

**Documentation of statistics for  
Milk and Dairy Products 2023**

## 1 Introduction

The statistics are used to describe the purpose of the statistics on milk and dairy products is to illuminate the size and value of the milk production on the farms and the use of milk for dairy products. The statistics on milk and dairy product have a long history and the key figures covering the past 100 years are comparable. The statistics in their present form are comparable from 1990 onwards.

## 2 Statistical presentation

The statistics on milk and milk products are a monthly and annual estimate of the total milk production of farmers. The delivered amount of milk on the dairies and the dairies' primary use of the milk weighed in and the production of a variety of fresh and processed dairy products, drinking milk and cheese. The statistics also contain data on organic milk delivered to dairies and the production of organic whole milk products for human consumption, butter and cheese. Every month data are transfer to Euro stat.

### 2.1 Data description

The statistics provide data on milk delivered to dairies and the dairies's use of milk delivered analyzed by a wide range of fresh and processed dairy products. Fat content and protein content in the delivered milk. Among fresh dairy products are consumer's milk, buttermilk, cream, acidified milk products, milky beverages, etc. Among processed dairy products are condensed milk, powdered milk, butter, cheese, process cheese, casein, whey, etc. The statistics also contain data on organic milk delivered to dairies and the production of organic whole milk products for human consumption, butter and cheese. Data on quantities (kg) for all dairy products, while there are prices (DKK øre per kg) for the main products and an estimated value for the production (DKK mio.)

### 2.2 Classification system

The statistics provide data on milk delivered to dairies and the dairies's use of milk delivered analyzed by a wide range of fresh and processed dairy products.

### 2.3 Sector coverage

All the milk farms and dairies.

### 2.4 Statistical concepts and definitions

Delivered Milk to Dairies: The total milk (natural milk) delivered to the dairies in millions kg.

Liquid milk: Liquid milk, milk used directly by consumers.

Natural Milk: Natural milk is the untreated milk from the cow, which are deliver to the dairy or used for feed or for human consumption at the farm.

## 2.5 Statistical unit

There figures for milk is millions kilo and the price is in Danish øre. The production on the dairies is in million kilo.

## 2.6 Statistical population

The statistic cover the total production of milk and the use to dairy products

## 2.7 Reference area

Denmark.

## 2.8 Time coverage

The statistics cover the period from 1990 onwards. However, statistics can be found at the beginning of the 20th century, where it has been possible to compare time series. Old data can be found in [Landbrug 1999-2011](#), [Landbrugsstatistik 1998-1959](#) and [Landbrugsstatistik 1900-1965](#)

## 2.9 Base period

Not relevant for this statistics.

## 2.10 Unit of measure

The data for quantity are in million kg and all prices are in Danish øre per kg. The calculated values for the total production in mill. kr.

## 2.11 Reference period

Calendar month and calendar year.

## 2.12 Frequency of dissemination

Monthly

## 2.13 Legal acts and other agreements

Law on Statistics Denmark §8 secures the legal ground for collecting the data. The statistic falls under EU Directive 96/16/EC and Commission Decision 97/80/EC.

## 2.14 Cost and burden

The statistics are based on administrative data. There is thus no direct response burden in relation to the compilation of these statistics.

## **2.15 Comment**

Further information can be obtained on request by contacting Statistics Denmark directly or on [subject pages](#).

## **3 Statistical processing**

Data is collected monthly on milk and dairy products. Data comes primary from administrative records. The data received is checked for completeness and consistency, as well as consistency with previous periods.

### **3.1 Source data**

Data on milk and dairy products comes from administrative register. The primary administrative register are Danish Dairy Board (which collects data from every single dairy in Denmark), public institutions, trade and industry organizations and private business enterprises. The others data comes from SEGES, the Danish Agriculture & Food Council and [Cattle survey](#).

### **3.2 Frequency of data collection**

Month.

### **3.3 Data collection**

Data from registers is sent to Statistic Denmark.

### **3.4 Data validation**

Material is subjected to a check for errors, by collecting data with earlier periods.

### **3.5 Data compilation**

Data is checked, summarized and compiled into tables to the statistics bank.

The price of milk is calculated for milk with a standard fat content (4.20 per cent) and protein content (3,40 per cent) and for milk with the real(varying) content of fat content and protein content. There is no existing estimation of the average prices for milk ex farmer, these prices are therefore calculated by Statistic Denmark. A price is calculated for both conventional and organic milk.

The annual price of milk is calculated against the background of the annual statistics compiled by the Society of Dairies yearly statistics on the dairies profit and loss account. The monthly prices are calculated on the basis of the account prices to the producer/farmer and an estimate of the expected additional/back payment.

The estimated prices include all payable supplements, among these back payment and seasonal supplement (which are equalized on an annual basis), while allowances for quality and the like as well as the duties paid by the producers (production duty, co-responsibility duty) are deducted, together with the amounts, which withheld by the dairies for consolidation, etc. Furthermore, the stated prices for milk with real fat content and protein content are adjusted for collection of any super taxes after conducting an annual equalization.

The total sales value for milk out of agriculture is equal to the total quantity sold (the delivered milk to the dairies plus the consumption at the producers/farms) multiplied by with the average sales price ex producer, which is equal to the previous defined sales price for milk with real fat and protein content.

After consultation with the Society of Dairies, Statistic Denmark has determined that the consumption of milk by the producers/farmers is 3,67 million kilo and the consumption of milk for feed at the farms is 75 million kilo.

Milk ex farmer total in kilo million is the total milk production (including organic milk). The total milk production is calculated as the delivered milk to the dairies plus milk used for human consumption at the farm (this is the farmers own/private consumption and the farmers sales directly to the consumers) and the milk used as feed at the farm (it is only yielded milk, i.e. exclusive of milk sucked by the calf).

The average milk yield per dairy cow is calculated by Statistics Denmark, as the total milk production divided by the average number of dairy cows. The average number of dairy cows is calculated as the sum of the number of dairy cows in the 4 quarter counts of the cattle stock divided by 4.

A price relationship is calculated on the ratio between what the farmer receives for the milk he sells to the dairy and what to give for cattle feed: Price ratio of milk / cattle feed mixture (relationship figures) This is calculated as the milk price (the milk price exclusive of seasonal supplement but less deductions) in relation to the price for feeding stuffs for cattle (feeding stuff with high protein content) in the proportion 10 to 1.

### **3.6 Adjustment**

No correction of data is made except what has already been described during data validation and data processing. There is no seasonal adjustment.

## **4 Relevance**

The statistics is of great interest to agricultural organizations, the Ministry of Environment and Food and the EU. The figures is used intern in Statistics Denmark to estimate quantity and price index, and the Account for Agriculture, which is included in the National Accounts. Data on milk and dairy product are delivered every month to Euro stat.

### **4.1 User Needs**

The statistics is of great interest to agricultural organizations, the Ministry of Environment and Food and the EU. The figures is used intern in Statistics Denmark to estimate quantity and price index, and the Account for Agriculture, which is included in the National Accounts. Data on milk and dairy product are delivered every month to Euro stat.

### **4.2 User Satisfaction**

The milk and dairy data is discussed at meetings in user board on agricultural statistics. The main impression is that most users are satisfied with the statistics. Data are delivered to Euro Stat, where data also being checked.

### **4.3 Data completeness rate**

This statistics affected by demands from EU in directive 96/16/EF and Kommissionsbeslutning 97/80/EF.

## **5 Accuracy and reliability**

It is compulsory for dairies to register the milk weighed on the dairies and the dairy production. This is the basis for settlement to farmers, which is therefore expected to be measured accurately. Information on the milk weighed on each farm must be reported to the Central Animal Register, as ownes of the Ministry of Environment and Food. The calculation of prices and values is based both on actual a conto prices and partly on estimates of the anticipated after payment, which is only realized after the end of the dairy year and can thus cause uncertainty about the accrual. The estimate of the consumption of milk by producers and consumption for feed is estimated after consultation with the Dairy Association.

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### **5.1 Overall accuracy**

Data on the amount of milk deviled to the dairy has a high quality since it is mandatory for dairies to register this, but it also provides the basis for the settlement to the milk supplier (farmer). Production on dairies is statutory to register. The calculation of prices and values is based both on actual a conto prices and partly on estimates of the anticipated down payment paid by the cooperatives and only after the end of the dairy year and can thus cause uncertainty about the accrual. The calculation of milk consumption by producers to 3.024 million kilo from 2020 and consumption for feed of 75 million kilo per years are estimated after consultation with the Dairy Association

## 5.2 Sampling error

Not relevant for this statistics.

## 5.3 Non-sampling error

There is an uncertainty in the estimate of milk consumption in the producers. The last 3 months of data will always be preliminary, as there are some dairies who have a long time to report final figures on dairy production.

## 5.4 Quality management

Statistics Denmark follows the recommendations on organisation and management of quality given in the Code of Practice for European Statistics (CoP) and the implementation guidelines given in the Quality Assurance Framework of the European Statistical System (QAF). A Working Group on Quality and a central quality assurance function have been established to continuously carry through control of products and processes.

## 5.5 Quality assurance

Statistics Denmark follows the principles in the Code of Practice for European Statistics (CoP) and uses the Quality Assurance Framework of the European Statistical System (QAF) for the implementation of the principles. This involves continuous decentralized and central control of products and processes based on documentation following international standards. The central quality assurance function reports to the Working Group on Quality. Reports include suggestions for improvement that are assessed, decided and subsequently implemented.

## 5.6 Quality assessment

The calculation of the amount of milk weighed on dairies is of high quality as it is compulsory for dairies to register this and report it to the central livestock register, as owner of the Ministry of Environment and Food. The information is also the basis for the settlement to the milk supplier (farmer).

## 5.7 Data revision - policy

Statistics Denmark revises published figures in accordance with the [Revision Policy for Statistics Denmark](#). The common procedures and principles of the Revision Policy are for some statistics supplemented by a specific revision practice.

## 5.8 Data revision practice

The figures are revised for 2018 in November 2018. There is a minor difference between provisional and final figures of under 1/2 pct. The figures for 2016 and the first half of 2017 were revised in October 2017 because the method used at that time was not optimal with regard to the monthly milk inventory.

## **6 Timeliness and punctuality**

The statistics are published every month. For a specific month it will be published 1½ month after the end of the month concerned. A more detail year statistics will be publish ½ year after the end of the year concerned. The statistics are usually published without delay in relation to the scheduled date. The data is delivered monthly to Eurostat, which subsequently publishes data.

### **6.1 Timeliness and time lag - final results**

Provisional monthly figures are published 1½ month after the end of the month. Final monthly figures are available when the year is published ½ year after the end of the year.

### **6.2 Punctuality**

The statistics are usually published without delay in relation to the scheduled date. However, due to technical problems with register data, data on dairy production have been missing in spring 2017. Publication of August 2017 the numbers were postponed 10 days as registry data was delayed due to missing reports to the registry.

## **7 Comparability**

Long time series data can be compiled. Every month and year are delivered data to Euro stat. Similar data for some of the variables are available for the EU member states at Euro stats homepage.

### **7.1 Comparability - geographical**

Every month and year figures are submitted to the statistical office of EU, Euro stat. Data for all EU countries can be found in the [Eurostat database](#) . The statistics are produced following the principles of an EU regulation, so the results are comparable.



## 7.2 Comparability over time

The statistics on dairy product have a long history and the key figures covering the past 100 years are comparable. During the late 1920s, the statistics were improved and since the Second World War, statistics achieving complete coverage have been compiled. Long time series data can be compiled.

- From 1 January 2020, the consumption of milk for human consumption at the farm is 3.024 million. kg and consumption for feed for the young cattle is 75 million. kg. milk.
- From 1 January 2015, the consumption of milk for human consumption at the farm is 3.87 million. kg and consumption for feed for the young cattle is 75 million. kg. milk.
- From 1 January 2012, the consumption of milk for human consumption at the farm was 4.32 million. kg and consumption for feed for the young cattle was 75 million. kg. milk.
- From 1 January 2009, the consumption of milk for human consumption at the farm was 5 million. kg and consumption for feed for the young cattle was 75 million. kg. milk.
- Before 1 January 2009, the consumption of milk for human consumption at the farm was 10 million. kg and consumption for feed for the young cattle was 125 million. kg. milk.

As compensation for the declining milk price (incorporated in the EU agricultural reform), a total milk prize of DKK 389,1 million was paid out in 2004. In 2005, the milk prize premium ceased to exist and was replaced by an extra charge, which is included in the farmers subsidies according to the new single-farm payment scheme.

## 7.3 Coherence - cross domain

The statistics cover the period from 1990 onwards. However, statistics can be found from the beginning of the 20th century, where it has been possible to compare time series. Older data can be found on Landbrug 1999-2011, [Landbrugsstatistik 1998-1959](#) and [Landbrugsstatistik 1900-1965](#). Danish Agriculture & Food Council publishes [comprehensive statistics](#)

## 7.4 Coherence - internal

No comment.

## 8 Accessibility and clarity

New month figures are published in Statbank [ANI71: Milkproduction and use of milk by unit \(month\)](#) and yearly figures [ANI7: Milkproduction and use of milk by unit](#). Annual figures are included in Statistical Yearbook and Statistical Ten-Year review.

### 8.1 Release calendar

The publication date appears in the release calendar. The date is confirmed in the weeks before.

### 8.3 User access

Statistics are always published at 8:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published.

## **8.2 Release calendar access**

The Release Calendar can be accessed on our English website: [Release Calendar](#).

## **8.4 News release**

The statistics are not published separately but are included in [New from Statistics Denmark](#) : \* Animal production \* and \* Agricultural price ratio \*.

## **8.5 Publications**

Annual figures are included in Statistical Yearbook and Statistical Ten-Year review. In the publication Jordbrugets prisforhold see subject pages [Prices and price index for agriculture](#).

## **8.6 On-line database**

The statistics are published in the StatBank under the subjects in the following tables:

- [ANI7](#): Production and use of milk by unit and time
- [ANI71](#): Production and use of milk by unit and time

## **8.7 Micro-data access**

There is no micro-data access.

## **8.8 Other**

Some of the data are transmitted to [Euro stat](#)

## **8.9 Confidentiality - policy**

[Data Confidentiality Policy](#) for Statistics Denmark is applied.

## **8.10 Confidentiality - data treatment**

Data is published at a level that does not require special measures in relation to discretion.

## **8.11 Documentation on methodology**

Not relevant for these statistics.

## **8.12 Quality documentation**

Results from the quality evaluation of products and selected processes are available in detail for each statistics and in summary reports for the Working Group on Quality.

## **9 Contact**

The administrative placement of this statistics is in the division of Food Industries. The person responsible is Mona Larsen, tel. + 45 39 17 33 99, e-mail: mla@dst.dk

### **9.1 Contact organisation**

Statistics Denmark

### **9.2 Contact organisation unit**

Food Industry, Business Statistics

### **9.3 Contact name**

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Responsible for the statistics

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N/A