

Tools for consumer risk assessment in the field of pesticides

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It is often difficult for experts from regulatory authorities involved in monitoring and surveillance or for experts dealing with quality control, consulting or risk management to decide if a particular pesticide residue in food constitutes an acute or chronic risk for consumers. This is mainly because these experts do not have access to all the relevant information needed for risk assessment. Some information is only available to people who are actually involved in the authorisation of pesticides.

BfR, therefore, provides a couple of tools for consumer risk assessment on its website.

In the section “Residues” on the Institute’s website the following tools for risk assessment are available. They are designed for experts to assess the risks to consumers from pesticide residues:

- BfR compilation of residue definitions for pesticides (new)
- BfR model for pesticide residue intake calculations (so-called VELS model, updated)
- BfR compilation of processing factors for pesticide residues (updated)

Regarding the difficulties in assessing monitoring/surveillance samples, BfR (together with BVL) has also published some recommendations [1, in German only].

The reader is also referred to some very helpful external links. EFSA makes available its calculation model “PRIMO” (Pesticide Residue Intake Model) which includes Excel spreadsheets for acute and chronic consumer risk assessment based on a variety of European consumption data [2]. The EU Pesticides Database [3], which is provided by the European Commission, gives current MRLs for all pesticides, together with information concerning the status of the active substance under Directive 91/414/EEC, the classification of the substance and its toxicological reference values. If appropriate, links are provided to the European Commission Review Report or the EFSA Risk Assessment Report for the respective active substance.

References

- [1] Banasiak U, Herrmann M, Hohgardt K, Michalski B, Sieke C (2007) Abschätzung des akuten Risikos durch Pflanzenschutzmittel-Rückstände in Lebensmitteln auf der Basis von Daten aus amtlicher Überwachung und Eigenkontrollen. J. Verbr. Lebensm. 2: 54–60
- [2] EFSA calculation model “PRIMO” (Pesticide Residue Intake Model), http://www.efsa.europa.eu/EFSA/General/calculation_acutechronic_rev2.xls?ssbinary=true
- [3] EU Pesticides Database, http://ec.europa.eu/sanco_pesticides/public/index.cfm