

14. AGRICULTURE

The agricultural industry embraces agricultural primary production enterprises engaged in crop production, animal production and services for agriculture.

Since 2002 the Czech Statistical Office has harmonized statistical surveys according to laws, regulations and recommendations in force for the EU member states. The data are mostly sample surveyed, the sample of respondents is based on the updated Agro-register, and the results are grossed up by mathematical and statistical methods. 100% structural surveys, which cover all active agricultural units, are conducted at longer time intervals in the framework of Agrocensuses. Since the year above, all the data have only been measured and grossed up for the agricultural sector and do not include own-account production of the population.

The basic unit for records in agricultural statistics is an agricultural holding defined by at least one of the threshold values laid down for the structural survey on agriculture: 1 500 m² of grown intensive crops (fruit, flowers, vegetables grown in the open), 1 000 m² of vineyards, 300 m² of area under cover, 1 head of cattle, 2 pigs, 4 sheep and goats, 50 heads of poultry, 100 rabbits, 100 fur animals, and all holdings engaged in fish farming in water bodies irrespective of the area.

The questionnaire on areas, yields and production of agricultural crops used in the statistical survey on **crop production** is designed in compliance with requirements of international organisations. The crops are reported net, without mixtures.

Data on hunting (CZ-NACE 01.5: Hunting, Trapping and Game Propagation Including Related Service Activities) are presented in Chapter 15. Forestry as they are more tied with this economic activity and due to the intention to maintain continuity with the yearbooks published before.

Notes on tables

Tables 14-1 to 14-4. Economic accounts for agriculture

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

output of the agricultural industry - the sum of agricultural products and services produced by units operating in agriculture plus secondary inseparable activities;

intermediate consumption - measures own goods, goods for resale and services consumed in the production process (excluding the use of fixed assets) and is one of the key indicators of the production intensity of agriculture; according to Regulation (EC) No. 909/2006 of 20 June 2006, it includes FISIM (Financial Intermediation Services Indirectly Measured);

gross value added - indicates the resulting effect of agriculture as measured by the difference between output and intermediate consumption. It is used to assess the efficiency of agriculture within the national economy;

net value added - 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 consumption (kitchen gardens and private livestock raising). However, they include agricultural output for own consumption of farmers whose holdings are larger than the minimum size (lower threshold).

The output is valued at basic prices—i.e. by the amount received by the producer 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 similar goods or services in force when the goods or services are entering the production process. The prices include all taxes on products minus subsidies on products and exclude deductible taxes such as VAT.

Tables 14-5 and 14-6. **Land use**

All agricultural and non-agricultural land is measured by summing up crop areas recorded in the real estate register kept by the Czech Office for Surveying, Mapping and Cadastre as at 31 December.

Agricultural land comprises arable land, hop-gardens, vineyards, gardens, orchards, and permanent grassland.

Non-agricultural land includes forestland, ponds, lakes and other water surface areas, as well as built-up and other areas.

All the data on land are measured as crop areas of agricultural holdings and non-agricultural establishments or of private owners, no distinction being made as to the land size and the type of holder.

Table 14-7. **Areas under farm crops**

Areas under crops measured by censuses taken as at 31 May include spring production areas (i.e., arable land areas; areas under crops in orchards and gardens, and areas of meadows and pastures temporarily ploughed and used for sowing) to be harvested in the reference year. They include:

- a) **areas under winter crops**, sown in the autumn of the previous year and maintained until the spring sowing in the reference year is over (i.e. until the areas-under-crops census);
- b) **areas under spring crops**, sown in the spring of the reference year;
- c) **areas under perennial crops**, sown in past years and maintained until the sowing in the reference year is over (i.e. until the areas-under-crops census).

The total area under crops does not include arable land areas not sown or planted. These areas are given under the separate item "Set-aside arable land" which refers to fallow land and all arable land not sown or planted for one reason or another, including temporarily excluded or not farmed land in the reference year (i.e. until the areas-under-crops census). Unlike Tables 14-5 and 14-6 "Land use", the agricultural land and arable land given in Table 14-7 includes land farmed in the agricultural sector only—i.e. it excludes land used by the population and land not used for agriculture.

Tables 14-8 to 14-11. **Main farm crops harvested and yields per hectare**

The tables list data obtained through the questionnaire on final harvests of farm crops as of the end of year.

The **yield per hectare** is the ratio of harvest to production area.

The **harvest** is the total quantity of a crop harvested at standard moisture content and standard purity, including inferior portions of the crop that can be used for feeding livestock (grain waste, small discarded potatoes, etc.) and excluding seed crops and crop planting stock.

Before 2002, the **production area** refers to an area from which the crop measured was actually harvested. It can be smaller than an area under crops, if such crop is destroyed or ploughed-in in the sowing-to-harvesting period or is not harvested. It can be larger than an area under crops, if used to grow another crop, too (e.g. if part of an area under green maize is grain harvested). Since 2002, production areas have been equal to areas under crops (except for grain maize, green and silage maize and permanent grassland).

Table 14-15. **Fruit trees and bushes, harvest of fruit**

The **number of fruit trees and bushes** is obtained from processed questionnaires on final harvests as at the end of year.

The **harvest** of individual fruits from fruit trees and bushes is sample surveyed as at the end of year, using questionnaires on final harvests of agricultural crops, and the data obtained are grossed up by mathematical and statistical methods.

Table 14-17. Production of chosen products in the households of population

The table gives an overview of the agricultural output in the self-supply area, implemented outside the agricultural sector in the households of population. It is compiled from expert estimates of the results obtained for own-account production in the households included in the reporting sample of household budget statistics and from annual data provided by harvest and animal production surveys.

Tables 14-18 to 14-22. Livestock and livestock farming intensity

Livestock population is derived from livestock censuses conducted as at 1 April of the following year (before 2002, as at 1 March of the following year).

Cows are breeding dams calved at least ones, both mated and non-mated.

Sows are breeding dams farrowed at least once (excluding sows discarded from breeding), both mated and non-mated.

Poultry includes hens and cocks, geese and ganders, ducks and drakes, turkey hens and cocks (including young ones).

Livestock unit is a fixed unit into which each livestock individual is converted by means of factors set as follows: cattle up to 1 year of age 0.4, fattening cattle over 1 year old 1.2, other cattle over 1 year old 1.0, sows 0.3, other pigs 0.2, sheep 0.14, goats 0.1, horses 1.0, and poultry 0.004.

Table 14-23 and 14-24. Animal production and yields

Cattle and pigs production - includes all sales of cattle, calves and pigs for slaughter in terms of live weight (the number of pigs includes estimates for home slaughtering).

Poultry production - includes all sales plus in-house consumption of poultry for slaughter in terms of live weight.

The **number of weaned calves and piglets** - the difference between animals born and lost by death, namely calves up to three months of age and piglets till weaned. The number of born and weaned calves per 100 cows or piglets per 1 sow is related to the average population of cows or sows.

The **death loss of calves or piglets** - given in percentage and calculated from the number of born animals. It also includes discarded animals.

Milk production - includes milk both drawn from the cow for further treatment and milk sucked by unweaned calves; milk sucked from suckler cows is not counted in. The **average milk yield** is the quantity of milk produced over 1 year and falling on 1 cow in milk (including dry cows).

Average egg-laying - the number of eggs laid by 1 hen (not per 1 laying hen only) per year.

Tables 14-25 and 14-26. Meat production in terms of carcass weight and average slaughter weight

Meat production in terms of carcass weight includes data from all abattoirs in the Czech Republic. Inevitable slaughters are counted in the carcass weight providing the meat is used for human consumption. The **average carcass weight** of pigs excludes sows and boars.

Table 14-28. Sales of main agricultural products: totals

Total sales of main agricultural products include all **sales by primary producers** from their own harvest to trading and processing companies, other sales (including products for in-house processing) and direct exports. **Total sales of crop products** exclude sales by small growers and gardeners. The data on total sales of crop and animal products cover the period of a calendar year.

Total sales of livestock for slaughter include cattle, calves, pigs, sheep, goats, and poultry in terms of live weight. The data on sales of **eggs** only include eggs for consumption (hatching eggs are excluded).

Table 14-30. Consumption of fertilizers

The consumption of fertilizers is given in terms of net nutrients contained in oxides, except for nitrogen. The **agricultural production year** includes consumption from 1 July of previous year to 30 June of current year. Due to the way of measuring, the data exclude consumption of fertilizers by holdings of self-employed farmers.

Consumption per ha refers to farmed (not fertilized) land. The time series includes conversion to 1 ha so that data on individual years can be compared.

Table 14-31. Consumption of plant protection active substances

The data on the consumption of plant protection active substances are provided by the State Phytosanitary Administration in Prague. They were collected from records of agricultural holdings over 10 ha in acreage.

The data in Tables 14-32 to 14-35 show the results of the Farm Structure Survey 2005 in comparison with the results of the Farm Structure Survey 2003 and Agrocensus 2000.

Tables 14-32 and 14-33. Agricultural holdings

The tables include all holdings that meet at least one of the criteria for being classified in the agricultural sector, except for holdings engaged in fish farming.

Table 14-34. Workers in agriculture: by age group

Starting from the year 2003, according to Commission Regulation (EC) No. 1444/2002, the labour force of holdings of **legal entities** includes employees who for the holding performed agricultural work within 12 months before the day of the survey and working entrepreneurs (partners). The labour force of holdings of **natural persons** includes: owners of the holding, their families irrespective whether or not they receive wages and whether or not they work on a regular basis, and employees who for the holding performed agricultural work within 12 months before the day of the survey.

Table 14-35. Machinery and equipment in agriculture

The table shows means of mechanization of agricultural holdings irrespective of their technical conditions or performance capability. Only biaxial tractors and narrow-track tractors are counted. Soil processing machines includes all types of machines for surface cultivation and pre-sowing preparation.

In some cases the data published for 2002 and the following years are not fully comparable to those released in the long time series in the statistical yearbooks of previous years. This is due to the shift to the measurement covering the net agricultural sector (areas and harvests of potatoes, vegetables, fruits, strawberries, numbers of hens, egg-laying). Minor methodological differences are drawn attention to in the methodological and other notes provided under the tables, where applicable. Newly included are Tables 14-32 to 14-35 containing the results of the Farm Structure Survey 2005 (30 September).

More detailed information on the agriculture is available in the following CZSO publications brought out according to the CZSO Catalogue of Publications 2006 (thematic group 2 – ENVIRONMENT, AGRICULTURE; subgroup 21 - Agriculture):

- "Gross Agricultural Output 2005" (Czech-English) - May 2006
- "Final Figures on Harvest of Farm Crops in 2005" (Czech-English) - January 2006
- "Livestock Census: 1 April 2006" (Czech-English) - May 2006
- "Areas under Farm Crops Census: 31 May 2006" (Czech-English) - July 2006
- "Porážky hospodářských zvířat za rok 2006" - February 2007
- "Economic Accounts for Agriculture - Preliminary Results 2005" (Czech-English) - February 2006
- "Economic Accounts for Agriculture 2004 and 2005" (Czech-English) - September 2006
- "Výsledky chovu drůbeže" - quarterly, on the 35th day following the end of quarter
- "Výsledky chovu skotu" - August 2006, February 2007
- "Výsledky chovu prasat" - May 2006, September 2006, February 2007
- "Farm Structure Survey Results 2005" (Czech-English) - July 2006
- "Farm Structure Survey Results 2005 - Analysis" (Czech-English) - September 2006
- "Economic Accounts for Agriculture 2004 and 2005 - Regions" (Czech-English) - November 2006
- "Farm Structure Survey Results 2005 - Regions and Districts" (Czech-English) - November 2006

Further data are published on the following web pages of the Czech Statistical Office:

http://www.czso.cz/eng/redakce.nsf/i/agriculture_ekon