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**QUALITY REPORT 2020**  
**Survey on actual yield of late-season crops, fruit and grapes**

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## **Content:**

<b>1. Introduction – Basic information about the survey</b> .....	<b>2</b>
1.1 Purpose, goal and subject of the survey .....	2
1.2 Legal basics .....	2
1.3 Statistical units .....	2
1.4 Coverage and scope of survey .....	2
1.4.1 Sectors .....	2
1.4.2 Statistical population .....	2
1.5 Referent geographical area .....	2
1.6 Concepts and definitions .....	2
1.7 Classifications .....	3
1.8 Frequency of data collection .....	3
1.9 Frequency of data dissemination .....	3
1.10 Methodology .....	3
1.11 Base period .....	3
1.12 Unit of measure .....	3
1.13 Source of data .....	3
1.14 Method of collection data .....	3
<b>2. Relevance - data users</b> .....	<b>3</b>
2.1 User needs .....	3
2.2 User satisfaction .....	4
<b>3. Accuracy and reliability</b> .....	<b>4</b>
3.1 Accuracy - overall .....	4
3.2 Sampling error .....	4
3.3 Non-sampling error .....	4
3.3.1 Coverage error .....	4
3.3.2 Error of measurement .....	4
3.3.3 Non response error .....	4
3.3.4 Error processing the data .....	4
3.4 Seasonal adjustment .....	5
3.5 Data revision .....	5
3.5.1 Data revision policy .....	5
3.5.2 Data revision practice .....	5
3.5.3 Data revision - average size (A6) .....	5
<b>4. Timeliness and punctuality</b> .....	<b>5</b>
4.1 Timeliness .....	5
4.2 Punctuality .....	5
<b>5. Availability and clarity</b> .....	<b>5</b>
5.1 Statistical Release Calendar .....	5
5.2 Access the data Release Calendar .....	6
5.3 Release .....	6
5.4 Publication .....	6
5.5 On-line database .....	6
5.6 Access to micro data .....	6
5.7 Metadata occupancy .....	6
<b>6. Comparability</b> .....	<b>6</b>
6.1 Spatial comparability .....	6
6.2 Time comparability .....	6

## **1. Introduction – Basic information about the survey**

### **1.1 Purpose, goal and subject of the survey**

The aim of the survey is to collect data on harvested areas and realized production of crops, vegetables, fruits, and grapes.

### **1.2 Legal basics**

The Law on Official Statistics and Official Statistical System (Official Gazette of Montenegro No 18/12, 47/19) defines provisions for collection, processing, and dissemination of data. The Law provides to the Statistical Office legal powers to collect and access the data necessary for the implementation of Programme and Annual Plan. The Law gives a priority to the use of administrative data and right of access to individual data that are a result of survey of other official statistical producers. As an annex to legal provisions, Statistical Office has signed several memoranda on cooperation with administrative data providers.

### **1.3 Statistical units**

Agricultural enterprises, cooperatives and private agricultural holdings engaged in crop production.

### **1.4 Coverage and scope of survey**

#### **1.4.1 Sectors**

Section A - Agriculture, forestry and fishing.

#### **1.4.2 Statistical population**

Agricultural holdings engaged in crop production.

### **1.5 Referent geographical area**

Montenegro.

### **1.6 Concepts and definitions**

Utilised agricultural land covers arable land, kitchen gardens and/or gardens, orchards, vineyards, nurseries, meadows and pastures, regardless of the type of ownership (land owned or land taken in tenure).

Arable lands are areas of land that are regularly processed and crops are sown/planted according to certain order (crop rotation). Crop rotation represents regular and predetermined replacement of crops (rotation system) for more efficient use of land.

Kitchen gardens and/or gardens are areas devoted for growing crops (vegetables, potatoes, fruit and vine) intended for feeding of the holding members and are mainly not intended for sale. Only occasional excess of products from these areas is sold outside the holding.

Plantation orchards are areas under the fruit trees, with certain spacing between lines and rows. Mechanical processing can be carried out in them, and by rule are carried out other agro-technical measures. Usually these are the larger plantings of fruit trees and berry fruit (raspberry, blackberry, blackcurrant, blueberry), intended mainly for sale.

Extensive orchards are semi-intensive or extensive fruit crops intended mostly for own consumption.

Vineyards - plantations of vine intended for the production of grapes. Plantation vineyards - areas under vine with certain distance between the vines, in which can be performed mechanized processing, and by a rule are conducted other agro-technical measures.

Nurseries are areas of land on which are grown young woody plants intended for transplantation later, and include: fruit seedlings, grapevine seedlings, decorative plants, and forest trees.

Meadows - land that is permanently (five or more years) used to grow green animal feed, and is not included in crop rotation. The meadows can be seeded or wild growing.

Pastures - land that is used for grazing of livestock.

Sown/planted areas are areas that are processed and sown with certain crops.

Harvested area is the area from which crops are harvested and yield was realized.

The realized production is a total yield that is obtained at the end of harvest/vintage, or yield that is stored and reduced in amounts lost before the harvest, during the harvest, transport.

## **1.7 Classifications**

NACE Rev. 2

## **1.8 Frequency of data collection**

Annual.

## **1.9 Frequency of data dissemination**

Frequency of dissemination data is annual. The data are transmitted to Eurostat annually.

## **1.10 Methodology**

Methodological guidelines for Survey on actual yield of early-season crops is available on the link:

<http://monstat.org/eng/page.php?id=1271&pageid=62>

## **1.11 Base period**

Not relevant.

## **1.12 Unit of measure**

Data on the areas are collected in hectares (ha) and square meters (m<sup>2</sup>), and data on the production are collected in kilograms (kg).

## **1.13 Source of data**

The survey is carried out by the reporting method for enterprises and cooperatives. Since the 2013, the data for private agriculture holdings are collecting with the method of interviewing on a sample of 5 000 agricultural holdings.

## **1.14 Method of collection data**

Collecting the data for private agriculture holdings is carried out by interviewers, filling the data on printed form of questionnaire or by CAPI method (Computer Assisted Personal Interviewing). The data for enterprises are collecting by the reporting method.

## **2. Relevance - data users**

### **2.1 User needs**

#### International users:

- Eurostat - World Bank,
- UN organizations,
- International Monetary Fund

#### National users:

- Ministries and other public administration bodies,
- Local government and
- Other local government bodies.
- Central bank,
- Non-governmental organizations,
- Students,
- Researchers,
- Media.

## **2.2 User satisfaction**

The Statistical Office has adopted the Quality Management Strategy, the Guidebook to the Implementation of the Quality Management Strategy, as well as the Plan for the Implementation of the Quality Policy. In order to measure the degree to which fulfills obligations towards users and within the new quality policy, the Statistical Office conducted User satisfaction survey. The results of the survey are available on the Statistical Office website, link:

[http://monstat.org/uploads/files/2.%20Izvjestaj%20o%20zadovoljstvu%20korisnika%20ENG%20\(Autosaved\).pdf](http://monstat.org/uploads/files/2.%20Izvjestaj%20o%20zadovoljstvu%20korisnika%20ENG%20(Autosaved).pdf)

## **3. Accuracy and reliability**

### **3.1 Accuracy - overall**

The survey on actual yield of late-season crops, fruits, and grapes is carried out on a sample basis and the data is obtained by a interview and reporting method and are subject to common types of errors related to sampling technique, non-sampling errors, processing errors, and non-response.

### **3.2 Sampling error**

The survey on actual yield of late-season crops, fruits, and grapes is carried out on a sample basis so logically there is an error in random sampling. The coefficient of variation is the relative measure of the accuracy of the data evaluation. In addition to this measure, the lower and upper bounds of confidence intervals are also calculated.

### **3.3 Non-sampling error**

Non-sampling errors are associated with other errors that aren't connected with sample. Non-sampling errors include: coverage error, measurement error, response error and processing error.

#### **3.3.1 Coverage error**

Given the time lag between the Agricultural Census 2010 and the survey, it can be expected that the sampling framework will not represent the entire population and the coverage issues may arise. The coverage error is difference between the population in sampling frame and the target population. The coverage errors include: over coverage and under coverage.

Indicators of coverage error (A2)

*Not available.*

#### **3.3.2 Error of measurement**

Eventual measurement errors are corrected based on logic-numeric controls. We try to avoid that by training the interviewers and controllers, checking data and validating the process. After entering the data, the outlier values of the variables are checked and corrected if necessary.

#### **3.3.3 Non response error**

Each interviewer had to visit family farms from the list of selected farms three times and leave notice of re-arrival. These farms were treated as "they did not respond". For agricultural enterprises, questionnaires were sent by mail, and if the agricultural company did not respond, we contacted them via e-mail and phone.

Unresponsive unit rate (A3)

*Not available.*

Non response rate

*Not available.*

#### **3.3.4 Error processing the data**

The collected data goes through a number of processes before the final evaluation, namely: entering the data, editing, imputation, weighting, tabulation, etc. The errors made in these phases are referred to as processing errors.

Imputation rate

*Not available.*

### **3.4 Seasonal adjustment**

Not relevant.

### **3.5 Data revision**

#### **3.5.1 Data revision policy**

Statistical Office has adopted the revision policy and it is available on the website <http://www.monstat.org/eng/page.php?id=1411&pageid=1411>

#### **3.5.2 Data revision practice**

Preliminary data from the Survey on actual yield of late-season crops, fruit and grapes was published on July 1, 2021. Final data from Survey on actual yield of late-season crops, fruit and grapes for 2020, will be published with the publication of final data on the Farm structure survey in Montenegro.

#### **3.5.3 Data revision - average size (A6)**

Not available.

## **4. Timeliness and punctuality**

### **4.1 Timeliness**

According to the Annual Plan of Statistical Surveys and the Statistical Release Calendar of Statistical Office, data on actual yields of late-season crops, fruit and grapes are published in July of the current year for the previous year.

*Time lag of the first results*

The time lag indicator for the publication of the preliminary data represents the time between the date of the last day of the reference period and the date of publication of the first data.  $T1 = dfirst - dref$   $T1 = 6$

*Time lag of the final results*

Final data from Survey on actual yield of late-season crops, fruit and grapes for 2020, will be published with the publication of final data on the Farm structure survey in Montenegro. For this reason, it is not possible to calculate the TP2 indicator.

### **4.2 Punctuality**

Data was published 1 July 2021 according to the Statistical Release Calendar of Statistical Office. The accuracy indicator represents the time difference between actual data disclosure and planned data disclosure.

It can be calculated by the formula:  $P3 = dact - dsch$

$P3 = 0$

## **5. Availability and clarity**

### **5.1 Statistical Release Calendar**

The Law on Official Statistics and Official Statistical System (Official Gazette of Montenegro No 18/12, 47/19) stipulates that official statistical producers prepare, update, and publish Statistical Release Calendar. It is published on the website of Statistical Office not later than 20 December for the next year, for all official statistical producers that includes date of releasing statistical data. Any change in date of releasing in the Calendar is published in advance in accordance with the Procedure on Unplanned Revisions.

## 5.2 Access the data Release Calendar

<http://www.monstat.org/eng/page.php?id=12&pageid=12>

## 5.3 Release

Release for Survey on actual yield of late-season crops, fruit, and grapes is published annually according to the Statistical Release Calendar of Statistical Office:

<http://monstat.org/eng/page.php?id=1357&pageid=62>

## 5.4 Publication

Statistical Office publishes the following regular publications:

1. Statistical Yearbook,
2. Monthly Statistical Review,
3. Montenegro in Numbers.

In addition to the above regular ones, Statistical Office publishes also additionally publications. Some of the most important additional publications are as it follows:

1. Women and Men in Montenegro,
2. The most often used statistical data.

All publication published by Statistical Office are available at the following link:

<http://monstat.org/eng/publikacije.php>

## 5.5 On-line database

Online database is available on the link: <http://monstat.org/eng/pxweb.php>

## 5.6 Access to micro data

The Law on Official Statistics and Official Statistical System (Official Gazette of Montenegro No 18/12, 47/19) regulates rules under which external users can obtain an access to individual data for needs of research. Article 58 defines types of scientific and research organizations that can obtain such data. Providing individual data without identifier is possible only upon a written request of scientific and research institutions, with purpose of performing scientific and research activities as well as international statistical organizations and statistical producers from other countries. Research entity signs the agreement with Statistical Office, and it signs the statement on respecting the confidentiality principle. Official statistical producers keeps a separate records on users and purpose of using the statistical data given to these users.

## 5.7 Metadata occupancy

Not available.

## 6. Comparability

### 6.1 Spatial comparability

Not relevant.

### 6.2 Time comparability

The data are fully comparable. Since the 2014, instead surveys based on estimates were introduced regular annual sample-based surveys. In aim of obtaining comparable data for period 2007 - 2013, was made the recalculation of data about agricultural land and crop production.

*Time comparability indicator*

The length of comparable time series is calculated by the following formula:  $CC1 = J_{last} - J_{first} + 1$

Jlast - number of the last reference period with disseminated statistics.

Jfirst - number of the first reference period with comparable statistics.

According to the above formula, the length of the comparable time series for this survey is 13 years.