

## 13. AGRICULTURE

The agricultural industry embraces agricultural primary production enterprises engaged in crop production, animal production, and providing services for agriculture, according to the Classification of Economic Activities (CZ-NACE), division 01. Data on gamekeeping covering economic activities given in the group CZ-NACE 01.7 are provided in Chapter 14 Forestry because they have a closer relation to forest management.

The basic unit in agricultural statistics is an agricultural holding defined by, at least, one of the threshold values: having utilised agricultural area of 1 hectare and more, 1 500 m<sup>2</sup> of grown intensive crops (orchards, vegetables, and/or flowers), 1 000 m<sup>2</sup> of vineyards, 300 m<sup>2</sup> of greenhouses and/or hotbeds, having a farm with the number of livestock from 1 head of cattle, 2 head of pigs, 4 head of sheep and goats, 50 head of poultry, 100 head of rabbits, and/or 100 head of fur animals.

Data are mostly obtained in sample surveys. The sample of selected respondents is based on the updated Farm Register, and the results acquired are grossed up by means of methods of mathematical statistics. Nation-wide structural surveys, which cover all active agricultural entities, are conducted at longer time intervals within the framework of agricultural censuses. Since 2002 all data have only been measured and grossed up for the agricultural sector only and do not include households of the population out of the agriculture sector.

### Notes on Tables

#### Tables 13-1 to 13-4 Economic accounts for agriculture

The economic accounts for agriculture (EAA) are a fundamental methodological instrument to measure the economic size and performance of agricultural primary production. They include several basic aggregates:

- **output of the agricultural industry** is the sum of agricultural products and services produced by holdings operating in agriculture and their inseparable side activities;
- **intermediate consumption** measures the value of own products, goods, and services consumed in the production process (excluding long-term assets, consumption of which is observed as the fixed capital consumption) and serves as one of the key indicators of the production intensity of agriculture. According to the Commission Regulation (EC) No 909/2006 of 20 June 2006 amending Annexes I and II to Regulation (EC) No 138/2004 of the European Parliament and of the Council on the economic accounts for agriculture in the Community this consumption shall include FISIM (Financial Intermediation Services Indirectly Measured);
- **gross value added** indicates the resulting effect of agriculture measured as the difference between output and intermediate consumption. It is used to assess the efficiency of agriculture; and
- **net value added** is the value produced by all agricultural units, obtained by subtracting fixed capital consumption from gross value added.

The economic accounts for agriculture exclude units producing solely for their own self-consumption (kitchen gardens and private livestock raising at households). However, they include the agricultural output for own self-consumption of farmers whose holdings are larger than the bottom threshold (holding size).

The output is valued at basic prices, i.e. by the amount the producer receives from the buyer for a unit of goods or services produced by the producer, minus taxes on products plus subsidies on products.

The intermediate consumption is valued at acquisition prices of goods or services being valid in the moment the goods and/or services are entering the production process. The price includes taxes on products minus subsidies on products, except for VAT.

#### Table 13-5 Areas under crops

**Areas under crops**, which are measured by surveys taken as at 31 May of the reference year, involve areas of agricultural land sown or planted in spring of the given year, in the case of winter crops areas sown in autumn of the previous year, and areas sown in previous years in the case of multiple-year crops grown on arable land.

The **utilised agricultural area** shall mean land under regular management used for cultivation of crops. It includes arable land, hop gardens, vineyards, gardens, orchards, permanent grasslands, and other permanent crops.

#### Tables 13-6 to 13-9 Per hectare crop yields and harvests of crops

The **per hectare yield** is the ratio of the harvest to the harvested area of a crop.

The **harvest** represents the total production of a crop of the standard moisture content and purity.

Before 2016 the total harvest of arable fodder crops is given as hay and is composed of the harvest of perennial fodder crops as hay and the harvest of annual fodder crops as green fodder.

Since 2017 the fodder crops harvest has been given with determined moisture content, which is 65% for green maize and maize for silage, 83% for other annual fodder crops, and 15% for multiyear fodder crops. The total arable fodder crops harvest is given with moisture content of 15%.

The **harvested area** is equal to the area reported as areas under crops, except for grain maize, green and silage maize, early potatoes, other potatoes, and permanent grasslands.

**Table 13-13 Fruit trees and bushes, harvest of fruit**

The **number of fruit trees and bushes** includes fruit trees and bushes dedicated to the fruit production of all age categories.

**Table 13-15 Production of selected products in households**

The table gives an overview of agricultural production in households outside the agricultural sector. The data represent an estimate based on results found on kitchen gardens of the household budget survey, survey on agricultural production in households, and annual data from the surveys on harvests and animal production.

**Tables 13-16 to 13-20 Livestock and livestock density**

The **livestock population** is given according to livestock surveys conducted as at 1 April of the reference year.

**Poultry** includes specimens of the species of chicken (*Gallus gallus f. domestica*), geese, ducks, and turkeys, with no regard to their utilisation type and category.

The **livestock unit (LSU)** is a reference unit which facilitates the aggregation of livestock from various species and age as per convention, via the use of specific coefficients established as follows: 0.4 for a bovine animal up to 1 year of age, 1.2 for a fattened bovine animal 1+ year of age, 1.0 for other bovine animals of 1+ year of age, 0.3 for a sow, 0.2 for other pigs, 0.14 for a sheep animal, 0.1 for a goat, 1.0 for a horse, and 0.004 for a head of poultry.

**Table 13-21 Animal production**

The **production of livestock for slaughter** (cattle, pigs) and **poultry** includes the number of livestock heads which were taken to the market for the purpose of slaughtering and also livestock, which were slaughtered at own abattoirs, at other party abattoirs for wage, or slaughtered out of any abattoir.

The **market fish production** means the amount of fish caught in lakes and special fish breeding facilities. It does not include fish caught in angling.

The **milk production** includes the amount of milk both milked for sale and milk sucked by suckling calves; the amount of milk sucked from cows for meat, which are not milked for the milk production, is not counted in.

**Table 13-22 Livestock yields**

The **number of heads reared (calves and piglets)** is the numbers of animals, which reached a certain age limit (calves three months of age, piglets of the age weaning). It is given related to the average population of cows or sows.

The **average annual milk yield** is the quantity of milk produced per a dairy cow and year.

The **average annual egg yield** is the number of eggs laid per one laying hen and year. The laying hen shall mean a hen, which has attained maturity for laying eggs and is bred for the production of eggs not intended for hatching.

**Tables 13-23 and 13-24 Meat production in the carcass weight and the average live weight of livestock for slaughter**

The **meat production** gives the carcass weight of livestock slaughtered at registered abattoirs. It includes meat recognised as suitable for human consumption.

The **carcass weight** refers to the weight of carcasses. Veal shall mean meat from cattle slaughtered at the age up to eight months and lamb shall mean meat from sheep slaughtered at the age up to one year. Poultry includes meat of from slaughtered chicken, hens, ducks, geese, turkeys, and other domestic fowl bred for meat yet not for purposes of game.

The **live weight** is the weight of livestock for slaughter before the slaughter. The average live weight of pigs does not include sows and boars.

**Table 13-26 Sales of main crops**

**Sales of crops** include all sales by primary producers to trade, processing, and other entities, and direct exports.

**Table 13-28 Per capita consumption of selected kinds of food**

Data on the industrial production, self-supply, initial and final stocks, and on imports and exports are used for the calculation. These data are obtained from the CZSO statistical questionnaires, furthermore from unions of food producers and certain organizations dealing with external trade, and from other institutions. The calculation is based on the mid-year population.

**Tables 13-29 and 13-30 Consumption of fertilisers**

**Mineral fertilisers** contain the declared nutrients in the form of minerals. Consumption of main nutrients is given as follows: nitrogen (N), phosphorous oxide ( $P_2O_5$ ), and potassium oxide ( $K_2O$ ).

**Nitrogenous fertilisers** give the amount of nitrogen (N) in the mineral fertilisers consumed.

**Phosphorous fertilisers** give the amount of phosphorous pentoxide ( $P_2O_5$ ) in the mineral fertilisers consumed.

**Potassium fertilisers** give the amount of potassium oxide ( $K_2O$ ) in the mineral fertilisers consumed.

**Calcareous fertilisers** give the consumption of calcareous matter in liming of agricultural land.

**Barnyard manure** is a by-product of the animal raising and breeding. It includes manure, slurry, liquid manure, and other types of barnyard manure. It does not include by-products or main products from crop cultivating, as collectable after-harvest remnants (as straw or beet greens) or crops for green manure.

**Organic fertilisers** contain the declared nutrients in an organic form (e.g. compost, digestate, and treated sludge).

**Organo-mineral fertilisers** contain the declared nutrients in mineral and organic forms (e.g. enriched molasses stillage).

The fertiliser consumption refers to consumption of reporting units of the sample (with no grossing up to the whole agriculture sector, that means does not include small farmers) per hectare of utilised agricultural area as reported.

The crop year is the period from 1 July of the previous year to 30 June of the current year.

Data given in tables 13-31 through 13-33 are based on results of a structural survey of the **2017 Orchards**. The survey was carried out according to the Regulation (EU) No 1337/2011 of the European Parliament and of the Council of 13 December 2011 concerning European statistics on permanent crops and repealing Council Regulation (EEC) No 357/79 and Directive 2001/109/EC of the European Parliament and of the Council.

The structural survey of the 2017 Orchards covered fruit growers kept in the Farm Register of the Czech Statistical Office, who utilised 0.20 hectare of fruit orchards as at 1 May 2017, production of which was mostly or completely dedicated to be sold of the market. The survey employed two sources of data, first, the Orchard Register administered by the Central Institute for Supervising and Testing in Agriculture, and second, a standard statistical survey performed by the Czech Statistical Office.

**Table 13-33 Areas of orchards by plantation age as at 1 May 2017**

Groups of varieties and respective plantation age were determined in accordance with the aforementioned regulation.

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Further information can be found on the website of the Czech Statistical Office at:

- [www.czso.cz/csu/czso/agriculture\\_ekon](http://www.czso.cz/csu/czso/agriculture_ekon)