PESTICIDE RESIDUE CONTROL RESULTS

NATIONAL SUMMARY REPORT

Year: 2021

Romania

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1. Romania

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 2021, samples from 44 agricultural products were planned 2195 samples and were analyzed 1988 samples. The number of active substances analyzed were 360.

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 2021. 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, pappers, tomates, table grapes and wine grapes.

- Origin of food

- compared with 2020, in 2021 the number of samples analysed for pesticide residues from EU market has been increased (from 57,5% in 2020 to 62.22% in 2021) and for samples from Third Countries the number of samples has been reduced (from 42,5% in 2020 to 37,17 in 2021) - as presented in the table 1

Table 1: Summary results by sample origin

Origin of samples	2019(%)	2020(%)	2021 (%)
EU	56,2	57,5	62,22
Third Countries	43,7	42,5	37,17
Unknown	0,1	0	0,6

- 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 2021 a total number of 3941 samples were taken in order to check the MRL's compliance of pesticide residues in different crops. From these, 3713 samples there were sampled under objective sampling strategy, 214 samples were sampled under selective sampling strategy and 24 samples were sampled under suspect sampling strategy.

A number of 1430 samples were fruit and primary derivatives thereof, 1701 samples were garden vegetables and primary derivatives thereof, 221 were grains and grain-based products, 42 samples of baby food and 18 samples of animal products.

From the total number of the 3941 samples that include fruit, vegetables, cereals, processed products (including baby food) and animal products, 2233 were produced in Romania, 2452 samples were produced in EU, and 1465 samples were produced outside of the EU.

Table 2: Summary results

Samples	2019	2020	2021
Total	5166	4289	3941
Without residues (%)	3150 (60,98%)	2916 (67,99%)	2668 (67,70%)
With residues below MRL (%)	1927 (37.30%)	1322 (30,82%)	1177 (29,87)
Exceeding (%)	89 (1,72%)	51 (1,19%)	96 (2,43)
Non compliant (%)	58 (1,12%)	34 (0,79%)	51 (1,29)

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: Acetamiprid, Boscalid, Cyprodinil, Fludioxonil, Pyrimethanil,, Thiabendazole, 2-Phenylphenol (sum of 2-phenylphenol and its conjugates, expressed as 2-phenylphenol), Propiconazole (sum of isomers), Imazalil, Pirimiphos-methyl, Diazinon, Permethrin (sum of isomers),
- 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, 1273 foodstuffs samples had 2 or more foundings. Below there are mentioned some products with different number of pesticide residues:

- oranges – 100 samples with a number of residues from 2 up to 6,
- pears – 21 samples with a number of residues from 2 up to 5,
- apples – 86 samples with a number of residues from 2 up to 6,
- cherries – 47 samples with a number of residues from 2 up to 4,
- grapefruits and similar – 94 samples with a number of residues from 2 up to 6,
- lemons -94 samples with a number of residues from 2 up to 7,
- strawberries – 56 samples with a number of residues from 2 up to 7,
- table grapes – 86 samples with a number of residues from 2 up to 8,
- wine grapes – 49 samples with a number of residues from 2 up to 6,
- green onion – 44 samples with a number of residues from 2 up to 6,
- lettuce – 58 samples with a number of residues from 2 up to 8,
- celery leaves – 45 samples with a number of residues from 2 up to 7,
- sweet peppers – 58 samples with a number of residues from 2 up to 10,
- tomatoes – 180 samples with a number of residues from 2 up to 7.

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 2020, in 2021 the number of samples with residues below MRL has been reduced (from 30,8% in 2020 to 1177 in 2021) and the number of samples with exceeding has been increased (from 1,19% in 2020 to 2,43% in 2021) – as presented in the table 2 Summary results.. Pesticides were validated according to SANCO 12682/2019.

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

4.1. Possible reasons for non-compliant samples

From 3941 samples in 2021, 51 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/lettuces	2		Romania
	carbendazim/dill	1		Romania
	chlorothalonil/lettuces	4		Romania
	chlorpyrifos/apple	2		Romania
	chlorpyrifos/celeries	1		Romania
	chlorpyrifos/barley	1		Romania
	dimethoate/lovage	1		Romania
	dimethoate/strawberries	1		Romania
	iprodione/lettuces	1		Romania
	iprodione/tomatoes	1		Romania
	linuron/lovage	1		Romania
	linuron/celeries	2		Romania
	linuron/celeriac	1		Romania
	propiconazole/lovage	1		Romania
	thiamethoxam/spring onions	1		Romania
	thiophanate-methyl/lettuces	2		Romania
	thiophanate-methyl/dill	1		Romania
	Indoxacarb/ quinces	1	RO321ANSVSA-30539-1	Turkey
	Chlorpyrifos/ grapefruits	2	RO321ANSVSA-32411-1 RO321ANSVSA-32807-5	Turkey
	Chlorpyrifos/ tomatoes	1	RO321ANSVSA-32497-3	Albania
	Chlorpyrifos methyl/ grapefruits	1	RO321ANSVSA-32833-3	Turkey

	Prochloraz/lemons	1	RO321ANSVSA-32835-3	Turkey
	Chlorpyrifos methyl/ sweet peppers	1	RO321ANSVSA-32918-5	Turkey
	Chlorpyrifos methyl/ tomatoes	1	RO321ANSVSA-32975-1	Turkey
	Chlorothalonil/ tomatoes	1	RO321ANSVSA-32975-1	Turkey
GAP not respected: use of an approved pesticide not authorised on the specific crop[(c)]	kresoxim-methyl/dill	2		Romania
	formetanate/lettuces	1		Romania
	fosthiazate/dill	1		Romania
GAP not respected: use of an approved pesticide, but application rate, number of treatments, application method or PHI not respected	chlormequat/tomatoes	1		Romania
	diflubenzuron/pears	1		Romania
	fenhexamid/sping onions	1		Romania
	pirimiphos-methyl/pears	1		Romania
	propyzamid/spring onions	1		Romania
	pirimiphos-methyl/beans (dry)	2		Romania
Use of pesticide according to authorised GAP: unexpected slow degradation of residues				
Cross contamination: spray drift or other accidental contamination	-			
Contamination from previous use of a pesticide: uptake of residues from the soil (e.g. persistent pesticides used in the past)	-			
Residues resulting from other sources than plant protection product (e.g. biocides, veterinary drugs, bio fuel)	-			
Naturally occurrence (e.g. dithiocarbamates in turnips)	-			
Changes of the MRL				
Use of a pesticide on food imported from third countries for which no import tolerance was set[(d)]	-			
Exceeding the MRL for imported products	Propiconazole(sum of isomers)/oranges	1	RO223-LSVSA-23076.1	Egypt
	Propiconazole(sum of isomers)/lemon	1	RO223-LSVSA-23163.1	Argentina
	Propiconazole(sum of isomers)/oranges	1	RO223-LSVSA-23227.1	South Africa
	Propiconazole(sum of	6	RO223-LSVSA-	Argentina

	isomers)/oranges		23320.5 RO223-LSVSA-23320.6 RO223-LSVSA-23320.7	
	Prochloraz/grapefruit	1	RO321-ANSVSA-31089.1	Turkey
	Diflubenzuron/pears	1	RO223-LSVSA-23527.1	Turkey
	Chlorpyrifos/orange	1	RO223-LSVSA-24525.1	Egypt
	Dimethoate/orange	1	RO223-LSVSA-24525.1	Egypt
	Buprofezin/grapefruit	2	RO223-LSVSA-21521.1 RO223-LSVSA-24214.1	Turkey
	Buprofezin/lemon	1	RO223-LSVSA-24481.1	Turkey
	Propiconazole(sum of isomers)/grapefruit	1	RO223-LSVSA-24214.1	Turkey
	Chlorpyrifos/lemon	1	RO223-LSVSA-23672.1	Turkey
	Chlorpyrifos/grapefruit	1	RO223-LSVSA-24091.1	Turkey
	Chlorpyrifos/grapefruit red	1	RO223-LSVSA-24487.1	Turkey
	Chlorpyrifos-methyl/ grapefruit	1	RO223-LSVSA-24214.1	Turkey

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)	29	29		
Lot recalled from the market	19	19		
Follow-up (suspect) sampling of similar products, samples of same producer or country of origin	59	59		
Warnings to responsible food	30	30		

business operator				
Other follow-up investigations to identify reason of non-compliance or responsible food business operator	9	9		
Other actions (please specify)				

–: no information available; TBC: to be confirmed
(a): Table footnote a

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 24 EUPT- CF 16 EUPT – SRM 17
RO	Sanitary Veterinary and Food Safety Laboratory Bucharest	RO321-ANSVSA	LI 496 11/04/2007	RENAR-Bucharest	EUPT- CF 16 EUPT- FV 24
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 24 EUPT- CF 16
RO	Environmental hygiene laboratory	MS-RO113-MS	LI 1189/04.10.2018	RENAR-Bucharest	-
RO	Institute of Hygiene and Veterinary Public Health	RO321-IISPV	01/04/2002	RENAR-Bucharest	EUPT - CF 15 EUPT – AO 16
RO	Sanitary Veterinary and Food Safety Laboratory Constanta	RO223-LSVSA	RENAR audit for accreditation 16-17.12.2021	RENAR Bucharest	--
RO	Sanitary Veterinary and Food Safety Laboratory Olt	RO41-ANSVSA	LI 1174 05.05.2018	RENAR Bucharest	-

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	

a) Processing factor for the enforcement residue definition