

## CZECHIA – AGRICULTURAL CENSUS 2020 – METADATA REVIEW

### 1. Historical outline

Czechia participated in the WCA in 1930, 1970/1971, 1980 and 1990 as part of the federal state formed by the Czech and the Slovak Republics. These were followed by the agricultural censuses (ACs) carried out in 2000, 2010 and 2020, the latter being the one to which the metadata and data presented here refer. The Agricultural census 2020 was conducted as an exhaustive survey, following sample structural surveys (2003, 2005, 2007, 2013 and 2016) and Agricultural censuses 2010 and 2000 in its contents and aims.

### 2. Legal basis and organization

#### *Legal framework*

The legal framework of the Agricultural census 2020 (AC) included:

- Act No. 89/1995 Coll., on the State Statistical Service, as amended, the basic national legislation related to statistical surveys;
- Decree No. 293 of 6 November 2019 on the Statistical Survey Programme for 2020, No. 125/2019 Coll., distributed on 14 November 2019, including Annexes 1 and 2;
- Regulation (EU) 2018/1091 of the European Parliament and of the Council of 18 July 2018 on integrated farm statistics and repealing Regulations (EC) No 1166/2008 and (EU) No 1337/2011; and
- Commission Implementing Regulation (EU) 2018/1874 of 29 November 2018 on the data to be provided for 2020 under Regulation (EU) 2018/1091 of the European Parliament and of the Council on integrated farm statistics and repealing Regulations (EC) No 1166/2008 and (EU) No 1337/2011, as regards the list of variables and their description.

#### *Institutional framework and international collaboration*

The Agricultural and Forestry, Industrial, Construction, and Energy Statistics Department (AFICESD) of the Czech Statistical Office (CZSO) was responsible for the AC 2020. The census was co-funded by the European Union, as established in article 13 of Regulation (EU) 2018/1091.

#### *Census staff:*

The staff involved 83 permanent CZSO staff members and 238 temporary workers, of whom 202 were interviewers.

### 3. Reference date and period

**Reference day:** 30 September 2020, for livestock and animal housing.

#### **Reference periods:**

- from 1 October 2019 to 30 September 2020, for land use, crops, irrigation and soil management practices, manure management, labour force, manager of the holding, other gainful activities; and
- from 1 January 2018 to 31 December 2020, for rural development measures.

### 4. Enumeration period

The AC fieldwork was conducted from September 2020 to February 2021. Due to the COVID-19 pandemic, the originally planned period from September to December 2020 has been extended. As face-to-face interviews became difficult due to COVID-19 restrictions, the CZSO partly replaced PAPI in the field with CATI and CAWI.

### 5. Scope of the census and definition of the statistical unit

The **census scope** covered agricultural (crop and livestock production) activities.

The **statistical unit** was the agricultural holding, defined as a single unit, both technically and

economically, that has a single management and that undertakes economic activities in agriculture in accordance with Regulation (EC) No 1893/2006 belonging to groups A.01.1, A.01.2, A.01.3, A.01.4, A.01.5 or to the "maintenance of agricultural land in good agricultural and environmental condition" of group A.01.6 within the economic territory of the Union, either as its primary or secondary activity, as it is stated in the Regulation (EU) No. 2018/1091 of the European Parliament and of the Council on integrated agricultural statistics. Regarding activities of class A.01.49, only the activities "Raising and breeding of semi-domesticated or other live animals" (except for raising of insects) and "Bee-keeping and production of honey and beeswax" were included.

#### ***Community-level data***

There were no community-level data collected along with the census.

### **6. Census coverage**

#### ***Geographic coverage***

The AC 2020 covered the entire country.

#### ***Cut-off threshold and other exclusions***

Czechia applied the following thresholds: (i) five ha of UAA; (ii) two ha of arable land; (iii) 0.5 ha of potatoes (including seed potatoes) - outdoor, or fresh vegetables (including melons) and strawberries; (iv) 0.3 ha of fruit trees, berries, nut trees, other permanent crops excluding nurseries and vineyards; (v) 0.2 ha of aromatic, medicinal and culinary plants, flowers and ornamental plants, seeds and seedlings, nurseries; (vi) 0.1 ha of vineyards; (vii) 0.01 of UAA under glass or high accessible cover, or cultivated mushrooms; or (viii) 1.7 livestock units.

### **7. Methodology**

#### ***Methodological modality for conducting the census***

The AC 2020 used the classical approach combined with the use of administrative registers. The AC comprised a core module and three thematic modules on labour force and other gainful activities, rural development, and animal housing and manure management. However, the classical approach (one-off complete enumeration) was used in the AC 2020, even for the thematic modules. Some census data for the core module and all census data regarding the rural development module were collected directly from administrative registers.

#### ***Relation to other censuses***

No relationship with other censuses.

#### ***Frames***

The frame used in the AC 2020 was the Farm Register, a list frame continuously updated and maintained by the CZSO. The frame comprises information on persons carrying out agricultural activities, provided that the scope of these activities corresponds with legal regulations. The data obtained in the census were used to update the Farm Register, which serves as the basis for annual surveys in agriculture.

#### ***Complete or/and sample enumeration methods***

The AC 2020 was conducted on complete enumeration basis of all agricultural holdings.

#### ***Sample design***

No sampling was used.

#### ***Data collection methods***

In the AC 2020, data was collected through CAWI, PAPI, CATI and post (mail-out/mail-back method). The questionnaire was sent electronically to civil and juridical persons with a data box. All respondents have the option to fill out the statement in electronic form ([www.vykazy.cz](http://www.vykazy.cz)) in the DANTE WEB application or fillable PDF. Civil persons without a data box with a large agricultural primary production were contacted by post. Farmers with small primary agricultural production were interviewed at their place of residence (business) by trained external interviewers through PAPI,

although due to COVID-19, face-to-face interviews were in some cases replaced by surveying using CATI method. Administrative sources maintained by the State Agricultural Intervention Fund were used to collect data on rural development measures.

### **Questionnaire(s) and items covered**

A single questionnaire was used for data collection in the AC 2020. The questionnaire covered 19 out of 23 essential items recommended in the WCA 2020<sup>1</sup>.

## **8. Use of technology**

CAWI and CATI were used for field data collection. Some census data was collected directly from administrative registers to reduce the response burden. Census results were disseminated online.

## **9. Data processing**

Direct data capture was ensured by the CAWI and CATI method. For paper questionnaires, manual data entry was used. The data was validated through data format, completeness and relational checks, and comparisons with previous rounds of the data collection. Staff from local and central departments carried out validations using internal check rules (including linkages between inter-related parts of the questionnaire) and validation rules developed by Eurostat (Integrated Farm Statistics Manual. Publications Office of the European Union, Luxembourg, 2020; Annex V). Imputation was used for non-responding units using the nearest neighbour imputation method. Dante software was used for data capture and processing, Oracle for data storage, and FoxPro and Microsoft Excel for data processing, analysis, and tabulation.

## **10. Quality assurance**

The CZSO apply different procedures to assure and assess quality: use of best practices; designated quality manager, quality unit and/or senior level committee; self-assessment; and external review or audit. The quality management system of the CZSO is described in the documents CZSO Quality Commitment ([https://www.czso.cz/documents/10180/23183847/quality\\_commitment.pdf/849dd6f1-d50d-4474-bb6c-79000e38c664?version=1.0](https://www.czso.cz/documents/10180/23183847/quality_commitment.pdf/849dd6f1-d50d-4474-bb6c-79000e38c664?version=1.0)) and Quality policy of the CZSO ([https://www.czso.cz/documents/10180/23183847/quality\\_policy\\_en.pdf/01cf4a5e-42b8-4e82-b1ad-2e9f243e7c90?version=1.0](https://www.czso.cz/documents/10180/23183847/quality_policy_en.pdf/01cf4a5e-42b8-4e82-b1ad-2e9f243e7c90?version=1.0)). Irregular external audits carried out by expert group comprising of internal and external experts are conducted for all statistical domains under the responsibility of the CZSO. For the AC 2020 some actions were carried out to minimize non-sampling errors: update of the Farm Register immediately before the survey; inclusion of newly found holdings in the population; call-back strategies; written/telephone reminders; follow-up interviews with respondents who had completed the questionnaires only partly; explanatory notes or handbooks for enumerators or respondents; training of enumerators; among others.

## **11. Data and metadata archiving**

Microdata is archived according to the internal rules of the CZSO. The anonymized microdata, as well as the metadata (quality report) were transmitted to Eurostat as established in article 12 of Regulation (EU) 2018/1091.

## **12. Data reconciliation**

There was no reconciliation process of AC 2020 data.

## **13. Dissemination of census results and microdata**

AC 2020 data publications (on national and regional level) were included in the Catalogue of Products of the CZSO, which comprises all publications of the CZSO and is publicly available (<https://www.czso.cz/csu/czso/catalogue-of-products>). The release policy of the CZSO is laid down by Act No 89/1995 Sb, on the State Statistical Service, par. 18. Results for the entire country were published on 21 September 2021 and are available at <https://www.czso.cz/csu/czso/integrated-farm->

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<sup>1</sup> The following essential items were not covered: (i) 0107 Main purpose of production of the holding; (ii) 0407 Number of permanent crop trees in scattered plantings (for each tree crop); (iii) 0601 Use of agricultural pesticides; (iv) 0801 Household size by sex and age groups. The item 0203 Area of holding according to land tenure types was partly covered since the information was collected only for agricultural land.

[survey-2020](https://www.czso.cz/csu/czso/integrated-farm-survey-regions-2020). For regions, data was published on 2 December 2021 (<https://www.czso.cz/csu/czso/integrated-farm-survey-regions-2020>); and an analytical evaluation was published on 17 May 2022 (<https://www.czso.cz/csu/czso/integrated-farm-survey-analytical-evaluation-2020>). The results were also disseminated in paper publications.

#### 14. Data sources

**Eurostat.** 2022. *Integrated Farm Statistics - National quality reports 2020: Czechia* [online]. Luxembourg. [Cited 11 October 2022]. [https://ec.europa.eu/eurostat/cache/metadata/en/ef\\_simsif\\_cz.htm](https://ec.europa.eu/eurostat/cache/metadata/en/ef_simsif_cz.htm)

**Czech Statistical Office (CZSO).** 2022. *Integrované šetření v zemědělství 2020*. In: CZSO [online]. Prague, Czech Republic. [Cited 11 October 2022]. <https://www.czso.cz/csu/czso/isz-2020>.

#### 15. Contact

Czech Statistical Office

Agricultural, Forestry, Industrial, Construction, and Energy Statistics Department.

Address: Na padesátém 81, CZ-100 82 Praha 10, Czech Republic

Telephone: (+420) 274051111

E-mail: [infoservis@czso.cz](mailto:infoservis@czso.cz)

Website: <https://www.czso.cz/csu/czso/domov>