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Book Reviews

Evaluation of certain veterinary drug residues in food, Eighty-first report of the joint FAO/WHO expert committee on food additives, WHO technical report series no. 997 (World Health Organization, Geneva, Switzerland) 2016. 126 pages.

ISBN 978-92-4-120997-7

This 81st Report of the Joint FAO (Food and Agricultural Organization of the United Nations)/ WHO (World Health Organization) Expert Committee on Food Additives (JECFA) took place in November 2015 in Rome. This is a comprehensive Report which summarizes the concerns regarding the exposure of pesticides/veterinary drug residues in food.

The first part provides critical information on various aspects of safety of residues in food. There are many approaches which can demonstrate the duration of dietary exposure to residues of veterinary drugs at different levels and their respective assessment. In the present Report, an emphasis has been made on the estimation of total chronic dietary exposure of substances from both pesticide as well as veterinary drug residues. The Report also mentioned many compounds which were evaluated earlier by both JECFA as well as the Joint FAO/WHO Meeting on Pesticide Residues (JMPR) independently making it a comprehensive Report.

Long-term chronic dietary risk assessment of pesticides, the multi-annual consumption data averaged over the whole population and the per capita dietary pattern over a lifetime are presented. This will be useful for the dietary exposure assessment for less-than-lifetime exposure drug residues.

With reference to no-observed-adverse-effect levels (NOAELs) to pesticides derived from animal studies with exposure ranging from four to 104 weeks are often similar, however, the adverse effects are not related to the duration of the exposure. In view of this, the Report has provided an example of a veterinary drug, *i.e*. sisapronil, a long acting subcutaneous injectable ectoparasiticide where the acceptable daily intake is not fixed for a long-term toxicity relevant to humans.

There is a need to set an acute reference dose (ARfD) for veterinary drug residues like it is done for pesticides. ARfD is an estimate (with uncertainty spanning perhaps an order of magnitude) of a daily oral exposure for an acute duration (24 h or less) to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. This Report provides principles for developing guidelines for setting ARfD for veterinary drug residues.

In the second part of the Report, summaries of evaluation of toxicological and residue data on various veterinary drug residues, *i.e.,* diflubenzuron, teflubenzuron, ivermectin, sisapronil and zilpaterol hydrochloride, are provided.

Overall, this is a good reference book for risk assessors, food regulators and researchers working in the area of veterinary drugs.

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