

PESTICIDE RESIDUES IN FOOD**REPORT OF THE 2006 JOINT FAO/WHO MEETING OF EXPERTS****1. INTRODUCTION**

A Joint FAO/WHO Meeting on Pesticide Residues (JMPR) was held at Food and Agriculture Organization of the United Nations (FAO) headquarters, Rome, Italy, from 3 to 12 October 2006. The Meeting brought together the FAO Panel of Experts on Pesticide Residues in Food and the Environment and the World Health Organization (WHO) Core Assessment Group.

The Meeting was opened by Mr Shivaji Pandey, Director, Plant Production and Protection Division, FAO. On behalf of the Director-General of FAO and the Acting Director-General of WHO, Mr Pandey welcomed the participants and thanked them for providing their valuable time and expertise.

Mr Pandey emphasized that the output of JMPR constitutes the essential basis for the decisions of the Codex Alimentarius Commission when it adopts maximum residue limits (MRLs) for food and agricultural commodities circulating in international trade. At its Thirty-eighth session¹, the Codex Committee on Pesticide Residues (CCPR) had confirmed the JMPR as the scientific body supporting the work of the CCPR, and focused on how to accelerate and improve the development of Codex MRLs. CCPR had agreed that the current procedure did not require any modification, provided that JMPR reports were published within a time-frame that allowed governments to review the data before the corresponding CCPR meeting. Mr Pandey stated that FAO and WHO were committed to this small but essential contribution towards a smoother and speedier process.

Mr Pandey mentioned that the Codex Alimentarius Commission had recently accepted an offer from China to host the CCPR in the future. He expressed the sincere gratitude of FAO and WHO to the Government of the Netherlands for the support it had provided for more than 40 years to the work, not only of the CCPR but also the JMPR, and hoped that this support would continue despite the resignation of the Netherlands from the CCPR secretariat.

The speaker announced that the FAO/WHO Framework for the Provision of Scientific Advice on Food Safety and Nutrition was due to be published before the end of 2006. This framework document would describe the principles, practices and procedures currently applied by FAO and WHO for the provision of scientific advice through specialized bodies such as JMPR, the Joint FAO/WHO Expert Committee on Food Additives (JECFA), the Joint FAO/WHO Meeting on Pesticide Specifications (JMPS) and ad hoc expert consultations and meetings. The document had been prepared to enhance the transparency of the procedures used by FAO and WHO for delivering scientific advice regarding food safety and nutrition, and would hopefully strengthen the use and acceptance of the advice developed by these Committees.

Mr Pandey also addressed the issue of international harmonization, concerning which OECD had made significant progress and continued to develop testing guidelines relevant to the generation of residue data on pesticides. As the data generated according to these guidelines would in future be submitted to the JMPR, he encouraged the JMPR participants to provide comments in order to ensure that the OECD guidelines fulfilled the international requirements. FAO would continue to play an active role in this activity.

The speaker summarized the challenging tasks before the 2006 JMPR: the evaluation of 30 different pesticides (five of which were new compounds) as well as the consideration of several

¹ Codex Alimentarius Commission. *Report of the Thirty-eighth Session of the Codex Committee on Pesticide Residues, 3–8 April 2006, Fortaleza, Brazil* (ALINORM 06/29/24).

important general issues relating to the advancement and further improvement of current risk assessment procedures.

Mr Pandey reminded the participants that they had been invited in their personal capacities as international experts, and not as representatives of governments, institutes, or any other organization, and he stressed that the discussions held during the meeting were confidential until publication was authorized.

The Meeting was held in pursuance of recommendations made by previous Meetings and accepted by the governing bodies of FAO and WHO that studies should be undertaken jointly by experts to evaluate possible hazards to humans arising from the occurrence of residues of pesticides in foods. The reports of previous Meetings (see Annex 5) contain information on acceptable daily intakes (ADIs), acute reference doses (ARfDs), MRLs, and the general principles that have been used for evaluating pesticides. The supporting documents (residue and toxicological evaluations) contain detailed monographs on these pesticides and include evaluations of analytical methods.

During the Meeting, the FAO Panel of Experts was responsible for reviewing residue and analytical aspects of the pesticides under consideration, including data on their metabolism, fate in the environment, and use patterns, and for estimating the maximum levels of residues that might occur as a result of use of the pesticides according to good agricultural practice. The estimation of MRLs and supervised trials median residues (STMR) values for commodities of animal origin was elaborated. The WHO Core Assessment Group was responsible for reviewing toxicological and related data in order to establish ADIs, and ARfDs, where necessary and possible.

The Meeting evaluated 30 pesticides, including five new compounds and five compounds that were re-evaluated within the periodic review programme of the CCPR for toxicity or residues, or both. The original schedule of compounds to be evaluated was amended for cypermethrins and triadimefon/triadimenol. For cypermethrins, only a toxicological evaluation was carried out as no residue data were received. The evaluation of triadimefon/triadimenol was postponed to 2007 as the peer review process could not be completed in time.

The Meeting allocated ADIs and ARfDs, estimated MRLs and recommended them for use by the CCPR, and estimated STMR and highest residue (HR) levels as a basis for estimating dietary intakes.

The Meeting also estimated the dietary intakes (both short-term and long-term) of the pesticides reviewed and, on this basis, performed a dietary risk assessment in relation to their ADIs or ARfDs. Cases in which ADIs or ARfDs may be exceeded were clearly indicated in order to facilitate the decision-making process by the CCPR. The rationale for methodologies for long-term and short-term dietary risk assessment are described in detail in the reports of the 1997 JMPR (Annex 5, reference 80, section 2.3) and 1999 JMPR (Annex 5, reference 86, section 2.2). Additional considerations are described in the report of the 2000 JMPR (Annex 5, reference 89, sections 2.1–2.3).

The Meeting considered also a number of general issues addressing current issues related to the risk assessment of chemicals, the evaluation of pesticide residues and the procedures used to recommend maximum residue levels.

1.1 DECLARATION OF INTEREST

The Secretariat informed the Committee that all experts participating in the 2006 JMPR had completed declaration-of-interest forms, and that no significant conflicts had been identified. The Meeting was informed of the following declared interests: Dr McGregor was consulting for the pesticide industry on the toxicity of two pesticides, neither of which was on the agenda of the present meeting; the department of Professor Moretto had received funding from the pesticide industry for a course on neurotoxicity; Professor Ray's research group had received funding from the pesticide industry for mechanistic studies on the toxicity of pyrethroids.