

Pesticide Residue Monitoring in Food of Plant Origin Belgium 2004



Report of Monitoring Results Concerning Directives 90/642/EEC,
76/895/EEC and 86/362/EEC and Commission Recommendation
2004/74/EC



Pesticide Residue Monitoring in Food of Plant Origin in Belgium - 2004

Summary of results

In 2004, a total of 1766 samples of fruits, vegetables, cereals and processed products of plant origin (including baby food) were taken on the Belgian market and analysed for the presence of pesticide residues (table 1). 62% of the samples of fruit and vegetables were of Belgian origin.

National or EU harmonized Maximum Residue Levels (MRL) were exceeded by 77 samples of fruit and vegetables (4,8%). MRL exceedings were observed in 5,9% of the vegetables sampled and 2,7% of the fruit sampled. Exceedings were observed in 5,3% of the Belgian products and in 4% of the imported products.

Relatively high percentages of MRL exceedings were found in stem vegetables (10,8%, mainly in celery) and leafy vegetables (9,4%, mainly in lettuces). Note that in this report exceedings were counted not taking into account the analytical uncertainty of the result .

Table 1: Overview of the results of the pesticide residue monitoring programme in Belgium

Samples	analysed	without residues	with residues at or below MRL	with residues exceeding MRL	with residues exceeding MRL (%)	Products origin*					
						BE		EU		Other	
						total	>MRL	total	>MRL	total	>MRL
Fruits	548	263	270	15	2,7 %	214	7	66	5	259	3
Vegetables	1047	600	385	62	5,9 %	776	46	218	14	51	2
Fruits & vegetables	1595	863	655	77	4,8 %	990	53	284	19	310	5
Cereals	7	3	4	0	0 %	* Country of origin unknown for 11 out of 1595 samples of fruit and vegetables.					
Processed products	164	138	26	1	0,6 %						
Total	1766	1004	685	78	4,4%						

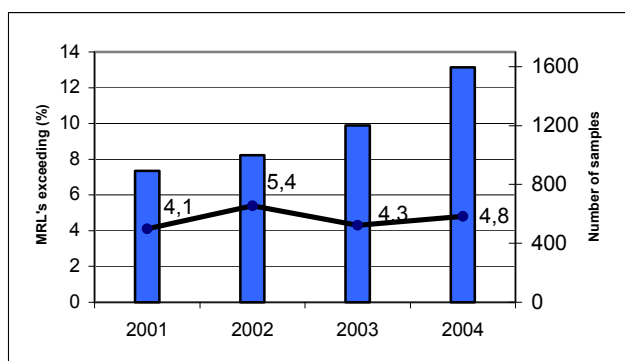


Figure 1: Comparison of the percentage of samples with residues exceeding MRLs in fruits and vegetables for the years 2001, 2002, 2003 and 2004.

For fruits and vegetables, the percentage of exceedings in 2004 (4,8%) is higher than in 2003 (4,3%). The number of samples analysed is noticeably higher than in previous years. No residues were found in 54% of the samples of fruits and vegetables and in 84% of the samples of processed products.

Out of a list of 181 different pesticide residues sought in fruit and vegetables, a total of 61 were found at least once during the monitoring programme. The most frequently found pesticide residues, in decreasing order of frequency (found/sought) are: chlorpropham, orthophenyl-phenol, bromide ion, chlormequat, propamocarb, dithiocarbamates,

iprodione and imazalil. Most of these are detected by single residue methods which are carried out only when the presence of the residue is expected (chlorpropham, orthophenyl-phenol and chlormequat for example). When counted in absolute number of findings, the ten most frequently found pesticide residues, in decreasing order of number of findings, are: iprodione, dithiocarbamates, bromide ion, chlorpropham, tolyfluanid, imazalil, procymidone and propamocarb. In cereals, out of 29 pesticide residues sought for, pirimiphos-methyl, pirimiphos-ethyl and lindane were detected.

Organisation of monitoring programmes and sampling

- Responsibilities: The Federal Agency for the Safety of the Food Chain, under the responsibility of the Minister of Public Health, is the competent authority for the monitoring of pesticides residues in foodstuffs (<http://www.afsca.be>)
- Drafting of the monitoring plan: Several factors were taken into account: the importance of the foodstuff in diets, the exceedings in previous years, the RASSF messages, the pesticides authorised in Belgium, the analytical and budgetary possibilities and all other useful information. All the groups of fruits and vegetables are included in the program and a rolling program is applied for less important commodities. The coordinated programme of the European Commission was included in the national programme.
- Sampling: Sampling was done by trained officials according to directive 2002/63/EG, at auctions, importers, wholesalers, processors and exceptionally in retail.
- Measure taken: In case of infringement, the responsible company/person is identified. When the exceeding of MRL is in the analytical uncertainty, a warning is issued. When the exceeding is higher, an official report is made and sent to the responsible company/person and also to the legal service. The legal service proposes a fine. If the fine is not paid, or in case of repeated offences, the matter is taken to court. When the dietary intake calculations indicate a risk for the consumer (evaluated following document SANCO/3346/2001) then a national and international rapid alert is issued and measures to protect consumers are taken (tracing and recall of the foodstuffs for destruction).

Quality insurance

- The three officially recognised laboratories involved in the monitoring programme are ISO 17025 accredited for the most important analytical methods and commodities, and accreditation was gradually extended. Multi-residues methods and sometimes specific individual methods were performed on samples. All certificates of accreditation can be found on the website of the Belgian Organisation for Accreditation (<http://belac.be/>). The laboratories take into account EU Quality control procedures (ref. SANCO/10476/2003).
- Two laboratories participated in the European Commission's Proficiency Tests 6.

Other information

- The scope of the monitoring programme is to enforce the legislation. It does not provide for a total random analysis, as more samples are taken of food items expected to contain pesticides or to exceed MRLs. For example, pears were still followed closely, due to chlormequat problems in the past. Similarly, lettuce continues to be followed closely.

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