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**JOINT FAO/WHO CONFERENCE
ON FOOD ADDITIVES**

Geneva, 19-22 September 1955

Report

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WORLD HEALTH ORGANIZATION

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JOINT FAO/WHO CONFERENCE ON FOOD ADDITIVES

Report *

1. INTRODUCTION

History

1. The Sixth World Health Assembly in 1953 expressed the view that the increasing use of various chemical substances in the food industry had in the last few decades created a new public-health problem which might usefully be investigated.¹

2. The question was subsequently considered by the WHO Executive Board at its thirteenth session in January 1954. The Board, while noting that there was a possibility of this subject being considered by the Joint FAO/WHO Expert Committee on Nutrition at a future session, recommended "that WHO, in co-operation with FAO, collect and disseminate information on selected groups of chemical additives, including laboratory techniques and relevant legislation".²

3. The Council of FAO, at its twentieth session in September-October 1954, recognized "that the problem of food additives is of growing importance, with respect both to nutrition and food production and distribution", and requested the Director-General of FAO "to consider the kind of work which FAO can appropriately undertake in the field of additives to food, in association with WHO, taking into account any

* The WHO Executive Board, at its seventeenth session, adopted the following resolution:

The Executive Board

1. NOTES the report of the Joint FAO/WHO Conference on Food Additives;
2. EXPRESSES its appreciation to the Food and Agriculture Organization for its collaboration; and
3. AUTHORIZES the publication of the report.

(Resolution EB17.R25, *Off. Rec. Wld Hlth Org.*, 1956, 68, 8)

¹ Resolution WHA6.16, *Off. Rec. Wld Hlth Org.*, 1953, 48, 22

² Resolution EB13.R47, *Off. Rec. Wld Hlth Org.*, 1954, 52, 20

recommendations made by the Joint FAO/WHO Expert Committee on Nutrition".¹

4. At the fourth session of the Joint FAO/WHO Expert Committee on Nutrition at Geneva in October-November 1954, the desirability of a uniform approach to this problem was discussed. The Committee drew attention to (a) wide divergences in the legislative measures adopted, or proposed for adoption, in different countries, (b) the conflicting evidence relating to individual food additives and differences in its interpretation, and (c) the serious lack of data regarding many such additives, in regard both to their purity and to the health hazards involved in their use. The Committee felt "that the groups which have been independently concerned with the subject were not only limited in membership, but that their activities in substantially identical fields have already led to undesirable duplication of effort, and might without adequate co-ordination result in conflicting recommendations".² To meet this point the Committee suggested "that the Directors-General of FAO and WHO consider the desirability of calling a conference of representatives of the existing groups working on this subject, together with appropriate representatives of such member nations as might be interested and would be prepared to send delegates".²

5. The Committee's report was considered by the WHO Executive Board at its fifteenth session in January 1955, and the following resolution was adopted:

The Executive Board

.....
6. REQUESTS the Director-General, in collaboration with the Director-General of the Food and Agriculture Organization, to convene, subject to availability of funds, a conference of representatives of national committees or similar groups now working on food additives, together with representatives of inter-governmental or non-governmental groups concerned with the subject ...³

6. After consultation with the Director-General of FAO, the Director-General of WHO gave effect to this request by calling a technical conference along the lines indicated by the Executive Board. This Conference was to be open to governments which were in a position to contribute to the

¹ Food and Agriculture Organization of the United Nations (1954) *Report of the Council of FAO, twentieth session, 27 September - 8 October 1954*, Rome, p. 36 (Resolution No. 4/20)

² *Wld Hlth Org. techn. Rep. Ser.*, 1955, 97, 32; *FAO Nutrition Meetings Report Series*, 1955, No. 9, p. 32

³ Resolution EB15.R12, *Off. Rec. Wld Hlth Org.*, 1955, 60, 4

discussion of the technical points under consideration and which wished to participate.

Terms of reference

7. In his invitation the Director-General of WHO indicated that the Conference should be an exploratory one and that one of its purposes should be "to consider the contribution which WHO and FAO can appropriately make in this field and how far international consultations in connexion with food additives could be co-ordinated within the framework of WHO and FAO". He added that, in accordance with the suggestions of the Joint FAO/WHO Expert Committee on Nutrition, the Conference could also consider "the desirability of convening an expert committee which would attempt to lay down acceptable broad general principles governing the use of food additives".

8. The Director-General of WHO also indicated that, in accordance with the interpretation placed on the term "food additives" by the Joint FAO/WHO Expert Committee on Nutrition, the discussions at the Conference should be confined to "non-nutritive substances which are added intentionally to food, generally in small quantities, to improve its appearance, flavour, texture, or storage properties".¹

2. ORGANIZATION OF THE CONFERENCE

9. The Conference met in Geneva from 19 to 22 September 1955. Delegates were sent by the following countries: Canada, Denmark, Egypt, France, Germany, Luxembourg, Netherlands, Norway, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland, and United States of America. Australia sent an observer. The following organizations were also represented: International Committee for Agricultural Industries (CIA), International Union against Cancer (UICC), Permanent International Committee on Canned Foods (CIPC), and Deutsche Forschungsgemeinschaft (DFG).

10. The Conference elected Dr Norman C. Wright (United Kingdom) as Chairman, Dr E. Abramson (Sweden) as Vice-Chairman, and Dr O. Högl (Switzerland) and Dr Paul E. Johnson (United States of America) as Rapporteurs. Members of the staff of FAO and WHO acted as technical secretaries.

¹ *Wld Hlth Org. techn. Rep. Ser.*, 1955, 97, 30; *FAO Nutrition Meetings Report Series*, 1955, No. 9, p. 30

11. The Conference had at its disposal two working papers prepared by the secretariat, explaining the background of the Conference and outlining the work already done on food additives. In response to an invitation by the Director-General of WHO, most of the governments represented had prepared for the information of the Conference reports on the legislative position and general policy relating to food additives within their respective countries. Reports had also been submitted by two of the organizations represented and by the Western European Union. The Conference opened with a brief discussion of these reports.

3. ADVANTAGES OF INTERNATIONAL ACTION

12. The Conference felt that the main advantages to be gained from international action with regard to food additives are as follows :

(a) The potential health hazards from the inadequately controlled use of food additives are world wide. Exchange of information and experience on as wide a basis as possible would be helpful to all Member countries as a means of avoiding such hazards.

(b) The advantages gained from such an exchange of information would apply both to the more highly developed and to the less developed countries ; indeed, since the more highly developed countries tend to use a wider variety of additives, the extent of the hazards may well be all the greater in such countries.

(c) The size of the problem makes it impossible for any one individual country to undertake all the investigations needed ; lack of facilities and limitation in the number of experts make co-operation on an international basis essential.

(d) Such co-operation has already been achieved between certain groups of countries (e.g., the Western European Union and the Northern European Food Committee) and by certain organizations (e.g., the CIAA, the CIPC, the UICC, and the DFG). But unless co-operation is on a wider scale and is more closely co-ordinated, there is a risk of undue duplication of effort.

(e) Apart from the health aspect, the subject of food additives is one which affects international trade. The greater the measure of agreement on methods of testing, on the interpretation of the results, and ultimately on the actual lists of permitted food additives, the greater the advantage to the free movement of manufactured foods in international trade.

(f) These considerations do not apply only to the technical aspects of the problem. Knowledge of legislative measures in different countries

is no less important, since it should lead to a greater degree of uniformity in the general principles on which legislation is based.

13. For these reasons the Conference considered that substantial advantages would accrue from wider international co-operation over the whole field of food additives. Such co-operation should be initiated as soon as possible. The Conference wished particularly to stress the urgency of the problem, since it is essential to eliminate as quickly as possible the potential health hazards due to the inadequately controlled use of food additives. The fact that a number of countries are currently reviewing their legislation relating to food additives re-emphasized the need for early action.

4. POSSIBLE ACTION BY FAO AND WHO

14. In reviewing possible action by FAO and WHO, the Conference considered that valuable help could be given to Member countries by the collection and dissemination of information about food additives. Action on these lines would make more generally available the results of research undertaken in the different countries; it would assist individual countries to keep abreast of recent developments over the whole field, legislative and technical; and as regards the latter, it would help to reveal gaps in existing knowledge.

Information on legislation

15. It was noted that the legislative services of both Organizations already collect all legislation relating to food additives and publish some of this material. The Conference felt that this service could usefully be supplemented by providing informed comments on existing legal requirements and on any subsequent changes in them. This information could best and most economically be obtained by securing the help of organizations or individuals within the countries concerned. The Conference also felt that it would be of convenience to Member countries if all information on legislation relating to food additives could be published in a separate bulletin to be issued periodically. This could be in a simple and inexpensive format.

Scientific and technological information

16. Information on the physical, chemical, pharmacological, and other biological properties of food additives could, in the view of the Conference, best be collected and disseminated in the form of data sheets. Here again, it would be most practical and economical for the data to be compiled

in the Member countries, help being sought from national and other organizations working in this field. Such data sheets should also include information on the proposed uses of the additives. They should, as appropriate, state the reasons why the additives have been approved for use within the country concerned, or why their use has been restricted or prohibited.

17. The Conference noted that data sheets on a number of food colours had already been prepared by the Sub-Committee on the Health Control of Foodstuffs, Western European Union, and that others were in course of preparation. It felt that these data sheets would be of considerable value to other Member countries and accordingly recommended that, subject to the agreement of the Sub-Committee, they should be made available to WHO for early circulation in their present form to such countries.

18. The Conference recognized that in addition to its health aspects the food additives problem had social, economic, and psychological aspects, but felt that as these differ from country to country it would not be appropriate to refer to them in the data sheets, except where they constitute one of the reasons for the action taken by the country concerned.

19. The Conference briefly considered the extent of the laboratory facilities available to the different countries for work on food additives. It seemed clear that these facilities were inadequate to cope with the extensive investigations required, and the Conference considered that this fact emphasized the desirability of international co-operation such as to ensure that all available facilities were put to the most effective use. The suggestion was made that it might be useful to compile a register of organizations and individuals in the different countries concerned with work on food additives. The Conference felt, however, that this should not be attempted immediately, but that the suggestion should be considered at a later stage.

20. The Conference noted with satisfaction the offer of the organizations represented at the Conference—namely, the CIIA, the CIPC, the UICC, and the DFG—to co-operate in every possible way with FAO and WHO.

Suggested work of expert groups

21. The Conference then turned to the suggestion, which it had been asked by the Director-General of WHO to consider, that an expert committee might be convened to formulate general principles governing the use of food additives and subsequently to advise FAO and WHO as to future work in this field. The Conference agreed that it would be desirable for these tasks to be remitted to such a committee.

22. The Conference felt strongly, however, that there were other tasks in this field which were no less important and to which urgent attention should be given. In particular, it considered that the formulation of suitable uniform methods for evaluating the safety of food additives should be undertaken with the least possible delay; agreement regarding such methods would provide a medium through which the work done in different countries could be most effectively integrated and utilized. A further urgent task was to arrange for the appraisal by suitable specialists of the data sheets referred to in paragraph 16, with the object of securing the most suitable form of presentation and of arriving at an agreed evaluation of the data.

23. It appeared to the Conference that it should be left to the Directors-General of the two Organizations to determine what would be the most suitable form of committee structure for carrying out these tasks, for example, whether the suggested expert committee could be charged with all of them (aided by specialist groups) or whether additional expert committees would be necessary.

5. PROGRAMME OF WORK

24. The Conference understood that the staff and other resources which FAO and WHO could in the immediate future make available for work on food additives would be strictly limited. It expressed concern lest this might delay work on the more urgent tasks. It had already suggested (paragraphs 15 and 16) means by which, through the co-operation of Member countries and the organizations concerned, the call on the services of FAO and WHO could be reduced. It felt, however, that it would be desirable to indicate, in relation to the suggestions made in paragraph 16, which groups of food additives merited special priority. For the reasons stated below, the Conference recommended the following order of priority:

(a) *Food colours*

A great many colouring matters are used or proposed for use, and there are wide divergences in the legal provisions covering them. Moreover, many countries are at present considering a revision of their legislation in regard to colouring matters, so that early consideration of these substances would be opportune.

(b) *Preservatives*

(i) Antimicrobial agents

(ii) Antioxidants

These two groups of food additives are of special value in limiting wastage and deterioration in the world's food supplies. They are of special importance in connexion with the storage and orderly disposal of surplus commodities. They are also particularly valuable in less developed countries, many of which are situated in tropical areas where storage presents special problems. As antimicrobial agents are more extensively used, especially in the latter countries, they should be given higher priority.

(c) *Emulsifiers*

This group of food additives is of special significance in relation to bakery products, which form one of the staple foods of many peoples. It was agreed that this order of priority did not exclude the subsequent consideration of other groups.

25. While the Conference was concerned with substances intentionally added to foods, it recognized that unintentional additives, such as pesticide residues, also merit attention. Within this field the Conference felt that special stress should be laid on the need for establishing suitable analytical methods for such residues in foods. It was glad to learn that ILO, FAO, and WHO were already dealing with all aspects of this important subject and that a special study-group concerned with it was to meet in 1956.

6. RECOMMENDATIONS

The Joint FAO/WHO Conference on Food Additives

RECOMMENDS to the Directors-General of FAO and WHO :

(1) That the two Organizations :

(a) collect and disseminate information, on the lines indicated in paragraph 15 of this report, regarding existing legal requirements relating to food additives in Member countries and on any subsequent changes in such requirements ;

(b) collect and disseminate information, by means of appropriate data sheets, on the physical, chemical, biochemical, pharmacological, toxicological, and other biological properties of individual food additives, with particular regard to their absorption, metabolism, excretion, acute and chronic toxicity, and carcinogenic effects in animals, as well as on the methods of and reasons for their use or the reasons for their limitation or prohibition ;

(c) co-operate with national and international governmental and non-governmental bodies in this field, and assist, as far as is accept-

able and desirable, in the co-ordination of programmes of investigation in such a way as to obtain all requisite scientific and technological information on individual food additives, while avoiding undue overlapping and duplication of effort ;

(2) That, subject to the proviso in paragraph 23 of this report, one or more expert committees concerned with the technical and administrative aspects of the problem should be convened as soon as feasible to :

(a) formulate general principles governing the use of food additives, with special reference to their legal authorization, based on appropriate consideration of their harmlessness, their standards of purity, their limits of tolerance, and the social, economic, psychological, and technological reasons for their use, and taking into account the work already done in this field by national and international bodies as well as the suggestions contained in various reports submitted to the Conference ;

(b) recommend, as far as practicable, suitable uniform methods for the physical, chemical, biochemical, pharmacological, toxicological, and biological examination of food additives and of any breakdown products formed from them during processing, for the pathological examination of experimental animals, and for the assessment and interpretation of the results ;

(c) report on the contents and interpretation of the existing data sheets and advise on any alterations which might be desirable in their future presentation ;

(d) advise on future activities of the two Organizations in the field of food additives ;

(3) That, as regards (1) (b) and (2) (b) above, priority should be given to :

(a) Food colours

(b) Preservatives :

(i) Antimicrobial agents

(ii) Antioxidants

(c) Emulsifiers.

This order of priority would not exclude the subsequent consideration of other groups.

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