

## 1. HISTORICAL OUTLINE

The metadata review and data here presented refer to the last comprehensive Census of Agriculture (CA) in the Republic of Serbia carried out in 2012. The previous agricultural census was conducted in 1960. Between these two censuses, basic structural data on agriculture were collected within the Population Censuses.

## 2. LEGAL BASIS AND ORGANIZATION

### **Legal framework**

The CA legislation consisted of:

- the Official Statistics Law (Official Gazette of the Republic of Serbia (RS), number 104/09)
- the Law for the Census of Agriculture 2011 (Official Gazette RS, No. 104/09 and 24/11), amended in 2012; and
- the EU legislation relevant for implementing the FSS 2010.

### **Institutional framework and international collaboration**

The Statistical Office of the Republic of Serbia (SORS) is the authority responsible for preparing, organizing and conducting the CA pursuant to the applicable legislation. The SORS led the census project, with the cooperation and assistance of the Ministry of Agriculture, Forestry and Water Management (MAFWM), Municipality Census Commissions and other institutions and organizations. Technical assistance was received during the implementation phase from the EU.

### **Census staff**

The total staff involved in fieldwork amounted to 6 138 enumerators, 962 municipal instructors, 294 republic instructors, 15 regional coordinators and 795 members of municipal census commissions.

## 3. REFERENCE DATE AND PERIOD

**Reference day:** 30 September 2012, for data on land, number of livestock, owned machinery, number and capacity of owned buildings.

### **Reference periods:**

- from 1 October 2011 to 30 September 2012 (crop year 2011/2012), for data on the use of agricultural land; use of fertilizers and pesticides; organic farming; utilized capacity of buildings, machinery and equipment; agricultural production methods; labour force; etc.; and
- the previous three years, for average irrigated area, use of government support measures, and establishment and maintenance of landscape features.

## 4. ENUMERATION PERIOD

The AC was conducted from 1 October to 15 December 2012.

## 5. SCOPE OF THE CENSUS AND DEFINITION OF THE STATISTICAL UNIT

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

The **statistical unit** was the agricultural holding, defined as “a technical and economic independent production unit with a single management on which an enterprise, farm cooperative, institution or another legal entity, unincorporated enterprise or family agricultural holding undertakes agricultural production, as either a primary or a secondary activity”.

## 6. GEOGRAPHIC COVERAGE

The CA 2012 covered the territory of the country, without the Autonomous Provinces of Kosovo and Metohija.

## 7. CUT-OFF THRESHOLD AND OTHER EXCLUSIONS

The following thresholds were applied for the family agricultural holdings:

- Cultivates (uses) 50 or more ares (0.5 ha) of agricultural land for agricultural production, regardless of whether such production is intended for the market;
- Cultivates (uses) less than 50 ares (0.5 ha) of agricultural land but practises intensive crop farming, fruit-growing, viticulture, growing of vegetables and flowers, production of mushrooms and livestock raising, that is, engages in other forms of agricultural production intended for the market;
- A holding which, as of 30 September 2012, raises no less than: two head of cattle; one head of cattle and two head of small animals (pig, goat, sheep) in total; five head of sheep or five head of goat; three head of pig; four head of small animals (pig, goat, sheep) in total; 50 heads of poultry; or 20 colonies of bees.

No threshold was applied for legal entities.

## 8. METHODOLOGY

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

The classical approach was used in the CA 2012.

**Frame**

Lists of households with own-account agricultural production were created based on the 2011 Census of Population, Households and Dwellings (CPHD), and updated using administrative data sources. The Register of legal entities was established for the purposes of the CA by using the available sources (Statistical Business Register, registers held by local government bodies, MAFWM, and others).

**Complete and/or sample enumeration methods**

All holdings in scope were enumerated.

**Sample design (if sampling was used)**

No sampling was used.

**Data collection method(s)**

Data collection was done by face-to-face interviewing method, using a printed questionnaire (PAPI method).

**Questionnaire(s)**

The CA 2012 used a single questionnaire, for both family holdings and legal entities. In addition, a “control list” for all agricultural households was filled in during census enumeration.

The census questionnaire covered all 16 core items recommended in the WCA 2010.

**9. USE OF TECHNOLOGY**

The EAs, drawn up by the Geodetic Office of the Republic of Serbia for the purposes of the CPHD, were used for the CA 2012. Data entry was done by scanning, using intelligent character recognition (ICR). The census results were disseminated online on the SORS website.

**10. DATA PROCESSING AND ARCHIVING**

Quality control and correction of completed questionnaires were carried out in several phases of the AC: during the fieldwork, during data entry and after data entry. The scanning with ICR facilitated further centralized data processing and archiving. For data protection, backup copies of the scanned material were made.

Data processing was done using the software platform developed at the SORS. Complete logical and computer control was initiated after the completion of data entry. Approximately 988 criteria were defined to identify errors. Corrections were automatic and manual. Imputation of data was implemented when needed. For the needs of the analysis of the CA 2012 results and validation, 115 output tables were created. In a number of tables, it was possible to directly compare the data from the CA (before and after error correction) with data from other sources (cadastre, Register of holdings of the MAFWM, regular surveys in agricultural statistics).

**11. CENSUS DATA QUALITY**

For the purpose of checking the reliability of the census results, from 14 January to 31 January 2013, a PES<sup>1</sup> was carried out. The PES served as a basis to control the quality of data collected through the CA 2012.

**12. DATA DISSEMINATION**

The first results were published in January 2013, regarding the number of agricultural holdings, UAA, the number of livestock by species and the number of owned two-axle tractors.

The final results of the CA 2012 were published in December 2013. Several thematic studies (special publications on UAA, machinery, viticulture, fruit growing, etc.), and a Vine atlas were published by the end of 2015. Final data are also available in the census database on the SORS website.<sup>2</sup>

**13. DATA SOURCES**

**FAO.** 2017. Regional Roundtable on the World Programme for the Census of Agriculture 2020 (WCA 2020), 3–7 April 2017, Budapest, Hungary. In: *World Programme for the Census of Agriculture* [online]. Rome, Italy. [Cited 9 September 2019]. <http://www.fao.org/world-census-agriculture/events/wca2020budapest/en/>

**Statistical Office of the Republic of Serbia.** 2013. Census of Agriculture 2012. In: *Statistical Office of the Republic of Serbia* [online]. Belgrade, Republic of Serbia. [Cited 27 August 2019]. <http://popispoljoprivrede.stat.rs/?p=4763&lang=en>

**14. CONTACT**

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<sup>1</sup> Post-census survey.

<sup>2</sup> The census database is available at <http://data.stat.gov.rs/?caller=SDDB&languageCode=en-US>

# SERBIA – CENSUS OF AGRICULTURE 2012 – MAIN RESULTS

NUMBER OF HOLDINGS AND AREA, BY LEGAL STATUS		
	Holdings	Area (ha)
<b>Total</b>	<b>631 552</b>	<b>5 346 597</b>
Civil persons	628 552	3 538 376
Juridical persons	3 000	1 808 221

UTILISED AGRICULTURAL AREA (UAA), BY LAND TENURE		
	Holdings	UAA (ha)
<b>Total holdings with UAA</b>	<b>621 445</b>	<b>3 437 423</b>
Legal ownership and owner-like possession	608 642	2 418 416
Rented from others	145 525	1 019 008

LAND FRAGMENTATION		
	Holdings	UAA (ha)
<b>Total holdings with UAA</b>	<b>621 445</b>	<b>3 437 423</b>
1 parcel	87 018	101 467
2–3 parcels	200 218	529 257
4–5 parcels	126 309	540 795
6–9 parcels	115 454	683 689
10 parcels and over	92 446	1 582 215

DISTRIBUTION OF UAA, BY LAND SIZE CLASSES		
	Holdings	UAA (ha)
<b>Total</b>	<b>631 552</b>	<b>3 437 423</b>
Holdings without land	10 107	
Holdings with UAA	621 445	3 437 423
Less than 1 ha	174 567	91 837
1–2 ha	123 719	181 785
2–5 ha	182 489	596 052
5–10 ha	89 083	617 281
10–20 ha	32 313	435 499
20–30 ha	7 677	185 846
30–50 ha	5 352	203 666
50–100 ha	4 394	314 096
100 ha and over	1 851	811 362

LAND USE		
	Holdings	Area (ha)
<b>Total area of holdings</b>	<b>631 552</b>	<b>5 346 597</b>
Agricultural land	630 742	3 861 477
UAA	621 445	3 437 423
Arable land	519 446	2 513 154
Land temporarily fallow	17 560	22 036
Land under permanent crops	322 084	187 299
Permanent meadows and pastures	266 813	713 242
Kitchen garden	331 145	23 727
Unutilised agricultural area	153 976	424 054
Forest	337 804	1 023 036
Other land	607 670	462 084

HOLDERS IN THE HOUSEHOLD SECTOR, BY SEX		
	Number	Area operated (ha)
<b>Total</b>	<b>628 552</b>	<b>2 825 068</b>
Male	518 016	2 463 235
Female	110 536	361 833

MEMBERS OF HOLDER'S HOUSEHOLD, BY SEX		
	Holdings	
<b>Total engaged in agricultural activities on the holding</b>	<b>797 199</b>	
Male	295 712	
Female	501 487	

HOLDERS IN THE HOUSEHOLD SECTOR, BY SEX AND AGE		Number
<b>Total</b>		<b>628 552</b>
Male		518 016
Female		110 536
Under 25 years		3 833
Male		3 388
Female		445
25–34 years		24 526
Male		22 026
Female		2 500
35–44 years		65 414
Male		57 750
Female		7 664
45–54 years		124 335
Male		107 996
Female		16 339
55–64 years		188 668
Male		158 203
Female		30 465
65 years and over		221 776
Male		168 653
Female		53 123

EMPLOYEES WORKING ON THE HOLDING		Number
<b>Total</b>		<b>28 064</b>
Male		21 115
Female		6 949
Civil persons		1 785
Male		1 521
Female		264
Juridical persons		26 279
Male		19 594
Female		6 685

LIVESTOCK		
	Holdings	Head
<b>Total holdings with livestock</b>	<b>497 841</b>	
Cattle	177 252	908 102
Sheep	154 972	1 736 440
Goats	62 930	231 837
Pigs/swine	355 052	3 407 318
Horses	10 095	16 910
Poultry (1 000 head)	413 792	26 711
Hens	410 330	25 794
Ducks	26 849	246
Geese	13 891	77
Turkeys	26 063	350
Other	20 011	244
Other animals	n.a.	
Rabbits and hares	9 966	47 022
Insects		
Bees (hives)	31 287	665 022

METHODS OF IRRIGATION		
	Holdings	Area irrigated (ha)
<b>Total holdings with irrigated land</b>	<b>71 947</b>	<b>99 773</b>
Surface	49 281	n.a.
Sprinkler	11 310	n.a.
Localized irrigation	20 903	n.a.