinoensis* (pecan nut)
* *Caryocar nuciferum* (butter or swarri nut)
* *Canarium spp.* (pili nut, Java almond, Chinese olives)
* *Lecythis zabucajo* (paradise or sapucaia nut)
* *Macadamia ternifolia* (Queensland, macadamia nut)
* *Pinus pinea* (pignolia nut)

Other nuts that are not identified separately, and because of their minor relevance at the international level. Because of their limited local importance, some countries report nuts under this heading that are classified individually by FAO.

Wild edible nuts and groundnuts are not included.

Other nuts not elsewhere classified are also here included.

## Oil-bearing crops and derived products

OIL-BEARING CROPS OR OIL CROPS include both annual (usually called oilseeds) and perennial plants whose seeds, fruits or mesocarp and nuts are valued mainly for the edible or industrial oils that are extracted from them. Dessert and table nuts, although rich in oil, are listed under Nuts. Annual oilseed plants that are either harvested green or are used for grazing and for green manure are included in Fodder Crops. Some of the crops included in this group are also fibre crops in that both the seeds and the fibres are harvested from the same plant. Such crops include: coconuts, yielding coir from the mesocarp; kapok fruit; seed cotton; linseed; and hempseed. In the case of several other crops, both the pulp of the fruit and the kernels are used for oil. The main crops of this type are oil-palm fruit and tallow tree seeds. Production data are reported in terms of dry products as marketed. Exceptions to this general rule include: groundnuts, which are reported as groundnuts in the shell; coconuts, which are reported on the basis of the weight of the nut including the woody shell, but excluding the fibrous outer husk; and palm oil, which is reported in terms of oil, by weight. Because of the very different nature of the various oil crops, the primary products cannot be aggregated in their natural weight to obtain total oil crops. For this reason, FAO converts the crops to either an oil equivalent or an oilcake equivalent before aggregating them. Only 5-6% of the world production of oil crops is used for seed (oilseeds) and animal feed, while about 8% is used for food. The remaining 86% is processed into oil. The fat content of oil crops varies widely. Fat content ranges from as low as 10-15% of the weight of coconuts to over 50% of the weight of sesame seeds and palm kernels. Carbohydrates, mainly polysaccharides, range from 15 to 30% in the oilseeds, but are generally lower in other oil-bearing crops. The protein content is very high in soybeans, at up to 40%, but is much lower in many other oilseeds, at 15-25%, and is lower still in some other oil-bearing crops.

PRODUCTS DERIVED FROM OIL CROPS. Edible processed products from oil crops, other than oil, include flour, flakes or grits, groundnut preparations (butter, salted nuts, candy), preserved olives, desiccated coconut and fermented and non-fermented soya products.

### FBS 2555 – Soyabeans

Includes: soyabeans (0141) and the following processed products expressed in terms of primary equivalent: soya sauce (23995.01); soya paste (23995.02); soya curd (23999.03).

Soyabeans, species of Glycine soja, is the most important oil crop. Also widely consumed as a bean and in the form of various derived products because of its high protein content, e.g. soya milk, meat, etc.

Roasted soya beans used as a coffee substitute are not included.

### FBS 2556 - Groundnuts (Shelled Equivalent)

Includes: groundnuts (0142) and the following processed products expressed in terms of primary equivalent: prepared groundnuts (21495.01); peanut butter (21495.02).

Groundnuts (Shelled Equivalent), species of *Arachis hypogaea* (peanuts), whether or not shelled or broken, which are not roasted or otherwise cooked, used as direct food and for extracting oil.

For trade data, groundnuts in shell are converted at 70% and reported on a shelled basis.

### FBS 2557 - Sunflower seed

Includes: sunflower seed (01445)

Sunflower seed, species of *Helianthus annuus*, whether or not broken. Valued mainly for its oil, minor uses include as a human food and as feed for birds.

### FBS 2574 - Rape and Mustard Oil

Includes: rapeseed or canola oil, crude (21641.01), mustard seed oil, crude (21641.02), rape, colza and mustard oil, refined (21642).

Rape and mustard oil is obtained by dry pressure extraction of seeds of several species and. Generally containing a high level of erucic acid, it has both food and industrial uses.

Oil of rapeseed or canola oil is obtained for food use from seeds of *Brassica*, particularly *B. napus* and *B. rapa* (or *B. campestris*). Canola oil is produced from new varieties of rapeseed. Oil recovered with solvent from the residues of the pressure extraction is used for industrial purposes, it is used for salad dressings, to produce margarine, and for other industrial products. The refined oils (generally colza oil) are edible.

Oil of mustard seed is obtained of seeds of Sinapsis alba and Brassica hirta (white mustard), *Brassica nigra* (black mustard) and *Brassica juncea* (Indian mustard), and it is used in medicines, for cooking or in industrial products.

### FBS 2575 - Cottonseed oil

Includes: cottonseed oil (2168).

Cottonseed oil, several species of the genus *Gossypium*, obtained first by pressure extraction from the kernels of cotton seeds, used mainly as a food but also in industry. The pure refined oil is of great value as a salad or cooking oil and for making margarine and lard substitutes. The residue from the extraction process is then exposed to a solvent.

### FBS 2560 - Coconuts (Including Copra)

Includes: coconuts (01460), copra (01492) and the following processed products expressed in terms of primary equivalent: coconuts desiccated (21429.07).

Coconuts including copra, species of *Cocos nucifera* (Husked coconut), in shell, including meat, coconut, fresh, whether or not shredded, covered by the endocarp, while exocarp (the smooth outer skin) and mesocarp (the fibrous covering) are removed. Immature nuts contain a milky juice that is consumed as a refreshing drink. Mature nuts are consumed as such, or processed for copra or desiccated coconut. The flesh, from which copra/oil is extracted, constitutes 40-70% of the weight of the husked coconut. The oil content is about 36% of the flesh.

Copra is the dried flesh of coconut from which the oil is extracted and it is unsuitable for human consumption.

### FBS 2561 – Sesameseed

Includes: sesameseed (01444).

Sesameseed, species of *Sesamum indicum,* whether or not broken, valued for its oil, but also as a food, either raw or roasted, as well as in bakery products and other food preparations.

### FBS 2576 - Palmkernel oil

Includes: palmkernel oil (21691.14).

Palmkernel oil, obtained mainly from the African oil palm *Elaeis guineensis*, obtained from the kernel of the nut of the fruits of the oil palm by pressure in two or three stages at different temperatures. Including oil of babassu kernels and, used in the margarine and candy industries and in the manufacture of glycerol, shampoos, soap and candles.

### FBS 2563 – Olives

Includes: olives (01450) and the following processed products expressed in terms of primary equivalent: Olive oil, crude (21671), Olive oil, refined (21672), Oil of olive residues (21673).

Olives, species of *Olea europaea,* fresh or chilled, includes table olives and olives for oil.

### FBS 2570 - Oilcrops, Other

Includes, inter alia: karite nuts (01499.01), castor beans (01447), tung nuts (01499.02), jojoba seeds (01499.03), safflower seed (01446), poppy seed (01448), melonseed (01449.01), tallowtree seeds (01499.04), kapok fruit (01499.05), linseed (01441), hempseed (01449.02), other oilseed n.e.c. (01449.90), of a kind used for the extraction of edible or industrial oils and fats, and the following processed products expressed in terms of primary equivalent: flour of oilseeds (21920 - flours and meals of oil seeds or oleaginous fruits, except those of mustard).

* Karite Nuts (Sheanuts), species of *Butyrospermum parkii.* Production data refer only to the nut contained in the fruit although the pulp around the nut is also edible.
* Castor Beans, species of *Ricinus communis*, valued mainly for their oil, which is used in pharmaceutical products. Ground seedcakes are used as fertilizers (castor oil pomace).
* Tung Nuts, species of *Aleurites cordata* and *Aleurites fordii*, valued mainly for their oil.
* Jojoba Seeds, species of *Simmondsia californica* or *S. chinensis*, from the shrub or small tree of the Buxaceae family.
* Safflower seed, species of *Carthamus tinctorius*, whether or not broken, valued mainly for its oil. Minor uses include as a human food and as poultry feed.
* Poppy seed, species of *Papaver somniferum*, the source of opium, poppy seeds are also used in baking and confectionery.
* Melonseed, species of *Cucumis melo*, includes seeds of other Cucurbitaceae.
* Tallowtree Seeds, species of *Shorea aptera; Shorea stenocarpa* (Borneo tallow tree) and *Sapium sebiferum; Stillingia sebifera* (Chinese tallow tree), grown wild and cultivated. FAO considers vegetable tallow (21691.09) and stillingia oil (21691.10) to be primary products.
* Kapok fruit, species of *Ceiba pentandra*, the fruit of kapok contains fibre and seeds, which FAO treats as primary crops.  
  When in shell the soft shell is approximately 40-50% of the total weight of the nut; if shelled it is used for extracting oil.
* Linseed, species of *Linum usitatissimum* (Flaxseed), whether or not broken an annual herbaceous that is cultivated for its fibre as well as its oil. It includes the seeds of the flax plant.
* Hempseed, species of *Cannabis sativa, is a*n annual herbaceous that is cultivated for its fibre as well as its oil. In major producing countries oil is extracted from the seeds.

Other oilseeds not elsewhere classified are also here included.

## Vegetable oils and fats

VEGETABLE OILS AND FATS. Oil extraction by traditional methods often requires various preliminary operations, such as cracking, shelling, dehulling, etc., after which the crop is ground to a paste. The paste, or the whole fruit, is then boiled with water and stirred until the oil separates and can be collected. Such traditional methods have a low rate of efficiency, particularly when performed manually. Oil extracted by pressing without heating is the purest method and often produces an edible product without refining. Modern methods of oil recovery include crushing and pressing, as well as dissolving the crop in a solvent, most commonly hexane. Extracting oil with a solvent is a more efficient method than pressing. The residue left after the removal of oil (oilcake or meal) is used as feedstuff. Crude vegetable oils are obtained without further processing other than degumming or filtering. To make them suitable for human consumption, most edible vegetable oils are refined to remove impurities and toxic substances, a process which involves bleaching, deodorization and cooling (to make the oils stable in cold temperatures). The loss involved in these processes ranges from 4 to 8%. The FAO concept includes raw, refined and fractioned oils, but not chemically modified oils. With some exceptions, and in contrast to animal fats, vegetable oils contain predominantly unsaturated (light, liquid) fatty acids of two kinds: monounsaturated (oleic acid - mainly in extra virgin olive oil) and polyunsaturated (linoleic acid and linolenic acid - in oils extracted from oilseeds). Vegetable oils have a wide variety of food uses, including salad and cooking oils, as well as in the production of margarine, shortening and compound fat. They also enter into many processed products, such as mayonnaise, mustard, potato chips, French fries, salad dressing, sandwich spread and canned fish. Industrial and non-food uses of vegetable oils include the production of soaps, detergents, fatty acids, paint, varnish, resin, plastic and lubricants.

### FBS 2571 - Soyabean Oil

Includes: soyabean oil (2161).

Soyabean oil, crude and refined, obtained by hydraulic or expeller presses or solvent extraction from the seeds of the soya bean. Used mainly for food, and also for industrial purposes.

### FBS 2572 - Groundnut Oil

Includes: groundnut oil (2162).

Groundnut oil (or peanut oil), crude and refined, obtained by pressure or solvent extraction from the seeds of nuts of the common ground‑nut (*Arachis hypogaea*). Used mainly for food, and also for making soaps or lubricants.

### FBS 2573 - Sunflowerseed Oil

Includes: sunflower-seed oil, crude (21631.01), sunflower-seed and safflower-seed oil, refined (21632).

Sunflowerseed oil, whether or not refined, but not chemically modified, obtained by pressure extraction from the seeds of seeds of the safflower (*Carthamus tinctoris*). Used mainly for food, and also for making medicines, alkyd resins, paints and varnishes.

### FBS 2577 - Palm oil

Includes: palm oil, crude (2165) and the following processed products expressed in terms of primary equivalent: industrial monocarboxylic fatty acids; acid oils from refining (34120); residues of fatty substances (21932.02).

Palm oil, whether or not refined, mainly from the African oil palm (Elaeis guineensis), obtained from the mesocarp of the fruit of the oil palm by pressure, and also by solvent from the residues of the pressure extraction, used in the manufacture industry. Refined palm oil is used as food stuff.

Palm kernel oil or babassu oil not included (2576).

### FBS 2578 - Coconut oil

Includes: coconut oil (2166).

Coconut oil, whether or not refined, is obtained from copra of the coconut (*Cocos nucifera*) by pressure and by solvent from the residues of pressure extraction. Used in manufacture industry, when refined is used as food.

### FBS 2579 - Sesameseed Oil

Includes: sesame oil (21691.07).

Sesameseed oil, whether or not refined, but not chemically modified, from the seeds of an annual herb (*Sesamum indicum*), is obtained by pressure extraction in two or three stages at different temperatures. Sometimes the oil is also extracted by solvent from the residue of the pressure extraction.

Used mainly for food, also used also for industrial purposes.

### FBS 2580 - Olive Oil

Includes: olive oil crude and refined (21671, 21672) olive oil residues (21673).

Olive oil, whether or not refined but not chemically modified, is obtained from the fruit of the olive tree (*Olea europaea L.*) by mechanical or other physical means. Olive oil is the only vegetable oil that can be consumed without refining.

It includes oil of olive residues, extracted with solvents from olive residues left after the olives have been pressed to produce olive oil.

### FBS 2581 - Ricebran Oil

Includes: ricebran oil (21691.01).

Ricebran oil, whether or not refined, but not chemically modified, from the seeds of an annual herb (*Sesamum indicum*), is extracted from bran by pressure or, more frequently, by solvents.

### FBS 2582 - Maize Germ Oil

Includes: maize germ oil (21691.02).

Maize germ oil, whether or not refined but not chemically modified, is extracted from germ of maize or Indian corn by pressure or by solvents. The refined oil is edible and is used for cooking, in bakeries, for mixing with other oils.

### FBS 2586 - Oilcrops Oil, Other

Includes: butter of karite nuts (21691.03), oil of castor beans (21691.04), oil of tung nuts (21691.05), oil of jojoba (21691.06), safflower oil (21631.01, 21632), poppy oil (21691.08), vegetable tallow (21691.09), stillingia oil (21691.10), oil of kapok (21691.11), linseed oil (21691.12), oil of hempseed (21691.13), oil of vegetable origin n.e.c (21691.90), cocoa butter (23620), liquid margarine (21700.01), margarine and shortening (21700.02), castor oil hydrogenated (21693.02),hydrogenated oils and fats (21693.03),animal or vegetable fats and oils and their fractions, chemically modified, except those hydrogenated, inter-esterified, re-esterified or elaidinized; inedible mixtures or preparations of animal or vegetable fats or oils (34550).

Other oilcrops oil includes the following vegetable fats and oils, whether or not refined, but not chemically modified:

* Butter of karite nuts, a very important vegetable oil in West Africa. Used as a substitute for cocoa butter and in cosmetics.
* Oil of castor beans, from the seeds of *Ricinus communis*, obtained by pressure or by solvent. Uses include mainly industrial ones, in pharmaceuticals and cosmetics.
* Oil of tung nuts, from the seeds of different species of the genus *Aleurites* (*A. fordii, A. montana*), obtained by pressure and used exclusively for industrial purposes. The resulting cake contains a toxic protein and thus cannot be used for feed.
* Oil of jojoba, from the seeds of desert shrubs of the genus *Simmondsia* (*S. californica or S. chinensis*), obtained by cold pressure. Its peculiar chemical properties make it the only vegetable oil in nature having the same characteristics as spermaceti. Below 15˚C it solidifies and assumes the characteristics of wax. It is used as a lubricant, in cosmetics and in pharmaceuticals, and is considered a product with good growth prospects.
* Safflower oil, from the seeds of the safflower (*Carthamus tinctoris*), obtained either by pressure or by solvent. Has both food and industrial uses.
* Poppy oil, obtained by pressure extraction. Has both food and industrial uses.
* Vegetable tallow, obtained by pressure extraction or by solvent from the kernels of the fruit of the Borneo tallow tree and from the outer coating that surrounds the seeds of the fruit of the Chinese tallow tree. Used as a substitute for cocoa butter. Also used in soap, candles, medicines and cosmetics.
* Stillingia oil, obtained by solvent from the seeds of Stillingia sebifera. Used as a drying agent in paints and varnishes.
* Oil of kapok, obtained from shelled seeds by pressure. Used for food and soap.
* Linseed oil, from the seeds of the flax plant (*Linum usitatissimum*), obtained by pressure extraction. Used mainly in non-food items. Cold -pressed linseed oil fits for human consumption.
* Oil of hempseed, obtained either by pressure extraction or by solvent. Used mainly in non-food items.
* Oil of vegetable origin n.e.c., includes, inter alia, myrtle wax and Japan wax.
* Cocoa butter, obtained by hot-pressing either cocoa paste or the whole bean. Includes the fat and oil. Used in chocolate‑making to enrich cocoa pastes, in confectionery, perfumery, in the manufacture of cosmetics and in pharmacy.
* Liquid margarine and margarine short, made principally from one or more hydrogenated vegetable or animal fats or oils in which is dispersed an aqueous potion containing milk products, salt, flavouring agents and other additives. Shortening is a product similar to margarine, but with a higher animal fat content. Shortening and compound fats are used primarily for baking and frying. The fat content of margarine and shortening varies from 70 to 90%.
* Castor Oil, Hydrogenated, also called "opal wax". Vegetable oil and their fractions, partly or wholly hydrogenated, inter-esterified, re-esterified or elaidinised, frequently used as constituents in the preparation of edible fat.
* Oils boiled dehydrated, also includes oxidized and sulphurized oils. Animal and vegetable fats and oils whose chemical structure has been modified to improve viscosity, drying ability or other properties.

It includes, inter alia:

* Linoxyn
* Mixtures of animal or vegetable fats or oils or fractions of different fats or oils not elsewhere specified or included, inedible
* Oil, castor, dehydrated
* Oils, animal or vegetable, blown
* Oils, animal or vegetable, boiled
* Oils, animal or vegetable, oxidized
* Oils, animal or vegetable, polymerized by heat in vacuum or in inert gas
* Oils, animal or vegetable, sulphurized (excl. fractions)
* Oils, brominated
* Oils, deep-frying, used, containing, e.g., rapeoil, soya bean oil and a small quantity of animal fat, for use in the preparation of animal feeds
* Oils, drying (excl. liquid driers)
* Oils, epoxidised
* Oils, maleic
* Oils, Teka
* Preparations of animal or vegetable fats or oils or fractions of different fats or oils not elsewhere specified or included, inedible
* Stand-oils

Hydrogenated oils and fats, animal and vegetable fats and oils that have been hydrogenated to raise their melting point and increase their consistency by transforming unsaturated glycerides into saturated glycerides.

Other oilcrops not elsewhere classified are also here included.

## Vegetables and derived products

VEGETABLES, as classified in this group, are mainly annual plants cultivated as field and garden crops in the open and under glass, and used almost exclusively for food. Vegetables grown principally for animal feed or seed should be excluded. Certain plants, normally classified as cereals and pulses, belong to this group when harvested green, such as green maize, green peas, etc. This grouping differs from international trade classifications for vegetables in that it includes melons and watermelons, which are normally considered to be fruit crops. But, whereas fruit crops are virtually all permanent crops, melons and watermelons are similar to vegetables in that they are temporary crops. Chillies and green peppers are included in this grouping when they are harvested for consumption as vegetables and not processed into spices. FAO production data for green peas and green beans refer to the total weight including pods, although some countries report on a shelled weight basis. The weight of the pods ranges from 40 to 50% for peas to up to 70% for broad beans. Area data on small vegetable gardens are often omitted in agricultural surveys, although production estimates may be reported. Trade data for fresh vegetables also include chilled vegetables, meaning the temperature of the products has been reduced to around 0°C without the products being frozen. Vegetables contain principally water, accounting for between 70% and 95% of their weight. They are low in nutrients, but contain minerals and vitamins.

PRODUCTS DERIVED FROM VEGETABLES refer to processed products. Apart from a few main products, international trade classifications do not permit a sufficiently detailed classification of processed products according to the primary commodity used in the preparation. A similar situation prevails for frozen vegetables.

### FBS 2601 – Tomatoes

Includes: tomatoes (01234) and the following processed products expressed in terms of primary equivalent: juice of tomatoes (21321); paste of tomatoes (21399.01); tomato peeled (21399.02).

Tomatoes, species of *Lycopersicon esculentum*, fresh or chilled of all kinds.

### FBS 2602 – Onions

Includes: onions (01253).

Onions, species of *Allium cepa,* includes onion sets, Welsh and spring onions, scallions and shallots at a mature stage, but not dehydrated.

### FBS 2605 - Vegetables, Other

Includes: cabbages (01212), artichokes (01216), asparagus (01211), lettuce and chicory (01214), spinach (01215), cassava leaves (01219.01), pumpkins, squash and gourds (01235), cucumbers and gherkins (01232), eggplants (01233), chillies and peppers, green (capsicum spp. and pimenta spp.) (01231), garlic (01252), leeks and other alliaceous vegetables (01254), beans green (01241), peas green (01242), broad beans green (01243), string beans (01241.01), carrots and turnips (01251), okra (01239.01), green corn (maize) (01290.01), mushrooms and truffles (01270), chicory roots (01691), carobs (01356), vegetables fresh n.e.c (01219.90), and the following processed products expressed in terms of primary equivalent: sweet corn frozen (21319.01), sweet corn prep or preserved (21399.03), dried mushrooms (21393.01), canned mushrooms (21397.01), juice of vegetables n.e.c. (21329), vegetables dehydrated (21393.90); vegetables in vinegar (21340); vegetables preserved n.e.c. (21394, 21395, 21396, 21399.92), vegetable frozen (21311, 21312, 21319.90), vegetables provisionally preserved (21330), vegetables prepared or preserved frozen (21394, 21399.93), homogenized vegetable preparations (23991.02), coffee substituted (23912.01).

* Cabbages, species of *Brassica chinensis* (Chinese, mustard cabbage, pak-choi), *Brassica oleracea all var. except botrytis* (white, red, savoy cabbage, Brussels sprouts, collards, kale and kohlrabi).

It includes inter alia: edible brassicas; brussels sprouts; cabbage (Chinese, red, savoy, spring, turnip-rooted, white); collards; kale; kohlrabi.

* Artichokes, species of *Cynara scolymus*.

It does not include Jerusalem artichokes (01599); artichokes, Chinese and Artichokes globe

* Asparagus, species of *Asparagus officinalis*.
* Lettuce and chicory, species of *Lactuca sativa, Cichorium intybus var. foliosum* (witloof chicory), *Cichorium endivia var. crispa* (endive) and *Cichorium endivia var. latifolia* (escarole chicory).  
  It includes inter alia: chicory (blanched, curly, escarole and witloof); endive; escarole; lettuce (cabbage, head, romaine).

It excludes chicory plants and chicory roots.

* Spinach, species of *Spinacia oleracea*. Trade figures may include New Zealand spinach (Tetragonia espansa) and orache (garden) spinach (Atriplex hortensis).   
  It includes inter alia: spinach (garden, New Zealand, orache).
* Cassava leaves, species of *Manihot esculenta* and *Manihot utilissima.* Young cassava leaves are eaten in some areas of Africa as a vegetable.
* Cauliflowers and broccoli, species of *Brassica oleracea var. botrytis*, *subvariety cauliflora and cymosa,* includes headed broccoli.
* Pumpkins, squash and gourds, species of *Cucurbita* (squash, pumpkins, zucchini, etc.),and *Lagenaria* (gourds) genus of the Cucurbitaceae family, including marrows.  
    
  It includes inter alia: marrows; pumpkins; squash.
* Cucumbers and gherkins, species of *Cucumis sativu*.
* Eggplants, species of *Solanum melongena*, also called aubergines.
* Chillies and peppers green. Species of *Capsicum annuum*, and *Pimenta officinalis*. Production data exclude crops cultivated explicitly as spices.

In contrast, trade data include these crops, provided they are fresh, uncrushed and unground.   
  
It includes inter alia: paprika; peppers (bell, cayenne, chilli, clove, English, Indian, Jamaica, pimento, Spanish, sweet, Turkish); Pimentos (*Capsicum frutescens*).

* Onions, shallots (green), species of *Allium ascalonicum* (shallots), *Allium cepa* (onions) and *Allium fistulosum* (welsh onions). Young onions pulled before the bulb has enlarged; used especially in salads. Includes onion sets.
* Garlic, species of *Allium sativum*.
* Leeks and other alliaceous vegetables, species of *Allium porrum* (leeks) and *Allium schoenoprasum* (chives). It includes, inter alia, vegetables alliaceous. Onions and shallots green (01253.01), onions and shallots dry excluding dehydrated (01253.02) and green garlic (01252) excluded.
* Beans green, species of *Phaseolus spp*. and *Vigna spp*., for shelling. It includes lima or butter beans, mung beans and beans in edible pods~~.~~
* Peas green, species of *Pisum sativum*, mostly for shelling, but including edible - podded peas or sugar peas. Fodder peas included.
* Broad Beans green, species of *Vicia faba*, for shelling.
* String Beans, species of *Phaseolus vulgaris, n*ot for shelling.
* Carrot, species of *Daucus carota*, trade data may include edible turnips (*Brassica rapa var. rapifera*). Forage carrots excluded.
* Okra, species of *Abelmoschus esculentus* and *Hibiscus esculentus*, also called gombo.
* Green Corn (Maize), species of *Zea mays, particularly var. saccharata*, harvested green for food. It includes *Saccharata variety,*commonly known as sweet corn, whether or not on the cob.
* Mushrooms, including among all *Boletus edulis*, *Agaricus campestris*, *Morchella spp*. and *Tuber magnatum*, cultivated or spontaneous. Includes truffles.
* Chicory roots, species of *Cichorium intybus* and *Cichorium sativum*, unroasted chicory roots of a kind used primarily for human consumption, whether fresh or dried, whole or chopped.
* Carobs, species of *Ceratonia silique* (Carob-tree, locust bean), includes also seeds. Mainly used as an animal feed and for industrial purposes. Rich in pectin.

Including inter alia: locust beans (or carob), with or without seeds, fresh or dried, whether or not kibbled or ground but not further prepared; locust endosperm (or carob) bean (excl. endosperm flour); flour of locust (or carob) bean germ or pericarp; germ, locust (or carob) bean, whether or not powdered; seeds, locust (or carob) bean, fresh or dried, not roasted, whether or not kibbled or ground but not further prepared (excl. endosperm flour).

* Vegetables fresh n.e.c., including among all: *bambusa spp*. (bamboo shoots), *beta vulgaris* (beets, chards), *capparis spinosa* (capers), *cynara cardunculus* (cardoons), *apium graveolens* (celery), *anthriscus cerefolium* (chervil), *lepidium sativum* (cress), *foeniculum vulgare* (fennel), *cochlearia armoracia* (horseradish), *majorana hortensis* (marjoram, sweet), *tragopogon porrifolius* (oyster plant), *petroselinum crispum* (parsley), *pastinaca sativa* (parsnips), *raphanus sativu* (radish), *rheum spp*. (rhubarb), *brassica napus* (rutabagas, swedes), *satureja hortensis* (savory), *scorzonera hispanica* (scorzonera), *rumex acetosa* (sorrel), *artemisia dracunculus* (soybean sprouts tarragon), *nasturtium officinale* (watercress), that are not identified separately because of their minor relevance at the international level. Because of their limited local importance, some countries report vegetables under this heading that are classified individually by FAO.
* Watermelons, species of *Citrullus vulgaris.*
* Melons Cantaloupes, species of *Cucumis melo.*

Including inter alia: cantaloupes; melons (casaba, citron, cranshaw, honeydew, Persian, musk)  
  
Other vegetables not elsewhere classified are also here included.

## Fruits and derived products

FRUIT CROPS consist of fruits and berries that, with few exceptions, are characterized by their sweet taste. Nearly all are permanent crops, mainly from trees, bushes and shrubs, as well as vines and palms. Fruits and berries grow on branches, stalks or the trunks of plants, usually singly, but sometimes grouped in bunches or clusters (e.g. bananas and grapes). Commercial crops are cultivated in plantations, but significant quantities of fruits are also collected from scattered plants that may or may not be cultivated. Although melons and watermelons are generally considered to be fruits, FAO groups them with vegetables because they are temporary crops. Fruit crops are highly perishable. Their shelf life may be extended through the application of chemical substances that inhibit the growth of micro-organisms and through careful control of the surrounding temperature, pressure and humidity once the fruit has been picked. Fruits and berries have a very high water content accounting for some 70- 90% of their weight. They contain, in various degrees, minerals, vitamins and organic acids, some of which reside in the peel or skin. Some fruits have a high fibre content and other inedible components, so that wastage is high, e.g. 60% for passion fruit and 35-45% for pineapples. The waste in temperate zone fruit is lower, generally of the order of 10-15%, while berries contain very little waste. The carbohydrate content of fruits varies widely. Protein content is very low, averaging less than 1%, or below that in vegetables. Fat content in fruit is negligible, with the notable exception of avocados. Fruit crops are consumed directly as food and are processed into dried fruit, fruit juice, canned fruit, frozen fruit, jam, alcoholic beverages, etc. Fruit crops are not normally grown for animal feed, although significant quantities of diseased and substandard fruits, as well as certain by-products of the fruit processing industry, are fed to animals. Production data for fruit crops should relate to fruits actually harvested. Data on bananas and plantains should relate to the weight of single bananas or banana hands, excluding the weight of the central stalk.

FRUIT CROPS PRODUCTS. Apart from a few main products, international trade classifications do not permit a sufficiently detailed classification of processed products according to the primary commodity used in the preparation. Fruit crops are processed for preservation and conservation, or for transformation from one substance into another, e.g. sugar into alcohol. Drying and wine making are two of the oldest methods of preservation. The manufacture of fruit syrups and juices, jams, jellies, marmalade, chutney and sauces are also traditional methods of preservation. Modern processes include canning, freezing, quick-freezing and dehydration. Other fruit products include fruit squashes, i.e. juice with some fruit tissues included, fruit nectars containing at least 30% fruit solids, and some soft drinks that contain a very small amount of fruit juice. Essential oils are extracted from some fruits and fruit peels, while the peel of some fruit is also used in confectionery.

### FBS 2611 - Oranges, Mandarines

Includes: oranges (01323) and the following processed products expressed in terms of primary equivalent: orange juice, single strength (21431.01); orange juice, concentrated (21431.02); tangerine juice (21439.01).

Oranges and mandarines, species of *Citrus sinensis* (common, sweet orange), *Citrus aurantium* (bitter orange), *Citrus reticulate* (mandarin, tangerine) and *Citrus unshiu* (clementine, satsuma), fresh or chilled. Bitter oranges are used primarily in the preparation of marmalade. It includes oranges, green for preserving, oranges Seville and Wilkings.

### FBS 2612 - Lemons, Limes

Includes: lemons and limes (01322) and the following processed products expressed in terms of primary equivalent: lemon juice, single strength (21439.02); lemon juice, concentrated (21439.03).

Lemons and limes, species of *Citrus limon* (lemon), *Citrus latifolia* (limes), *Citrus aurantifolia* (sour lime) and *Citrus limetta* (sweet lime), fresh or chilled.

### FBS 2613 - Grapefruit

Includes: pomelos and grapefruits (01321) and the following processed products expressed in terms of primary equivalent: juice of grapefruit (21432); grapefruit juice, concentrated (21432.01).

Grapefruit, species of *Citrus maxima* and *Citrus grandis* (pomelos, shaddocks) and *Citrus paradise* (grapefruits, fruit of the grapefruit tree).

### FBS 2614 - Citrus, other

Includes: citrus fruit, n.e.c. (01329) and the following processed products expressed in terms of primary equivalent: citrus juice, single strength (21439.04); citrus juice, concentrated (21439.05).

Citrus other, species of *Citrus bergamia* (bergamot), *Citrus medica var. cedrata* (citron), *Citrus myrtifolia* (chinotto, fruit of the myrtle-leaved orange) and *Fortunella japonica* (kumquat), fresh or chilled. Some minor varieties of citrus are used primarily in the preparation of perfumes and soft drinks.

Other citrus fruits not elsewhere classified are also here included.

### FBS 2615 – Bananas

Includes: bananas (01312).

Bananas, species *Musa sapientum*, *Musa cavendishii* and *Musa nana* (sweet/dessert bananas)*,* normally eaten without further preparation.

Trade figures may include dried bananas. Data should be reported excluding the weight of the central stalk.

Plantains (*Musa paradisiaca*), cooking bananas, are not included (01313).

### FBS 2616 – Plantains

Includes: plantains and others (01313).

Plantains, species of *Musa paradisiaca*, starchy bananas that are less sweet than other bananas generally known as a cooking banana, primarily consumed after being fried, roasted, steamed, boiled or otherwise cooked. Data should be reported excluding the weight of the central stalk.

Bananas (*Musa sapientum, M. cavendishii, M. nana*), cooking bananas, are excluded (01312).

### FBS 2617 – Apples

Includes: apples (01341) and the following processed products expressed in terms of primary equivalent: apple juice, single strength (21435.01); apple juice, concentrated (21435.02).

Apples, species of *Malus pumila*, *Malus sylvestris*, *Malus communis* and *Pyrus malus*, suitable for dessert, making beverages or industrial purposes.

### FBS 2618 – Pineapples

Includes: pineapples (01318) and the following processed products expressed in terms of primary equivalent: pineapples, otherwise prepared or preserved (21491); pineapple juice (21433); juice of pineapples, concentrated (21433.01).

Pineapples, species of *Ananas comosus* and *Ananas sativus,* fresh, dried or chilled. Trade figures may include dried pineapples.

### FBS 2619 - Dates

Includes: dates (01314).

Dates, species of *Phoenix dactylifera*, include fresh, dried and chilled fruit.

### FBS 2620 – Grapes

Includes: grapes (01330) and the following processed products expressed in terms of primary equivalent: raisins (21411); grape juice (21434); must of grapes (24212.01).

Grapes, species of *Vitis vinifera*, fresh or chilled, whether or not rough-packed in barrels, for dessert purposes or for wine‑production, whether grown outdoors or under glass.

Includes both table and wine grapes.

### FBS 2625 - Fruits, Other

Includes: pears (01342.01), quinces (01342.02), apricots (01343), sour cherries (01344.01), peaches and nectarines (01345), plums and sloes (01346), pome fruit n.e.c. (01349.10), strawberries (01354), raspberries (01353.01), gooseberries (01351.02), currants (01351.01), blueberries (01355.01), cranberries (01355.02), other berries and fruits of the genus vaccinium n.e.c. (01355.90), watermelons (01221), cantaloupes and other melons (01229), figs (01315), mangoes (01316.01), guavas (01316.02), mangosteens (01316.03), avocados (01311), persimmons (01359.01), cashewapple (01359.02), kiwi fruit (01352), papayas (01317), other tropical and subtropical fruits, n.e.c. (01319), Other fruit n.e.c. (01359), and the following processed products expressed in terms of primary equivalent: dry apricots (21419.01), plums dried (prunes) (21412), plum juice, single strength (21439.06), plum juice, concentrated (21439.07), mango juice (21439.08); fruit tropical dried n.e.c. (including mango and pineapple) (21419.90); fruit dried n.e.c. (21419.05); fruit juice n.e.c. (21439.90), peaches, otherwise prepared or preserved (21492), fruits uncooked or cooked, frozen (21493.01), jams, fruit jellies, marmalades, fruit or nut purree and fruit or nut pastes (21494), jams, fruit jellies, marmalades, fruit purree and fruit pastes (21494.01), fruit, provisionally preserved, not for immediate consumption (21496.01), other prepared and preserved fruit, n.e.c. (21499.02), flour of fruits (23170.04), fruit, nuts, peel, sugar preserved (23670.02), homogenized cooked fruit, prepared (23991.03).

* Pears, species of *Pyrus communis*,suitable for dessert, for making beverages or for industrial purposes.
* Quinces, species of *Cydonia oblonga*, *Cydonia vulgaris* and *Cydonia japonica*,suitable for dessert, for making beverages or for industrial purposes. Mainly used for making jam or jelly.
* Apricots, species of *Prunus armeniaca*.
* Sour cherries, species of *Prunus cerasus* and *Cerasus acida*.
* Cherries, species of *Prunus avium*, *Cerasus avium* (mazzard, sweet cherry) *var. duracina* (hard-fleshed cherry) and *var. juliana* (heart cherry). Whiteheart cherries and morello cherries included.
* Peaches and nectarines, species of *Prunus persica*, *Amygdalus persica* and *Persica laevis*, including nectarines.
* Plums of all kinds (greengages, mirabelles, damsons, etc.) and sloes, species of *Prunus domestica* (greengage, mirabelle, damson) and *Prunus spinosa* (sloe)
* Stone fruit fresh n.e.c.. Other stone fruit not separately identified. In some countries, apricots, cherries, peaches, nectarines and plums are reported under this general category.
* Pome fruit n.e.c.. Other pome fruit not separately identified. In some countries apples, pears and quinces are reported under this general category.
* Strawberries, species of *Fragaria spp*.
* Raspberries, species of *Rubus idaeus.* Trade data may include blackberries, mulberries and loganberries (a cross between the raspberry and blackberry).
* Gooseberries , species of *Ribes grossularia*. Trade data may sometimes include black, white or red currants.
* Currants, species of *Ribes nigrum* (black) and *Ribes rubrum* (red and white). Trade data may sometimes include gooseberries..
* Blueberries, species of *Vaccinium myrtillus* (European blueberry, wild bilberry, whortleberry) and *Vaccinium corymbosum* (American blueberry). Trade data may include cranberries, myrtle berries and other fruits of the genus *Vaccinium*.
* Cranberries, species of *Vaccinium macrocarpon* (American cranberry) and *Vaccinium oxycoccus* (European cranberry). Trade data may include blueberries, myrtle berries and other fruits of the genus *Vaccinium*.
* Berries n.e.c., including among all species of *Morus nigra* (blackberry), *Morus alba*, *Morus rubra* (loganberry; white, red mulberry), *Myrtus communis* (myrtle berry) and *Gaylussacia spp*. (huckleberry, dangleberry). Other berries not separately identified. In some countries, some or all of the berries listed previously are reported under this general category.
* Watermelons, species of *Citrullus vulgaris,* and *Melons Cantaloupes*, species of *Cucumis melo.* It includes, inter alia, casaba, citron, cranshaw, honeydew, Persian and musk melons.
* Figs, species of *Ficus carica*, whether or not to be used for distillation.
* Mangoes, species of *Mangifera indica*. Trade figures may include dried mangoes, guavas and mangosteens, including both fresh and dried.
* Avocados, species of *Persea Americana*.
* Persimmons (kakis), species of *Diospyros kaki and Diospyros virginiana.*
* Cashewapple, species of *Anacardium occidentale, t*he thickened, fleshy stem below the cashew nut. When soft it is used for jam.
* Kiwi fruit, species of *Actinidia chinensis* or *Actinidia deliciosa*.
* Papayas, species of *Carica papaya*.

Fruit tropical fresh n.e.c., including among all:

* *Artocarpus incisa* (breadfruit)
* *Averrhoa carambola (carambola)*
* *Annona spp. (cherimoya, custard apple)*
* *Durio zibethinus (durian)*
* *Feijoa sellowiana (feijoa)*
* *Psidium guajava (guava)*
* *Spondias spp. (hog plum, mombin)*
* *Artocarpus integrifolia (jackfruit)*
* *Nephelium longan (longan)*
* *Mammea americana (mammee)*
* *Garcinia mangostana (mangosteen)*
* *Solanum quitoense (naranjillo)*
* *Passiflora edulis (passion fruit)*
* *Nephelium lappaceum (rambutan)*
* *Calocarpum mammosum (sapote, mamey colorado)*
* *Achras sapota (sapodilla)*
* *Chrysophyllum spp (star apple, cainito).*

Other tropical fresh fruit are not identified separately because of their minor relevance at the international level. In some countries mangoes, avocados, pineapples, dates and papayas are reported under this general category.

Other fruit includes among all: *crataegus azarolus* (azarole); *carica pentagona* (babaco); *sambucus nigra* (elderberry); *zizyphus jujuba* (jujube); *nephelium litchi* (litchi); *eriobotrya japonica* (loquat); *mespilus germanica* (medlar); *asimina triloba* (pawpaw); *punica granatum* (pomegranate); *opuntia ficus-indica* (prickly pear); *rosa spp.* (rose hips); *sorbus aucuparia* (rowanberry); *sorbus domestica* (service-apple); *tamarindus indica* (tamarind); *arbutus unedo* (tree-strawberry).

Other fruits not elsewhere classified are also here included.

## Stimulant crops and derived products

COFFEE is a tropical shrub that yields fruits or cherries which are processed so as to free the seeds or "beans" from the fruit pulp and then from the mucilage and silver skin covering the beans. Coffee with the mucilage and skin retained is called parchment coffee. By weight, the fresh cherries consist of 45-55% pulp, mucilage and skin, and 45-55% beans. The clean beand are called "green coffee" or "clean coffee" and this is considered to be a primary crop. Coffee contains caffeine, an alkaloid. Coffee is a stimulant, not a food crop.

COCOA is a rain-forest tree that is cultivated for its beans. The beand are contained in ovoid pods that grow directly on the trunk and on major branches. The beand and the white mucilage or pulp that surrounds them represent about one-third of the total weight of the pods. The fermented and dried beand are considered to be a primary crop from which various processed products are derived, including roasted beand (still in the shell) and nibs, or fragments of roasted, shelled and crushed beans. The nibs are ground to give cocoa mass, from which cocoa fat or butter is extracted by pressing. Pods, shells, pulp and cake have only limited use as an animal feed owing to their high alkaloid content. Cocoa beand contain carbohydrates, protein and particularly fat, making them a food crop as well as a stimulant.

TEA is a shrub of the Camellia family that is cultivated for its tender leaves. The two main varieties are assamica and sinensis. The primary crop consists of the tender leaves, which may be withered, rolled, fermented and dried (black tea). Green tea is black tea that is not fermented. Tea is a stimulant, not a food crop.

### FBS 2630 – Coffee

Includes: coffee, green (01610) and the following processed products expressed in terms of primary equivalent: coffee, decaffeinated or roasted (23911); coffee extracts (23912.02).

Coffee, species of *Coffea Arabica*, *Coffea robusta* and *Coffea liberica*. Raw coffee in all forms.

It includes, inter alia: coffee beans, not roasted, with or without their skins, not decaffeinated; coffee berries, as gathered from the shrub; green coffee; coffee, not roasted, not decaffeinated; coffee raw, in all forms, not decaffeinated; coffee seeds, with or without skins

### FBS 2633 - Cocoa Beans

Includes: cocoa beans (01640) and the following processed products expressed in terms of primary equivalent: cocoa paste not defatted (23610.01); cocoa paste defatted (23610.02); cocoa powder, sweetened (23640), chocolate and other food preparations containing cocoa (except sweetened cocoa powder), in bulk forms (23650), chocolate and other food preparations containing cocoa (except sweetened cocoa powder), other than in bulk forms) (23660).

Cocoa beans, species of *Theobroma cacao*, the seeds contained in the fruit of the cacao- tree, whether or not separated from their shells, husks, skins or germs, including whole or broken, raw or roasted.

### FBS 2635 – Tea

Includes: tea (01620) and maté leaves (01630), and the following processed products expressed in terms of primary equivalent: extracts, essences and concentrates of tea or mate, and preparations with a basis thereof or with a basis of tea or mate (23914).

Tea, species of *Camellia sinensis*, *Thea sinensis* and *Thea assaamica*, includes green tea (unfermented), black tea (fermented), and partially fermented tea. Excludes green tea eaten as a vegetable.

Mate, species of *Ilex paraguayensis*, the dried leaves of certain shrubs of the holly family which grow in South America. Sometimes known as “Paraguay tea” or “Jesuits’ tea”, it is prepared by infusion, in a way similar to tea, and used for drinks containing a little caffeine.

## Spices

SPICES are vegetable products such as leaves, flowers, seeds and roots that are rich in essential oils and aromatic principles. They are used mainly as condiments. The FAO definitions include ten spices. For practical reasons, spices are considered to be primary crops.

Production data of spices should be reported in terms of ripe, dried or powdered products. Essential oils extracted from spices are included under tobacco and rubber, and among other crops, along with other essential oils.

### FBS 2640 - Pepper

Includes: pepper (piper spp.), raw (01651), and the following processed products expressed in terms of primary equivalent: pepper (piper spp.), processed (23921).

Pepper, species of *Piper nigrum* (black, white pepper) and *Piper longum* (long pepper) is a perennial climbing vines. Includes whole, crushed or ground berries, and also covers pepper dust and sweepings. Black pepper is produced from partially ripe berries, while white pepper is from fully ripe berries which have had the outer hull removed.

Cubeb pepper (*Piper cubeba*) is not included.

### FBS 2641 - Pimento

Includes: chillies and peppers, dry (*capsicum spp.* and *pimenta spp*.), raw (01652), and the following processed products expressed in terms of primary equivalent: chillies and peppers, dry, processed (23922).

Pimento, species of the genus Capsicum(capsicum sweet pepper and chilli pepper), *Capsicum frutescens; Capsicum annuum* (red and cayenne pepper, paprika, chillies, jalapeno pepper, anaheim pepper and pimento) and *Pimenta officinalis* (allspice, Jamaica pepper). In may include Sweepings, of pepper of the genus Capsicum or of the genus Pimenta.

It includes inter alia fresh or dried, whether or not crushed or ground: Hungarian paprika; pepper (clove, English, Indian, Sierra Leone, Spanish, sweet, Turkish, Zanzibar).

Uncrushed or unground fresh pimentos are considered to be vegetables.

### FBS 2642 – Cloves

Includes: cloves (whole stems), raw (01656), and the following processed products expressed in terms of primary equivalent: cloves (whole stems), processed (23926).

Cloves, fruits of evergreen trees Syzygium aromaticum, *Eugenia caryophyllata* and *Caryophyllus aromaticus*, the whole fruit of the clove tree, including the flowers picked before maturity and dried in the sun, and the stems of the clove flowers, whether or not crushed or ground.

### FBS 2645 - Spices, Other

Includes: vanilla, raw (01658), cinnamon and cinnamon-tree flowers, raw (01655), nutmeg, mace, cardamoms, processed (23923), anise, badian, coriander, cumin, caraway, fennel and juniper berries, raw (01654), ginger, raw (01657), other stimulant, spice and aromatic crops, n.e.c. (01699), and the following processed products expressed in terms of primary equivalent: vanilla, processed (23928), cinnamon (canella), processed (23925), nutmeg, mace, cardamoms, processed (23923), anise, badian, coriander, cumin, caraway, fennel and juniper berries, processed (23924), ginger, processed (23927), other spices and aromatics, processed (23929).

Spices other, wether raw or processed, crushed or ground, includes:

* Vanilla, species of *Vanilla planifolia* and *Vanilla pompona.* The fruit (or bean) of a climbing plant of the orchid family. Includes whole, crushed or ground.

It includes inter alia, whether or not fresh, crushed or ground vanilla (pompon, long, short) and vanillin.

* Cinnamon (canella), species of Cinnamomum zeylanicum (Ceylon cinnamon) and Cinnamomum cassia (Chinese, common cinnamon, cassia).

The inner bark of young branches of certain trees of the Laurus family. Includes cinnamon- tree flowers, cinnamon fruit and cinnamon waste (chips), whether whole, crushed or ground.  
It includes inter alia, whether or not fresh, crushed or ground cinnamon (bark, Ceylon dried, Chinese dried, common or fine); cinnamon-tree flowers and cinnamon fruit.

* Nutmeg, whether or not shelled, mace and cardamoms, species of *Myristica fragrans* (Nutmeg, mace), *Elettaria cardamomum* (cluster cardamon), *Aframomum angustifolium*, *Aframomum hambury*, *Amomun aromaticum*, *Amomun cardamomum* (other cardamons) and *Aframomum melegueta* (Malaguetta pepper, grains of paradise).

Nutmeg is the inner brown kernel of the fruit of the nutmeg tree. Mace is the net-like embrane between the outer shell and the kernel. Cardamon seeds are enclosed in the capsule produced by perennial herbs of the Zingiberaceae family.

* Anise, badian, fennel, corian, whether or not raw, crushed or ground, fresh or chilled, including among all:  
  *Pimpinella anisum* (anise)  
  *Illicium verum* (badian or star anise)  
  *Carum carvi* (caraway)  
  *Coriandrum sativum* (coriander)  
  *Cuminum cyminum* (cumin)  
  *Foeniculum vulgare* (fennel)  
  *Juniperus communis* (juniper berries)  
    
  Seeds and berries from the various plants listed. They are normally used as spices, but also have industrial (e.g. in distilleries) and medicinal applications. Fennel seeds, raw, used as spice.
* Ginger, whether or not crushed or ground, species of *Zingiber officinale*. Rhizome of a perennial herb. It also is used for making beverages. Includes fresh, provisionally preserved or dried, whereas ginger preserved in sugar or syrup is excluded.

Other spices not elsewhere classified are also here included.

## Alcoholic beverages

BEVERAGES include five main groups of commodities that differ by source, use, nutritive value and in their commercial importance. The first group includes those products usually found in nature and used mainly for drinking purposes, such as water, ice and snow. Mineral water and aerated water, even when artificially produced, are also included here. The second group includes water to which sweeteners and flavourings have been added. This group of beverages has been gaining large markets in recent years and represents an important contribution to food consumption in some areas because of the sweetener content (up to 20% by weight) of these beverages. The third group includes the most traditional alcoholic beverages consumed by humans. Typically, the alcohol content of these beverages, which is obtained through fermentation of many vegetable crops, varies between 3 and 25%. The fourth group refers to undenatured ethyl alcohol with alcoholic strength by volume of less than 80%, and usually between 40 and 50%. This category includes all the distilled alcoholic beverages, whether or not sweeteners and/or flavourings have been added. The fifth and final group includes products that are not for human consumption, but are included here because they are closely related to alcoholic beverages. In this case, the strength of alcohol by volume is 80% and higher. This group includes both undenatured and denatured alcohol.

### FBS 2655 – Wine

Includes: wine (24212.02), sparkling wine of fresh grapes (24211), and vermouth and other wine of fresh grapes flavoured with plats or aromatic substances (24220).

Wine of fresh grapes, the final product of the alcoholic fermentation of the must of fresh grapes of all qualities, including sparkling (charged with carbon dioxide), fortified and dessert wines (generally obtained from must with a high sugar content, only part of which is converted to alcohol by fermentation).

Dessert (or liqueur) wines include, inter alia, Canary, Cyprus, Lacryma Christi, Madeira, Malaga, Malmsey, Marsala, Port, Samos and Sherry.

It includes Champagne.

Vermouths and other wine of fresh grapes flavoured with plats or aromatic substances include~~s~~ beverages made with wine of fresh grapes and flavoured with aromatic substances.

### FBS 2656 - Beer of Barley

Includes: beer of barley, malted (24310.01) and other non-alcoholic caloric beverages (24490).

Beer of Barley is a beverage that may be alcoholic or non-alcoholic, that is made from fermented malted cereals (mainly barley), water and hops. Non-malted cereals may also be used.

The FAO definition differs from the main international classifications in that it includes non-alcoholic beer.

### FBS 2657 - Beverages, Fermented

Includes: wheat-fermented beverages (24230.01), rice-fermented beverages (24230.02), beer of maize, malted (24310.02), beer of millet, malted (24310.03), beer of sorghum, malted (24310.04), cider and other fermented beverages (24230.03) and other non-alcoholic caloric beverages (24490).

Fermented beverages includes:

* Wheat Fermented Beverage, low-alcohol beverages from fermented flour (e.g. Korean jakju and takju), either naturally sparkling or artificially charged with carbon dioxide, may also contain added vitamins or iron compounds. Fruit juices are excluded.
* Rice Fermented Beverages, low-alcohol beverages, such as rice wine and sake.
* Beer of maize, prepared either from malted or unmalted cereal, and beer of millet and sorghum, a traditional beer prepared in African countries in which millets are cultivated. It is normally consumed while still fermenting.

Cider, fermented beverages n.e.c. (e.g. cider, perry, mead), including alcoholic beverages (that are not distilled) made from cereals, roots and fruits, that are not included under other headings, e.g. beer from plantains and ginger.

### FBS 2658 - Beverages, Alcoholic

Includes: spirits, liqueurs and other spirituous beverages of an alcoholic strength by volume of about 40% vol (24131) and other spirituous beverages and undenatured ethyl alcohol of an alcoholic strength by volume of less than 80% vol. (24139).

Distilled alcoholic beverages includes undenatured ethyl alcohol (strength by volume < 80%), spirits, liqueurs and other spirituous beverages and preparations.

It includes, inter alia:

Alcohol, ethyl, undenatured, of an alcoholic strength by volume of less than 80%

Anisette

Aperitifs (excl. those with a basis of wine of fresh grapes)

Aquavit

Armagnac

Arrack

Beverages, spirituous, obtained by distilling alcohol with fruits or other plant parts

Bitters

Brandy (excl. from wine or grape marc)

Brandy obtained by distilling wine or grape marc

Calvados

Cocktails, alcoholic, ready-mixed

Cognac

Cordials, alcoholic

Crèmes (liqueurs)

Curaçao

Egg-nog, alcoholic

Geneva

Gin

Grappa

Juice (fruit (excl. fermented grape juice and grape must), with added alcohol; grape, unfermented, with added alcohol; vegetable, with added alcohol)

Kirsch

Kümmel

Lemonade, alcoholic, unmedicated

Liqueurs

Mirabelle spirits

Quetsch

Rum

Spirits, excl. whisky (obtained by distilling fermented mash of cereal grains; consisting of emulsions of spirit with egg yolk or cream; flavoured with caraway or cumin seeds; from bitter orange peel; from cherries; from cider; from green anise or badian; from juniper berries; from palm wine; from plums; from rice wine; obtained by distilling fermented locust bean juice, mash of potatoes, sugar cane molasses or sugar cane juice, fruits (excl. grapes); wine or grape marc; neutral, undenatured, of an alcoholic strength by volume of less than 80%)

Tafia

Vodka

Whisky, bourbon

Whisky, rye

Whisky, Scotch

Wine, distilled (excl. wine of fresh grapes).

## Products from slaughtered animals

MEAT AND EDIBLE OFFALS. FAO defines MEAT as the flesh of animals used for food. In production data, meat is normally reported inclusive of bone and exclusive of meat that is unfit for human consumption. As reported by individual countries, meat production data may refer either to commercial production (meat entering marketing channels), inspected production (from animals slaughtered under sanitary inspection), or total production (the total of the above- mentioned categories plus slaughter for personal consumption). All FAO annual production data refer to total production.

Country statistics on meat production adhere to one or more of the following concepts:

1. Live weight: the weight of the animal immediately before slaughter.

2. Killed weight: the live weight less the uncollected blood lost during slaughter.

3. Dressed carcass weight: weight minus all parts - edible and inedible - that are removed in dressing the carcass. The concept varies widely from country to country and according to the various species of livestock. Edible parts generally include edible offals (head or head meat, tongue, brains, heart, liver, spleen, stomach or tripes and, in a few countries, other parts such as feet, throat and lungs. Slaughter fats (the unrendered fats that fall in the course of dressing the carcasses) are recorded as either edible or inedible according to country practice. Inedible parts generally include hides and skins (except in the case of pigs), as well as hoofs and stomach contents.

Meat production data for minor animals (poultry, rabbits, etc.) are reported in one of the following three ways: ready-to-cook weight (giblets are sometimes included and sometimes excluded); eviscerated weight (including the feet and head); or dressed weight, i.e. the live weight less the blood, feathers and skin.

FAO data relate to dressed carcass weight for livestock and, wherever possible, ready-to- cook weight for poultry.

Among individual countries, one of the following three concepts is used to measure production:

(A) Production from all animals, of both indigenous and foreign origin, that are slaughtered within national boundaries.

(B) Production from the slaughter of indigenous animals plus exports of live indigenous animals during the reference period. Derived from meat production as follows: production from slaughtered animals plus the meat equivalent of all animals exported alive, minus the meat equivalent of all animals imported alive. As imports/exports of live animals are recorded by FAO in numbers, not weight, animal type and size are of significance.

(C) The biological production concept covers indigenous animals that are either slaughtered or exported live, plus net additions to the stock during the reference period.

Derived from indigenous production as follows: indigenous production plus (or minus) the meat equivalent of the change in the stock numbers during the reference period. Production is expressed in terms of live weight. Changes in the total live weight of all animals are not taken into account.

FAO uses the first concept of meat production in the construction of its food balance sheets and for related indicators. The second concept, indigenous meat production, in measuring the output of the national livestock sector, is useful mainly in the construction of index numbers of agricultural production. The third concept, biological production, would be the most complete as it also reflects changes in the livestock herd, but it is not used because of difficulties in obtaining information from national reporting offices. The prices applied to indigenous meat production are derived from prices of live animals. This covers not only the value of meat, but also the value of offals, fats, hides and skins.

PROCESSED PRODUCTS FROM SLAUGHTERED ANIMALS. Meat (including chilled or frozen), edible offals, fats and hides and skins are considered primary products. The main processed meat products are the following:

1. Cured meats include meats processed with salt and usually containing various additives (such as flavouring and preserving agents), and dried or smoked meat, e.g. bacon and ham made from pig meat. Paté is a spread of finely mashed, seasoned and spiced meat or liver of pig sand poultry.

2. Sausages are highly seasoned products made from meat (usually beef or pig) that has been ground, chopped and encased. Sausages may be fresh, pickled, dry or semi-dry, cooked or uncooked and smoked or unsmoked. Sausages usually contain various additives, such as salt, onions and spices. The casings are made either of prepared animal intestines or synthetic material.

3. Other preserved meats include meat and meat offals that have been boiled, steamed, grilled, fried, roasted or otherwise cooked.

The codes and names of all livestock products - with primary in uppercase letters and processed in upper and lower case letters - are shown in the list that follows, along with any accompanying remarks.

### FBS 2731 - Bovine Meat

Includes: meat of cattle, fresh or chilled (21111), meat of cattle, boneless (21111.01; 21131.02); beef and veal, dried, salted, smoked (21182); meat extracts (21185); sausages of beef and veal (21184.01); beef and veal preparations n.e.c. (21186.01; 21189.01); homogenized meat preparations (23991.04).

Bovine meat, including meat of bovine animals (common trade names are beef and veal) fresh, chilled or frozen, with bone in, and buffalo meat fresh, chilled or frozen, with bone in or boneless.

It includes, inter alia:

Beef, of buffalo, whether with bones or boneless, fresh, chilled or frozen;

Meat, of buffalo, whether with bones or boneless, fresh, chilled or frozen; boneless, packed with salt as a temporary preservative during transport;

Meat, of buffalo, of bovine animals, whether with bones or boneless, fresh or chilled;

Meat, of buffalo, of bovine animals, with bone in, packed with salt as a temporary preservative during transport.

### FBS 2732 - Mutton and Goat Meat

Includes: meat of sheep, fresh or chilled (21115), meat of sheep, frozen (21135), meat of goat, fresh or chilled (21116), meat of goat, frozen (21136).

Mutton and goat meat, including meat of sheep (rams, ewes and lambs) and goat, whether domestic or wild, fresh, chilled or frozen, with bone in or boneless.

Meat of lamb comes from animals of the ovine species not more than 12 months of age.

### FBS 2733 - Pigmeat

Includes: meat of pig with the bone, fresh or chilled (21113.01), meat of pigs, frozen (21133), meat of pig boneless, fresh or chilled (21113.02), pig meat, cuts, salted, dried or smoked (bacon and ham) (21181), sausages and similar products of meat, offal or blood of pig (21184.02), prepared dishes and meals based on meat of pig (21186.02), prepared or preserved meat, meat offal or blood of pig (21189.02).

Pig meat, with the bone in, of domestic or wild pigs (e.g. wild boars and swines), whether fresh, chilled or frozen, includes pig meat, excluding butcher fat and bones. It includes ham, fresh or chilled.

### FBS 2734 - Poultry Meat

Includes: meat of chickens, fresh or chilled (21121), meat of guinea fowl, fresh or chilled (21125), meat of chickens, frozen (21141), meat of guinea fowl, frozen (21145), fatty liver preparations (21189.05); prepared dishes and meals based on meat poultry (21186.03) and prepared or preserved meat, meat offal or blood poultry (21189.03), meat of ducks, fresh or chilled (21122), meat of ducks, frozen (21142), meat of geese, fresh or chilled (21123), meat of geese, frozen (21143), meat of turkeys, fresh or chilled (21124), meat of turkeys, frozen (21144).

Poultry meat may include all types of poultry meat if national statistics do not report separate data.

It includes, inter alia capons, chickens, fowls, domestic (*gallus domesticus* spp.), guinea-fowls, ducks, geese and turkeys, whether or not cut up, fresh, chilled or frozen.

Chicken, goose or duck livers are also included. Fatty livers of geese or ducks which may be distinguished from other livers by the fact that they are much larger and heavier, firmer and richer in fat.

### FBS 2735 - Meat other

Includes: meat of pigeons and other birds n.e.c., fresh, chilled or frozen (21170.01), Horse meat, fresh or chilled (21118.01), meat of asses, fresh or chilled (21118.02), meat of mules, fresh or chilled (21118.03), meat of horses and other equines, frozen (21138), meat of camels, fresh or chilled (21117.01), meat of other domestic camelids, fresh or chilled (21117.02), meat of camels and camelids, frozen (21137), meat of rabbits and hares, fresh or chilled (21114), meat of rabbits and hares, frozen (21134), meat of other domestic rodents, fresh or chilled,(21119.01), game meat, fresh, chilled or frozen (21170.02), other meat of mammals, frozen (21139), other meat and edible meat offal, salted, in brine, dried or smoked; edible flours and meals of meat or meat offal (21183), other meat of mammals, fresh or chilled (21119.90), other meat n.e.c. (excluding mammals), fresh, chilled or frozen (21170.92), other sausages and similar products of meat, offal or blood n.e.c. (21184.03), other prepared dishes and meals based on meat (21186.90), other prepared or preserved meat, meat offal or blood n.e.c. (21189.90), snails, fresh, chilled, frozen, dried, salted or in brine, except sea snails (02920).

Other meat includes fresh, chilled or frozen meat of the following animals: pigeons and other birds n.e.c., horses, asses, mules, camels, rabbits (may include hare meat), other domestic rodents and camelids, games (meat and offals of wild animals) and snails, other than sea snails.

Meat n.e.c. includes, inter alia, frog legs and marine mammals, fresh, chilled or frozen. Some countries include under this heading meats that are listed above, but which are not reported separately.

Other meat not elsewhere classified are also here included.

### FBS 2736 - Offals edible

Includes: edible offal of cattle, fresh, chilled or frozen (21151), liver preparations (21189.04), edible offal of buffalo, fresh, chilled or frozen (21152), edible offal of sheep, fresh, chilled or frozen (21155), edible offal of goat, fresh, chilled or frozen (21156), edible offal of pigs, fresh, chilled or frozen (21153), edible offals and liver of chickens and guinea fowl, fresh, chilled or frozen (21160.01), edible offals and liver of geese, fresh, chilled or frozen (21160.02), edible offals and liver of ducks, fresh, chilled or frozen (21160.03), edible offals and liver of turkey, fresh, chilled or frozen (21160.04), edible offals of horses and other equines, fresh, chilled or frozen (21159.01), raw hides and skins of goats, n.e.c. (02954.90), edible offals and liver of chickens and guinea fowl, fresh, chilled or frozen (21160.01), edible offals of mammals n.e.c., fresh, chilled or frozen (21159.90), offals n.e.c. (excluding mammals), fresh, chilled or frozen (21170.93).

Edible offals includes fresh, chilled or frozen offals of the following animals: cattle, bovine animals, buffaloes, sheeps, goats, pigs, horses, camels (tongues, livers, heads and cuts thereof (including ears), feet, tails, hearts, udders, livers, kidneys, sweetbreads (thymus glands and pancreas), brains, lungs, throats, thick skirts, thin skirts, spleens, tongues, caul, spinal cords, edible skin, reproductive organs (e.g., uteri, ovaries and testes), thyroid glands, pituitary glands), liver of any animal (excluding fatty livers of ducks and geese when cooked, prepared or preserved (e.g. paté)), chickens including gwinea fowls, turkey, geese and ducks (the poultry offal of greatest importance in international trade is chicken, goose or duck livers. These include “fatty livers” of geese or ducks).

Edible offals includes, inter alia, primates, whales, dolphins and porpoises fresh, manatees and dugongs, seals, sea lions and walruses, reptiles, rabbit, hare, frog, reindeer, beaver and turtle.

## Animal fats and oils

This group includes animal fats that are obtained in the course of dressing the carcasses of slaughtered animals (slaughter fats), or at a later stage in the butchering process when meat is being prepared for final consumption (butcher fats). Butter and similar products obtained from milk are included in with products from live animals. Processed animal fats include lard obtained by melting raw pig fat and tallow obtained from raw fat of other animal species. Animal fats are largely used in the production of margarine, shortening and compound fat. They also enter into many processed food products. Industrial and non-food uses of animal fats include the production of soaps, fatty acids, lubricants and feedstuffs.

### FBS 2740 - Butter, Ghee

Includes: butter of cow milk (22241.01), ghee from cow milk (22241.02), butter of buffalo milk (22242.01), ghee from buffalo milk (22242.02), butter and ghee of sheep milk 922249.01), butter of goat milk (22249.02).

Butter of cow milk is an emulsion of milk fat and water that is obtained by churning cream. Trade data cover butter from the milk of any animal.

Ghee from cow milk derives from butter from which the water has been removed. Very common in hot countries. Includes also anhydrous butterfat or butter oil.

This group includes natural butter, whey butter and recombined butter (fresh, salted or rancid, including canned butter). Butter must be derived exclusively from milk, it contains no added emulsifiers, but may contain sodium chloride, food colours, neutralising salts and cultures of harmless lactic-acid-producing bacteria.

Butter and ghee obtained from goat’s or sheep’s milk is also covered by this group.

### FBS 2737 - Fats, Animals, Raw

Includes: cattle fat, unrendered (21512), cattle, butcher fat (21512.01), buffalo fat, unrendered (21513), sheep fat, unrendered (21514), wool grease (21519.01), lanolin (21529.01), goat fat, unrendered (21515), fat of pigs (21511.01), pig, butcher fat (21511.02), pig fat, rendered (21521), fat of poultry (21511.03), poultry fat (21522), fat of camels (21519.02), edible offal of poultry, fresh, chilled or frozen (21160), animal oils and fats n.e.c. (21529.03), lard stearine and lard oil (21529.02), degras (21932.01), tallow (21523), fat preparations n.e.c. (21693.01), animal fats and their fractions, partly or wholly hydrogenated, inter-esterified, re-esterified or elaidinised, whether or not refined, but not further prepared (21590).

Animals fats raw, unrendered slaughter fats from different animals, including edible and inedible fats that are removed in the course of dressing the carcass, whether or not refined, but not chemically modified.

It includes also other animal oils and fats n.e.c., obtained from other animal species and oils and fats recovered from guts, feet, sweepings, hide trimmings, etc.

It includes, inter alia: fat (bone, of bovine animals, sheep or goats, rendered or solvent-extracted; from waste of bovine animals, sheep or goats, rendered); premier jus (oleo stock); tallow (beef and mutton, whether or not fit for human consumption).

## Products from live animals

Milk, eggs, honey and beeswax are included as products of live animals. Fibres of animal origin (mainly wool and silk) are included in fibres of vegetal and animal origin.

MILK AND DAIRY PRODUCTS. Estimates of milk production as reported by countries refer to one or more of the following three concepts. Gross production is milk production plus milk sucked by young animals. Net production excludes milk sucked by young animals but includes milk fed to livestock. Production available for consumption is net production less milk fed to animals, milk retained by farmers for food and feed, direct sales to consumers and farm waste.

The FAO concept relates to net milk production. Data should be reported by kind of milking animal (cow, sheep, goat, etc.) in terms of whole milk and by weight.

In most developed countries only 5-10% of whole milk is used directly for human consumption. The bulk of milk production is processed before being marketed as liquid milk (e.g. standardized, pasteurized, skimmed, etc.), or is manufactured into products such as cream, butter, cheese, evaporated and condensed milk, milk powder, casein, yogurt, ice cream, etc. About 70% of whole milk is processed into dairy products; the by-products of these processes (e.g. skim milk, buttermilk and whey) are used either for feed or are manufactured into other dairy products, e.g. dry skim milk and low-fat cheese. Processed milk and dairy products are often supplemented with vitamins, minerals and various additives.

FAO lists 50 milk and dairy products items in the list that follows, of which five are primary products. Some food products contantining milk are not listed separately by FAO, e.g. eggnog, shaerbet, malted milk, chocolate milk drink and mellorine.

EGGS AND EGG PRODUCTS. Egg production by type of poultry should refer to the total production of eggs in the shell by all types of hens in both the traditional sector (individually owned small flocks) and the modern sector (large-scale, intensive commercial poultry farms). Total production includes eggs for hatching but excludes waste on farms. Countries should report in terms of both numbers and weight.

FAO lists seven egg and egg products items, including four primary and three processed products.

HONEY AND BEESWAX. Honey is the nectar of flowers collected and processed by certain insects, especially the honey-bee. Production data should cover the amount sold by the beekeepers plus other recorded collection of honey. Bees store honey in honeycombs that consist of hexagonal wax cells. The beeswax that is obtained by melting honeycombs with boiling water is used in candles, cosmetics and other non-food products.

The FAO codes and the names of milk and dairy products, eggs and egg products, and honey and beeswax are listed below along with any necessary remarks.

### FBS 2744 - Eggs

Includes: hen eggs in shell fresh, for hatching (02311), other hen eggs in shell fresh (02312), and the following processed products expressed in terms of primary equivalent: eggs, liquid (23993.02), eggs dried (23993.03), eggs from other birds in shell fresh, for hatching (02321), other eggs from other birds fresh in shell (02322), egg albumin (23993.01).

Eggs hen, ducks, geese, ostriches, quail and turkeys, fresh, in shell, not for hatching, weight in shell.

Fertilised eggs for incubation and other fresh (including chilled) eggs of all birds are included. It also covers preserved or cooked eggs, in shell.

### FBS 2848 – Milk, Excluding Butter

Includes: raw milk of cattle (02211), and the following processed products expressed in terms of primary equivalent: skim milk of cows (22110.02), whole milk, condensed (22222.01), whey, condensed (22130.03), yoghurt (22230.01), yoghurt, with additives (22230.02), buttermilk (22230.03), whole milk, evaporated (22221.01), skim milk, evaporated (22221.02), skim milk, condensed (22222.02), whole milk powder (22211), skim milk and whey powder (22212), buttermilk, dry (22230.04), whey, dry (22130.02), cheese from whole cow milk (22251.01), cheese from skimmed cow milk (22251.02), whey cheese (22251.03), processed cheese (22251.04), reconstituted milk (22110.03), casein (22260), raw milk of buffalo (02212), skim milk of buffalo (22110.04), cheese from milk of buffalo, fresh or processed (22252), raw milk of sheep (02291), cheese from milk of sheep, fresh or processed (22253), skim sheep milk (22110.05), raw milk of goats (02292), cheese from milk of goats, fresh or processed (22254), skim milk of goat (22110.06), raw milk of camel (02293), whey, fresh (22130.01), dairy products n.e.c. (22290), ice cream and other edible ice (22270).

Fresh milk of cattle (cow and yak), buffalo, sheep, goat and camel.

Production data refer to raw milk containing all its constituents. Trade data normally cover milk from any animal, and refer to milk that is not concentrated, pasteurized, sterilized or other-wise preserved, homogenized or peptonized. It includes raw milk.

Butter is excluded (cf. FBS 2740: 22241.01, 22242.01, 22249.01, 22249.02).

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<http://www.fao.org/waicent/faoinfo/economic/faodef/faodefe.htm>

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1. The FCL structure and definitions are available on FAO Statistics Division at: [www.fao.org/waicent/faoinfo/economic/faodef/faodefe.htm](http://www.fao.org/waicent/faoinfo/economic/faodef/faodefe.htm) [↑](#footnote-ref-2)
2. <http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=28>; <http://unstats.un.org/unsd/publication/SeriesM/SeriesM_34rev4e.pdf> [↑](#footnote-ref-3)
3. <http://www.fao.org/docrep/003/X9892E/X9892E00.htm#TopOfPage> [↑](#footnote-ref-4)
4. The FAOSTAT commodity list (FCL) is the classification of commodities used in FAOSTAT since the 1960’s. Originally it was based on the UN Standard International Trade Classification (SITC) . It includes 683 commodities, grouped in 20 chapters (or groups) and covers crops, livestock and their derived products. It excludes agricultural inputs (such as fertilizers, pesticides and machinery) and fishery and forest products, for which different classifications and lists are used in FAOSTAT. [↑](#footnote-ref-5)
5. <http://www.wcoomd.org/en/topics/nomenclature/instrument-and-tools/hs_nomenclature_2012/hs_nomenclature_table_2012.aspx> [↑](#footnote-ref-6)
6. Products follow the SNA definition i.e. *all output of economic activities* that can be the object of domestic or international transactions or that can be entered into stocks including transportable goods, non transportable goods, services and other products. [↑](#footnote-ref-7)
7. Valentina Ramaschiello, “*CPC Ver.2 Review and Harmonization with Food and Agriculture Statistics in FAO*”. Food and Agriculture Organization of the United Nations. presented at the Expert Group Meeting on International Classifications, UNSD, New York, May 2011, http://unstats.un.org/UNSD/class/intercop/expertgroup/2011/AC234-15.PDF [↑](#footnote-ref-8)
8. <http://unstats.un.org/unsd/cr/registry/cpc-21.asp> [↑](#footnote-ref-9)
9. Valentina Ramaschiello (FAO), “*CPC implementation and other activities on classifications in FAO*”, presented at the Expert Group Meeting on International Classifications, UNSD, New York, May 2015, <http://unstats.un.org/unsd/class/intercop/expertgroup/2015/AC289-16.PDF>; Valentina Ramaschiello (FAO), “*Aligning Classifications for Agricultural Statistics with Other International Standards*”, presented at the Expert Group Meeting on International Classifications, UNSD, New York, May 2013, <HTTP://UNSTATS.UN.ORG/UNSD/CLASS/INTERCOP/EXPERTGROUP/2011/AC234-15.PDF> Valentina Ramaschiello (FAO), “*CPC Ver.2 Review and Harmonization with Food and Agriculture Statistics in FAO*”, presented at the Expert Group Meeting on International Classifications, UNSD, New York, May 2011, <http://unstats.un.org/UNSD/class/intercop/expertgroup/2011/AC234-15.PDF> [↑](#footnote-ref-10)
10. A classification at the lowest aggregation level is directly recoded to the revised classification. For example, the old code 12345 is recoded to 56789 and the historical data for 12345 are assigned to 56789. This method, also called “*key method*”, assures a straightforward relationship between the old and the new results, as the old data are simply transferred to the new classification. The process and outcomes should, however, be documented and communicated to the users. The “key method” is described in Gert Buiten, Jarl Kampen and Sidney Vergouw, 2009, “*Producing historical time series for STS-statistics in NACE Rev.2*”, Discussion paper (09001), Statistics Netherlands.

    <http://www.cbs.nl/NR/rdonlyres/A8A9AB3B-37F6-480A-BA76-253979DED22D/0/200901x10pub.pdf> [↑](#footnote-ref-11)
11. FAO. 2001. “*Food Balance Sheet: A Handbook*” <http://www.fao.org/docrep/003/X9892E/X9892E00.HTM> [↑](#footnote-ref-12)
12. Andrew Hancock, “*Best Practice Guidelines for Developing International Statistical Classifications*”, presented at the Meeting of the Expert Group on International Classifications, UNSD, New York, May 2013 <http://unstats.un.org/unsd/class/intercop/expertgroup/2013/AC267-5.PDF> [↑](#footnote-ref-13)
13. FAO. 2001. “*Food Balance Sheet: A Handbook*” <http://www.fao.org/docrep/003/X9892E/X9892E00.HTM> [↑](#footnote-ref-14)
14. [↑](#footnote-ref-15)
15. As per the last version of the Food Balance Sheets handbook (FAO. 2011. “*Food Balance Sheet: A Handbook*” <http://www.fao.org/docrep/003/X9892E/X9892E00.HTM>), fish and fisheries products include: freshwater fish, demersal fish, pelagic fish, crustaceans, molluscs, aquatic mammals meat, aquatic plants. Those products are not available in FCL, not owned by ESS, and definitions might be provided by the Fishery Department if needed. [↑](#footnote-ref-16)