



**Food and Agriculture Organization
of the United Nations**



**World Health
Organization**

FACT SHEET - WHAT IS JECFA?

Introduction

The Joint FAO/WHO Expert Committee on Food Additives (JECFA) is an international expert scientific committee that is administered jointly by the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO). It has been meeting since 1956, initially to evaluate the safety of food additives. Its work now also includes the evaluation of contaminants, naturally occurring toxicants and residues of veterinary drugs in food.

To date, JECFA has evaluated more than 1500 food additives, approximately 40 contaminants and naturally occurring toxicants, and residues of approximately 90 veterinary drugs. The Committee has also developed principles for the safety assessment of chemicals in food that are consistent with current thinking on risk assessment and take account of recent developments in toxicology and other relevant scientific areas such as microbiology, biotechnology, exposure assessment, food chemistry including analytical chemistry and assessment of maximum residue limits for veterinary drugs.

JECFA normally meets twice a year with individual agendas covering either (i) food additives, contaminants and naturally occurring toxicants in food or (ii) residues of veterinary drugs in food. The membership of the meetings varies accordingly, with different sets of experts being called on depending on the subject matter.

History and Background

The evaluation of food additives at the international level was initiated as a result of a Joint FAO/WHO Conference on Food Additives held in Geneva, Switzerland in 1955. The Conference recommended to the Directors-General of FAO and WHO that one or more expert committees should be convened to address the technical and administrative aspects of chemical additives and their safety in food. This recommendation provided the basis for the first meeting of JECFA. As of January 2006 the committee has met 65 times and the 67th meeting in June 2006 marks the 50th anniversary of JECFA.

Purpose

JECFA serves as an independent scientific committee which performs risk assessments and provides advice to FAO, WHO and the member countries of both organizations. The requests for scientific advice are for the main part channelled through the Codex Alimentarius Commission (CAC) in their work to develop international food standards and guidelines under the Joint FAO/WHO Food Standards Programme. The main purposes of this Programme are protecting health of the consumers and ensuring fair trade practices in the food trade. The advice to CAC on food additives, contaminants and naturally occurring toxicants is normally provided to the Codex Committee on Food Additives and Contaminants (CCFAC) and advice on residues of veterinary drugs to the Codex Committee on Residues of Veterinary Drugs in Food (CCRVDF).

All countries need to have access to reliable risk assessment of chemicals in food, but not all have the expertise and funds available to carry out separate risk assessments on large numbers of

chemicals. JECFA performs a vital role in providing a reliable and independent source of expert advice in the international setting, thus contributing to the setting of standards on a global scale for the health protection of consumers of food and for ensuring fair practices in the trade in safe food. Some countries use information from JECFA in the establishment of national food safety control programmes and CCFAC and CCRVDF develop standards based on evaluations by JECFA.

Under the terms of the Sanitary and Phytosanitary agreement (SPS), scientific, risk based standards established by CAC should be employed in international trade of food. Therefore, governments are likely to request advice from Codex committees, and consequently from JECFA and other international scientific bodies, on the implementation of national standards and legislation related to food safety.

Membership of the Committee

FAO and WHO have complementary functions in selecting experts to serve on the Committee. FAO is responsible for selecting members with chemical expertise for the development of specifications for the identity and purity of food additives, for the assessment of residue levels of veterinary drugs in food, and to assess the quality of the monitoring data. WHO is responsible for selecting members for the toxicological evaluations of the substances under consideration, in order to establish acceptable daily intakes (ADIs), or other relevant guidance values, or to give a quantitative estimate of the health risk. Both FAO and WHO invite members who are responsible for assessing exposure. Both organizations establish listings of experts, called *rosters*; appointments are for a period of five years. Experts are selected from those rosters for each meeting, in which capacity they either attend the meeting as members or assist the Secretariat with preparatory work before the meeting and usually participate in the meeting itself. The selection of members for each meeting is made after a careful consideration of the scientific credentials of the various candidates, and a balance of scientific expertise and other experience that is considered essential considering the items on the agenda of the meeting. FAO and WHO meet the costs of experts' attendance at JECFA meetings.

Being a joint committee of FAO and WHO, the organizational framework of JECFA complies with the rules of both organizations. The selection process for experts is undertaken in mutual consultation by the Joint Secretariats. When calling for and selecting experts, FAO and WHO assure that selections complement each other. The selection process respects as well FAO and WHO policies on regional representation and gender balance.

Terms of Reference of the Committee

For food additives, including enzymes and flavouring agents, contaminants and naturally occurring toxicants, the Committee

- (i) elaborates principles for evaluating their safety and for quantifying their risks;
- (ii) conducts toxicological evaluations and establishes acceptable daily intakes (ADIs) or tolerable intakes for chronic exposure and other guidance values for acute exposure;
- (iii) assess the performance, quality and applicability of analytical methods;
- (iv) prepares specifications of purity for food additives; and
- (v) assesses exposure of populations to chemical substances in food.

For residues of veterinary drugs in food, the Committee

- (i) elaborates principles for evaluating their safety and for quantifying their risks;
- (ii) establishes ADIs and other guidance values for acute exposure
- (iii) recommends maximum residue limits (MRLs) for target tissues; and
- (iv) determines appropriate criteria for and evaluates methods of analysis for detecting and/or quantifying residues in food.

Risk assessment

For food additives and veterinary drug residues, JECFA normally establishes ADIs on the basis of available toxicological data and other information. Specifications for the identity and purity of food additives are also developed, which help to ensure that the commercial product is of appropriate quality, can be manufactured consistently, and is equivalent to the material that was subjected to the toxicological testing.

For contaminants and naturally occurring toxicants, levels corresponding to 'tolerable' intakes such as the provisional maximum tolerable daily intake (PMTDI) or the provisional tolerable weekly intake (PTWI) are normally established when there is an identifiable no-observed-effect level. When a no-observed-effect level cannot be identified, the Committee aims to provide other advice depending on the circumstances and the data available.

For veterinary drug residues, maximum residue limits (MRLs) in target animal tissues, milk and eggs are developed taking into account Good Practice in the use of Veterinary Drugs. The application of these MRLs provides assurance that when the drug has been used properly, the intake of residues from animal produce is unlikely to exceed the ADI.

JECFA experts are expected to conduct extensive literature searches on the substances for consideration by the committee, in addition to the review of information submitted by sponsors and national governments.

JECFA also develops general principles and methods for the risk assessment of chemicals in food. To keep abreast in the variety of scientific disciplines necessary for the conduct of up-to-date risk assessments, continuous review and update of the evaluation processes are necessary. Moreover, JECFA plays an important role in the international harmonization of risk assessments of chemicals in food.

Reports and publications

An electronic summary with the main findings and conclusions of the meeting is published by the Joint Secretariat shortly after each meeting. Usually, the information is mainly in tabular format, including the details of ADIs and MRLs recommended. This is available on the website of JECFA at FAO and WHO.

The concise description of the key data used in the assessments, the evaluation of these data and the conclusions of the committee are published by WHO in the Technical Report Series. These reflect the view of the committee as a whole, albeit in rare events where one or more members cannot agree to the conclusions, the positions of the dissenting expert(s) and the reason for the disagreement will be recorded in the report.

Toxicological and exposure assessment monographs are published in the WHO Food Additive Series (FAS). These monographs contain the detailed description and evaluation of all the biological and toxicological data considered in the evaluation and provide references to the cited literature. A detailed exposure assessment is also included in the monographs.

The reports and toxicological monographs are available from the WHO JECFA website <http://www.who.int/ipcs/publications/jecfa/en/>.

Specifications monographs on the identity and purity of food additives developed at meetings and agreed on have been published in the Compendium of Food Additive Specifications (Food and Nutrition Paper 52) and are available from the FAO JECFA website <http://www.fao.org/ag/agn/jecfa/database/cover.htm>. A new Combined Compendium replaces the earlier edition and incorporates all the additions and revisions made since 1992, up to and including those contained in FNP 52 Addendum 13. It is being published as the first document under a new publication series, the FAO JECFA Monographs as Volume 1 - 3. Volume 4 of this first Monograph series will provide a reference for analytical methods and test procedures used in and referenced by the specifications and which replaces the previous Food and Nutrition Paper 5.

Monographs on veterinary drug residues, which summarize the data and the evaluations used for the recommendation of MRLs, have been published in the Food and Nutrition Paper Series 41 and are available from the FAO JECFA website http://www.fao.org/ag/agn/jecfa/jecfa_vetdrug_en.jsp. New monographs will be published in the FAO JECFA Monograph series from 2006 onwards.

Information on the activities and output from JECFA meetings are available at the dedicated JECFA websites at FAO http://www.fao.org/ag/agn/jecfa/index_en.stm and WHO <http://www.who.int/ipcs/food/jecfa/en/>.