

Pesticide Residue Monitoring in Food of Plant Origin Belgium 2007



Report of Monitoring Results Concerning Directives 90/642/EEC,
76/895/EEC and 86/362/EEC and Commission Recommendation
2007/225/EC



Federal Agency for the
Safety of the Food Chain
<http://www.afsca.be>

Pesticide Residue Monitoring in Food of Plant Origin in Belgium - 2007

Summary of results

In 2007, a total number of 2138 samples of fruits, vegetables, cereals and processed products of plant origin (including baby food) were taken by the Belgian Federal Agency for the Safety of Food Chain (FASFC) on the Belgian market and analysed for the presence of pesticide residues [table 1 and 2].

Samples	analysed	without residues	with residues at or below MRL	> MRL
Fruits & vegetables	1757	36,8 %	56,3 %	6,9 %
Cereals	50	42 %	56%	2 %
Tea	19	42,1%	42,1%	15,8%
Processed products	186	67,7 %	28 %	4,3 %
Baby food	126	97,6 %	0	2,4 %
TOTAL	2138	43,2%	50,4%	6,4%

Samples of fruits & vegetables				
Origin	BE	CE	Third countries	Unknown
Samples (%)	50,6%	22,1%	21,7%	5,6%
>MRL (%)	5,8%	6,4%	11,3%	2%

Table 1 and 2: Overview of the results of the pesticide residue monitoring programme 2007 and origin of the samples of fruit and vegetables.

Fruit & vegetables : 1757 samples of fresh or frozen fruit and vegetables were analysed in 2007. No residues were found in 36,8 % of them. 6,9 % of the samples analysed exceeded the maximum residue levels (MRL) set in the legislation. It should be noted that more exceeding levels were observed in imported foodstuffs than in products grown in Belgium. The main commodities showing MRL exceeding are fresh herbs (parsley, tarragon, chives), lemons, melons, chili peppers, Chinese cabbages, celery, lamb's lettuce and rucola. The rate of MRL exceeding is lower than in 2006 (-1,9%) but the rate of samples with detectable residues is higher when compared to last year [diagram 1]. Several factors have to be taken into account when interpreting these results:

- The improvement of the analytical performance of the laboratories. More and more pesticides are analysed with a higher sensitivity of detection (from 181 in 2004 to 323 in 2007, [diagram 2]).
- The MRLs are not yet harmonized in the EU. Hence, a foodstuff imported from an EU Member State may exceed the Belgian MRL but not the MRL of the Member State of origin. To solve this commercial problem, Belgium has anticipated since July 2007 the coming into force of Regulation (CE) N° 396/2005 which harmonizes all MRL in the EU. That explains the decrease of MRL exceeding in some foodstuffs (peaches for example).
- As specified in the Commission

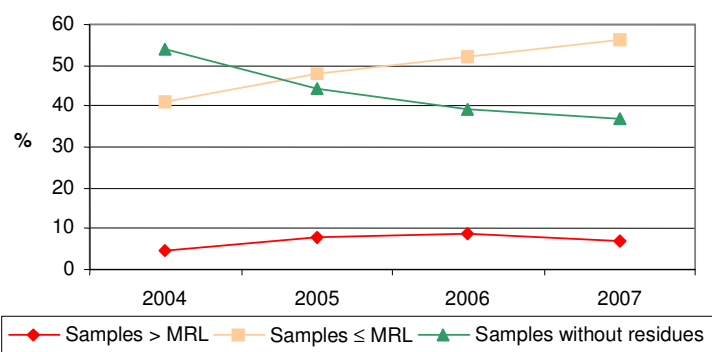


Diagram 1 : levels of pesticide residues in samples of fruit & vegetables analysed during the years 2004-2007.

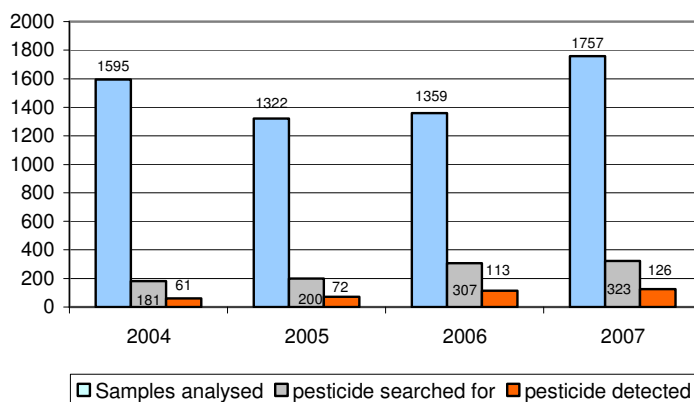


Diagram 2 : numbers of samples of fruit & vegetables analysed and pesticides searched for/detected during the years 2004-2007

guidelines, this report does not take into account the analytical uncertainty of the result.

Taking into account that uncertainty, the rate of exceeding falls to 3,8 %.

Out of a list of 323 different pesticide residues analysed in fruit and vegetables, a total of 126 were found at least once during the monitoring programme. The pesticide residues that were found most often are fungicides : iprodion, boscalid, dithiocarbamates, fenhexamid, cyprodinil, carbendazim and fludioxonil.

Cereals: Out of the 50 samples of cereals analysed in 2007, one exceeded the MRL.

Tea: Out of 19 samples of tea analysed, 3 contained residues above the MRL.

Processed products : Out of the 186 samples of processed products analysed, 6 samples of canned fruit or vegetables and 2 samples of meal exceeded the MRL.

Baby food: Out of 126 samples of baby food analysed, three contained traces of pesticide residues above the MRL of 0,01 mg/kg (Pyrimiphos-methyl, malathion and fenhexamid) These products were recalled.

Organisation of monitoring programmes and sampling

- **Responsibilities:** The Federal Agency for the Safety of the Food Chain (FASFC), under the responsibility of the Minister of Agriculture, is the competent authority for the control of pesticides residues in foodstuffs (<http://www.afsca.be>)
- **Drafting of the monitoring plan:** The monitoring programme does not provide for a total random analysis, but is based on risk assessment. Several factors were taken into account: the exceeding in previous years in Belgium and in other Member States, the RASFF messages, the toxicity of pesticides, the importance of the foodstuffs in diets, the analytical and budgetary possibilities and all other useful information. All groups of fruits and vegetables are included in the programme and a rolling programme is applied for less important commodities. The coordinated programme of the European Commission was also included in the national programme.
- **Sampling:** Samples were taken by trained officers according to Directive 2002/63/EG, mainly at auctions, importers, wholesalers and processors.
- **Measures taken:** In case of infringement, the responsible company/person is identified. When the exceeding of MRL is within 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 department of the FASFC. The legal department 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 (estimated in accordance with document SANCO/3346/2001) a national and an international rapid alert (RASFF) are issued and measures are taken to protect consumers (tracing and recall of the foodstuffs for destruction). In 2007, 8 RASFF were issued.

Quality insurance

- Four officially recognised laboratories were involved in the monitoring programme 2007. They are all ISO 17025 accredited for the most important analytical methods and commodities. Multiresidue methods as well as specific individual methods were performed on the 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/10232/2006).
- Laboratories participated in the European Commission's Proficiency Tests 9.