



REPUBLIC OF CROATIA
CROATIAN BUREAU OF STATISTICS



**QUALITY REPORT FOR STATISTICAL SURVEY
CROP PRODUCTION
for 2021**

Organisational unit: Spatial Statistics Directorate

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0. Basic information

- Purpose, goal, and subject of the survey

The objective of the statistical survey on crop production is to obtain the most accurate data possible on the situation in Croatian agriculture, having in mind its importance for Croatian economy. The data obtained will be an indicator through which the government and local authorities will be able to define the problems of this branch more accurately, as well as to plan and make appropriate decisions and provide appropriate support for its development.

The goal of the survey is to collect the following data:

- the manner of land use according to the situation (arable land and gardens, permanent crops, vegetable gardens, meadows and pastures)
- the area of orchards, vineyards and olive groves and the number of extensive and plantation fruit trees
- the total number of vines and olive trees
- on expected yield of some important crops and fruits.

The Croatian Bureau of Statistics is responsible for agricultural statistics. Since 2005, Croatia has been conducting sample-based surveys using the interview method. Data on business entities are collected in two ways: by using the reporting method on an appropriate form or via a web-based application.

In June, the Survey on utilised areas and land sown at the end of spring harvest, on the number of fruit trees and the number of vines (situation as on 1 June) is conducted. In November, the Survey on Autumn Harvest (situation as on 10 November) is conducted. From June to January, there is a number of surveys on expected yields and harvested areas, yields and production.

Data on expected yields for private family farms are collected on a selected stratified sample, and for business entities and parts thereof on the whole population. Data collection is linked to the crop production statistics.

The crop production statistics comprise the following annual surveys:

- 1) Survey on autumn harvest (PO-21 form), situation as on 10 November
- 2) Survey on utilised areas and land sown at the end of spring harvest (PO-22 form), situation as on 1 June (includes questions on expected yields of some important early crops)
- 3) Survey on actual yield of early crops and fruits (PO-32 form), situation as on 15 August (includes questions on expected yields of late crops)
- 4) Survey on actual yields of late crops, fruits and grapes (PO-33 form), situation as on 10 November
- 5) Survey on Actual Yields of Citrus Fruits and Olives (PO-34 form), situation as on 31 December; the sample covers the Mediterranean part of Croatia.

The results of all surveys are available at HR NUTS 1 and HR NUTS 2 levels.

- Reference period

Calendar year

- Legal acts and other agreements

The methodology is fully harmonised with Eurostat's recommendations (Regulation (EC) No 543/2009 of the European Parliament and of the Council of 18 June 2009 concerning crop statistics and repealing Council Regulations (EEC) No 837/90 and (EEC) No 959/93, and Commission Delegated Regulation (EU) 2015/1557 of 13 July 2015 amending Regulation (EC) No 543/2009 of

the European Parliament and of the Council of concerning crop statistics). Crop production statistics cover at least 95% of the following areas:

- total area under crops on arable land
- total harvested area of fruits, melons and strawberries
- total production of permanent crops
- utilised agricultural land.

Decision on the National Classification of Activities, 2007 version – NKD 2007 (NN, Nos 58/07 and 72/07)

Classification of Products by Activities of the Republic of Croatia, 2015 version – KPD 2015. (NN, No 157/14)

Official Statistics Act (NN, No. 25/20)

- **Classification system**

Decision on the National Classification of Activities, 2007 version – NKD 2007

Classification of Products by Activities of the Republic of Croatia, 2015 version – KPD 2015.

- **Statistical concepts and definitions**

The main objective of the Survey on utilised areas and land sown at the end of spring harvest (PO-22 form) data on the following:

- on the manner of land use according to the situation (arable land and gardens, permanent crops, vegetable gardens, meadows and pastures)
- the area of orchards, vineyards and olive groves and the number of extensive and plantation fruit trees
- the total number of vines and olive trees
- on expected yield of some important crops and fruits and provide a common list of features observed using common rules and procedures, thus allowing comparability of data across the European Union.

- **Statistical units**

Statistical unit is an agricultural holding that has a unique management, shares the means of production (machinery, facilities, land) and labour force, and operates as a company, craft, cooperative or private family farm.

- **Statistical population**

The basic set includes all agricultural holdings that have at least 0.40 acres of utilised agricultural area (UAA), or less than 0.40 hectares of utilised agricultural area (UAA), but they have:

- at least 0.10 hectares of orchards, vineyards and/or olive groves
- area of nurseries > 0
- area under vegetables, flowers and horticultural plants intended for market.

1. Relevance

1.1. Data users

National accounts, agricultural institutes, Ministry of Agriculture, Government of the Republic of Croatia.

1.1.1. User needs

Users engaged in developing economic policies and distribution of the State Budget resources.

1.1.2. User satisfaction

The user satisfaction survey was conducted in 2015 and the results are available on request.

1.2. Completeness

Data are sent that are fully compliant with the European Commission Regulations that are in force.

1.2.1. Data completeness rate

Data completeness rate is 100%.

2. Accuracy and reliability

2.1. Sampling error

The data obtained are weighted due to the unequal probability of selection and non-response. The same methodology is applied to all surveys on agriculture.

For key variables (total arable land, total cereals, vegetables, grasslands, vineyards, orchards and plantation orchards), standard errors and coefficients of variation are calculated. The estimation procedure was performed via SAS, applying the SURVEYMEANS procedure. The response rate is the share of responses among all valid private family farms. Non-valid private family farms are those that no longer exist at the time of surveying. The validity rate is the share of valid private family farms in all private family farms selected for the sample.

2.1.1. Sampling error indicators

Sampling error indicators

Statistics	Domain	Domain value	Comment	Value
			Coefficients of variation for areas under: Early cereals – 1.51%, grain maize – 1.27%, dried pulses – 8.57%, potatoes, late – 4.58%, rapeseed – 3.29%, soya beans – 2.55%, sunflower – 3.71%, vegetables – 4.50%, strawberries – 9.56%, nuts – 5.44%, vineyards – 3.07%, olive groves – 0.86%	0.01

2.2. Non-sampling error

Since no poststratification was performed for this survey, misclassification errors were not assessed. However, the Farm Structure Survey results show that there were no problems with misclassification. All private family farms that were not contacted during the fieldwork were later contacted by phone by the Croatian Bureau of Statistics. However, some of the private family farms could not be contacted even by phone.

2.2.1. Coverage error

Over-coverage rate by surveys:

- 1) Survey on autumn harvest (PO-21 form) – 1.37%
- 2) Survey on actual yield of early crops and fruits (PO-32 form) – 1.60%
- 3) Survey on actual yields of late crops, fruits and grapes (PO-33 form) – 1.13%
- 4) Survey on actual yields of citrus fruits and olives (PO-34 form) – 0.38%

There is under-coverage, but it cannot be estimated and includes unregistered agricultural holdings.

2.2.2. Over-coverage rate

Over-coverage rate is 1.13%, unweighted for PO-33 survey.

2.2.3. Measurement error

Statistics correct possible measurement errors by data editing. We try to avoid measurement errors by training interviewers, by data control and the validation process. After entering the data, the extreme values of variables are checked and corrected if necessary.

2.2.4. Non-response errors

The main reasons for non-response were refusals for the following reasons:

- dissatisfaction with the current agricultural policy in Croatia
- issues with unresolved ownership (official succession procedures can be time-consuming)
- general refusal for other reasons.

Non-response errors by surveys:

- 1) Survey on autumn harvest (PO-21 form) – 13.20%
- 2) Survey on actual yield of early crops and fruits (PO-32 form) – 21.89%
- 3) Survey on actual yields of late crops, fruits and grapes (PO-33 form) – 8.26%
- 4) Survey on actual yields of citrus fruits and olives (PO-34 form) – 17.73%

2.2.5. Unit non-response rate

The unweighted non-response rate is 8.26% for PO-33 survey.

2.2.6. Item non-response rate

The indicator is not computed.

2.2.7. Processing errors

The main sources of processing errors were errors in the survey processing application developed by experts from the Croatian Bureau of Statistics. Data on the number of corrections were not collected during data processing.

2.2.8. Imputation rate

Weighted imputation rate for certain variables

Variable	Domain	Domain value	Comment	Value
Area and production of crops	Croatia	11000	Imputation rate is 10%.	1%

2.2.9. Model assumption error

Not applicable.

2.3. Data revision

2.3.1. Data revision – policy

The users of statistical data are informed about revisions (provisional, final data) on the website of the Croatian Bureau of Statistics.

2.3.2. Data revision – practice

Provisional data are not published in the survey; therefore, there are no data revisions.

2.3.3 Data revision – average size

The indicator is not computed.

2.4. Seasonal adjustment

Not applicable.

3. Timeliness and punctuality

3.1. Timeliness

1 June 2021 – 16 May 2022

3.1.1. Timeliness – first results

Time lag – first results is T + 1 month.

3.1.2. Timeliness – final results

Time lag – final results is T + 11 months.

3.2. Punctuality

No delay.

3.2.1. Punctuality – delivery and publication

Punctuality is 100.

4. Accessibility and clarity

Final results were published on 16 May 2022. Publications contain short notes on methodology, such as sources and methods of data collection, coverage and comparability, definitions, etc. Results contain all final data. The survey results can be found on the website of the Croatian Bureau of Statistics.

4.1. News releases

Not published.

4.2. Online database

Data are available on the website of the Croatian Bureau of Statistics in PC-Axis.

https://web.dzs.hr/PX-Web.asp?url=%22Hrv/Archive/stat_databases.htm%22

4.3. Micro-data access

The conditions under which certain users can access microdata are regulated by the Ordinance on the Conditions and Manner of Using Confidential Statistical Data for Scientific Purposes.

4.4. Documentation on methodology

PC-Axis Database.

5. Coherence and comparability

5.1. Asymmetry for mirror flows statistics

Not applicable.

5.2. Comparability over time

Data are comparable from 2000.

5.2.1. Length of comparable time series

Length of comparable time series is 21.

5.2.2. Reasons for break in time series

Prior to 2000, different methodology was applied in surveys and product structure was not the same.

5.3. Coherence – sub-annual and annual statistics

The indicator is not computed.

5.4. Coherence – national accounts

The indicator is not computed.

5.5. Coherence – administrative sources

Coherence – administrative sources

Statistics	Domain	Domain value	Comment	Value
	Croatia			1

6. Cost and burden

6.1. Cost

Costs are approximately 70 000 euros.

6.2. Burden

The greatest burden is on the largest units, for which there is a full coverage in the sample for all stages of the survey, while for smaller units, the Sampling, Statistical Methods and Analyses Department ensures that the same unit is not included in the sample for several consecutive periods.