

New rules on pesticide residues in food

September 2008

Consumers are exposed to pesticides because small amounts can be found on harvested crops. These amounts are called pesticide residues. In the EU, from September 2008 onwards, a new Regulation¹ comes into force which lays down revised rules for pesticide residues.

WHAT ARE PESTICIDES AND WHY ARE THEY USED?

- The yield of agricultural and horticultural crops can be **severely reduced as a result of infestation by pests and diseases**. In order to protect crops before and after harvest, plant protection products are used.
- In some cases these products act by confusing insects or making crops less palatable for pests. But more commonly, the damaging insects, weeds and fungi are killed by chemicals. **Such pesticides could have severe undesirable effects** if they are not strictly regulated.
- In the European Union no plant protection products can be used unless it has first been scientifically established that:
 - (1) They have no **harmful effects** on consumers, farmers or bystanders;
 - (2) They do not provoke unacceptable effects on the **environment**;
 - (3) They are sufficiently **effective**.

WHAT ARE MAXIMUM RESIDUE LEVELS (MRLs)?

- The amounts of residues found in food must be **safe for consumers** and must be **as low as possible**.
- A maximum residue level (MRL) is the highest level of a pesticide residue that is **legally tolerated** in or on food or feed.
- The **European Commission fixes MRLs** for all food and animal feed.
- The MRLs for all crops and all pesticides can be found in the **MRL database** on the Commission website.



1. Regulation (EC) No 396/2005 of the European Parliament and of the Council of 23 February 2005.

WHY REVISE THE EU RULES ON PESTICIDE RESIDUES?

- The rules applicable before 1 September 2008 were **complex**. For some pesticides, the Commission would set MRLs, for others, Member States were responsible. For some pesticides, the Commission could set MRLs, but the Member States could fix higher MRLs. And for some pesticides, no MRLs were set at all.
- For traders and importers, having to deal with 27 lists of national MRLs led to confusion about which MRL they had to respect.
- For consumers, the confusion led to concerns about the safety of pesticide residues in particular in cases where food exceeding the MRL in one Member State would be acceptable in other Member States.

WHAT IS IN THE NEW REGULATION?

- The new Regulation covers **all agricultural products intended for food or animal feed**. MRLs for 315 fresh products are listed, but these MRLs also apply to the same products after processing, adjusted to take account of dilution or concentration during the process.
- The Regulation covers pesticides currently or formerly used in agriculture in or outside the EU (around 1100). Where a pesticide is not specifically mentioned, a **general default MRL of 0.01 mg/kg applies**.
- The Regulation covers the **safety of all consumer groups, including, for example, babies, children and vegetarians**. The safety assessment for consumers is undertaken by the **European Food Safety Authority (EFSA)**, based on the toxicity of the pesticide, the maximum levels expected on food and the different diets of European consumers.
- The Regulation clearly designates the **role of the Member States, EFSA and the Commission** in the setting of MRLs and contains:
 - (1) The **EU MRLs** (about 45,000) already in force before September 2008;
 - (2) The **recently harmonised MRLs previously set by the Member States** (about 100,000);
 - (3) A list of low risk substances for which **MRLs are not necessary**.

HOW ARE MRLs FIXED?

- To ensure that MRLs are as low as possible, applicants seeking approval of a pesticide must submit scientific information about the minimum amounts of pesticide necessary to protect a crop and the residue level remaining on the crop after such treatment. The European Food Safety Authority (EFSA) then verifies that this residue is safe for all European consumer groups, including vulnerable groups such as babies, children and vegetarians. When there is a risk established for any consumer group, the MRL application will be rejected and the pesticide may not be used on that crop. Food safety thus has priority over plant protection.
- In many cases the amount of pesticide needed is much lower than the highest level that is still considered safe. In such cases the MRL is set at the lower level, thus ensuring that only the necessary (minimum) amount of pesticide is used.
- How and when the pesticide may be used is defined by the relevant national authority and can be found on the label of the pesticide. Authorisations are granted on a national basis because the local and environmental conditions and the occurrence of pests (and therefore uses of pesticides) may differ. For example, in the southern Member States where it is warmer, there are more insects and thus more insecticides are needed. In other parts of the EU, it is more humid – conditions that suit fungal infestation, and thus more fungicides are needed. When MRLs are set these differences should be taken into account.
- For crops grown outside the European Union, MRLs are set on request of the exporting country.



HOW ARE MRLs CONTROLLED AND ENFORCED?

■ **Farmers, traders and importers** are responsible for food safety, which includes compliance with MRLs. Member State authorities are responsible for control and enforcement of the MRLs. To ensure that this is done in an adequate and uniform way, the Commission has three instruments:

- (1) The co-ordinated **EU multi-annual control programme** sets out for each Member State the main pesticide-crop combinations to monitor and the minimum numbers of samples to take. Member States have to report the results, which are published in an annual report.
- (2) **Community Reference Laboratories** co-ordinate, train staff, develop methods of analysis and organise tests to evaluate the skills of the different national control laboratories.
- (3) **The Food and Veterinary Office** of the Commission carries out inspections in the Member States to assess and audit their control activities.

■ If pesticide residues are found at a level of concern for consumers, the **Rapid Alert System for Food and Feed (RASFF)** circulates the information and measures are taken to protect the consumer.



WHAT IS THE EU DOING TO REDUCE THE USE OF PESTICIDES?

■ In addition to working to ensure that consumers and animals are protected from pesticide residues in food and feed, the EU seeks to **reduce the overall impact of pesticides on health and the environment** and indeed their actual usage. In 2006, the European Commission proposed a strategy to improve the way pesticides are used across the EU.

■ The strategy aims to **encourage low-input or pesticide-free cultivation**, in particular through raising user awareness, promoting the use of codes of good practice and making financial means available for applied research and training.



■ In 2006 the Commission made **two legal proposals** which are currently being discussed by the European Parliament and the Council:

- (1) The first proposal is for a Regulation on placing on the market of plant protection products. This would specify **strict criteria for approval** to ensure a high level of protection for human and animal health and the environment. It would also establish a mechanism for **substitution of more toxic pesticides** by safer (including non-chemical) alternatives.
- (2) The second proposal is for a **Directive on the sustainable use of pesticides**. This proposal aims at reducing the risk which is linked to the use of pesticides, improving the quality and efficacy of pesticide application equipment, ensuring better training and education of users and developing integrated pest management schemes.



FOR FURTHER INFORMATION

- General information on pesticide residues
http://ec.europa.eu/food/plant/protection/pesticides/index_en.htm
- EU Pesticide Residues monitoring Report
http://ec.europa.eu/food/fvo/specialreports/pesticides/index_en.htm
- FVO-inspections
http://ec.europa.eu/food/fvo/index_en.htm
- RASFF
http://ec.europa.eu/food/food/rapidalert/index_en.htm
- European Food Safety Authority
<http://www.efsa.europa.eu>
- Community Reference Laboratories for pesticide residues
<http://www.crl-pesticides.eu>



THE MRL DATABASE

- To find out which MRL is applicable for which crop and which pesticide, a database can be consulted on the website of the European Commission. With a user friendly search tool the MRLs can be viewed by crop, by crop group, by crop code or by pesticide in all EU languages. A link is made to the legislation where the MRL is adopted and the history of changes to the MRLs can be followed. The information can be exported in excel format.

http://ec.europa.eu/sanco_pesticides/public/index.cfm