

II. Methodological notes

Reference period for Agricultural census 2010 for variables of state nature were related to 30 September 2010. Variables concerning use of labour force in agriculture were measured for the period October 2009 – September 2010 due to ALI (Agricultural Labour Input) methodology. Also other variables were recorded for the whole year (October 2009-2010); namely irrigated area (Table 32), processing of own products, providing services, revenues from sales of own products (Tables 40, 41, and 42), and self-consumption of self-produced products (Table 43).

Table 2 Principal agricultural production of the holding

Agricultural holdings are broken down by their principal agricultural activity according to uniform CZ-NACE classification. A production that represents the prevailing part of the holding's added value is considered as a principal activity.

Raising of other animals (01:49): includes holdings raising ostriches and emu, or rabbits and other fur animals, or dealing with bee-keeping and production of honey and beeswax.

Support activities for crop production (01.61): all holdings carrying out support activities exclusively are excluded; however, holdings exclusively maintaining agricultural land in good agricultural and environmental condition are included.

Table 3 Non-agricultural activities (directly related to the holding)

Non-agricultural activities include all gainful activities that do not comprise any farm work and have an economic impact on the holding. Activities carried out for the needs of the farm only are not counted in.

Activities directly related to the holding are such activities for which either resources of the holding (area, buildings, machinery, etc.) or its products are used in the activity. If only the farm labour force (family and non-family) and no other resources of the holding are used, these activities are not seen as being directly related to the holding (the workers are seen as working under two separate arrangements).

Non-agricultural as well as agricultural work for other holdings is included.

Gainful activities in this context mean active work; pure financial investments are therefore excluded. Renting out the land for diverse activities without being further involved in these activities is also excluded.

The information collected reflect "standard" situation of the holding, therefore any occasional other gainful activities are excluded.

Tourism, accommodation and other leisure activities: all activities in tourism, accommodation services, showing the holding to tourists or other groups, sport and recreation activities etc. where either land or buildings or other resources of the holding are used.

Handicraft: items either manufactured on the holding by the holder or the family members, or by non-family labour force, provided that they are also carrying out farm work, regardless of how the products are sold.

Processing of farm products: all processing of a primary agricultural product to a processed secondary product in the holding, regardless if the raw material is produced in the holding or bought from outside. This includes e.g. processing meat, making cheese, etc. Processing of farm products for self-consumption only or the sale of a possible surplus of such products is not included.

Renewable energy production: producing renewable energy for the market including biogas, bio-fuels or electricity, by wind turbines, other equipment or from agricultural raw materials. Renewable energy produced only for the holding's own use is not included here. Renting out the land only for the establishing the wind mill or selling of raw material to another enterprise for the production of renewable energy is excluded.

Wood processing: processing of raw wood in the holding for the market (sawing timber). Further processing, such as producing furniture from the timber, belongs under handicraft.

Aquaculture: production of fish, crayfish etc. in the holding.

Contractual work inside or outside the agricultural sector: contractual work for another holding usually using the equipment of the holding, e.g. clearing snow, haulage work, maintenance of the landscape (mowing road ditches), agricultural and environmental services, etc.

Forestry: forestry work using both the farm labour force and the machinery and equipment of the holding generally used for agricultural purposes.

Table 4 Benefiting from rural development measures during the last three years

Data in this table were obtained from administrative sources; the basic data provided the State Agricultural Intervention Fund. Financial aid has been provided within the Rural Development Programme of the Czech Republic for the period from 2007 to 2013.

Table 5 Labour force in agriculture, total

Regularly employed persons have carried out farm work every week in the holding in the period of 1 October 2009 – 30 September 2010, irrespective of the length of a working week. Persons who worked regularly for a part of that period but were unable to work for the entire period for any of the following reasons are also included:

- a) Special production conditions in the holding (e.g. holdings specialising in growing vegetables, grapes etc. and only requiring labour for a limited number of months);
- b) Absence by reason of holidays, military service, sickness, accident or death;
- c) Commencement or cessation of employment in the holding;
- d) Complete stoppage of work in the holding due to accidental causes (flooding, fire, etc.).

The holder's family members are the spouse and children, the holder's parents, the spouse's parents, relatives obtained by entry into marriage or adoption, brothers and sisters of the holder and of the holder's spouse. If they have carried out agricultural work but they have not lived in the same household with the holder, they are included in the section.

Working owners include partners in general partnerships, general partners in limited partnerships, partners in limited liability partnerships and special limited partners in limited partnerships, who work in their partnership but are not employed there.

Irregularly employed persons are those who did not carry out farm work every week in the holding in the period of 1 October 2009 – 30 September 2010 for other reasons than listed above. Temporary workers at work peaks or those working in the holding in form of additional activity to their major occupation in another holding are included here. Persons with temporary contracts for work or contracts for services are mainly included in this section.

Persons not directly employed by the holding are either self-employed or employed by third parties, e.g. contractors (job agencies) or cooperatives.

Annual work unit (AWU) is the full-time equivalent employment, i.e. the total hours worked divided by the average annual hours worked in full-time jobs in the country. The annual fund of working hours is set at 1,800 hours and is based on the number of working days with 8 working hours a day minus minimum statutory claim for holiday and minus the average number of hours not worked for incapacity for work. Category under 450 hours worked: coefficient 0.125; 450 till 899 hours: coefficient 0.375; 900 till 1,349 hours: coefficient 0.625; 1,350 till 1 799 hours: coefficient 0.875; 1 800 and more hours: coefficient 1.000.

Table 6 Labour regularly employed by age groups

Labour force of the holding of natural persons includes a holder, holder's family members (with or without employment contract), who carry out farm work on the farm irrespective of whether they work regularly or not, regularly working employees. Holdings of legal persons supplied data for their managers and employed persons, for both their employees and working holders.

Table 10 Agricultural education of the manager

Only the highest educational attainment reached in the agricultural domain is included.

Practical agricultural experience only = experience acquired only through practical work on an agricultural holding (e.g. manager of the holding has juridical, economic etc. education).

Basic agricultural training = completed agricultural apprenticeship in agriculture (including horticulture, viticulture, pisciculture, veterinary science, agricultural technology and associated subjects).

Full agricultural training = secondary education completed with school-leaving examination or graduation at agricultural college, university or other institute of higher education in agriculture (including horticulture, viticulture, pisciculture, veterinary science, agricultural technology and associated subjects).

Vocational training is a training measure or activity, provided by a trainer or a training institution which has as its primary objective the acquisition of new competencies related to the farm activities or activities related directly to the holding or the development and improvement of existing ones. The table includes vocational training undertaken by manager during the last 12 months.

Table 11 Land use

The table contains data on the acreage of utilised agricultural area and arable land expressed in hectares (data is rounded off to two decimal places). Pursuant to Cadastral Act No 265/1992 Coll., as amended, the ownership of a real estate is recorded by the entry of the ownership right in the land register or in a different, corroborative way (a purchase agreement or a deed of gift, including motion to enter the record of the title of a real estate in the land register, or acknowledgement of the acquisition of inheritance, or the Land Office's decision on restitution procedure according to Land Act No 229/1991 Coll.). Any area of land that the holding provides to/receives from another holder on the basis of a contract in writing or by word according to pre-set conditions is considered land rented to/from others.

Agricultural land is the sum of plots of land utilised for the agricultural production process and includes: arable land, hop-gardens, vineyards, kitchen gardens, orchards, permanent grassland and other permanent crops.

Arable land includes land plots utilised for growing agricultural crops in a crop rotation and also includes lands temporarily covered with grass or with multi-annual fodder crops, areas under glass/plastic foil and hotbeds. Fallow land set aside for regeneration for one year as a rule is also counted in. The fallow land can be free of any crops, can have natural vegetation, or can be sown only for the purpose of green manure. It is a part of a crop rotation system and, therefore, is considered to be an utilised agricultural land.

Unutilised agricultural land refers to areas which used to be utilised as an agricultural land but is not farmed any more for a long time for economic, social or other reasons (arable land is not more included in any crop rotation system).

Table 12 Tillage methods

Conventional tillage involves inversion of the soil, normally with a mouldboard or a disc plough as the primary tillage operation, followed by secondary tillage with a disc harrow.

Conservation tillage is a tillage practice or system of practices that leaves plant residues (at least 30%) on the soil surface for erosion control and moisture conservation, normally by not inverting the soil.

Table 13 Soil cover in winter

Arable land on is planted by cover crops or intermediate crops specifically to reduce the loss of soil, nutrients and plant protection products during the winter or other periods when the land would otherwise be bare and susceptible to losses. The economic interest of these crops is low, and the main goal is soil and nutrient protection.

Table 14 Crop rotation

Arable area out of the planned crop rotation is cultivated with the same crop for 3 years or more consecutively and is not part of a planned crop rotation.

Table 15 Arable land use

Data on areas under agricultural crops grown as a main crop in the reference year are reported in the table. These areas under crops include in particular crops on arable land, but they also include areas under crops in orchards and kitchen gardens as well as in temporarily ploughed permanent grassland. Areas under successive secondary crops are reported separately.

Other pulses include fodder and other pulses, mixtures of pulses and cereals.

Potatoes, total include early, ware, seed, and starch potatoes.

Fodder roots include fodder beet, turnip, marrow, Jerusalem artichoke, turnip cabbage, fodder carrot, beet root, fodder cabbage.

Other industrial crops include chicory root, rumex for energy use and other industrial plants not mentioned elsewhere (e.g. hemp, etc.)

Fallow land with subsidies refers to a land that is during the given vegetative period not used for production purposes in the frame of a crop rotation system. It covers arable land that was kept in good agricultural and environmental conditions, i.e. it is eligible to be included in the single area payment scheme (SAPS). It includes bare fallow land, fallow land with spontaneous natural vegetation that may be used as a feed or ploughed in and area sown exclusively for the production of green manure.

Table 16 Utilised agricultural area

Agricultural land, total is the sum of land plots utilised for the agricultural production process and includes: arable land, hop-gardens, vineyards, kitchen gardens, orchards, permanent grassland and other permanent crops.

Vineyards, total include both fertile and newly established vineyards.

Vineyards for production of quality wine, other wine and table grapes include only fertile ones. Quality wine production include Grape varieties normally grown for the production of wines with a protected designation of origin (PDO) or with a protected geographical indication (PGI), which comply with the requirements (i) of Council Regulation (EC) No 479/2008 or, where applicable, the most recent legislation and (ii) the corresponding national rules. Table grapes include grape varieties normally grown for the production of fresh grapes.

Kitchen gardens include plots of land where vegetables, flowers and other garden crops are permanently grown usually for self consumption. They usually make up one unit with residential and farm buildings.

Table 17 Area of land, total

Forest land: areas covered with trees or forest shrubs, including non-commercial forest-tree nurseries grown in woodland (use for the holding's own needs).

Other areas: areas occupied with buildings, farmyards, paths and lanes, purpose communications, parking, manipulation or storage areas, as well as parks and tree alleys.

Table 18 Area under special crops

Genetically modified crops mean any organism as defined in Article 2 of Directive 2001/18/EC of the European Parliament and of the Council, as amended. In the Czech Republic, planting of genetically modified maize, potato and soya varieties is allowed (Law No 78/2004 Coll., on use of genetically modified organisms and genetic products, and Decree No 89/2006 Coll., on detailed conditions for planting genetically modified crops).

Table 19 Livestock

Number of production animals that are in the direct possession or management of the holding on the day of the survey (these animals are not necessarily the property of the holder). In case of animals off the holding on the day of the survey, their usual number is used. Animals kept for hunting purposes are excluded.

Dairy cows are cows kept only or mainly for the production of milk for human consumption or for further processing to dairy products.

Suckler cows, cull and fattened cows are kept, due to their breed or particular properties, exclusively or mainly for the production of calves and whose milk is not intended for human consumption or further processing to dairy products.

Table 20 Animal grazing

Average time spent on pastures (months) is included regardless of whether the animals were there also during the night or spent the night indoors.

Table 24 Storage facilities for barnyard manure

Solid dung storage facilities are established on an impermeable surface with run-off containment, with or without a roof. Solid dung is excrement (with or without litter) of domestic animals, possibly including a small amount of urine.

Liquid manure storage facilities are watertight tanks, open or covered, or lined lagoons. Liquid manure is urine from domestic animals, possibly including a small amount of excrement and/or water.

Slurry storage facilities are watertight tanks, open or covered, or lined lagoons. Slurry is manure in liquid form, that is to say a mixture of excrements and urine of domestic animals, possibly including water and/or a small amount of litter.

Lagoon: Normally a large rectangular or square shaped structure with sloping earth bank walls with large surface area to depth ratio. It may be lined with water impermeable material.

Table 25 Manure application

The area is counted only once, even if solid dung is spread several times during the year. The approximate time limit to distinguish immediate incorporation was set out as 4 hours.

Table 26 Barnyard manure export

The table shows the amount of the manure and slurry sold, or otherwise removed from the holding, estimated as a percentage of the total amount of manure and slurry produced on the holding in the reference year.

Tables 27, 28, and 29 Machinery and equipment and its specified units

The table includes number of machines owned by agricultural holding (including financial leasing), irrespective of their conditions and operability.

Wheel and track tractors (broken down by engine power) include only two-axle tractors and small-size tractors.

Ploughs include conventional and reversible ploughs.

Reapers include only tractor-drawn reapers.

Seeders include seeders and seed-drill combinations for large area crop seeding (precise seeders are excluded).

Fertilizers spreaders include mounted or drawn spreaders.

Manure spreaders include only drawn spreaders.

Sprayers include both self-propelled and drawn mounted sprayers.

Stationary and mobile irrigation equipment refers to irrigation equipment used to grow field crops (not for market gardening or crops under glass).

Feeding wagons include both self-propelled and drawn wagons.

Table 30 Equipment used for renewable energy production

Equipment used by the agricultural holding for production of renewable energy during the reference year for the market (grid connected) or for own agricultural production (non-grid connected). Equipment situated on land belonging to the holding is excluded if the farmer is not involved in energy production, either through investment or active participation (i.e. he just receives rent for the land). Equipment used only for the farmer's household is also excluded.

Wind energy is kinetic energy of wind exploited for electricity generation in wind turbines. Direct mechanical energy derived from wind is also included.

Biomass is solid, liquid or gaseous organic, non-fossil material of biological origin used for the production of heat, electricity or transport fuels.

Biogas is a gas composed principally of methane and carbon dioxide produced by the anaerobic digestion of biomass (controlled microbial breaking-down of organic material in anaerobic conditions; biogas and digestate are produced).

Solar radiation is radiation exploited for hot water production and electricity generation. Flat plate collectors and photovoltaic cells are included.

Hydro-energy is a potential and kinetic energy of water converted into electricity in hydroelectric plants. Direct mechanical energy derived from water is also included.

Other types of renewable energy sources include other equipment for renewable energy production not mentioned elsewhere (e.g. geothermal energy).

Table 32 Irrigation

The table shows the total potentially irrigable area in the Czech Republic in hectares and actually irrigated areas (in hectares) broken down by crop.

Irrigable area is maximal area that can be possibly irrigated. **Irrigated area** is the area that was irrigated minimally once in the reference period.

Table 33 Organic farming

Organic farming is a type of agricultural farming characterized by saving natural resources and by limits or bans imposed on the application of substances or methods that burden the environment. Breeding of animals is carried out in compliance with ethological requirements, the application of veterinary medicaments is controlled and considerate processing procedures are used.

An agricultural holding applies organic farming if it abides by Organic Farming Act No 242/2000 Coll., as last amended, and Council Regulation (ES) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91, and Commission Regulation (EC) No 889/2008 of 5 September 2008 laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007 on organic production and labelling of organic products with regard to organic production, labelling and control. An applicant for organic farming shall submit an application for the registration of organic farming at an eco-farm. The application shall include all particulars pursuant to Act No 242/2000 Coll., as last amended, and Decree No 16/2006 Coll., issued by the Ministry of Agriculture of the Czech Republic. If the registration is asked for more farms, the application shall be submitted for each eco-farm separately.

The application can be submitted for crop growing only, or for both crop growing and livestock breeding, or for livestock breeding only, providing it has already been decided on the crop growing registration.

An eco-farm is a closed economic unit including land, farm buildings, equipment for operation and possibly livestock used for organic farming.

Table 34 Extent of organic farming

Transformation refers to a transient period in which the holding's agricultural farming is transformed into organic farming. It begins on the day the application is received by the Ministry of Agriculture of the Czech Republic and ends on the day the Ministry issues its decision on the registration of the applicant. The decision on the registration is issued for unlimited duration and is related to data stated in the application.

A holding applies organic farming provided that it is registered or under conversion to organic farming.

Table 37 Landscape features from 2008 to 2010

According to the Regulation of the Government No 335/2009 Coll., on types of landscape features, as last amended, following landscape features are defined: hedges, terraces, valley lines, trees in groups, tree lines and isolated trees.

***Tree line** is a line-shaped formation consisting of at least 5 individuals of woody plants and mostly with regularly repeating features.*

***Balk** is a coherent line-shaped formation covered by grass, functioning in decreasing of risk of water/wind erosion, usually defining a border of a land block, or a section of a land block. It can include woody vegetation or stone walls.*

***Terrace** is a coherent sloped line-shaped formation composed of terrace-level, functioning in decreasing of risk of water/wind erosion, usually defining a border of a land block, or a section of a land block. It can include woody vegetation or stone walls.*

***Other landscape features** include valley lines, trees in groups and isolated trees.*

Linear elements are considered to be maintained if the holding ensures a minimum level of maintenance and thus avoids deterioration of habitats regardless if the farmer receives subsidies for maintenance or not.

Table 38 Waste water disposal

The table includes data on wastewater from farm buildings, not from the holder's household.

Table 39 Agricultural services

The table presents number of agricultural holdings hiring or providing on the basis of a contract listed agricultural services.

***Services in animal production** include herd testing, castrating, sorting poultry by sex and associated activities, grazing animals, cleaning of stable areas, artificial insemination. Veterinary and consultancy services are excluded.*

Table 40 Providing services

Financial benefits (sales) earned from services provided by the agricultural holding to external customers are included.

Table 41 Processing of own products

The table shows quantities of self-produced agricultural products (not final products made of them), processed by agricultural primary producers in their own production capacities in the reference period (e.g. to meat products, dairy products, peeled potatoes for wholesale consumers, potato chips, marmalades, fruit juices, wine, feeding stuff).

Table 42 Revenues from sales of own products

***Christmas trees** include trees planted in nurseries as ornamental trees, not trees gained in thinning or by cutting upper parts of felled forest trees.*

***Hides and skins** include raw furs and reptile and bird skins from fur farms, not of skins from slaughter houses.*

Table 43 Self-consumption of self-produced products

The table self-produced products consumed in the reference period as foodstuffs in the household or in the holding of an agricultural producer and self-produced products given to employees as wages in kind. Products consumed in canteens for employees are also included. Products consumed by animals are excluded.

Table 44 Destination of the holding's production

Consumption of the final production in the holder's household contains gifts to family and relatives without remuneration. Agricultural products used as input for other production, such as forage for animal production, are not included in the final output.

Direct sales to consumers mean sales to persons (final consumers) who consume bought products and do not resale them.