

**Documentation of statistics for
Milk and Dairy Products 2017 Month 10**

1 Introduction

The purpose of the statistics is to provide data on the volume and value of the production of milk. The milk production is analyzed by dairy product. The statistics on milk and 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.

2 Statistical presentation

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 for example milk products for human consumption, butter 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

Consumption at the Producers/Farmers: After consultation with the Society of Dairies, Statistic Denmark has determined that the consumption of milk by the producers/farmers is 4,32 mio. kilo and the consumption of milk for feed at the farms is 75 mio. kilo. Before 1 January 2012 the consumption of milk by the producere/farms were 5 mio. kilo and for feed it was 75 mio. kilo..1 January 2009, the consumption of milk by the producers/farmes was 10 mio kilos and for feed it was 125 mio kilos. Before 2001, the consumption by the farmers was 75 mio kilos and for feed it was 125 mio kilos.

Fat Content: The average fat content in the delivered milk (natural milk).

Average Yield per Dairy Cow: The average 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 dairy cows in the 4 quarterly surveys of cattle divided by 4.

Protein Content: The average protein content in the delivered milk (natural milk).

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

Dairy Cow Livestock, Number: The number of livestock with dairy cows are estimated in the annual agricultural and horticultural survey.

Dairy Cows, Number: The total number of dairy cows estimated in the annual agricultural and horticultural survey.

Milk in Million kg Used for Cheese for Human Consumption: Milk used for cheese for human consumption in million kg

Milk ex Farmer Total (kg mio): Milk ex farmer total in kilo mio 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/privat 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. eksklusive of milk sucked by the calf).

Milk Used for Whole Milk for Human Consumption etc.: Milk used for whole milk for human consumption etc. in million kg.

Milk in Million kg Used for Butter for Human Consumption: Milk in million kg used for production of butter for human consumption.

Preserved Milk Products and Milk Powder: Preserved milk products are split up into two main groups: Milk powder containing fat (consists of milk powder and cream powder) and skimmed milk powder.

Milk Quota: The production of milk is adjusted by the EU quota system, which is based on historical data with a range of corrections. Since 1984/85 (April-to-April) annual milk quota settlement schemes have been carried out with a view to adjusting the market for dairy produce in the EU.

In general terms, the aim of these schemes is to fix a production quantity (guarantee quantity) for each member state, where a profitable sales price is guaranteed, while for all quantities that are produced in addition to this basic quantity, a tax (super tax) of a size is levied, which implies that this production will be unprofitable.

Each member state may choose between two types of quota systems, individual quota systems for each producer or quotas for dairies. During the entire period, Denmark has established the special quota system for dairies, where a milk corporation, which buys all milk delivered to the dairies, has been created. This corporation "Danish Milk Board" buys the whole production of milk and sells it to the dairies, so that the milk quota is used in an optimal way.

Only the "Danish Milk Board" is entitled to trade with milk quotas in Denmark. For more information, see <http://www.maelkeudvalget.dk>

Milk Price ex Farm, Total: The price of milk is calculated for milk with the real(varying) content of fat content and protein content.

The Price of Milk ex Farmer with 4,2 per cent Fat Content and 3,4 per cent Protein Content: The price of milk is calculated for milk with a standard fat content (4.20 per cent) and protein content (3,40 per cent).

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.

Price Ratio of Milk/Feeding Stuffs for Cattle (relational 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.

Production of Milk Powder, Total: Production of milk powder, total at the dairies.

Production of Cream: Production of cream at the dairies in million kg.

Production of Cheese: Production of cheese at the dairies in million kg.

Production of Butter: Production of butter at the dairies in million kg.

Production of Organic Cheese: Production of organic cheese at the dairies in million kg.

Production of Organic Butter: Production of organic butter at the dairies in million kg.

Production of Butter: The production of butter at the dairies in million kilo.

Production of Preserved Milk: Production of preserved milk at the dairies in million kg.

Production of Skim Milk Powder, Export Total: Production of skim milk powder, with is export total.

Production of Skim Milk Powder: Production of skim milk powder at the dairies in million kg.

Organic Milk Production: The total production of organic milk delivered to the dairies in million kg.

2.5 Statistical unit

There are published figures for the total production of milk and the dairies primary use of delivered milk.

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 on dairy product have figures from 1990 until now.

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 value for the total production are million DKK kroner.

2.11 Reference period

The references period comprises months, quarters and years.

2.12 Frequency of dissemination

The statistics are published monthly, quarterly and annually.

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 compiled from mainly register-based data.

2.15 Comment

Other information is available please contact Statistic Denmark.

3 Statistical processing

Data is collected from administrative register. When data are control and processing in excel sheet.

3.1 Source data

The primary data are collected from a wide range of sources. The most important data providers are The Society of Dairies (which collects data from every single dairy in Denmark), public institutions, trade and industry organizations and private business enterprises.

3.2 Frequency of data collection

Month, quarterly and yearly.

3.3 Data collection

Register information.

3.4 Data validation

Data are controlled in relation to earlier periods.

3.5 Data compilation

Milk prices

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.

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 average back payment to the supplier for milk with 4.20 per cent fat content has since 1994/95 reached the following amount:

October-October of the year

- 1996/97: 18.51 øre per kg
- 1997/98: 15.80 øre per kg
- 1998/99: 12.33 øre per kg
- 1999/00: 17.07 øre per kg
- 2000/01: 18.72 øre per kg
- 2001/02: 15.38 øre per kg
- 2002/03: 14.08 øre per kg
- 2003/04: 12.84 øre per kg
- 2004/05: 9.98 øre per kg

Whole year

- 2006: 7.47 øre per kg
- 2007: 10.50 øre per kg
- 2008: 2.00 øre per kg
- 2009: 11.00 øre per kg

The estimated prices include all payable supplements, among these back payment and seasonal supplement (which are equalized on an annual basis), plus producers return from settlement according to the milk quota settlement scheme, 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.

As compensation for the declining milk price (incorporated in the EU agricultural reform), a total

milk prize of DKK 389,1 mio 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.

Consumption at the producers/farmers

After consultation with the Society of Dairies, Statistic Denmark has determined that the consumption of milk by the producers/farmers is 4,32 mio. kilo and the consumption of milk for feed at the farms is 75 mio. kilo. Before 1 January 2012 the consumption of milk by the producer/farms were 5 mio. kilo and for feed it was 75 mio. kilo..1 January 2009, the consumption of milk by the producers/farmes was 10 mio kilos and for feed it was 125 mio kilos. Before 2001, the consumption by the farmers was 75 mio kilos and for feed it was 125 mio kilos.

Milk ex farmer total (kg mio)

Milk ex farmer total in kilo mio 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).

3.6 Adjustment

Not relevant for this statistics.

4 Relevance

The statistics is of great interest to agricultural organizations, the Ministry of Environment and Food and the EU. The statistics is used by other statistics: Economics of Agricultural Activities, Price and Volume Indicators and Animals Products.

4.1 User Needs

The statistics is of great interest to agricultural organizations, the Ministry of Environment and Food and the EU. Data are applied in calculating, forecasts for upcoming production and gross domestic product at factor cost in agriculture.

4.2 User Satisfaction

No investigation of the satisfaction of the users of the statistic have been done.

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

The unit of milk has very high quality. Detailed statistics are compiled for quantities of dairy products. The data on prices and values may be subject to minor time lags.

5.1 Overall accuracy

Detailed statistics are compiled for quantities of dairy products. The data on prices and values may be subject to minor time lags.

5.2 Sampling error

Not relevant for this statistics.

5.3 Non-sampling error

In preparation.

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 general assessment is that the quality of the statistics is high, as most of the information comes from administrative registers.

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

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.

6.1 Timeliness and time lag - final results

The statistics are compiled monthly and annually.

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:
<http://epp.eurostat.ec.europa.eu>

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.

7.3 Coherence - cross domain

Danish Agriculture & Food Council publishes comprehensive statistics and it can be find on <http://www.agricultureandfood.dk/prices-statistics/annual-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 \(year\)](#).

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.

8.2 Release calendar access

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

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. Theme publications etc. may be published at other times of the day. The National Statistician can decide that such publications may be released before their official publication time, e.g. to the media and other stakeholders.

8.4 News release

There is no separate News release. But data are published quarterly in the articles "Animalsk produktion" and "Jordbrugets prisre".

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 [Livestock production Det økologiske jordbrugs produktion og regnskaber](#) 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

In the compilation of the statistics, the confidentiality policy of Statistics Denmark is followed. [Datafortrolighedspolitik](#).

8.10 Confidentiality - data treatment

In the compilation of the data, the confidentiality policy of Statistics Denmark is followed. [Datafortrolighedspolitik](#).

8.11 Documentation on methodology

No comment.

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

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