



## METHODOLOGICAL EXPLANATION

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# LIVESTOCK NUMBER

This methodological explanation relates to the data releases:

- Livestock number, Slovenia, annually (First Release)
- Livestock number, detailed data, Slovenia, annually (Electronic Release)



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## 1 PURPOSE

The purpose of publishing the data on the number of livestock is to show the number of livestock on agricultural holdings in Slovenia as of 1 December and changes in the number of animals (cattle, pigs, poultry, and sheep and goats) that are in a certain observation period bred on agricultural holdings.

## 2 LEGAL FRAMEWORK

- [Annual Programme of Statistical Surveys \(LPSR\) \(only in Slovene\)](#)
- [National Statistics Act \(OJ RS, No. 45/95 and 9/01\)](#)
- Regulation (EC) No. 1165/2008 of the European Parliament and of the Council concerning livestock and meat statistics

## 3 UNIT DESCRIBED BY THE PUBLISHED DATA

The unit described by the published data is livestock by type and category.

## 4 SELECTION OF OBSERVATION UNIT

Observation units are agricultural holdings engaged in livestock production.

Units for the livestock survey (which is part of the statistical survey Livestock and Area Sown in Autumn Sowing (KME-DEC)) are selected on the basis of a sample.

Agricultural holdings are selected into the sample in line with the statistical sampling methodology (random sample). Based on the correctly designed sample, the data representative for the whole country are obtained. The sample consists of about 10,000 units (agricultural holdings).

The sampling frame for selecting agricultural holdings into the sample is the Statistical Register of Agricultural Holdings.

The sampling frame includes agricultural holdings satisfying the following criteria:

- a) at least 1 hectare of utilised agricultural area; or
- b) less than 1 hectare of utilised agricultural area but:
  - at least 0.1 hectare of utilised agricultural area and 0.9 hectare of forest or
  - at least 0.3 hectare of vineyards and/or orchards or

- two or more livestock units (LSU) or
- 0.15 to 0.3 hectare of vineyards/orchards and 1 or 2 LSU or
- more than 50 beehives or
- are market producers of vegetables, herbs, strawberries, mushrooms, flowers or ornamental plants.

The sample is divided into four strata, each stratum is determined according to the size class of the holding. Thus, the sample covers all large holdings (stratum 1), while other agricultural holdings are included in the sample only in a proportion of the size class and in their size class represent a certain weight.

In addition to family farms selected in the sample, all agricultural enterprises breeding livestock are also included in the statistical survey 'Livestock and Area Sown in Autumn Sowing (KME-DEC)'.

## 5 SOURCES AND METHODS OF DATA COLLECTION

Data are collected annually.

Data on the number of animals on family farms are collected with the regular annual sample survey Livestock and Area Sown in Autumn Sowing (KME-DEC) in December with a phone survey as of 1 December.

Data on the number of animals in agricultural enterprises and cooperatives are collected with the questionnaire for the statistical survey Livestock and Area Sown in Autumn Sowing (KME-DEC), which enterprises and cooperatives receive by mail.

Since 2007 the data on the number of cattle have been obtained from the Central Register of Bovine Animals managed by the Ministry of Agriculture and the Environment. The register provides the data on the sex and age of animals but not the data on the purpose of breeding the animals (animals for slaughter or further breeding; milking cows or suckler cows). Within the KME-DEC survey a subsample of around 1,500 units is used to obtain data on the number, sex, age and the purpose of breeding. With these data we get the shares of the purpose of breeding that are used to estimate the purpose of breeding cattle from register data.

Data on subsidies are used only for controlling the data collected with the KME-DEC survey (size class, existence of the agricultural holding, extent of breeding, etc.). There is a difference in the reference date of data collection; data on subsidies are collected as of 1 February and KME-DEC data as of 1 December.

Data on the number of livestock are **not collected by ownership** of the livestock but by who manages the livestock.

The categories of livestock are self-explanatory, except the category "other poultry", which covers guinea fowls, quails, partridges, pheasants, etc., if stored

on the agricultural holding.

## 6 DEFINITIONS

**Cattle** include domestic animals of the following species: *Bos taurus*, *Bubalus bubalus* and *Beefalo*.

**Dairy cows** are cows whose milk is used predominantly for human consumption or for processing into dairy products. Dry dairy cows are also included.

**Other cows** are cows whose milk is used predominantly for raising calves, irrespective of whether calves suck the milk or are fed the milk. Dry suckler cows, sucking cows and working cows are also included.

**Pigs** are domestic animals of the *Sus* species.

**Poultry** is a group of domestic animals including **hens** (*Gallus*), **turkeys** (*Meleagris*), **ducks** (*Anas*), **gees** (*Anser*), **guinea fowl** (*Numida*) and other poultry such as **quails** (*Coturnix*), **partridges** (*Perdix*) and **pheasants** (*Phasianus*).

**Sheep and goats** are domestic animals of the *Ovis* (**sheep**) and *Capra* (**goats**) species.

## 7 EXPLANATIONS

### 7.1 CLASSIFICATIONS

Data are published in line with NUTS classification at NUTS 1 and NUTS 2 levels.

### 7.2 DATA PROCESSING

#### DATA EDITING

Data were edited by using appropriate systematic and individual corrections.

For more, see the general methodological explanations [Statistical data editing](#).

#### WEIGHTING

With weighting adjustment we want to achieve representativeness of the sample, so that the weighted data give us as good population estimates as possible. The process of weighting depends on the sampling design, the unit non-response rate and available auxiliary variables used for calibration. The

final weight is the product of the sampling weight, the non-response weight and the calibration factor.

## **SEASONAL ADJUSTMENT**

Seasonal adjustment is not applicable.

## **7.3 INDICES**

We publish livestock number indices compared to the previous year.

## **7.4 PRECISION**

In statistical surveys different kinds of errors can occur (e.g. sampling error, non-response error, measurement error) influencing the reliability and accuracy of the statistical results. Errors deriving from the random mechanisms determine the precision and consequently the reliability of the statistical estimates. The precision of the statistical estimate is estimated by calculating the standard error (SE). The Statistical Office of the Republic of Slovenia draws attention to less reliable estimates by flagging them with a special sign.

If the table contains estimated population totals of (continuous) variables, estimated averages of continuous variables or estimated ratios of population totals of (continuous) variables, publishing limitations are determined by the relative standard errors or the coefficients of variation (CV). In such cases it holds:

If the coefficient of variation (CV) is

- 10% or below ( $CV \leq 10\%$ ), the estimate is reliable enough and is published without limitations;
- between 10% and up to 30% ( $10\% < CV \leq 30\%$ ) the estimate is less reliable and is flagged for caution with letter M;
- over 30% ( $CV > 30\%$ ), the estimate is too unreliable to be published and therefore suppressed for use by letter N.

For more, see the general methodological explanations [Precision of statistical estimates](#).

## **7.5 OTHER EXPLANATIONS**

Letter »z« is used if the data are suppressed to protect the reporting unit. The data that are suppressed for confidentiality reasons are not published but replaced with letter "z".

## 8 PUBLISHING

- SiStat Database: [Agriculture, forestry and fishery](#) - Livestock, milk and milk products - Animal Production: [Number of Livestock](#), [Livestock slaughter](#), [Meat Production and Other Animal Products](#).

Absolute data are published. Data are published in line with NUTS classification at NUTS 1 and NUTS 2 levels.

- First Release (Agriculture, Forestry and Fishery, Livestock, Milk and Milk Products): »Livestock number, Slovenia«.
- Electronic Release (Agriculture, Forestry and Fishery, Livestock, Milk and Milk Products): »Livestock number, detailed data, Slovenia«.
- [Statobook](#)
- EUROSTAT (Statistical Office of the European Union)
- FAO (The Food and Agriculture Organization)

## 9 REVISION OF THE DATA

### 9.1 PUBLISHING OF PRELIMINARY AND FINAL DATA

Provisional data on livestock are published in February for the past year. Final data are published by the end of March for the past year.

Publishing of provisional and final data is planned. Due to the needs of users for timely information, provisional data are published that meet the criteria of the quality of official statistical data but do not meet the quality that can be met with complete coverage. Data are revised when recent, more complete and better data can significantly contribute to the quality of data-based decision-making.

### 9.2 FACTORS INFLUENCING COMPARABILITY OVER TIME

By 2001 the data on the number of livestock on family farms were collected with a postal survey, between 2002 and 2007 they were collected in the field, while from 2008 on they have been collected with a phone survey.

SURS has been disseminating the data as of 1 January 2015 on according to the changed cohesion and statistical regions. These changes are in line with the NUTS Regulation (EC) No. 1319/2013 and are explained in a Special Release published in December 2013.

Based on Eurostat's request, the data for 2007–2014 were also prepared by cohesion regions (NUTS2) as stipulated by the new Regulation. The data on livestock number in line with the amended NUTS Regulation are published on the SI-STAT Data Portal.

## 10 OTHER METHODOLOGICAL MATERIALS

Methodological materials on SURSs website are available at <https://www.stat.si/statweb/en/Methods/QuestionnairesMethodologicalExplanationsQualityReports>.

- Questionnaire:
  - Statistično raziskovanje o živinoreji in posejanih površinah v jesenski setvi (KME-DEC) - only in Slovene

Theme: Agriculture, Forestry and Fishery, Subtheme: Livestock, Milk and Milk Products

- Quality report for the survey:
  - Statistično raziskovanje o živinoreji in posejanih površinah v jesenski setvi (KME-DEC) - only in Slovene

Theme: Agriculture, Forestry and Fishery, Subtheme: Livestock, Milk and Milk Products