PESTICIDE RESIDUE CONTROL RESULTS

NATIONAL SUMMARY REPORT

Year: 2023

Romania

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1. România

1.1. Name of the national competent authority/organisation

In Romania three Competent Authorities are involved in elaboration and implementation of National Control Programme for pesticides residues: National Sanitary Veterinary and Food Safety Authority (NSVFSA), Ministry of Agriculture and Rural Development (MARD) and Ministry of Health (MH).

Web address where the national annual report is published: *www.ansvsa.ro, www.madr.r*

2. Objective and design of the national control programme

2.1. Objective

National Sanitary Veterinary and Food Safety Authority (the coordinator) has the responsibility for preparing the National Multiannual Control Programme for pesticides residues in cooperation with the other two CAs. NSVFSA also has the responsibility for elaboration and implementation of its own National Programme for Surveillance and Control for food of plant and animal origin.

Implementation of National Programme for Surveillance and Control for food of plant and animal origin is performed by Sanitary Veterinary and Food Safety County Divisions and BIPs.

The Programme sets the samples of food of plant origin from Member States and third countries, the point of sampling, the active substances to be analyzed.

Romanian Ministry of Agriculture and Rural Development has the responsibility for national monitoring plan of pesticides residues in fruits, vegetables, cereals from domestic market.

Implementation of monitoring programme is performed by MADR through Laboratory for Pesticides Residues Control in Plants and Vegetable Products and Zonal Laboratory for Pesticides Residues determination in Plants and Vegetables Products – Mures, which analyses the samples taken by Counties and Bucharest Phytosanitary Units.

In the monitoring programme of MARD for 2023, samples from 46 agricultural products were planned 2225 samples and were analyzed 2989 samples. The number of active substances analyzed were 357.

Ministry of Health is responsible for food for special nutritional purposes.

MH realises monitoring and control of pesticide residues in food for special nutritional purposes within the National Program for monitoring of environmental and worklife determinants – Subprogram for public health protection by preventing diseases associated with food and nutrition risks factors.

Ministry of Health analysed 42 samples in 2023. All of them complied with the legislative provisions

2.2. Design

The selection of the products that were tested for pesticides residues determination is made taking into consideration the following factors listed below:

- Food commodities with high residues/non-compliance rate in previous monitoring years;

  - all data from the last three years were compared and the products with high residues levels were selected to be analysed at a higher frequency: lettuce, spinach, apple, parsley leaves, lemons, grapefruit, mandarins, oranges, peppers, tomatoes, table grapes and wine grapes.

- Origin of food

  - compared with 2022 in 2023 the number of samples analysed for pesticide residues from EU market has been increased (from 67,08% in 2022 to 69.63% in 2023) and for samples from Third

Countries the number of samples has been reduced (from 32,38% in 2021 to 30,02 in 2022) - as presented in the table 1

Table 1: Summary results by sample origin

Origin of samples	2021 (%)	2022 (%)	2023(%)
EU	62,22	67,08	69,63
Third Countries	37,17	32,38	30,02
Unknown	0,6	0,54	0,35

- Sampling at different marketing levels: farm gates, wholesaler, import activities, border inspection activities, farming, slaughtering,
- Sampling of products during main marketing season/outside of main marketing season (e.g. citrus fruits during the autumn and winter),
- Rapid Alert System for Food and Feed notificationsand all other useful information,
- Food for the sensitive consumer groups, e.g. baby food,
- Importance of the commodity in the country production, the national statistical data presented by National Institute of Statistics (Production of the main agricultural products per inhabitant). Thus, a great number of samples were planned for cereals (wheat), fruits (apples, grapes) and vegetables (potatoes, tomatoes),
- Food commodities not included in the EU coordinated programme

For defining pesticides that are included in national control programmes the following aspects were taken into consideration,

- The pesticides included in the EU coordinated programme,
- Use pattern of pesticides,
- Cost of the analysis: multiple methods,
- Capacity of laboratories,
- Toxicity of the active substance.

3. Key findings, interpretation of the results and comparability with the previous year results

3.1. Key findings

In 2023 a total number of 5150 samples were taken in order to check the MRL's compliance of pesticide residues in different crops. From these, 4809 samples there were sampled under objective sampling strategy, 172 samples were sampled under selective sampling strategy and 169 samples were sampled under suspect sampling strategy.

A number of 1421 samples were fruit and primary derivatives thereof, 2598 samples were garden vegetables and primary derivatives thereof, 401 were grains and grain-based products, 42 samples of food products for young population and 55 samples of animal products.

From the total number of the 5150 samples that include fruit, vegetables, cereals, processed products (including baby food) and animal products, 3234 were produced in Romania, 3586 samples were produced in EU and 1546 samples were produced outside of the EU.

Table 2: Summary results

Samples	2021	2022	2023
Total	3941	4642	5150
Without residues (%)	2668 (67,70%)	2811 (60,56%)	2902 (56,35%)
With residues below MRL (%)	1177 (29,87)	1657 (35,70%)	2097 (40,72%)
Exceeding (%)	96 (2,43)	174 (3,74%)	151 (2,90%)
Non - compliant (%)	51 (1,29)	81 (1,74)	53 (1,03%)

3.2. Interpretation of the results

The most frequent pesticides detected in

- *the animal products were:* DDT (sum of p,p'-DDT, o,p'-DDT, p-p'-DDE and p,p'-TDE (DDD) expressed as DDT), Diazinon, Lindan (γ HCH), Hexachlorocyclohexane,
- *cereals* were: Bifenthrin (sum of isomers), chlorpyrifos-methyl, Imidacloprid, Propiconazole (sum of isomers), Pirimiphos-methyl, Diazinon, Permethrin (sum of isomers),
- *fruit and Nuts* were: Azoxistrobin, Boscalid, Cyprodinil, Difenoconazole, Ethephon, Fludioxonil, Pyrimethanil,
- vegetables were: Acetamiprid, Azoxystrobin, Boscalid, Carbendazim and Benomyl, Chlorothalonil, Metalaxyl including other mixtures of constituent isomers including metalaxyl-M (sum of isomers), Pyrimethanil, Fludioxonil,

From the total number of samples, 1357 foodstuffs samples had 2 or more founding. Below there are mentioned some products with different number of pesticide residues:

- apples – 81 samples with a number of residues from 2 up to 10,
- apricots – 31 samples with a number of residues from 2 up to 5
- oranges – 20 samples with a number of residues from 2 up to 3,
- pears – 35 samples with a number of residues from 2 up to 6,
- banana – 32 samples with a number of residues from 2 to 3,
- peaches – 27 samples with a number of residues from 2 to 7,
- grapefruits and similar – 54 samples with a number of residues from 2 up to 6,
- lemons - 78 samples with a number of residues from 2 up to 8,
- mandarins - 31 samples with a number of residues from 2 up to 6,
- strawberries – 29 samples with a number of residues from 2 up to 7,
- table grapes – 84 samples with a number of residues from 2 up to 18,
- wine grapes – 38 samples with a number of residues from 2 up to 7,
- sweet peppers – 88 samples with a number of residues from 2 up to 10,
- lettuce – 76 samples with a number of residues from 2 up to 9,
- tomatoes – 308 samples with a number of residues from 2 up to 8,
- celery leaves – 30 samples with a number of residues from 2 up to 6,
- parsley – 22 samples with a number of residues from 2 up to 9.

All the data presented above will be taken into account in amending of the National Control Programme for pesticides residues during the next years.

3.3. Comparability with the previous year results

Compared with 2022, in 2023 the number of samples with residues below MRL has been increased (from 35,70% in 2022 to 40,72% in 2023) and the number of samples with exceeding has been reduced (from 3,74% in 2022 to 2,90% in 2023) – as presented in the table 2 Summary results.. Pesticides were validated according to SANTE 11312/2021/2.

4. Non-compliant samples: possible reasons, ARfD exceedances and actions taken

4.1. Possible reasons for non-compliant samples

From 5150 samples in 2023, 53 samples were found non-compliant with the EU MRL. The following follow-up actions were taken in case of sample non-compliant with the EU MRL (measurement uncertainty taken into consideration):

Table 1: Possible reasons for MRL non compliance

Reasons for MRL non-compliance	Pesticide/food product[a]	Frequency[b]	Comments	Title
GAP not respected: use of a pesticide not approved in the EU[c]	Carbendazim/Lovage	1		Romania
	Thiophanate-methyl/Parsley	1		Romania
	Bupirimate/ quinces	1	RO-223-LSVSA-CT-20216-1	Turkey
	Buprofezin/ oranges	1	RO-223-LSVSA-CT-20806-2	Poland
	Buprofezin/ pomegranates	1	RO-223-LSVSA-CT-21255-2	Turkey
	Buprofezin/ lemons	1	RO-223-LSVSA-CT-21679-1	Turkey
	Chlorpyrifos/ lemons	1	RO-223-LSVSA-CT-21679-1	Turkey
	Chlorpyrifos-methyl/ lemons	1	RO-223-LSVSA-CT-20438-1	Turkey
	Chlorpyrifos-methyl/ tomatoes	1	RO-223-LSVSA-CT-21353-1	Turkey
	Etoxazole/ guerkins	3	RO-223-LSVSA-CT-20594-2 RO-223-LSVSA-CT-21044-1 RO-223-LSVSA-CT-21183-1	Turkey
	Metalaxyl and metalaxyl-M (metalaxyl including other mixtures of constituent isomers including metalaxyl-M (sum of isomers)/ guerkins	1	RO-223-LSVSA-CT-20078-2	Turkey
	Folpet (sum of folpet and phtalimide, expressed as folpet)-Phtalimide/ sweet peppers	1	RO-223-LSVSA-CT-21446-1	Albania
	Oxamyl/ potatoes	1	RO-223-LSVSA-CT-21839-1	Greece
	Thiophanate-methyl/ apples	1	RO-223-LSVSA-CT-21042-1	Moldova
	Carbendazim/dill	1		Romania
	Thiophanate-methyl/dill	1		Romania
	Thiamethoxam/dill	1		Romania
	Chlorothalonil/dill	4		Romania
	Imidacloprid/spring onions	1		Romania
	Dimethoate/spinaches	1		Romania
	Omethoate/spinaches	1		Romania
	Spirodiclofen/celeries	1		Romania
	Myclobutanil/parsley	1		Romania
	Chlorothalonil/celeries	1		Romania
	Iprodione/celeries	1		Romania

	Dimethoate/celeries	1		Romania
	Omethoate/celeries	1		Romania
	Linuron/celeries	1		Romania
	Propiconazole/celeries	1		Romania
	Imidacloprid/pears	1		Romania
	Cypermethrin/ Beans (dry)	1		Romania
	Linuron/ celeries	1		Romania
	Chlorpyrifos/ tomatoes	3		Romania
	Chlorpyrifos-methyl/ tomatoes	1		Romania
	Thiamethoxam/ Gherkins	1		Romania
	Carbendazim/ spinaches	1		Romania
	Thiophanate-methyl/ spinaches	1		Romania
GAP not respected: use of an approved pesticide not authorised on the specific crop[(c)]	Dimethoate//Sweet peppers/bell peppers	1		Romania
	pirimiphos-methyl/ tomatoes	3		Romania
	Hexythiazox/ spinaches	1		Romania
GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected	Formetanate/Sweet peppers/bell peppers	5		Romania
	Acetamiprid/spinaches	2		Romania
Exceeding the MRL for imported products	Acetamiprid/pomegranates	1		Turkey
	Buprofezin/Tomatoes	1		Turkey
	Chlorpyrifos/Nectarines	1		Serbia
	Lambda-cyhalothrin (includes gamma-cyhalothrin) (sum of R,S and S,R isomers)/ Wheat	1		Moldavia
	Spiroxamine (sum of iso-mers)/Pepper	1		Albania
	Malathion/Sunflower seeds	1		Ukraine
	Malathion/Peaches	1		Turkey
	Malathion/ Nectarines	1		Turkey
	Malathion/dried white beans	3		Egipt
	Chlorpyrifos/ oranges	1	RO-223-LSVSA-CT-21265-1	Egypt
	Chlorpyrifos / pomelo	1	RO-223-LSVSA-CT-24493-1	China
	Chlorpyrifos-methyl/ tomatoes	1	RO-223-LSVSA-CT-21190-1	Turkey
	Diflubenzuron/ table grapes	1	RO-223-LSVSA-CT-24536-1	Moldova
	Dimethomorph (sum of isomers)/ pomelo	1	RO-223-LSVSA-CT-24493-1	China
	Etoxazole/ guerkins	1	RO-223-LSVSA-CT-20244-1	Turkey
	Iprodione/ courgettes	1	RO-223-LSVSA-CT-20165-1	Turkey
	Lufenuron (any ratio of constituent isomers)/ pomelo	1	RO-223-LSVSA-CT-24493-1	China
	Malathion/ tomatoes	1	RO-223-LSVSA-CT-21643-1	Turkey

	Metalaxyl and metalaxyl-M (metalaxyl including other mixtures of constituent isomers including metalaxyl-M (sum of isomers)/ guerkins	1	RO-223-LSVSA-CT-20244-1	Turkey
	Oxamyl/ carrots	1	RO-223-LSVSA-CT-24660-1	Egypt
	Propargite/ sweet peppers frozen	1	RO-223-LSVSA-CT-23317-1	Egypt
	Thiophanate-methyl/ table grapes	1	RO-223-LSVSA-CT-22645-1	Egypt
	Chlorpyrifos/ carrot	1		Turcia

4.2. Actions taken

Table 2: Actions taken

	Action taken[(a)]	Number of non-compliant samples concerned[(b)]	Comments	Country of origin
Rapid Alert Notification	51	51	-	-
Administrative sanctions (e.g. fines)	30	30	-	-
Lot recalled from the market	30	30	-	-
Follow-up (suspect) sampling of similar products, samples of same producer or country of origin	70	70	-	-
Warnings to responsible food business operator	-	-	-	-

5. Quality assurance

Table 3: Laboratories participation in the national control program

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
RO	Laboratory for Control Pesticide Residues in Plant and Plant Products	RO_321_ LCRPPPV	LI 1071/ 16/01/2006 Reaccreditations in 18/12/2021	RENAR-Bucharest	EUPT-FV-25
RO	Sanitary Veterinary and Food Safety Laboratory Bucharest	RO321-ANSVSA	LI 496/ 11/04/2007	RENAR-Bucharest	EUPT- CF 17 EUPT- FV 25

Country	Laboratory		Accreditation		Participation in proficiency tests or inter-laboratory tests
	Name	Code	Date	Body	
RO	Zonal Laboratory for Pesticides Residues determination in Plants and Vegetables Products – Mures	RO_125_ LZDRPPPV	26/04/2013 Reaccreditation in 18/12/2017	RENAR-Bucharest	EUPT-FV-25
RO	Environmental hygiene laboratory	MS-RO113-MS	LI 1189/04.10.2018	RENAR-Bucharest	FAPAS Pesticide Residues in Baby-food (Cereal Based) 09160 (July – September 2023)
RO	Institute of Hygiene and Veterinary Public Health	RO321-IISPV	01/04/2002	RENAR-Bucharest	EURL PT AO EURL PT FV EURL PT SRM EURL PT Halogenated POP's
RO	Sanitary Veterinary and Food Safety Laboratory Constanta	RO223-LSVSA	LI 276/ 14.09.2015	RENAR Bucharest	EUPT FV 25 EUPT SM 16
RO	Sanitary Veterinary and Food Safety Laboratory Olt	RO414-ANSVSA	LI 1174/ 05.05.2018	RENAR Bucharest	EURL-FV 25
RO	Sanitary Veterinary and Food Safety Laboratory Cluj	RO113-ANSVSA	LI 456/ 27.11.2006	RENAR Bucharest	EUPT AO 18
RO	Sanitary Veterinary and Food Safety Laboratory Suceava	RO215-ANSVSA	Reaccreditation in 31/07/2023	RENAR Bucharest	EUPT AO 18
RO	Sanitary Veterinary and Food Safety Laboratory Ialomița	RO315-ANSVSA	-	-	-

Table 4: Processing factors

Pesticide(report name)[a]	Unprocessed product (RAC)	Processed product	Processing factor[b]	Comments
All pesticides	Oranges	Oranges Juice	1	
All pesticides	Olives for oil production	Oliver Oil	5	
All pesticides	Wheat	Flour	1	
All pesticides	Rye	Flour	1	
All pesticides	Wine grapes	White Wine	1	
All pesticides	Wine grape	Red Wine	1	