

## 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 of CZ-NACE 01.7 are given 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; permanent grasslands, vineyards, hop gardens, fruit orchards and gardens.

The **set-aside arable land** refers to arable land, which is temporarily not managed and used for production of crops. It is not included into the balance of the total areas under 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.

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 conventional unit serving for the conversion of livestock animals of various species and categories to a basis that can summed using conversion coefficients that were 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.

### Tables 13-31 and 13-32 **Agricultural holdings by legal form and by utilised agricultural area**

Tables show all holdings, which meet at least one criterion to be included into the Farm Structure Survey.

### Table 13-33 **Working persons in agriculture by age group**

The working persons of holdings of **legal persons** include employees, who have carried out agricultural works during 12 months prior the date of survey in the holding, and working entrepreneurs (partners). In the case of holdings of **natural persons** the working persons include the holding owners, family members of the owner regardless of whether they receive wages or they work on regular or random basis, who have carried agricultural works during 12 months prior the date of the survey in the holding every week.

### Table 13-34 **Organic farming**

Table gives figures on utilised agricultural area and on livestock for businesses operating organic farming in accord with the Act No 242/2000 Sb on organic farming as amended and according to the EU legislation.

Data in the tables 13-31 to 13-34 are based on results of the Farm Structure Survey 2016 and are compared to results of the Agricultural Census 2010.

The Farm Structure Survey is performed in accord with legal regulations of the European Union (Regulation (EC) No 1166/2008 of the European Parliament and of the Council of 19 November 2008 on farm structure surveys and the survey on agricultural production methods and repealing Council Regulation (EEC) No 571/88).

Based on the aforementioned regulation the survey applied the threshold higher than 1 hectare of utilised agricultural area determined the way the survey would not cover solely smaller agricultural holdings, which in total accounted for 2% of utilised agricultural area and 2% of the total number of livestock units as maximum.

The threshold values determined for the Agricultural Census 2010 and the following surveys were as follows:

- 5 hectares of utilised agricultural area, owned or rented; or
- 1 hectare of orchards or 3 500 m<sup>2</sup> vineyards; or
- summary area of vegetables, strawberries, and flowers starting at 2 500 m<sup>2</sup>; or

- breed of 5 head of cattle, or 10 head of pigs; or
- breed of 10 head of goats or sheep; or
- breed of 100 head of poultry, including ratites (*Paleognathae*).

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*Further data 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)