

Making an imPACt

regulatory limits for pesticide residues in water. The recommendations will act as a checklist for authorities introducing or revising limits or guidelines for pesticide residues in water.

The IUPAC Commission on Agrochemicals and the Environment Makes the Following Recommendations:

1. The terminology for pesticide residue limits in water should be harmonized. As a first step, IUPAC should prepare and issue recommended terminology for the various limits and guidelines for pesticide residues in water. International agencies and national governments would then be encouraged to adopt the terminology when introducing or revising their regulations or recommendations.
2. The aim or purpose of establishing a set of pesticide residue limits in water should be clearly enunciated so that they are used only for the intended purpose.
3. The nature of the water to which the pesticide residue limits apply should be defined and explained.
4. The methods for establishing pesticide residue limits in water should be described and should include the data requirements, assumptions, reasons for choice of factors (assessment, uncertainty or safety) and the nature of the water to which the limits apply.
5. The rationale for each pesticide residue limit should be explained publicly in a transparent way. The explanation should summarize the available data, draw attention to inadequacies or inconsistencies of data, and show in a logical way the derivation of the recommended value. The explanation should include, where relevant, the choice of factor (assessment, uncertainty, or safety), availability of analytical methods, and residue definition.
6. The compound or compounds to be included in a residue limit for water should be stated. It is preferable to set individual residue limits for parent pesticide and each relevant transformation product.
7. Analytical methods for residues in water should be developed with limits of quantification (LOQ) low enough to match concentrations related to relevant biological effects.
8. A pesticide residue limit in water that is designed for monitoring or regulatory purposes should be established at a level no lower than the LOQ of a practical analytical method.
9. A process designed to reduce the levels of pesticide residues in water should not introduce contaminants that pose new risks.
10. Guidelines for drinking water calculated from the

acceptable daily intake (ADI) should follow the WHO system (60 kg body weight, consumption 2 litres/day, allocate 1 % or 10 % tolerable daily intake or ADI depending on the pesticide uses and properties).

11. Guideline levels should never be taken as a licence to degrade a water supply to the guideline levels.
12. Short-term deviations above a regulatory limit for residues in water do not necessarily mean that the water is unsuitable for the intended purpose. The amount and duration of the deviation should be subject to a risk assessment taking into account the basis for the regulatory limit.



www.iupac.org/publications/pac/2003/7508/7508x1123.html

Provisional Recommendations

IUPAC Seeks Your Comments. Provisional recommendations are drafts of IUPAC recommendations made widely available to allow interested parties to comment before final publication in *Pure and Applied Chemistry*.

Terminology in Soil Sampling

The need to be understood is the first objective of writers and speakers, be it a poet or a scientist. But there is a difference: the scientist must be sure that, within a stated context, the terms used in articles, publications, or in the daily conversation among colleagues, are intended by all in the same precise way, without any possible ambiguity. As already pointed out by IUPAC Recommendation 1990, "Nomenclature for Sampling in Analytical Chemistry," it is unacceptable that scientists are unable to orient themselves in a sampling or analytical process. This can occur if the terms used are not well defined. Moreover, to better appreciate the development of new theories or concepts, progressive updates can be necessary. To this end, on the basis of the existing terminology documents and of the most recent knowledge in the field of soil sampling, an up-dated terminology in sampling (specifically soil sampling) is recommended.

Comments by 30 November 2003

Dr. Ales Fajgelj, International Atomic Energy Agency, Agency's Laboratories Seibersdorf, Wagramer Strasse 5, A-1400 Seibersdorf, Austria
Tel: +[43] 1 2600 28233 Fax: +[43] 1 2600 282221
E-mail: a.fajgelj@iaea.org



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