

**Documentation of statistics for  
Pigs 2016 Quarter 1**

## **1 Introduction**

The stock of pigs shows the total number of pigs in Denmark. The statistics is published quarterly and is primarily used as basis for forecasts of pigs for slaughter and forecasts for the number of pigs.

## **2 Statistical presentation**

The stock of pigs is divided into 10 sub-groups. Four of these sub-groups make up a classification of the stock of breeding sows; one group comprising piglets with sows and a classification of weaners according to weight. The data series with the total stock of pigs (pigs, total) is seasonal adjusted.

### **2.1 Data description**

The pig surveys are a estimation of the total number of pigs in Denmark. The survey is conducted quarterly and at the first day in every quarter. The stock of pigs is divided into 10 sub-groups and only national totals are available. Four of these sub-groups make up a classification of the stock of breeding sows; one group comprising piglets with sows and a classification of weaners according to weight. The data series with the total stock of pigs (pigs, total) is seasonal adjusted.

### **2.2 Classification system**

The pig survey is a survey among all holdings with pigs.

All holdings in the population are drawn from the Business Register, which contains all holdings in Denmark. From these are selected all holdings with pigs according to the Central Register of Livestock and also holdings with had pigs according to the latest survey in which they have participated.

For the survey 1 January 2016, the last survey is either the last agricultural census in 2010 or the agricultural survey in 2011, 2012, 2013 or 2014 a subsequent pig survey (the last was 1 October 2015). In the light of these, the population for the pig survey 1 January 2016 was 4,000 holdings.

If there is no information about the number of pigs from a survey, and we know that there are pigs at the holding then the holding will be force in the sample, so we can, in the future, place the holding in the correct stratum before the sample is drawn. The Business Register is continuously updated with information from the Danish tax authorities, the Directorate General for Employment and Placement, and the Danish Commerce and Companies Agency. From 2011 the Business Register is updated every quarter with information from the Central Register of Livestock, the General Agricultural Register and the Property Stock Register.

### **2.3 Sector coverage**

All holdings in Denmark.

## **2.4 Statistical concepts and definitions**

Other Sows to Farrow: Other sows to farrow.

Boars for Service: Boars for service.

Sows with Litters: Sows with litters.

Weaners below 50 kg: Weaners below 50 kg.

Sows to Farrow for the First Time: Sows to Farrow for the first time.

Barren Sows: Barren sows.

Sows and Boars for Slaughtering: Sows and boars for slaughtering.

Piglets: Piglets.

Weaners, 50 kg and over: Weaners, 50 kg and over.

Pigs (over 50 kg) for Breeding: Pigs (over 50 kg) for breeding.

Pig: The term "pig" means domestic animals of the species *Sus scrofa domesticus*.

Pigs, total: The total number of pigs in Denmark.

Sows, Total: The total number of sows.

## **2.5 Statistical unit**

The number of pigs is in 1000 animals.

## **2.6 Statistical population**

The total number of pigs in Denmark

## **2.7 Reference area**

The statistics covers the stock of pigs in Denmark.

## **2.8 Time coverage**

The reference day for the survey is the 1 January 2016. The statistics covers the period from 1998 and forward. Older time series are described under Comparability over time.

## **2.9 Base period**

Not relevant for this statistics.

## **2.10 Unit of measure**

The unit of measure is number of livestock (pigs) in 1000 number.

## **2.11 Reference period**

Survey date is the 1st of each quarter.

## **2.12 Frequency of dissemination**

The statistics is published quarterly.

## **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 Regulation (EC) No 1165/2008 of the European Parliament and of the Council of 19 November 2008 concerning livestock and meat statistics.

## **2.14 Cost and burden**

The response burden is estimated at DKK 0.6 mio. in 2014.

## **2.15 Comment**

Other information is available please , see contacts person point 9.03 Name of the contacts person.

# **3 Statistical processing**

The pig survey is a sample surveys on 2,500 holdings. The entered data are subject to error correction. After which the data are enumerated to the population of pigs.

## **3.1 Source data**

The information comes from the questionnaires.

## **3.2 Frequency of data collection**

Data is collected quarterly.

## **3.3 Data collection**

Data collection takes place via questionnaires. When the basic data are entered, they are subject to error correction, and if we have any questions, contact is made by phone to reduce the number of observational errors. Online form and instructions can be found on the information page (in Danish) [Informationssiden](#).

### **3.4 Data validation**

The statistics go through an error detection process which falls in steps:

1. In connection with the online reporting it is secured that all questions are answered.
2. In the next step all the basic data are entered a database where they are subject to error correction system. Errors are corrected, sometimes after telephone contact with the farmers.
3. In the last step the results are analyzed, and extreme development are identified. In this step it is often possible to find a very few but rather big mistakes which for one or any reasons have been overlooked in the first two steps.

### **3.5 Data compilation**

The statistics go through an error detection process. The collected data are processes with SAS program CLAN.

### **3.6 Adjustment**

In preparation.

## **4 Relevance**

The statistics are basis for forecasts of pigs for slaughter. The statistics are applied to financially and environment studies.

### **4.1 User Needs**

The pigs survey is of great interest to EU, the Ministry of Environment and Food, The Danish Association of Slaughterhouses and others farmer's organizations, but also students and interested people in general. The most important purposes of pig surveys are to provide a basis for forecasts of pigs for slaughter.

### **4.2 User Satisfaction**

In preparation.

### **4.3 Data completeness rate**

This statistics is affected by demands from EU.

## **5 Accuracy and reliability**

The greatest factor of inaccuracy is updating and matching of the different registers. The relative spread - sampling errors - for pigs is 0.5 pct to 1.5 pct. A maximum of 2 pct. is to be observed to meet EU's requirements. As part of a quality assessment, statistical errors are calculated for all variables.

## **5.1 Overall accuracy**

In preparation.

## **5.2 Sampling error**

The relative spread - sampling errors - for pigs is 0.5 pct to 1.5 pct. A maximum of 2 pct. is to be observed to meet EU's requirements. As part of a quality assessment, statistical errors are calculated for all variables.

The sample surveys cover 2,500 holdings. When the holdings are selected, they are divided into 24 strata according to the total number of pigs at the holding. The number of pigs is information from the last survey in which the holding has participated. If a holding has 3,000 pigs or more, it will always be in the pig survey. All the other holdings are selected randomly for the first time, and then the holding will be included in the sample at a maximum of 8 times. The selection method is optimum, i.e. the strata of the total sample are divided so that the variance of the estimated total number of pigs is minimized.

## **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 information is reliable and provides a good basis for preparing forecasts.

## **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**

Final figures are published.

## **6 Timeliness and punctuality**

The statistics are usually published without delay in relation to the scheduled data.

However with some exceptions in 2012 and 2013.

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

The survey results are published quarterly. About 6 weeks after the survey date.

### **6.2 Punctuality**

The statistics are usually published without delay in relation to the scheduled date. However with some exceptions in 2012 and 2013.

## **7 Comparability**

The pig surveys have been conducted in their present form since April 1974. In addition to the annual agricultural census, sample surveys of the number of pigs have been conducted at varying points in time and frequency since 1915. As from 1931 sample surveys have been regularly conducted.

At first the surveys were conducted semi-annually, then quarterly and from 1934 the surveys of pigs were conducted every six weeks over the year until 1974, when pig surveys were conducted every second month until 1998. Pig surveys are now conducted quarterly.

### **7.1 Comparability - geographical**

Every half year figures are submitted to the statistical office of EU, Eurostat. Data for all EU countries can be found in the [Eurostat database](#). The statistics are produced following principles of an EU regulation, so the results are comparable. Dog anvendes en anden opdeling af nogle af variablerne i Eurostat, end den nationale.

## **7.2 Comparability over time**

The most important changes took place in 1933 when pigs were classified to 10 groups, compared to 5 groups previously, and pigs were no longer classified according to age but according to their weight.

In 1946 the survey was extended to include all Denmark, compared to only rural municipalities previously.

Over the years that followed the classification of pigs has seen minor changes.

In 1974 the census method and the census groups were changed to comply with an EC Directive.

From 1980 when the number of sampling units were reduced from 10,000 to 5,000, it has not been possible to undertake geographic classifications.

From 1 January 1998 the groups of piglets under 20 kg and weaners 20-50 kg were altered to sucking pigs with sows and weaners under 50 kg.

From 1 January 2004 the number of sampling units were reduced from 5,000 to 3,500.

From 1 July 2011 the number of sampling units were reduced from 3,500 to 2,500.

The number of sampling units was extraordinary 2,800 at the 1 April 2012.

From 1 July 2011 the number of units in the population was reduced from all holdings (about 46,000) to all holdings with pigs (about 5,500).

## **7.3 Coherence - cross domain**

In preparation.

## **7.4 Coherence - internal**

Not relevant for this statistics.

## **8 Accessibility and clarity**

New figures are published in a quarterly news article News from Statistics Denmark, and all figures can be found in the Statbank. Svinebestanden.

### **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 9:00 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**

The figures are published in quarterly news release, NYT from Statistics Denmark. Svinebestanden.

### **8.5 Publications**

In preparation.

### **8.6 On-line database**

New quarterly figures are published in Statbank [SVIN: Number of pigs, quarterly figures by type](#)

### **8.7 Micro-data access**

There is no micro-data access.

### **8.8 Other**

Two times of year Denmark must deliver data to Euro stat. Figures for all country in EU see [Eurostats databank](#).

### **8.9 Confidentiality - policy**

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

### **8.10 Confidentiality - data treatment**

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

### **8.11 Documentation on methodology**

Published in *Stikprøveundersøgelser i Danmarks Statistik* (Sample surveys conducted by Statistics Denmark). A method updating is described in a special paper.

## **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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