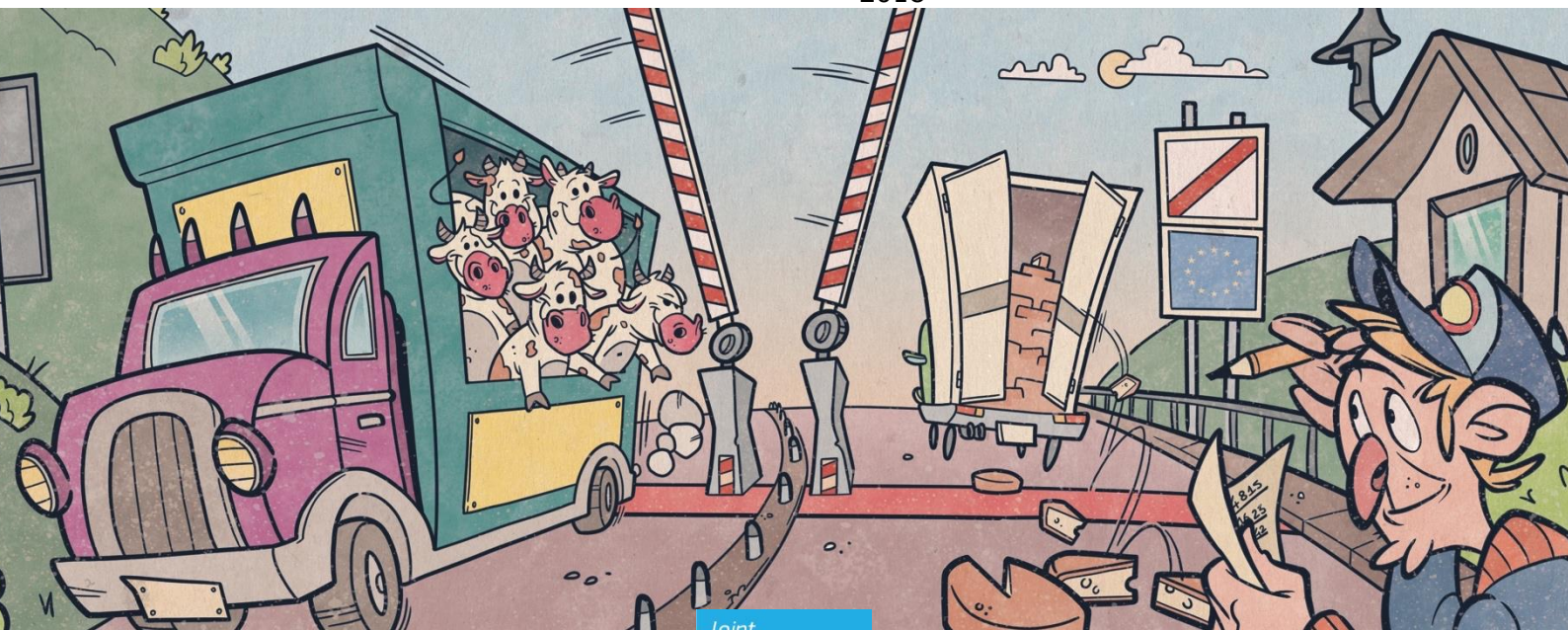


SCIENTIFIC INFORMATION SYSTEMS AND DATABASES

A simplified balance sheet to estimate apparent use of meat, crops and dairy products at EU Member State level

*The "DG AGRI–JRC
Production, trade and
apparent use" dataset
and interactive
dashboard.*

Gorrín C., Caivano A.
2018



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A simplified balance sheet to estimate apparent use of meat, crops and dairy products at EU Member State level

"DG AGRI-JRC – Production, trade and apparent use" combines data from COMEXT and DG AGRI's short-term outlook for EU agricultural markets, providing historic data on production at Member State level based on Eurostat. Since information on stocks and the various uses of products are not available in official statistics, consumption is approximated via apparent use which includes all domestic uses by the industry (whether for feed, food or the bioeconomy), households and stock variation.

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Foreword

The lack of official figures on the consumption of agricultural commodities at EU Member State level poses difficulties for the communities of agro-economic modellers.

Researchers make redundant efforts to calculate these numbers using independent methodologies, with the result that the inputs used in their models are probably incongruent.

In recent years, increasing interest has been expressed by agro-economic modellers in having a shared and standardised balance sheet at Member State level. Consequently, within the context of iMAP, an initiative for producing a dataset approximating this balance sheet has emerged.

iMAP is a policy support-oriented platform that comprises a number of partial equilibrium¹ and computable general equilibrium² models. iMAP is hosted by the JRC in close cooperation with the Directorate General for Agriculture and Rural Development of the European Commission and many academic and international research institutions.

The construction of this balance sheet is based on data from the Eurostat database COMEXT and the DG AGRI STO database, which is based on data from DG AGRI market experts. They are combined using a methodology developed jointly by DG AGRI and the JRC. In combining two statistical databases, given the caveats mentioned in this report, the resulting dataset cannot be considered being a statistical dataset itself. It can only be considered as a reasonable estimate for Member State level balance sheet for agricultural commodity products.

This dataset is made publicly available so that the benefits of the iMAP platform can be shared with other modellers and with anyone interested in figures concerning EU agricultural consumption.

Acknowledgements

The initiative, main inputs and words of caution for implementing this project came from managers of DG AGRI and the JRC involved with the iMAP platform: Tassos Haniotis, Sophie Hélaïne, Giampiero Genovese, Pierluigi Lonero, Robert M'barek, and Fabien Santini, who provided us with important explanations about the factors that might influence the reliability of certain estimates.

Cornelia Suta was in charge of the analysis in the first phase of this project at the JRC. Her handover notes were very helpful for the continuation and finalisation of this work.

The detailed analysis was conducted by the JRC on the basis of DG AGRI inputs and feedback provided by Debora Gatelli and David Zaitegui.

The Eurostat support team, especially Romaine Frising and Benoît Faes, provided valuable help on the use of the COMEXT database and the COMEXT analytical client.

The technical solutions created by Saulius Tamošiūnas (JRC) for the rapid implementation of the web interactive dashboards in DataM, and by Javier Castro Malet (JRC) for the rapid data download and for the integration with the open data portals, made a great contribution to the finalisation of the project.

¹ AGLINK-COSIMO, CAPRI and AGMEMOD.

² MAGNET, GLOBE and RegEU27.

Authors

Celso Jesús Gorrín González (JRC) is the business analyst and the software developer of the computer processes used to generate the dataset and the interactive dashboards. He also prepared the software documentation.

Arnaldo Caivano (JRC) coordinated the team in charge of this project. He redacted this report and integrated the software documentation into the methodology and process chapters.

The methodology chapter is based on the business analysis document. The process chapter is a summary of the software architecture document.

Abstract

In order to provide modellers of the IMAP platform with a shared reference data source, the JRC and DG AGRI agreed to construct and publish a new dataset containing calculations on the apparent use of several agricultural commodities (cereals, oilseeds, dairy products and meat) to provide an approximation of their use at Member State level.

This last indicator cannot be calculated because of the lack of information on stocks and the various uses of products disaggregated at Member State level.

This new dataset also incorporates a calculation of GIP for animals, obtained as the net production plus the trade balance of live animals.

In the context of the public release of the dataset, this report aims to explain to users how to access this data, what the data structure is, which data sources are used, and what the methodology behind the dataset's construction is with the main processes used to implement this methodology for assuring users of an accurate regular update.

Particular attention is paid to the explanation of the limitations of the methodology.

1 The product

“DG AGRI–JRC – Production, trade and apparent use” is released in April 2018 on the agro-economic portal DataM of the European Commission's public website. Links can be also accessed with the below QR codes.

Figure 1. QR code – DataM URL: <https://datam.jrc.ec.europa.eu>



Source: JRC, 2018.

Using DataM, users can:

1. make a bulk download of the dataset as a CSV file compressed into a ZIP file (Figure 2);

Figure 2. QR Code – direct data download:
<https://datam.jrc.ec.europa.eu/datam/perm/od/33243e5e-44a1-4b43-9444-31d64dc7921f/download/dataset.zip>



Source: JRC, 2018.

2. make a guided download of the part of the dataset of interest (Figure 3);

Figure 3. QR Code – direct link to the dataset:

<https://datam.jrc.ec.europa.eu/datam/perm/od/33243e5e-44a1-4b43-9444-31d64dc7921f>



Source: JRC, 2018.

3. use, explore and analyse the data through an interactive dashboard (Figure 4).

Figure 4. QR Code – direct link to the interactive dashboard:

https://datam.jrc.ec.europa.eu/datam/mashup/PROD_TRADE_USE



Source: JRC, 2018.

1.1 Structure of the dataset

The “DG AGRI–JRC – Production, trade and apparent use” dataset is presented as a table with columns containing the following information:

- year (from 2002 to present; for some commodities, this field corresponds to the marketing year);
- country;
- indicator (also called “attribute”; a list of the available indicators is in Annex 1);
- value;
- unit of measurement.

The dataset is delivered in CSV format with a header row.

Users can either make a bulk download of the whole dataset or filter only the data of interest.

The filename, in addition to specifying the name of the dataset, includes a time stamp indicating when the query was executed:

DataM-Export_DG_AGRI-JRC_-_Production__trade_and_apparent_use_YYYYMMDD_HHMM.csv

Figure 5 shows an example of a simple extraction for one country, one indicator (or attribute) and one commodity for the last 6 years.

Figure 5³. Example of dataset page with some filters

The screenshot displays the DataM interface for the dataset "DG AGRI–JRC – Production, trade and apparent use". The page is titled "Filters" and includes a navigation bar with "Home", "News", "Datasets", "Resources", "Administration", "Application log", "About", and "Usage statistics". A "Track changes" button is visible in the top right. The main content area shows a filter configuration for "Year" (2013 to 2018), "Dimension filters" (Country (1/31): Austria, Attribute (1/26): Apparent use, Commodity (1/29): ACIDIFIED MILK), and a table of selected countries. The table has columns for "Name" and "NUTS Code". The selected country is Austria (AT). Below the table, there are filters for "Attribute" (1 element selected) and "Commodity" (1 element selected). A "Bulk download of all the data" link is also present.

Name	NUTS Code
<input checked="" type="checkbox"/> Austria	AT
<input type="checkbox"/> Belgium	BE
<input type="checkbox"/> Bulgaria	BG
<input type="checkbox"/> Croatia	HR
<input type="checkbox"/> Cyprus	CY
<input type="checkbox"/> Czech Republic	CZ
<input type="checkbox"/> Denmark	DK
<input type="checkbox"/> EU-16	EU-16
<input type="checkbox"/> EU-28	EU-28
<input type="checkbox"/> EU-N13	EU-N13

Source: JRC, 2018.

³ The look and feel of this screen may slightly change in future versions of DataM

The resulting output can be opened as a table using any commonly available spreadsheet software (Table 1).

Table 1. Example of a simple dataset extraction with filters

Year	Country	Attribute	Commodity	Value in DG AGRI-JRC – Production, trade and apparent use	UOM	Provider
2013	Austria	Apparent use	ACIDIFIED MILK	161.4372	THOUSAND TONS	DG AGRI-JRC – Production, trade and apparent use
2014	Austria	Apparent use	ACIDIFIED MILK	156.7571	THOUSAND TONS	DG AGRI-JRC – Production, trade and apparent use
2015	Austria	Apparent use	ACIDIFIED MILK	159.3449	THOUSAND TONS	DG AGRI-JRC – Production, trade and apparent use
2016	Austria	Apparent use	ACIDIFIED MILK	160.7437	THOUSAND TONS	DG AGRI-JRC – Production, trade and apparent use

Source: DataM, provided by the European Commission – Joint Research Centre. Dataset: DG AGRI-JRC – Production, trade and apparent use, accessed on 05/04/2018.

Please note that the extraction also includes a “Provider” column in which the dataset name is specified by default. This column is relevant if observations for the same combination of dimensional values are found in other DataM datasets and the user explicitly chooses to extract these as well.

1.2 The interactive dashboard

The interactive dashboard allows users to undertake their own analysis of the dataset.

It consists of a number of sheets dedicated to the crops, milk, dairy, meat and live animals sectors.

In the first release, the following screens are available:

- MEAT – DETAILED TABLES
- MEAT – NET PRODUCTION/GIP
- CROPS – PRODUCTION/APPARENT USE
- LIVE ANIMALS – TRADE
- MEAT – TRADE
- DAIRY – TRADE
- CROPS – DETAILED TABLES
- DAIRY – PRODUCTION/APPARENT USE
- MILK – NET PRODUCTION/DELIVERIES
- DAIRY – DETAILED TABLES
- CROPS – TRADE

Further evolutions of the number and variety of sheets will be possible.

Figure 6. Navigating within the sheets



Source: JRC, DataM, 2018.

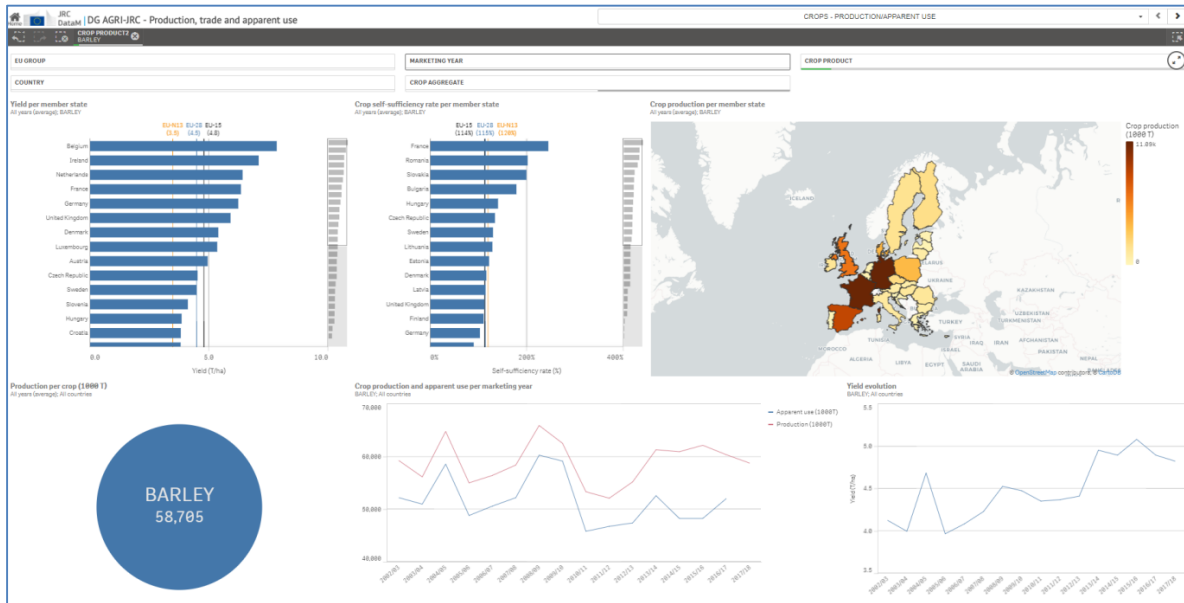
Each dashboard consists of a screen with a number of different visualisations (tables, charts and maps) and some filtering boxes.

The key strength of the tool is that all these visualisations are interactive and interrelated. This allows users to study the data by means of simple mouse gestures.

The DataM visualisation framework is quite intuitive; some basic guidelines to facilitate its use will follow.

All DataM dashboards are similar to the example shown in Figure 7.

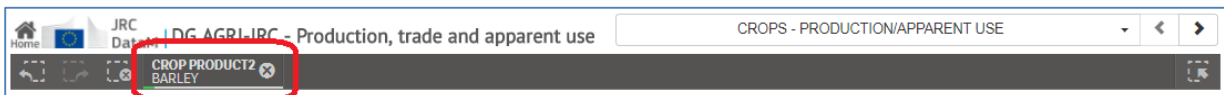
Figure 7. CROPS – PRODUCTION/APPARENT USE dashboard



Source: DataM, provided by the European Commission – Joint Research Centre. Dashboard: DG AGRI-JRC – Production, trade and apparent use, accessed on 02/02/2018.

In Figure 7, the visualisations show the situation for barley; the currently active selections are always shown in the dark-grey bar at the top (see Figure 8).

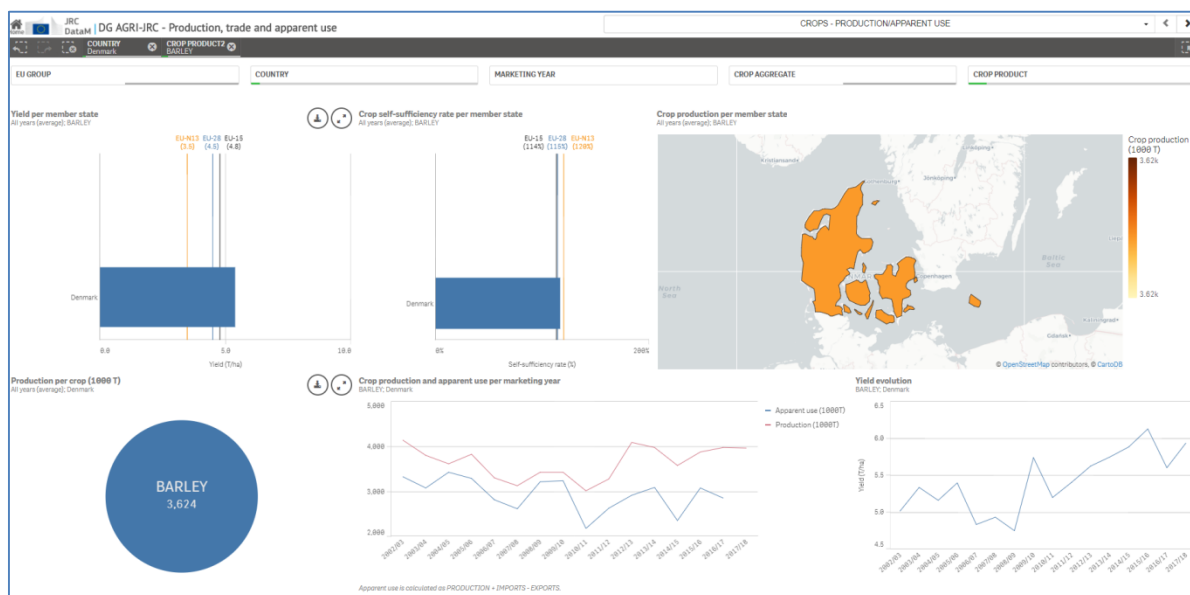
Figure 8. The selection bar



Source: DataM, provided by the European Commission – Joint Research Centre. Dashboard: DG AGRI-JRC – Production, trade and apparent use, accessed on 02/02/2018.

By clicking on any visualisation, for example by clicking on Denmark in the bar chart showing data by country, all the visualisations are recalculated using data concerning only Denmark (in this case, concerning Denmark and barley). For example, in Figure 9 the indicators in both time series charts at the bottom of the dashboard now refer to barley and Denmark.

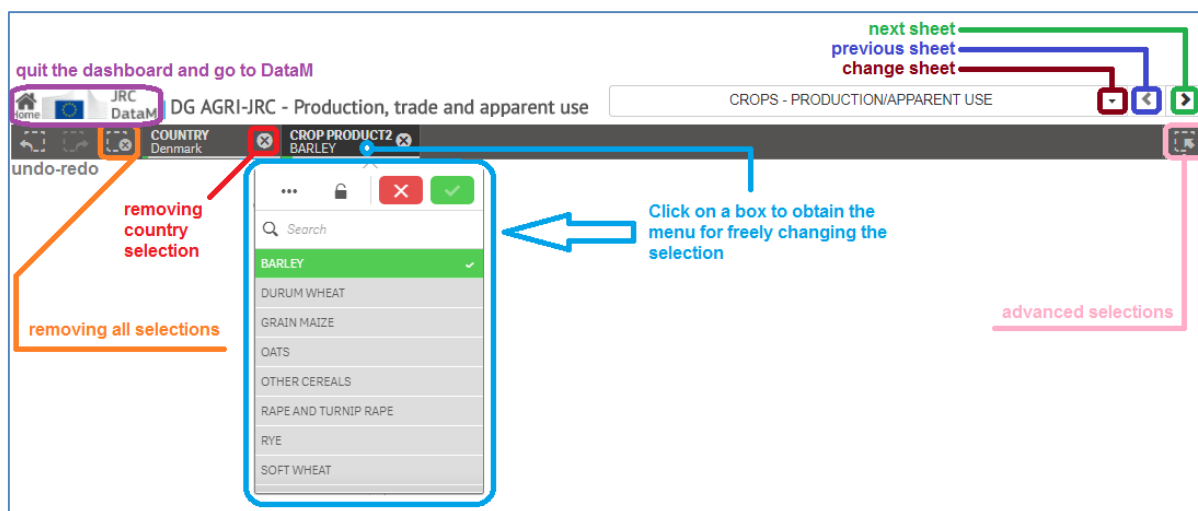
Figure 9. Example of a dashboard after selecting a specific country



Source: DataM, provided by the European Commission – Joint Research Centre. Dashboard: DG AGRI-JRC – Production, trade and apparent use, accessed on 02/02/2018.

Selections can be cancelled or changed using the dark-grey bar at the top of the dashboard (see Figure 10).

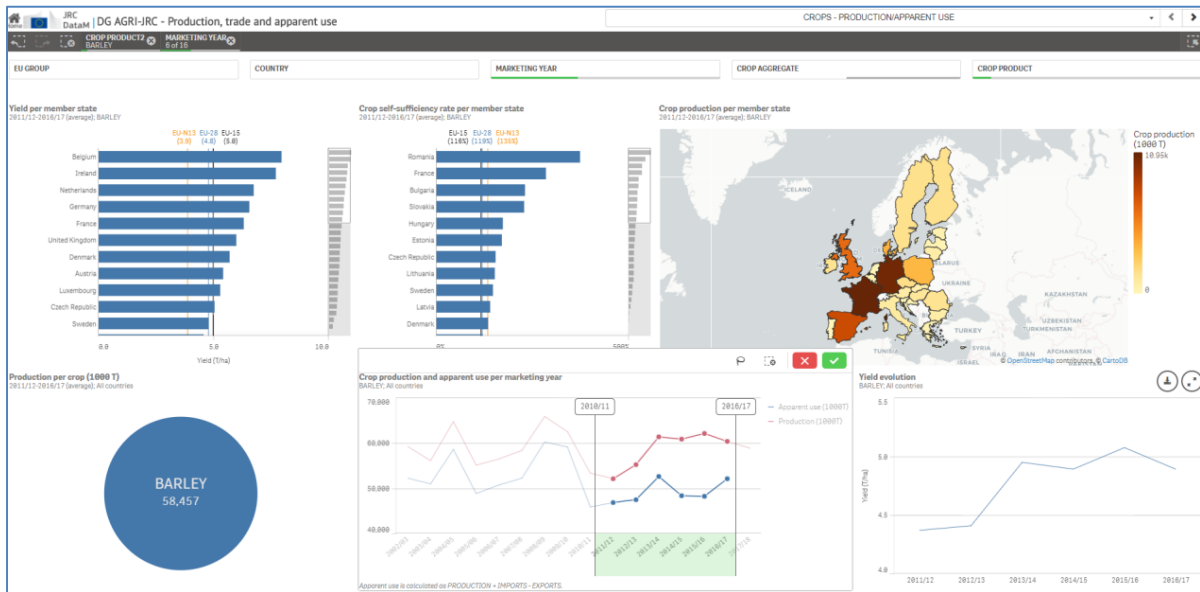
Figure 10. How to revert or change selections



Source: DataM, JRC, 2018.

If, for example, the user deselects Denmark and selects a range of years in a time series, the charts will be recalculated to refer to only that date range (see Figure 11).

Figure 11. Example of selecting a range of years

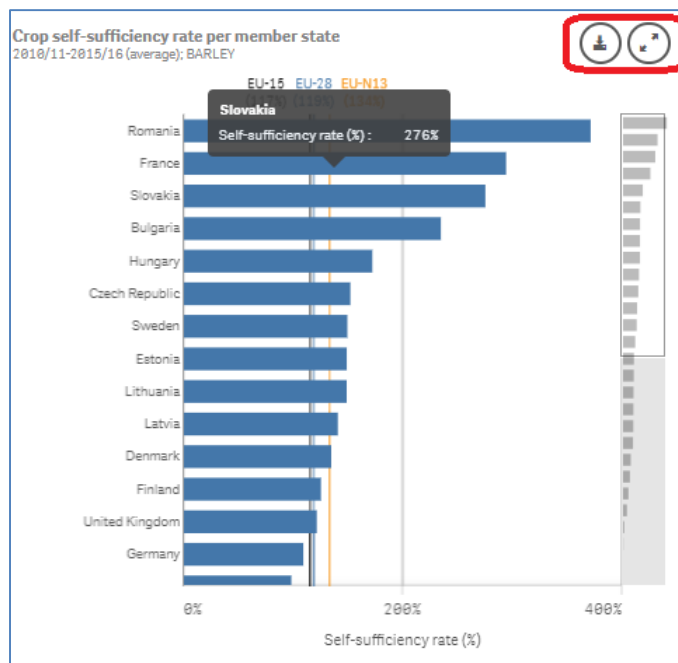


Source: DataM, provided by the European Commission – Joint Research Centre. Dashboard: DG AGRI-JRC – Production, trade and apparent use, accessed on 02/02/2018.

The selection of a range of years from a time series diagram can be made by holding down the left button of the mouse while dragging it along the x-axis.

It should be noted that the two icons at the top-right corner of the visualisations (see Figure 12), which are visible when passed over with the mouse, allow the data for the chart to be downloaded and show the chart in full-screen mode, respectively.

Figure 12. Data download and maximise buttons in visualisations



Source: DataM, provided by the European Commission – Joint Research Centre. Dashboard: DG AGRI-JRC – Production, trade and apparent use, accessed on 02/02/2018.

2 Methodology

For the benefit of the users of this dataset, this chapter describes the assumptions, choices and methods adopted for filtering and combining COMEXT and STO data, and some reasons to be cautious about the indicators that are calculated as outputs.

2.1 Input sources: COMEXT, STO and AMECO

Data on trade is retrieved from COMEXT, a database on trade in goods managed by Eurostat, the statistical office of the European Commission, and specifically from the "EU28 since 1999 by CN (SIMULATED)" dataset.

This dataset incorporates figures for the EU-28 Member States from 1999, even if they were not members of the EU at that time, except for Croatia, for which data is available from only 2002. The frequency of the observations is monthly. The calculation process aggregates them into calendar years or marketing years depending on the product.

The CN8-based aggregates for the different products (codes and coefficients) are the same as the aggregates used by DG AGRI for the STO. These aggregates take into account losses in the value chain and are used for harmonising the units of measurement, as explained in the STO methodology.

In using COMEXT data for STO, DG AGRI defines coefficients for converting product weight into c.w.e for animals, into grain/seed weight for crops and into butter equivalent for butter-derived products.

$$STOweight = quantityInProductWeight * weightCoefficient$$

Box 1. Relevant methodological choices regarding trade data

- Data is taken from 2002, since it has only been available for all the current 28 Member States since then.
- For intra-EU trade, only export declarations are considered. Figures on imports are then derived from them (i.e. intra-EU import declarations from COMEXT are discarded and replaced by their inverse export declarations). For example, figures concerning Italian imports from Belgium are replaced by Belgian exports to Italy. This is because of discrepancies between export and import declarations and because export declarations are higher than those for imports. Indeed Member States are exempted from declaring up to 3% of their intra EU exports and up to 7% of their intra EU imports (or even 9% for Belgium), according to Intrastat rules⁴. Such exemption rules imply that potentially certain minor intra EU flows are not well captured and this can affect significantly the relevance of certain estimates of apparent use and self-sufficiency ratios, particularly for Member States with small production and/or trade of the concerned commodities.
- Trade towards or from other countries (extra-EU trade) is left unchanged and used as reported in COMEXT.
- Because of the impossibility of using inverse (import) declarations, all export declarations to non-specified intra-EU territories are ignored.
- In the case of butter (spreads and total butter, including butter oil), declarations for statistical regimes related to inward processing are not taken into account, as is also the case in the STO dataset. This is because inward processing represents a large proportion of butter imports and the proportion of imported butter consumed as butter in the EU is much smaller (most of inward processing imported butter is re-exported in the form of processed products).

⁴ See the National requirements for the Intrastat system (2018), p8. <http://ec.europa.eu/eurostat/documents/3859598/8512202/KS-07-17-102-EN-N.pdf/736c4a50-c240-4144-b087-4fa6aece8ee0>

- For animal products, the trade is divided into two types: live and meat. Meat trade is used for calculating the apparent use and live trade is used for calculating GIP. They are both reported in c.w.e.
- The same “weight coefficients” applied in STO for COMEXT data are also used in the preparation of the balance sheets. These are listed in Annex 2.

From DG AGRI’s STO dataset, specifically from the detailed sheets at Member State level, data on production are gathered and used as is. In addition, information on raw milk production and deliveries is incorporated into the dataset from the STO data, as well as information on areas, yields, number of animal heads and other indicators.

Population figures are taken from AMECO, the annual macro-economic database of the European Commission’s Directorate General for Economic and Financial Affairs. This database is regularly cited in Commission publications and is indispensable for the analyses and reports of this Directorate General; it contains data for each of the EU-28 Member States, the euro area, all the EU-28 Member States, candidate countries and other OECD countries. Specifically, the total population (NPTN) time series are used.

Population data is not used in the dataset but only in the interactive dashboard to obtain the per capita value of some indicators⁵.

⁵ This is in the first release of April 2018. Possible integration of the per capita indicators also in the dataset might be considered in the future.

2.2 Output indicators and marketing year

The indicators created in this dataset derived from calculations from the input sources are “Apparent use” and “Gross indigenous production” (GIP).

In the interactive dashboards, the “Per capita use” and “Self-sufficiency rate” are also computed.

The first consideration concerns the years that, in time series referring to crops, are expressed in marketing years.

Marketing year N comprises the period from the July of year N to the June of year N+1, inclusive. In the interactive dashboard, these years are shown in the format N/N+1 (e.g. 2002/03).

However, in the dataset, the marketing year for crops and the year for other products are shown in the same column (under “Year”) and are both stored as a single number: Year N in the crops records refers to marketing year N/N+1.

The apparent use is calculated as:

$$\text{apparentUse} = \text{production} + \text{imports} - \text{exports}$$

In the case of animal products, meat trade is used for the calculation.

GIP is calculated for only meat products and it is calculated as:

$$\text{GIP} = \text{netProduction} + \text{liveExports} - \text{liveImports}$$

In the interactive dashboard, the per capita use of a commodity is calculated as:

$$\text{perCapitaUse} = \frac{\text{apparentUse}}{\text{population}}$$

In the interactive dashboard, the self-sufficiency rate is calculated as:

$$\text{selfSufficiencyRate} (\%) = \frac{\text{production}}{\text{apparentUse}} \times 100$$

Box 2. Reasons to be cautious about the output data

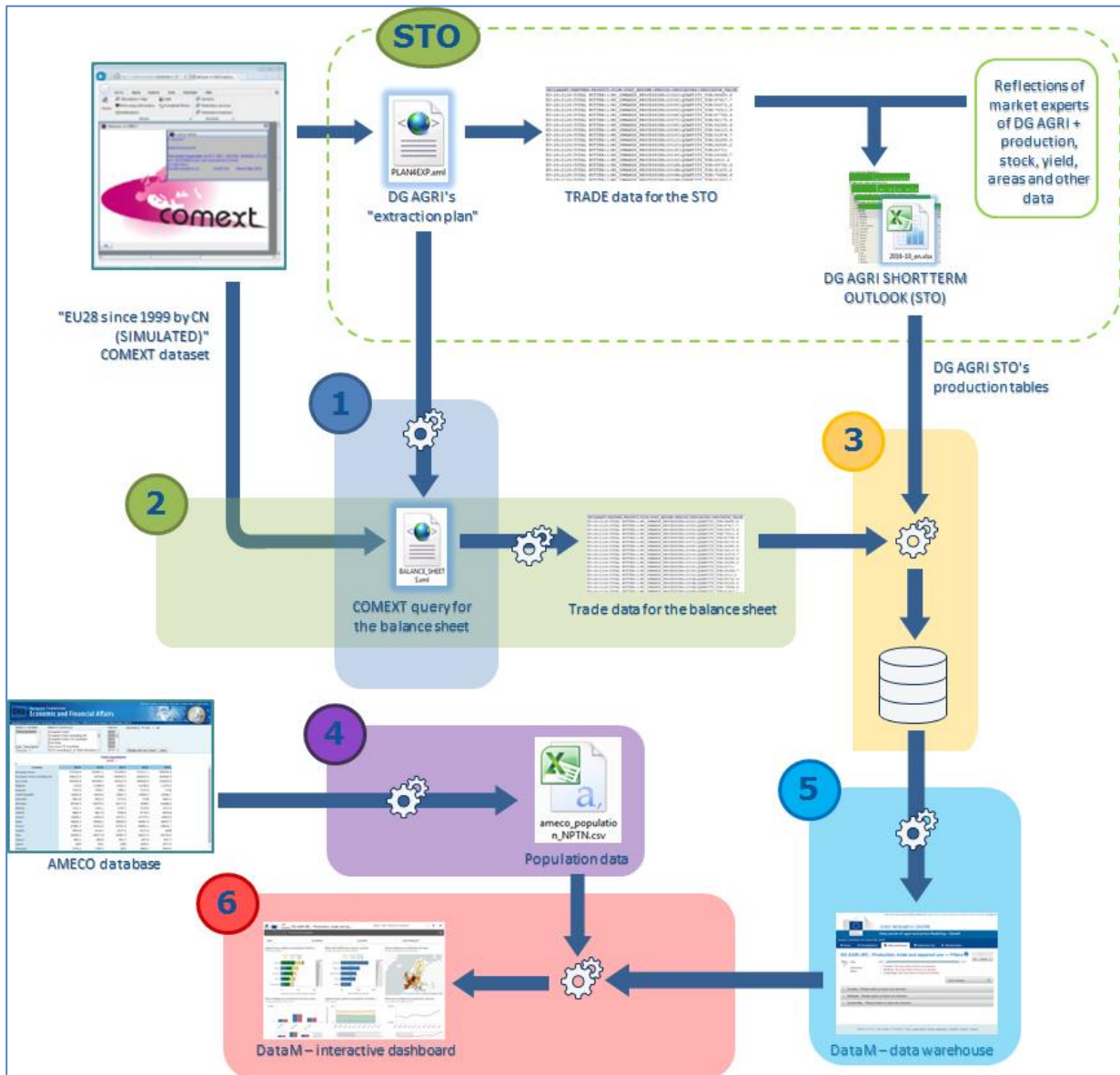
- The “apparent use” calculated in this dataset is an approximation of real use because official data on stocks at Member State level is not available.
- If the apparent use is negative (or surprisingly high), this could indicate a variation in stocks. It could also be due to an inaccurate capture of the intra-EU trade of the concerned Member State.
- The “Per capita use” and “Self-sufficiency rate” shown in the interactive dashboard are both calculated on the basis of apparent use and therefore can also have negative or surprisingly high value.
- Apparent use is not calculated for buttermilk or durum wheat because of large negative results, which cannot be explained as simple variations in stocks.

3 The process

A brief description of the process used to calculate the values in the dataset will provide users with confidence in the quality of the product and help them to trace the origin of the final figures.

3.1 Overview

Figure 13. The process used to create the dataset⁶



Source: JRC, 2018.

⁶ 'The STO dashed section of this figure provides a very simplified view of the process used to build up the DG AGRI STO. The description of the STO process is not within the scope of this document. The STO section is included to highlight the role of the "COMEXT extraction plan", which is crucial in the overall balance sheets process

The process is composed of six steps (see Figure 13):

1. creation of the query to gather trade data from COMEXT by using DG AGRI's "extraction plan";
2. execution of that query to gather trade data from COMEXT;
3. calculation of the dataset;
4. population data download from AMECO;
5. inclusion of the dataset in the DataM data warehouse;
6. data integration for the interactive dashboard.

The process for constructing the dataset is highly automated. Automation ensures the quality and robustness of the dataset:

- The query used for retrieving data on trade from COMEXT is built using a repeatable and deterministic algorithm, which ensures the necessary conformity with data extracted by DG AGRI for the STO dataset.
- Methodologies and assumptions are formalised and are easily maintainable in the source code of these routines.
- Not much human intervention is required to generate periodic updates of the datasets.

3.2 Details

In order to obtain the figures for trade for the STO, DG AGRI performs an extraction from COMEXT, specifically from the dataset "EU28 since 1999 by CN (SIMULATED)".

DG AGRI uses a query called "extraction plan", which defines the selection of elements for each dimension and all the aggregations needed for trade figures at EU level present in the STO, as well as the weight coefficients discussed in the previous chapter.

The query is executed by using the "COMEXT analytical client".

Apart from executing queries, this software allows the export and import of their definitions in standard XML format.

In the construction of the balance sheet, the JRC combines COMEXT trade data with STO production data. Therefore, the trade data that the JRC extracts from COMEXT must be aligned with the filtering and aggregation criteria used in the STO dataset.

In order to ensure such alignment, the JRC generates its query for COMEXT using a computer program that creates aggregates based only on those present in the DG AGRI extraction plan (step 1).

Box 3. Process repeatability

The fact that the JRC query is generated from the DG AGRI query using a software routine ensures that processes used in the periodic updates of the dataset are correct if the DG AGRI extraction plan changes.

Changes in the extraction plan should be expected because, for example, the plan specifies which commodities have to be taken into account and how they should be combined in aggregates. DG AGRI may decide, for internal reasons, to change these specifications or might be obliged to do so because the CN for COMEXT commodities is continuously subject to revision. The automation also ensures the use of the same "weight coefficients" in case of such a revision.

The resulting query defines selections and aggregates for all seven dimensions of the dataset, as outlined in Box 4.

Box 4. Details in the query generated for COMEXT

- **Declarant:** all EU Member States.
- **Partners:** all EU Member States, plus an aggregate including all extra-EU countries and territories. Intra-EU trade without aggregating the partner dimension is needed because, in order to rely exclusively on a particular trade flow (imports, exports) for intra-EU trade, we must be able to insert the "inverse" records.
- **Product:** one aggregate for each product for which the balance is built. A list of DG AGRI's aggregates, which should be added up to calculate the DataM aggregate, is specified in a file. No weights or dates are modified or added. DG AGRI's aggregates already contain all the coefficients and the start and end dates that should be taken into account. Start and end dates are used to define how the aggregates vary over time, especially for adapting to the evolution of the CN (new, cancelled, merged and split elements). In the case of animals, product aggregate names will be suffixed with 'LIVE' or 'MEAT' to indicate whether the aggregate refers to the trade of the meat of such animals or the animals themselves.
- **Flow:** both imports and exports.
- **Statistical regime:** one aggregate containing all statistical regimes, but inward processing, to be used for butter-related products, and another aggregate containing all statistical regimes (also known as "regime 4"), for all other products.
- **Period:** aggregations of months for calendar and marketing years since 2002. Calendar years are designated by a C and marketing years by an M at the end of the year (e.g. 2010C, 2010M, 2011C, 2011M).
- **Indicator:** the quantity in tons⁷.

The XML query is then imported into the COMEXT analytical client and executed (step 2). The results are then exported as a file.

This file contains rows that will be discarded later but could not be filtered out because of the limitations of the query language of the COMEXT analytical client.

Examples of discarded rows are:

- rows grouping months into marketing years for non-crop products;
- statistical regime 4 (all regimes) for butter;
- import declarations for intra-EU trade.

Step 3 is the key part of the process.

A program is used to copy the results from COMEXT and from the STO Member State-level tables (including those related to raw milk deliveries and production) into a database.

Only useful rows from COMEXT are imported and aggregations are performed to calculate values for the EU-15⁸, EU-N13⁹ and EU-28 Member States for both the reporter and the partner dimensions.

⁷ Short for "metric tons" or "tonnes".

⁸ The 15 Member States of the EU between 1st of January 1995 and 30th of April 2004.

⁹ The 13 Member States that joined the EU on 1st of May 2004 or later.

Next, both trade and production data are combined into a single table, in which GIP and apparent use are calculated. As a final result, this step produces a file containing all the indicators.

In step 4, this file is integrated and consolidated into the DataM data warehouse. The data warehouse is directly connected to the section of the DataM website where users can make a guided download of data and is also the environment from which the DataM dashboards read data.

In step 5, the most updated population data series are automatically downloaded from AMECO. The integration of this operation into a software routine ensures the maintainability and correctness of the process for the periodic updates.

The interactive dashboard requires that the data is integrated into a specific data mart (Step 6). In order to present additional figures indexed by population (e.g.: "per capita use"), this process combines the balance sheet from the data warehouse with the population file extracted from AMECO.

3.3 Technologies

The scripts used to download data from AMECO and to process STO data are in Python scripting language. The same technology is used for the script to construct the XML query from the DG AGRI extraction plan for gathering COMEXT data.

Key calculations and data integrations are made in SQL language on the SQLite platform.

The data warehouse is hosted in an Oracle relational database.

The interactive dashboards are implemented with Qlik Sense BI technology.

4 Conclusions

The “DG AGRI–JRC – Production, trade and apparent use dataset” is released in April 2018 on the agro-economic portal DataM (<https://datam.jrc.ec.europa.eu>).

DG AGRI and the JRC aim to issue a new version of the dataset as soon as a new version of the DG AGRI STO is released by DG AGRI, meaning three times per year.

Every update will also rely on the latest available COMEXT data and AMECO population figures.

In respect of the European Commission’s open data policy, DG AGRI and the JRC plan to ensure visibility and traceability for the dataset by registering it in the following portals:

- JRC open data catalogue (<http://data.jrc.ec.europa.eu>)
- EU open data portal (<https://data.europa.eu/euodp/data/>);
- European open data portal (<https://www.europeandataportal.eu/>).

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List of abbreviations and definitions

AGMEMOD	Agri-food projections for EU Member States
AMECO	Annual macro-economic database of the European Commission
BI	Business intelligence
CAPRI	Common Agricultural Policy Regionalised Impact Modelling System
CN	Combined Nomenclature
COMEXT	Commerce extérieur (external trade)
CSV	Comma separated value
c.w.e.	Carcass weight equivalent
DataM	JRC data portal of agro-economic modelling
DG AGRI	Directorate General for Agriculture and Rural Development
EC	European Commission
EU	European Union
GIP	Gross indigenous production
iMAP	Integrated Modelling Platform for Agro-economic Commodity and Policy Analysis
JRC	Joint Research Centre
MAGNET	Modular Applied General Equilibrium Tool
NPTN	Total population
OECD	Organisation for Economic Co-operation and Development
QR	Quick response
RAMON	Reference and Management of Nomenclatures
SQL	Structured Query Language
STO	Short-term outlook for EU agricultural markets
URL	Universal resource locator
XML	Extensible Mark-up Language

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Annexes

Annex 1. Indicators

Table 2. Indicators used in the dataset and units of measurement (UOM) available for applicable commodities

Attribute	UOM	Applicable commodities
Apparent use	THOUSAND TONS	ACIDIFIED MILK, BARLEY, BUTTER (80-90% FAT), CREAM FOR DIRECT CONSUMPTION, DRINKING MILK, FRESH DAIRY PRODUCTS, GRAIN MAIZE, OATS, OTHER CEREALS, RAPE AND TURNIP RAPE, RYE, SKIMMED MILK POWDER, SOFT WHEAT, SORGHUM, SOYBEAN, SUNFLOWER, TOTAL BUTTER, TOTAL CEREALS, TOTAL CHEESE, TOTAL OILSEEDS, TRITICALE, WHOLE MILK POWDER
Apparent use	THOUSAND TONS (C.W.E.)	BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Carcass weight	KG/HEAD	BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Deliveries	THOUSAND TONS	RAW MILK
Exports (Extra-EU)	THOUSAND TONS	ACIDIFIED MILK, BARLEY, BUTTER (80-90% FAT), BUTTERMILK, CREAM FOR DIRECT CONSUMPTION, DRINKING MILK, DURUM WHEAT, FRESH DAIRY PRODUCTS, GRAIN MAIZE, OATS, OTHER CEREALS, RAPE AND TURNIP RAPE, RYE, SKIMMED MILK POWDER, SOFT WHEAT, SORGHUM, SOYBEAN, SUNFLOWER, TOTAL BUTTER, TOTAL CEREALS, TOTAL CHEESE, TOTAL OILSEEDS, TRITICALE, WHOLE MILK POWDER
Exports (Intra-EU)	THOUSAND TONS	ACIDIFIED MILK, BARLEY, BUTTER (80-90% FAT), BUTTERMILK, CREAM FOR DIRECT CONSUMPTION, DRINKING MILK, DURUM WHEAT, FRESH DAIRY PRODUCTS, GRAIN MAIZE, OATS, OTHER CEREALS, RAPE AND TURNIP RAPE, RYE, SKIMMED MILK POWDER, SOFT WHEAT, SORGHUM, SOYBEAN, SUNFLOWER, TOTAL BUTTER, TOTAL CEREALS, TOTAL CHEESE, TOTAL OILSEEDS, TRITICALE, WHOLE MILK POWDER
Exports (to EU-15)	THOUSAND TONS	ACIDIFIED MILK, BARLEY, BUTTER (80-90% FAT), BUTTERMILK, CREAM FOR DIRECT CONSUMPTION, DRINKING MILK, DURUM WHEAT, FRESH DAIRY PRODUCTS, GRAIN MAIZE, OATS, OTHER CEREALS, RAPE AND TURNIP RAPE, RYE, SKIMMED MILK POWDER, SOFT WHEAT, SORGHUM, SOYBEAN, SUNFLOWER, TOTAL BUTTER, TOTAL CEREALS, TOTAL CHEESE, TOTAL OILSEEDS, TRITICALE, WHOLE MILK POWDER
Exports (to EU-N13)	THOUSAND TONS	ACIDIFIED MILK, BARLEY, BUTTER (80-90% FAT), BUTTERMILK, CREAM FOR DIRECT CONSUMPTION, DRINKING MILK, DURUM WHEAT, FRESH DAIRY PRODUCTS, GRAIN MAIZE, OATS, OTHER CEREALS, RAPE AND TURNIP RAPE, RYE, SKIMMED MILK POWDER, SOFT WHEAT, SORGHUM, SOYBEAN, SUNFLOWER, TOTAL BUTTER, TOTAL CEREALS, TOTAL CHEESE, TOTAL OILSEEDS, TRITICALE, WHOLE MILK POWDER
Gross indigenous production	THOUSAND TONS (C.W.E.)	BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Harvested area	THOUSAND HECTARES	BARLEY, DURUM WHEAT, GRAIN MAIZE, OATS, OTHER CEREALS, RAPE AND TURNIP RAPE, RYE, SOFT WHEAT, SORGHUM, SOYBEAN, SUNFLOWER, TOTAL CEREALS, TOTAL OILSEEDS, TRITICALE
Imports (Extra-EU)	THOUSAND TONS	ACIDIFIED MILK, BARLEY, BUTTER (80-90% FAT), BUTTERMILK, CREAM FOR DIRECT CONSUMPTION, DRINKING MILK, DURUM WHEAT, FRESH DAIRY PRODUCTS, GRAIN MAIZE, OATS, OTHER CEREALS, RAPE AND TURNIP RAPE, RYE, SKIMMED MILK POWDER, SOFT WHEAT, SORGHUM, SOYBEAN, SUNFLOWER, TOTAL BUTTER, TOTAL CEREALS, TOTAL CHEESE, TOTAL OILSEEDS, TRITICALE, WHOLE MILK POWDER
Imports (from EU-15)	THOUSAND TONS	ACIDIFIED MILK, BARLEY, BUTTER (80-90% FAT), BUTTERMILK, CREAM FOR DIRECT CONSUMPTION, DRINKING MILK, DURUM WHEAT, FRESH DAIRY PRODUCTS, GRAIN MAIZE, OATS, OTHER CEREALS, RAPE AND TURNIP RAPE, RYE, SKIMMED MILK POWDER, SOFT WHEAT, SORGHUM, SOYBEAN, SUNFLOWER, TOTAL BUTTER, TOTAL CEREALS, TOTAL CHEESE, TOTAL OILSEEDS, TRITICALE, WHOLE MILK POWDER
Imports (from EU-N13)	THOUSAND TONS	ACIDIFIED MILK, BARLEY, BUTTER (80-90% FAT), BUTTERMILK, CREAM FOR DIRECT CONSUMPTION, DRINKING MILK, DURUM WHEAT, FRESH DAIRY PRODUCTS, GRAIN MAIZE, OATS, OTHER CEREALS, RAPE AND TURNIP RAPE, RYE, SKIMMED MILK POWDER, SOFT WHEAT, SORGHUM, SOYBEAN, SUNFLOWER, TOTAL BUTTER, TOTAL CEREALS, TOTAL CHEESE, TOTAL OILSEEDS, TRITICALE, WHOLE MILK POWDER
Imports (Intra-EU)	THOUSAND TONS	ACIDIFIED MILK, BARLEY, BUTTER (80-90% FAT), BUTTERMILK, CREAM FOR DIRECT CONSUMPTION, DRINKING MILK, DURUM WHEAT, FRESH DAIRY PRODUCTS, GRAIN MAIZE, OATS, OTHER CEREALS, RAPE AND TURNIP RAPE, RYE, SKIMMED MILK POWDER, SOFT WHEAT, SORGHUM, SOYBEAN, SUNFLOWER, TOTAL BUTTER, TOTAL CEREALS, TOTAL CHEESE, TOTAL OILSEEDS, TRITICALE, WHOLE MILK POWDER
Live exports (Extra-EU)	THOUSAND TONS (C.W.E.)	BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Live exports (Intra-EU)	THOUSAND TONS (C.W.E.)	BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Live exports (to EU-15)	THOUSAND TONS (C.W.E.)	BOVINE, PIGS, POULTRY, SHEEP AND GOATS

Live exports (to EU-N13)	THOUSAND (C.W.E.)	TONS	BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Live imports (Extra-EU)	THOUSAND (C.W.E.)	TONS	BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Live imports (from EU-15)	THOUSAND (C.W.E.)	TONS	BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Live imports (from EU-N13)	THOUSAND (C.W.E.)	TONS	BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Live imports (Intra-EU)	THOUSAND (C.W.E.)	TONS	BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Meat exports (Extra-EU)	THOUSAND (C.W.E.)	TONS	BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Meat exports (Intra-EU)	THOUSAND (C.W.E.)	TONS	BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Meat exports (to EU-15)	THOUSAND (C.W.E.)	TONS	BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Meat exports (to EU-N13)	THOUSAND (C.W.E.)	TONS	BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Meat imports (Extra-EU)	THOUSAND (C.W.E.)	TONS	BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Meat imports (from EU-15)	THOUSAND (C.W.E.)	TONS	BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Meat imports (from EU-N13)	THOUSAND (C.W.E.)	TONS	BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Meat imports (Intra-EU)	THOUSAND (C.W.E.)	TONS	BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Net production (heads)	THOUSAND HEAD		BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Net production (tons)	THOUSAND (C.W.E.)	TONS	BOVINE, PIGS, POULTRY, SHEEP AND GOATS
Population	THOUSAND HEAD		RAW MILK
Production	THOUSAND TONS		ACIDIFIED MILK, BARLEY, BUTTER (80-90% FAT), BUTTERMILK, CREAM FOR DIRECT CONSUMPTION, DRINKING MILK, DURUM WHEAT, FRESH DAIRY PRODUCTS, GRAIN MAIZE, OATS, OTHER CEREALS, RAPE AND TURNIP RAPE, RAW MILK, RYE, SKIMMED MILK POWDER, SOFT WHEAT, SORGHUM, SOYBEAN, SUNFLOWER, TOTAL BUTTER, TOTAL CEREALS, TOTAL CHEESE, TOTAL OILSEEDS, TRITICALE, WHOLE MILK POWDER
Yield (animals)	KG/HEAD		RAW MILK
Yield (crops)	TONNE/HA		BARLEY, GRAIN MAIZE, OATS, OTHER CEREALS, RAPE AND TURNIP RAPE, RYE, SOFT WHEAT, TOTAL CEREALS, TOTAL OILSEEDS, TRITICALE

Source: DataM, provided by the European Commission – Joint Research Centre. Dataset: DG AGRI-JRC – Production, trade and apparent use, accessed on 02/02/2018.

Annex 2. Weight coefficients

Table 3 lists the coefficients for converting product weight into c.w.e. for animals, into grain/seed weight for crops and into butter equivalent for butter-derived products. The list refers to the DG AGRI extraction plan of January 2018.

The official list of the CN codes with their descriptions is published on the RAMON website by Eurostat (<http://ec.europa.eu/eurostat/ramon>).

Table 3. Product weight coefficients

Product	CN Codes	Valid from	Valid to	Weight
ACIDIFIED MILK	40310	1/1/1988	31/12/2500	1
BARLEY	10030010	1/1/1988	31/12/2011	1
BARLEY	11071091, 11071099	1/1/1988	31/12/2500	1.27
BARLEY	10030090	1/1/1994	31/12/2011	1
BARLEY	10031000, 10039000	1/1/2012	31/12/2500	1
BOVINE LIVE	1021010, 1029051, 1029059	1/1/1993	31/12/2011	0.54
BOVINE LIVE	1021030, 1029061, 1029069	1/1/1993	31/12/2011	0.52
BOVINE LIVE	1021090, 1029071, 1029079	1/1/1993	31/12/2011	0.56
BOVINE LIVE	1029005, 1029021, 1029029, 1029041, 1029049	1/1/1993	31/12/2011	0.57
BOVINE LIVE	1022110, 1022951, 1022959, 1023100, 1029020	1/1/2012	31/12/2500	0.54
BOVINE LIVE	1022130, 1022961, 1022969	1/1/2012	31/12/2500	0.52
BOVINE LIVE	1022190, 1022991, 1022999	1/1/2012	31/12/2500	0.56
BOVINE LIVE	1022910, 1022921, 1022929, 1022941, 1022949	1/1/2012	31/12/2500	0.57
BOVINE LIVE	1023910, 1029091	1/1/2012	31/12/2500	0.55
BOVINE MEAT	2012090, 2021000, 2022010, 2022030, 2022050, 2022090, 2102010	1/1/1988	31/12/2500	1
BOVINE MEAT	2013000, 2023010, 2023050, 2023090	1/1/1988	31/12/2500	1.3
BOVINE MEAT	2102090	1/1/1988	31/12/2500	1.35
BOVINE MEAT	2011000, 2012020, 2012030, 2012050	1/1/1993	31/12/2500	1
BOVINE MEAT	16025031	1/1/1993	31/12/2500	1.25
BUTTERMILK	4039051, 4039053, 4039059, 4039061, 4039063, 4039069, 4039071, 4039073, 4039079, 4039091, 4039093, 4039099	1/1/1988	31/12/2500	1
DRINKING MILK	40110, 40120	1/1/1988	31/12/2500	1
DRINKING MILK	40140	1/1/2012	31/12/2500	1
DURUM WHEAT	10011000	1/1/1993	31/12/2011	1
DURUM WHEAT	11031110	1/1/1994	31/12/2500	1.5
DURUM WHEAT	11010011	1/1/1995	31/12/2500	1.37

DURUM WHEAT	10011100, 10011900	1/1/2012	31/12/2500	1
FRESH DAIRY PRODUCTS - Fresh Dairy Products	40130	1/1/1988	31/12/2011	1
FRESH DAIRY PRODUCTS - Fresh Dairy Products	40150	1/1/2012	31/12/2500	1
OATS	10040000	1/1/1993	31/12/2011	1
OATS	10041000, 10049000	1/1/2012	31/12/2500	1
OTHER CEREALS	10082000, 10089090	1/1/1988	31/12/2011	1
OTHER CEREALS	10081000, 10083000	1/1/1988	31/12/2500	1
OTHER CEREALS	10082100, 10082900, 10084000, 10085000, 10089000	1/1/2012	31/12/2500	1
PIGS LIVE	1031000, 1039110, 1039211, 1039219	1/1/1988	31/12/2500	0.78
PIGS MEAT	2101959	1/1/1988	31/12/2004	1
PIGS MEAT	2101951	1/1/1988	31/12/2004	1.3
PIGS MEAT	2090011, 2090030	1/1/1988	31/12/2011	1
PIGS MEAT	2090019	1/1/1988	31/12/2011	1.2
PIGS MEAT	2031110, 2031211, 2031219, 2031911, 2031913, 2031915, 2031959, 2032110, 2032211, 2032219, 2032911, 2032913, 2032915, 2032959, 2101111, 2101119, 2101211, 2101910, 2101920, 2101930, 2101940	1/1/1988	31/12/2500	1
PIGS MEAT	2031955, 2032955, 2101981	1/1/1988	31/12/2500	1.3
PIGS MEAT	2101131, 2101139, 2101219, 2101960, 2101970, 2101989, 16024110, 16024210, 16024911, 16024913, 16024915, 16024919	1/1/1988	31/12/2500	1.2
PIGS MEAT	16010091	1/1/1988	31/12/2500	0.8
PIGS MEAT	16010099	1/1/1988	31/12/2500	0.85
PIGS MEAT	16024930	1/1/1988	31/12/2500	0.6
PIGS MEAT	16024950, 19022030	1/1/1988	31/12/2500	0.3
PIGS MEAT	2101950	1/1/2005	31/12/2500	1.2
PIGS MEAT	2091011, 2091090	1/1/2012	31/12/2500	1
PIGS MEAT	2091019	1/1/2012	31/12/2500	1.2
POULTRY LIVE	1051990	1/1/1988	31/12/2011	0.7
POULTRY LIVE	1059930, 1059950	1/1/1988	31/12/2500	0.78
POULTRY LIVE	1059910	1/1/1988	31/12/2500	0.67
POULTRY LIVE	1059920	1/1/1988	31/12/2500	0.75
POULTRY LIVE	1051111, 1051119, 1051191, 1051199	1/1/1993	31/12/2500	0.7
POULTRY LIVE	1059200, 1059300	1/1/1996	31/12/2006	0.7
POULTRY LIVE	1051920	1/1/1996	31/12/2011	0.7

POULTRY LIVE	1051200	1/1/1996	31/12/2500	0.7
POULTRY LIVE	1059400	1/1/2007	31/12/2500	0.7
POULTRY LIVE	1051300, 1051400, 1051500	1/1/2012	31/12/2500	0.7
POULTRY MEAT	16023130	1/1/1988	31/12/2011	0.45
POULTRY MEAT	16023190	1/1/1988	31/12/2011	0.35
POULTRY MEAT	16023111, 16023119	1/1/1988	31/12/2500	0.8
POULTRY MEAT	2109029	1/1/1996	31/12/2001	1.45
POULTRY MEAT	2073211, 2073215, 2073219, 2073251, 2073259, 2073290, 2073311, 2073319, 2073351, 2073359, 2073390, 2073521, 2073523, 2073525, 2073531, 2073541, 2073561, 2073563, 2073571, 2073579, 2073621, 2073623, 2073625, 2073631, 2073641, 2073661, 2073663, 2073671, 2073679	1/1/1996	31/12/2011	1
POULTRY MEAT	2073511, 2073515, 2073611, 2073615	1/1/1996	31/12/2011	1.4
POULTRY MEAT	2073551, 2073553, 2073651, 2073653	1/1/1996	31/12/2011	1.2
POULTRY MEAT	16023940	1/1/1996	31/12/2011	0.4
POULTRY MEAT	16023980	1/1/1996	31/12/2011	0.35
POULTRY MEAT	2071110, 2071130, 2071190, 2071210, 2071290, 2071320, 2071330, 2071340, 2071360, 2071370, 2071420, 2071430, 2071440, 2071460, 2071470, 2072410, 2072490, 2072510, 2072590, 2072620, 2072630, 2072640, 2072660, 2072670, 2072680, 2072720, 2072730, 2072740, 2072760, 2072770, 2072780	1/1/1996	31/12/2500	1
POULTRY MEAT	2072650, 2072750	1/1/1996	31/12/2500	1.25
POULTRY MEAT	2071310, 2071410, 2072610, 2072710	1/1/1996	31/12/2500	1.4
POULTRY MEAT	2071350, 2071450	1/1/1996	31/12/2500	1.1
POULTRY MEAT	16023211, 16023219, 16023921, 16023929	1/1/1996	31/12/2500	0.8
POULTRY MEAT	16023230	1/1/1996	31/12/2500	0.45
POULTRY MEAT	16023290	1/1/1996	31/12/2500	0.35
POULTRY MEAT	2109939	1/1/2002	31/12/2011	1.45
POULTRY MEAT	2074120, 2074130, 2074180, 2074230, 2074280, 2074421, 2074431, 2074441, 2074461, 2074471, 2074481, 2074521, 2074531, 2074541, 2074561, 2074571, 2074581, 2075110, 2075190, 2075210, 2075290, 2075421, 2075431, 2075441, 2075461, 2075471, 2075481, 2075521, 2075531, 2075541, 2075561, 2075571, 2075581, 2076005, 2076021, 2076031, 2076041, 2076061, 2076081	1/1/2012	31/12/2500	1
POULTRY MEAT	2074410, 2074510, 2075410, 2075510, 2076010	1/1/2012	31/12/2500	1.4
POULTRY MEAT	2074451, 2074551, 2075451, 2075551, 2076051	1/1/2012	31/12/2500	1.2
POULTRY MEAT	16023180, 16023985	1/1/2012	31/12/2500	0.4
POULTRY MEAT	2109291	1/1/2012	31/12/2500	1.45
POULTRY MEAT	2109939	1/1/2012	-	1.45

SHEEP AND GOATS	1041010, 1042010, 1042090	1/1/1988	31/12/2500	0.47
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LIVE				
SHEEP AND GOATS LIVE	1041030, 1041080	1/1/1993	31/12/2500	0.47
SHEEP AND GOATS MEAT	2109011	1/1/1988	31/12/2001	1
SHEEP AND GOATS MEAT	2109019	1/1/1988	31/12/2001	1.81
SHEEP AND GOATS MEAT	16029072, 16029074, 16029076, 16029078	1/1/1995	31/12/2011	1
SHEEP AND GOATS MEAT	2109921	1/1/2002	31/12/2500	1
SHEEP AND GOATS MEAT	2109929	1/1/2002	31/12/2500	1.81
SHEEP AND GOATS MEAT	16029091, 16029095	1/1/2012	31/12/2500	1
SHEEP AND GOATS MEAT - Sheep Fresh or Chilled	2041000, 2042100, 2042210, 2042230, 2042250, 2042290, 2045011, 2045013, 2045015, 2045019, 2045031	1/1/1988	31/12/2500	1
SHEEP AND GOATS MEAT - Sheep Fresh or Chilled	2042300, 2045039	1/1/1988	31/12/2500	1.81
SHEEP AND GOATS MEAT - Sheep Frozen	2043000, 2044100, 2044210, 2044230, 2044250, 2044290, 2045051, 2045053, 2045055, 2045059, 2045071	1/1/1988	31/12/2500	1
SHEEP AND GOATS MEAT - Sheep Frozen	2045079	1/1/1988	31/12/2500	1.81
SHEEP AND GOATS MEAT - Sheep Frozen	2044390	1/1/1993	31/12/2500	1.81
SHEEP AND GOATS MEAT - Sheep Frozen	2044310	1/1/1993	31/12/2500	1.67
SKIMMED MILK POWDER	40210	1/1/1988	31/12/2500	1
SORGHUM	10070090	1/1/1988	31/12/2011	1
SORGHUM	10071090, 10079000	1/1/2012	31/12/2500	1
TOTAL BUTTER - Butter Equivalent	40510	1/1/1996	31/12/2500	1
TOTAL BUTTER - Butter Equivalent	40590	1/1/1996	31/12/2500	1.215
TOTAL BUTTER - Butter Equivalent	4052010	1/1/1996	31/12/2500	0.61
TOTAL BUTTER - Butter Equivalent	4052030	1/1/1996	31/12/2500	0.823
TOTAL BUTTER - Butter Equivalent	4052090	1/1/1996	31/12/2500	0.945
TOTAL CEREALS	11032940	1/1/1988	31/12/2001	1.02
TOTAL CEREALS	10019010, 10019091, 10019099, 10020000, 10051011, 10051019, 10089010	1/1/1988	31/12/2011	1

TOTAL CEREALS	11021000	1/1/1988	31/12/2011	1.37
TOTAL CEREALS	10051013, 10051015, 10051090, 10059000	1/1/1988	31/12/2500	1
TOTAL CEREALS	11022010	1/1/1988	31/12/2500	1.4
TOTAL CEREALS	11022090	1/1/1988	31/12/2500	0.45
TOTAL CEREALS	11031190	1/1/1988	31/12/2500	1.37
TOTAL CEREALS	11031390	1/1/1988	31/12/2500	1.02
TOTAL CEREALS	11031310	1/1/1992	31/12/2500	1.45
TOTAL CEREALS	11010015	1/1/1995	31/12/2500	1.37
TOTAL CEREALS	11032040	1/1/2002	31/12/2500	1.02
TOTAL CEREALS	10019110, 10019120, 10019190, 10019900, 10021000, 10029000, 10051018, 10086000	1/1/2012	31/12/2500	1
TOTAL CEREALS	11029070	1/1/2012	31/12/2500	1.37
TOTAL CHEESE	406	1/1/1988	31/12/2500	1
TOTAL OILSEEDS	12050010, 12050090	1/1/1988	31/12/2001	1
TOTAL OILSEEDS	12010010, 12010090	1/1/1988	31/12/2011	1
TOTAL OILSEEDS	12060010	1/1/1988	31/12/2500	1
TOTAL OILSEEDS	12060091, 12060099	1/1/1994	31/12/2500	1
TOTAL OILSEEDS	12051010, 12051090, 12059000	1/1/2002	31/12/2500	1
TOTAL OILSEEDS	12011000, 12019000	1/1/2012	31/12/2500	1
WHOLE MILK POWDER	40221, 40229	1/1/1988	31/12/2500	1

Source: DG AGRI – Extraction plan, 2018.

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