

# Pesticides

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2 Metadata update	
2.1 Date of last update	18.04.2024
3 Statistical presentation	
3.1 Data description	
<p>Statistics on pesticides includes data on pesticides placed on the market (pesticide sales) and also data on use of pesticides in agriculture. The following data on statistics on pesticides are compiled and published at national level:</p> <ul style="list-style-type: none"><li>- data on pesticide sales broken down by categories of pesticides (table zp1001rs),</li><li>- data on use of pesticides in agriculture (table pl2022rs).</li></ul>	
3.2 Classification system	
<p>The following classifications are applied in the statistics on pesticides:</p> <ul style="list-style-type: none"><li>- Harmonised classification of the active substances in pesticides which is specified in the <a href="#">annex of the Commission regulation (EU) 2017/269 amending Regulation (EC) No 1185/2009 on pesticides, as regards the list of active substances</a> . The aggregation levels of this classification in descending order are as follows: major groups of products, categories of products, chemical classes, active substances.</li><li>- International classification of pesticides <a href="#">according the Food and Agriculture Organization of the United Nations (FAO)</a> .</li></ul>	
3.3 Sector coverage	
<p>Statistics on pesticide sales covers all pesticides and active substances contained in them placed on the market (sold) in Slovakia and statistics on pesticide use covers all pesticides and active substances contained in them used by professional users in agriculture.</p>	
3.4 Statistical concepts and definitions	
<p>Main concepts and definitions used in statistics on pesticides are specified in the respective national legislation - <a href="#">Act No 405/2011 on Phytosanitary Care</a> (only available in Slovak), in EU</p>	

legislation - [Regulation \(EC\) No 1107/2009 concerning the placing of plant protection products on the market](#) , [Regulation \(EC\) No 1185/2009 concerning statistics on pesticides](#) and in the Eurostat manual "A common methodology for the collection of pesticide usage statistics"- <https://ec.europa.eu/eurostat/documents/3859598/5902633/KS-RA-08-010-EN.PDF> .

The term pesticides means products, in the form in which they are supplied to the user, consisting of or containing active substances, safeners or synergists, and intended for one of the following uses: a) protecting plants or plant products against all harmful organisms or preventing the action of such organisms, unless the main purpose of these products is considered to be for reasons of hygiene rather than for the protection of plants or plant products; b) influencing the life processes of plants, such as substances influencing their growth, other than as a nutrient; c) preserving plant products, in so far as such substances or products are not subject to special Community provisions on preservatives; d) destroying undesired plants or parts of plants, except algae unless the products are applied on soil or water to protect plants; e) checking or preventing undesired growth of plants, except algae unless the products are applied on soil or water to protect plants.

Placing on the market means the holding for the purpose of sale, including offering for sale or any other form of transfer, whether free of charge or not, and the sale, distribution, and other forms of transfer themselves, but not the return to the previous seller.

Authorisation holder means any natural or legal person holding an authorisation of a plant protection product.

Professional user means any person who uses pesticides in the course of their professional activities, including operators, technicians, employers and self-employed people, both in the farming and other sectors.

Agricultural use means any type of application of a plant protection product associated directly or indirectly with the production of plant products in the context of the economic activity of an agricultural holding.

### **3.5 Statistical unit**

Authorisation holders or holders of parallel trade permits - for statistics on pesticide sales.  
Regular users of pesticides in agriculture - for statistics on pesticide use.

### **3.6 Statistical population**

Data on pesticide sales statistics are obtained from all companies/organizations selling pesticides in Slovakia, which are authorisation holders or holders of parallel trade permits.  
Data on pesticide use statistics are obtained from the following subjects: a) farms, agricultural enterprises, self-employed farmers that manage agriculture land with the area above 50 ha, b) organic farms/farmers, c) farmers supported by specific subsidies schemes.

### **3.7 Reference area**

Data on statistics on pesticides are published only at national level (the whole area of the SR).  
Data on regional level are not compiled.

### **3.8 Time coverage**

The following data are available in DATAcube. database : - on pesticide sales statistics for reference period 2011 - 2022, - on pesticide use statistics for reference period 1993 - 2022.

### 3.9 Base period

Not applicable.

## 4 Unit of measure

Data on pesticide sales are published expressed in kilograms of active substances.  
Data on pesticide use are published in tonnes.

## 5 Reference period

Reference period is the calendar year.

## 6 Institutional mandate

### 6.1 Legal acts and other agreements

National legislation in the area of pesticides includes:

- [Act No 405/2011 on Phytosanitary Care](#) (only available in Slovak), in which the obligation to report data on pesticides to competent institution is determined (§35, points 2 and 4) and [related decrees](#) .
- [Decree of the Ministry of Agriculture and Rural Development of the SR No 491/2011 on the keeping of records of plant protection products and the reporting of data, conditions and procedures for the storage and handling of plant protection products and the cleaning of used application equipment](#) , in which the format of reports for reporting data on pesticides to the Central Controlling and Testing Institute in Agriculture (CCTIA) is specified - for pesticide use in the annex 3 and for pesticide sales in the annex 4.

EU legislation in the area of pesticides includes:

- [Regulation \(EC\) No 1107/2009 concerning the placing of plant protection products on the market](#) ,
- [Regulation \(EC\) No 1185/2009 concerning statistics on pesticides](#) ,
- [Commission regulation \(EU\) 2017/269 amending Regulation \(EC\) No 1185/2009 on pesticides, as regards the list of active substances](#) .

### 6.2 Data sharing

Statistical information on pesticide sales and use is used for the purpose of fulfilling reporting obligations of the Slovak Republic following the requirements of the European Statistical System, international institutions and for meeting the needs of the Information System. Statistical outputs are on regular basis provided to international organizations (Eurostat, FAO) or irregularly to other users.

## 7 Confidentiality

### 7.1 Confidentiality - policy

The Statistical Office of the Slovak Republic (SOSR) is responsible for the protection of confidential data obtained and guarantees their use exclusively for statistical purposes. In accordance with the Act on State Statistics No. 540/2001 Coll. §2g and §30, the SOSR may not publish confidential statistical data, but only information resulting from the aggregation of confidential statistical data, which does not allow direct or indirect identification of the reporting unit.

SOSR has introduced principles and procedures for the protection of confidential data in internal directives and instructions. The directive on the protection of confidential statistical data regulates the method of management and implementation of activities related to ensuring the protection of confidential statistical data in the SOSR. The internal methodological instruction of the SOSR regulates specific methods and parameter values used in the protection of confidential statistical data of individual statistical surveys and data sets.

## **7.2 Confidentiality - data treatment**

In case of pesticide sales statistics, the protection of confidential statistical data has to be ensured and the following rules for determining confidential data are applied: threshold rule - cell is confidential if less than 3 entities contribute to the total of that cell and dominance rule - the cell is confidential if the sum of n values of the largest contributions is greater than or equal to 90% of the total value of the cell. Data identified as confidential on the basis of listed rules must not be disseminated but instead the letter "D" is filled in the respective cell of the table.

Data on pesticide use are disseminated only at aggregated level for main groups of products and most significant categories of products, therefore the published tables do not contain confidential statistical data.

## **8 Release policy**

### **8.1 Release calendar**

Not applicable. Statistics on pesticides is not included in the First release calendar of the Statistical Office of the SR.

### **8.2 Release calendar access**

Not applicable.

### **8.3 User access**

On day specified in the schedule for updating the data of the public database the published information are available for all users.

## **9 Frequency of dissemination**

Annually.

## **10 Accessibility and clarity**

### **10.1 News release**

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## 10.2 Publications

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## 10.3 On-line database

Data on statistics on pesticides are published in the public database of the Statistical Office of the SR - DATAcube.: pesticides placed on the market ( [table zp1001rs](#) ), consumption (use) of pesticides ( [table pl2022rs](#) ) .

## 10.4 Micro-data access

Microdata on statistics on pesticides are not disseminated.

The owner of datasets for this statistics is the Ministry of Agriculture and Rural Development of the Slovak Republic, therefore the conditions set by the ministry are applied concerning provision of respective microdata. The ministry provides microdata only to the competent state governmental bodies (e.g. Ministry of Environment of the Slovak Republic) and to the EU institutions (e.g. European Commission), only upon specific requests which are assessed by the ministry.

## 10.5 Other

Datasets on pesticide use in the PDF format are published on the website of the Central Controlling and Testing Institute in Agriculture: <https://www.uksup.sk/spotreba-pripravkov-na-ochranu-rastlin> .

## 10.6 Documentation on methodology

Documentation on methodology at national level is not available.

At the EU level, the Eurostat manual on collecting pesticide use data is available: "A common methodology for the collection of pesticide usage statistics" - <https://ec.europa.eu/eurostat/documents/3859598/5902633/KS-RA-08-010-EN.PDF> .

## 10.7 Quality documentation

Following internal project documentation is available for the compilation of statistical outputs:

- methodological guidelines for applying mathematical-statistical methods for statistical surveys,
- methodological guidelines for quality indicators of statistical outputs and statistical processes.

Annually the quality report on pesticide sales data is elaborated and every 5 years the quality report on pesticide use data is elaborated - both in the structure SIMS (Single Integrated Metadata Structure) in ESS Metadata Handler. Current quality reports for particular member states are published on the Eurostat website: [https://ec.europa.eu/eurostat/cache/metadata/en/aei\\_fm\\_salpest09\\_esms.htm](https://ec.europa.eu/eurostat/cache/metadata/en/aei_fm_salpest09_esms.htm) , [https://ec.europa.eu/eurostat/cache/metadata/en/aei\\_pestuse\\_esms.htm](https://ec.europa.eu/eurostat/cache/metadata/en/aei_pestuse_esms.htm) (select country in the box "National metadata").

# 11 Quality management

## 11.1 Quality assurance

The Quality policy is defined and publicly accessible in the Quality Declaration and Quality Policy documents.

[Quality Declaration](#) expresses the basic ideas and commitments of the President and top management of the Statistical Office of the Slovak Republic (SOSR) for the Quality Policy as well as increasing efficiency and effectiveness of the integrated management system of the SOSR.

[Quality policy](#) is based on the mission of the SOSR: to provide high quality and objective statistical products and services by keeping confidentiality of statistical data and by minimising burden on interested parties using effectively existing resources with the aim to support improvement of the information and intellectual capital of our customers. In this way we want to contribute to reduce risks and improve effectiveness in their decision making processes and so to support the sustainable development of the Slovak Republic as the part of EU.

[Quality manual](#) (only available in Slovak) describes the documented procedures of the quality system that are used for implementation and continuous improvement of the quality management system in SOSR. It contains a description of the quality management system and the fulfillment of requirements ISO 9001 standards. Application of the manual in practice ensures that all activities that have an impact on the quality of the products created are planned, managed, reviewed, evaluated and meet requirements.

The basis of the common quality framework of the European Statistical System is the [European Statistics Code of Practice](#) .

## 11.2 Quality assessment

In general, the quality of statistics on pesticides is good. The good quality of this statistics is ensured by using reliable official data sources included in the [Programme of State Statistical Surveys](#) , in annex 3 - administrative sources for the purpose of state statistics, by checking of data by the Central Controlling and Testing Institute in Agriculture in the process of data collection and by additional checking of data by the Statistical office of the SR.

## 12 Relevance

### 12.1 User needs

Key users of specific statistical products are listed in the Marketing Plan. Users of data on pesticide sales and pesticide use are mainly international institutions such as European Commission, Eurostat a Joint Research Centre (JRC). At national level, the data are used mainly by their owner - Ministry of Agriculture and Rural Development of the Slovak Republic that carries out the collection of these data through the Central Controlling and Testing Institute in Agriculture (organization under the ministry).

### 12.2 User satisfaction

Since the 2009, Statistical Office of the Slovak Republic (SOSR) carries out satisfaction surveys of customers with their products and services at two-year intervals. The goal of surveys is to determine customer satisfaction with the products and services of the SOSR, to obtain information about users, their interest and opinion on provision and quality of statistical products and services. The facts obtained are a valuable resource for the direction of other activities of the SOSR. One of the main goals defined in the Development Strategy of the SOSR until 2022 is to systematically increase the value of the institution and its recognition at the national and international level. The office also monitors the fulfilment of the stated goal with the help of indicators of the credibility of the SOSR and the rate of use of the information provided by the public. SOSR conducts credibility

surveys through an external independent organization once every 2 years, with the intention of ensuring the objectivity and indisputability of the results from public view.

[Credibility survey](#) (only available in Slovak)

[Satisfaction survey](#) (only available in Slovak)

### 12.3 Completeness

Whole time series (without gap in data) are published in the public database of the Statistical Office of the SR - from reference year 1993 for pesticide use and from reference year 2011 for pesticide sales.

## 13 Accuracy and reliability

### 13.1 Overall accuracy

Overall, the accuracy of pesticide statistics is considered very good. Data are from reliable data sources - databases for pesticide sales and use (maintained by the Central Controlling and Testing Institute in Agriculture), which contain data collected directly from authorisation holders or holders of parallel trade permits - for pesticide sales and from professional users - for pesticide use. Collection of data on pesticides is supported by respective national legislation, therefore the response rate is high. Collected data are checked and validated and are published as final data.

### 13.2 Sampling error

Not applicable for pesticide statistics. Data are collected using exhaustive statistical surveys and not sample statistical surveys.

### 13.3 Non-sampling error

Possible errors are usually corrected in the process of collecting and checking data in the Central Controlling and Testing Institute in Agriculture (CCTIA). In case that respondent doesn't submit the report or submit incomplete report (missing data for some items), competent experts from the CCTIA contact the respondent and ask for submission of the report or completion of missing items in the report.

## 14 Timeliness and punctuality

### 14.1 Timeliness

Dissemination of data in the public database of Statistical Office of the SR „DATAcube." follows the internal schedule. Data in the table "Pesticides placing on the market" [zp1001rs] are published 12 months after the end of reference year and data in the table "Consumption of plant protection agents" [pl2022rs] are published 9 months after the end of reference year.

### 14.2 Punctuality

Deadlines for publication of data were met in accordance with the schedule.

## 15 Coherence and comparability

### 15.1 Comparability - geographical

Pesticide statistics is published only at the national level (SR). Data for more detail territorial levels of the SR (regions) are not compiled.

### 15.2 Comparability - over time

Data on pesticide statistics published in the public database of the Statistical Office of the SR are comparable in the whole time series - the same data source for the whole time series for pesticide sales data and the same data source for the whole time series for pesticide use data, were applied.

### 15.3 Coherence - cross domain

Not applicable. Data on pesticide statistics are not compared with data from other statistical domains.

### 15.4 Coherence - internal

Data on pesticide statistics are internally consistent. Published outputs on pesticide sales come from one data source and also published outputs on pesticide use come from one data source.

## 16 Cost and burden

Data on pesticide statistics are obtained from administrative data sources.  
No statistical survey is carried out by the Statistical Office of the SR in this statistical area.

## 17 Data revision

### 17.1 Data revision - policy

The Revision policy regulates the general rules and procedures applied in revisions at the Statistical Office of the SR (SOSR). The same revision policy applies to national and international users. In accordance with the Revision policy, the reason of the revision is always indicated. [The Revisions policy as well as the Revisions calendar](#) is available to users on the web portal of the SOSR (only available in Slovak).

SOSR distinguishes the following revisions:

from the content point of view the reason of the revision is

-incorporation of better quality data based on a more complete source, including replacing imputations with collected data,

-correction of data as a result of updating seasonal factors and changing the base period,

-data modification based on more accurate methodology (in concepts, definitions and classifications) and changes in statistical methods,

-performing corrections in source data and calculations.

in terms of time the revisions are divided into

-ordinary revisions - are revisions without significant modifications of the methodologies; these are usually more significant data corrections, including large values obtained from new sources; they are carried out periodically on precisely set up dates, to update monthly and quarterly data, until the next publication of the data,

-annual revisions - are revisions that are made when all monthly and quarterly data are available and more detailed results from annual surveys are already available,



-extraordinary and major revisions - are revisions of definitive data due to significant methodological changes resulting from revision of methodologies, changes in procedures and statistical-mathematical calculation methods or data corrections; an extraordinary revision may result (e.g. by changing the definition) in break in time series data comparability.

## 17.2 Data revision - practice

Data on pesticide statistics are published as final data and usually revisions are not performed on these data. Only some occasional revisions may occur (e.g. correction of errors), in that case the note that data were revised is provided.

# 18 Statistical processing

## 18.1 Source data

Published data on pesticide statistics come from administrative data sources, which are listed in the Programme of State Statistical Surveys, annex 3 - List of administrative data sources used for the purpose of state statistics:

- 130. PESTICIDE SALES - Data on pesticides placed on the market,
- 131. FERTILIZERS AND PESTICIDES - Data on use of fertilizers and pesticides.

Statistical Office of the SR on the basis of the annex 3 of the official Agreement with the Ministry of Agriculture and Rural Development of the SR/Central Controlling and Testing Institute in Agriculture regarding cooperation concerning statistics, obtains annually data from these administrative data sources.

## 18.2 Frequency of data collection

Annually.

## 18.3 Data collection

Central Controlling and Testing Institute in Agriculture (CCTIA) - organization of the Ministry of Agriculture and Rural Development of the SR, is responsible for collection of the source data listed in the item 18.1. Obligation of authorisation holders and parallel trade permit holders to report data on pesticide sales and of professional users in agriculture to report data on pesticide use is determined by § 35 of Act No 405/2011 on Phytosanitary Care. Respondents submit the completed reports on pesticide sales and use to the CCTIA, where the data are processed and recorded into the respective databases.

Information for respondents regarding collection of data are available on the website of the CCTIA:

- collection of data on pesticide sales: [notice and templates of reports](#) , [guidance for respondents](#)

- collection of data on pesticide use: [notice and templates of reports](#) (available only in Slovak).

## 18.4 Data validation

Data on pesticide sales and use are checked and validated by experts from the Central Controlling and Testing Institute in Agriculture (CCTIA) during the data processing and recording into respective databases. In case that there are identified inconsistencies in the reports or some authorized/permitted pesticides are missing in reports, the CCTIA asks concerned respondents to complete the missing data or explain the inconsistencies. In case that submitted report includes

data on unauthorized /not permitted pesticides, the CCTIA may initiate proceedings for the imposition of a penalty on concerned respondents.

Also additional check is performed by the Statistical Office of the SR - comparing the data at the level of particular products with data for previous reference years.

### **18.5 Data compilation**

Data on pesticide statistics are processed by the Central Controlling and Testing Institute in Agriculture. Statistical Office of the SR obtains already elaborated datasets broken down by pesticides.

### **18.6 Adjustment**

No data adjustment.

## **19 Comment**