WORLD HEALTH ORGANIZATION

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Report on meetings of expert committees and study groups[1]

Report by the Secretariat

EVALUATION OF CERTAIN FOOD ADDITIVES

Fifty-first report of the Joint FAO/WHO Expert Committee on Food Additives Geneva, 9-18 June 1998[2]

Main recommendations

1. The Committee evaluated the following food additives using normal toxicological procedures: two enzyme preparations (α-acetolactate decarboxylase and maltogenic amylase),[3] three flavouring agents (*trans*-anethole, furfural and menthol), two food colours (curcumin and riboflavin from genetically modified *Bacillus subtilis*), one group of glazing agents (medium- and low-viscosity mineral oils), a group of preservatives (sulfur dioxide and sulfites), a sweetening agent (stevioside), three thickening agents (carrageenan, processed *Eucheuma* seaweed and sodium carboxymethylcellulose, enzymatically hydrolysed), and three miscellaneous substances or groups of substances (γ-cyclodextrin; glucono-δ-lactone and the calcium, magnesium, potassium and sodium salts of gluconic acid; and polyglycitol syrup). Acceptable daily intakes or temporary acceptable daily intakes were allocated to all of these substances except for furfural and stevioside. The Committee prepared new or revised specifications for the identity and purity of the food additives that were evaluated toxicologically, and considered specifications for 40 other food additives.

2. The Committee evaluated 171 flavouring agents belonging to seven chemical groups using the Procedure for the Safety Evaluation of Flavouring Agents. On the basis of their toxicological, metabolic and intake data and their structural characteristics, the Committee concluded that all but three raised no safety concern. The evaluation of these three compounds was deferred because either further information was required or the Committee concluded that they did not fit into the chemical group under which they were being considered. Specifications for the identity and purity of these and an additional 60 flavouring agents in two other chemical groups were prepared.

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[1] The Regulations for Expert Advisory Panels and Committees provide that the Director-General shall submit to the Executive Board a report on meetings of expert committees containing observations on the implications of the expert committee reports and recommendations on the follow-up action to be taken.

[2] WHO Technical Report Series, No. 891, 2000.

[3] Enzyme Commission names: acetolactate decarboxylase and glucan 1,4-α-maltohydrolase, respectively.

3. National intake assessments of five food additives or groups of food additives (benzoates, butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), sulfites and *tert*-butylhydroquinone (TBHQ)) were evaluated. Recommendations on intake made by the Committee are being used by the Codex Committee on Food Additives and Contaminants in the development of its draft General Standard on Food Additives.

4. Summaries of the toxicological and related information that served as the basis for the Committee's evaluations of the safety of these food additives have been published separately by WHO.[1] Specifications have been published by FAO.[2]

Significance for public health policies

5. The Committee's work emphasizes the public health significance of the risk assessment of chemicals used in food. It highlights the complexity of the process, which includes: assembling and analysing all relevant data; interpreting studies of, for example, carcinogenicity, genotoxicity, reproductive toxicity and teratogenicity; extrapolating to human beings the effects observed in experimental tests on animals; and, from available toxicological and epidemiological data, assessing risks to human beings.

6. Although all Member States have to assess these risks, only a few scientific institutions can currently undertake such assessments; hence it is important to provide all Member States with valid information both on the general aspects of risk assessment and on specific food additives and contaminants.

7. The Committee's recommendations are used by the Codex Alimentarius Commission for setting international food standards. Such standards are established only for substances that have been evaluated by the Committee and have been allocated an acceptable daily intake (food additives) or for which a tolerable intake level has been established or potencies have been estimated (contaminants). This proviso ensures that food commodities in international trade meet strict safety standards.

Implications for the Organization's programmes

8. The Joint FAO/WHO Expert Committee on Food Additives will continue to evaluate chemicals in food. Four meetings of the Committee, two on food additives and contaminants and two on residues of veterinary drugs in food, are scheduled for 2000-2001.

9. WHO is a partner in the Joint FAO/WHO Food Standards Programme, which administers the Codex Alimentarius Commission. The Committee's work is crucial for that of the Commission.

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[1] *Safety evaluation of certain food additives.* WHO Food Additives Series, No. 42, 1999.

[2] *Compendium of food additives specifications, Addendum 6.* FAO Food and Nutrition Paper, No. 52, Add.6, 1998.