

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), section 1). 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 agricultural land area under management of 1 hectare and more, 1 500 m² of grown intensive crops (orchards, vegetables, and/or flowers), 1 000 m² of vineyards, 300 m² of greenhouses and/or hotbeds, having a farm with the number of livestock from 1 head of cattle, 2 heads of pigs, 4 heads of sheep and goats, 50 heads of poultry, 100 heads of rabbits, and/or 100 heads of fur animals. Moreover, all enterprises engaged in fish farming in water bodies, irrespectively of the water body area.

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. Nationwide 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 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 censuses 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 numbers of pigs and poultry includes also an estimate for home slaughtering out of the agriculture sector.

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 (weaned calves and piglets)** is the numbers of animals which reached a certain age limit (calves three months of age, piglets 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 hen and year; since 2010 it has been 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 animals 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 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 main 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 oxide (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 cover all entities, which meet, at least, one of criteria to be included into the agricultural sector, except for businesses operating fish aquaculture.

Table 13-33. Working persons in agriculture by age group

Labour force of businesses of **legal persons** include employees, who performed agricultural works in the business every week during twelve month before the date of survey, and working entrepreneurs (partners). In the case of businesses of **natural persons** labour force include business owners, family workers, irrespectively they earn wage or work on regular basis or not, and employees, who performed agricultural works in the business every week during twelve month before the date of survey.

Table 13-34. Non-agricultural activities of agricultural holdings directly related to the holding as at 30 September

Non-agricultural activities include all activities, except for agricultural works, directly related to the business or having an economic impact on it.

Activities directly related to the holding are such activities, in which either resources of the holding (plots, structures, machinery, etc.) or its products are employed. If, however, merely labour force and no other resources of the holding are used then the activity is not directly related to the holding.

Data in Tables 13-31 to 13-34 are based on the Farm Structure Survey in 2013 and are compared to results of agricultural census of 2010.

The Farm Structure Survey, also known as Survey on the Structure of Agricultural Holdings, is carried out in accordance with the European Union legislation (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 value of land larger than 1 hectare and the threshold was determined the way the survey should neglect only smaller agricultural holdings forming 2% of the total utilised agricultural area and 2% of the total number of livestock units as maximum.

The threshold limits determined for the agricultural census 2010 and the following surveys were as follows:

- *5 hectares of utilised agricultural area, either proprietary or rented; or*
- *1 hectare of fruit orchards, or 3 500 m² of vineyards; or*
- *total area of vegetables, strawberries, and flowers equal to or higher than 2 500 m²; or*
- *rearing 5 heads of cattle or 10 heads of pigs; or*
- *10 heads of goat and sheep; or*
- *rearing 100 heads of poultry, including flightless birds.*

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Further data can be found on the web pages of the Czech Statistical Office at:

- www.czso.cz/eng/redakce.nsf/i/agriculture_ekon