

## Pesticides

### Eurofins – 40 years of competence in the analysis of pesticide residues

“Pesticides” is a general term for all plant protection and pest control agents and chemicals for protecting stored products. Such agents are used in crop growing, in food factories and during the storage of foods or raw materials of vegetable origin. Pesticides and their metabolites find their way into the human body through the food chain and the water cycle.

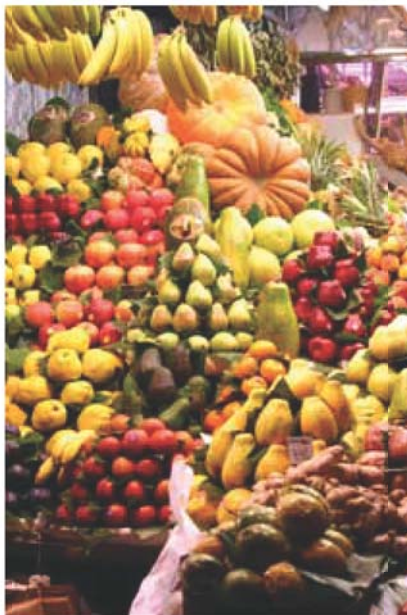
### Regulation

To protect the consumer, German law specifies maximum levels of pesticides in the Residue Tolerances Ordinance (RHmV), which is part of the Food, Utility Articles and Feed Act (LFGB). The European Union (EU) also issues directives on maximum permissible levels, which have to be incorporated in the national regulations of the member states within a specified time.

Compliance with these national and international regulations on tolerances is a prerequisite for global trade in foods and raw materials of vegetable origin. Such compliance can only be ensured by expert analysis in contract laboratories operating on an international scale

### Eurofins' Services

Eurofins laboratories have specialised in the analysis of pesticide residues for over 40 years and are among the world's leading laboratories in this field. Eurofins Scientific Laboratories is the “centre of excellence” in analysis for pesticide resi-



dues.

The analyses are carried out by methods approved under DIN EN 45001 (new: ISO 17025). In addition to analysing official control samples in accordance with LFGB Eurofins is authorised to carry out tests for pesticide residues according to the principles of Good Laboratory Practice (GLP).

#### Our service:

- Conduct of tests for pesticide residues
- Advice on the ranges of tests to be carried out
- Conduct of GLP studies (in the context of marketing approval applications for pesticides)
- Pesticide residue analyses in accordance with internat. Pharmacope
- Advice on product safety

## Products capable of analysis

- **Foods of all kinds**, e.g.:
  - Fresh fruit and vegetables
  - Spices and herbs
  - Tea, coffee, cocoa
  - Baby foods
  - Cereals
  - Soft drinks, wines and spirits
  - Fish and meat
  - Finished products of all kinds
- **Raw materials of vegetable and animal origin**, e.g.:
  - Dried fruit and vegetables (flakes and powders) and concentrates of these
- Oleoresins
- Flavourings
- Milk products
- Fats and oils
- **Medicinal drugs**
- **Tobacco and tobacco products**
- **Animal feed**
- **Soil samples, drinking water, groundwater and surface water**
- **Serums, plasma, blood** (in the context of GLP studies)

## Analytical parameters

- Organochlorine pesticides, synthetic pyrethroids
- Organophosphorus pesticides

- Nitrogen-containing and other pesticides (usually with a fungicidal effect)
- Acid herbicides
- Phenylureas
- Dithiocarbamates
- Numerous individual substances: chlormequat, mepiquat, dodine, dithianon, glyphosate, glufosinate, carben-dazim and benamyl, thiabendazole, ethephon, ethylene oxide and other agents
- Experience in analysis for over 600 active substances and metabolites

## DFG S 19 Multimethod

The multimethod for detecting pesticides was developed and systematically improved by Dr. Specht laboratories, the Eurofins Competence Centre for analyses of pesticides. The revised S19 was published as official method: "Modular Multimethod for Detecting Pesticide Residues in Foods" (enlarged new version of DFG method S19) in 1999.



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