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(cx 4/40.3)

ALINORM 71/24 November 1970

JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX ALIMENTARIUS COMMISSION Geneva, 1971 Eighth Session

REPORT OF THE FIFTH SESSION

OF THE

CODEX COMMITTEE ON PESTICIDE RESIDUES

28 September - 6 October 1970
The Hague, The Netherlands

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REPORT OF THE FIFTH SESSION OF THE CODEX COMMITTEE ON PESTICIDE RESIDUES

INTRODUCTION

- The Codex Committee on Pesticide Residues held its fifth session in The Hague, the Netherlands, from 28 September to 6 October 1970. On the second day of the session the Secretary of State for Social Affairs and Public Health, Dr. R.J.H. Kruisinga, welcomed the delegations on behalf of the Government of the Netherlands. Dr. Kruisinga again emphasized the importance of the work of this Committee in connection with problems in the field of environmental health. Dr. Kruisinga pointed out that international regulations were indispensable to cope with these problems. The increasing activities of WHO and FAO with regard to the acceptability of pesticides had a favourable effect, but the funds intended for these activities were still insufficient and Dr. Kruisinga considered it vital that these organizations should allocate a greater part of their budgets to this objective. In this respect Dr. Kruisinga further pointed out that, according to a recommendation of the Council of Europe, the environmental burden of pesticides in relation to their effects on the health of man and his environment should form a criterion for the admissibility of pesticides. He also referred to the project comprising a ten-year plan for environmental health, called "white revolution", sponsored by the European office of WHO. Dr. Kruisinga stressed the importance of the work of this Committee in establishing internationally acceptable tolerances for pesticide residues in food which represented the least possible burden on man and his environment.
- 2. Drs. A. Kruysse, Inspector General of Public Health in charge of the Foodstuffs Division, the Netherlands, acted as Chairman.
- 3. The session was attended by government delegates, experts, observers and advisers from the following 28 countries: Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Canada, Cuba, Denmark, Finland, France, the Federal Republic of Germany, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Poland, Portugal, Sweden, Switzerland, Togo, Turkey, United Kingdom, United States of America and Venezuela, and observers from Czechoslovakia and South Africa. The following international organizations were also represented: Council of Europe, European Economic Community (EEC), International Federation of National Associations of Pesticide Manufacturers (GIFAP), International Organization for Standardization (ISO/TC 34 and SC 5). A list of participants, including officers from FAO and WHO, is set out as Appendix I to this Report.

ADOPTION OF THE AGENDA

- 4. The Committee agreed to discuss agenda items 10, 9 and 11, in that order, after agenda item 4 as these dealt with related problems which needed to be discussed before a detailed consideration of the recommendation for tolerances for pesticide residues in the subsequent items of the agenda. The Committee also agreed to have a short preliminary discussion of agenda items 12 and 14 following agenda item 2 so that delegations could indicate in advance and in writing the pesticides to be listed in Priority List VII. Furthermore, they could indicate in writing, during the session, the priorities for pesticide residues requiring methods of analysis.
- 5. The Committee agreed that the Priority List VII would be tentative and that governments would be invited to prepare papers to justify their inclusion in this tentative Priority List.
- 6. The delegation of Israel expressed the opinion that the priorities established by the Codex Committee on Pesticide Residues should also be priorities of the Joint FAO Working Party of Experts on Pesticide Residues and the WHO Expert Committee on Pesticide Residues when preparing their agenda for future sessions. He expressed concern that, if the Joint Meeting were to consider pesticides over and above those included in the Codex priority lists, this might delay the work of the Codex Committee on Pesticide Residues. The representative of WHO, supported by the delegation of Canada, stated that the Joint Meeting on Pesticide Residues had a responsibility independent of the Codex Committee on Pesticide Residues, to evaluate available toxicological and other information on any pesticide, if it might represent a significient hazard to health.
- 7. The delegation of Australia stressed the importance of the work of the Joint Meeting on Pesticide Residues and the Codex Alimentarius Commission in the field of pesticide residues and the need to intensify work in this field. The Committee was in agreement and recommended that the appropriate bodies dealing with the problem of pesticide residues be strengthened by making additional funds available to make this possible.

APPOINTMENT OF RAPPORTEURS

8. The Committee agreed that it would not be necessary to appoint rapporteurs and requested the Secretariat to prepare the draft report. Dr. K.C. Walker from the delegation of the U.S.A. agreed to assist the Secretariat in this task, as in the past. Mrs. S. Dormal-Van den Bruel representing the Commission of the European Economic Community, agreed to assist in the revision of the French version of the draft report.

¹⁾ Hereafter referred to as the "Joint Meeting on Pesticide Residues".

PART I

SAMPLING AND ENFORCEMENT

9. The Committee had before it the document CX/PR 70/10 "Survey of Procedures Used for the Administration and Enforcement of National Regulations Governing Pesticide Residue Tolerances in Food" prepared by FAO on the basis of government comments received in response to a questionnaire concerning administrative procedures circulated to governments after the 4th session of the Committee (Ref. ALINORM 70/24, para 25).

The meaning of "tolerance"

In discussing sampling and action following the analysis of the samples taken, a number of delegations pointed out that the definition of the term "tolerance" included the "maximum permitted level" of a pesticide residue in specified foodstuffs and that the definition did not stipulate the way the residue was actually to be determined in a particular consignment. Other delegations were of the opinion that the "tolerance" represented a permitted average value for each consignment. The representative of FAO gave a brief account of the procedure used by the Joint Meeting on Pesticide Residues in making recommendations for tolerances. He pointed out that available residue data from a number of countries as well as supervised trials were considered and that the tolerance, therefore, took into account, as far as possible, the pest control needs in various areas of the world. The tolerance recommendations therefore assumed that representative figures were used for each consignment sampled. The representative of WHO drew the attention of the Committee to the fact that the ADI for a pesticide was established on the basis of toxicological data alone and that residue levels in food did not provide any criteria for establishing the ADI. In this connection, the delegation of Canada pointed out that where the residues of a pesticide differed chemically from the parent compound, toxicological data on these degradation products were necessary before an ADI could be established Until such information was available the ADI had to be specified as being applicable to the parent compound alone. It was agreed that it was necessary to define the term "tolerance" to make it clear whether it meant a maximum level or an average value for pesticide residues permitted in specified foodstuffs.

Determination of residue and application of tolerance

11. In discussing the various procedures of sampling, analysis of the sample and application of the results of analysis to determine compliance with the tolerance, it became evident that there were significant differences in approach in the various countries. While in some countries sampling was carried out in an endeavour to find the highest level of contamination, in others the average contamination of the sample was taken to determine compliance.

- It was also pointed out that the sampling plans so far established for various Codex standards assumed continuous control during production of the food and that, therefore, they were not appropriate for the enforcement of pesticide residue tolerances.
- 12. The Secretariat pointed out that any sampling procedure established by this Committee would be for the purpose of settling disputes and that it would not be obligatory for governments to use it for routine inspection purposes. The Chairman stated that it was desirable for the sampling procedures also to be suitable for the purpose of determining compliance with national legislation.
- 13. The delegation of Israel underlined the need to base recommendations for international tolerances on good agricultural practice in various countries and that this represented one of the most important principles since it ensured that the pest control needs of various countries were taken into account.
- 14. The delegation of the Netherlands was of the opinion that the discussions were becoming highly detailed and that no conclusions could be reached at the present session on the various specific problems raised. They proposed, therefore, that a group be convened during the session to discuss the items to be included in the agenda for discussion at a future special session for this purpose. The delegation of Canada suggested that the agenda of such a special session should include a discussion of data collected on a number of key crops moving in international trade. A study of one particular pesticide residue on the same crop in different parts of the world, following good agricultural practice, and taking into consideration the possible hazards to health of the consumer, would be of great value in arriving at conclusions regarding divergences in the need for pest control agents in such areas.
- 15. A number of delegations were in favour of the Netherlands proposal and the suggestions of the delegation of Canada. The Committee decided to set up an agenda committee to meet during the session and to draw up the agenda and terms of reference of an Ad Hoc Working Group which would discuss these matters and prepare a report for consideration by the Codex Committee on Pesticide Residues. In this regard, it was pointed out that the Codex Alimentarius Commission, at its 7th session, had authorized the Codex Committee on Pesticide Residues to set up such an Ad Hoc Working Group subject to a number of provisos (see para 162, Report of the 7th Session of the Codex Alimentarius Commission).

GENERAL PRINCIPLES FOR THE USE OF PESTICIDES AND THE ESTABLISHMENT OF PESTICIDE RESIDUE TOLERANCES

16. The Committee had before it a paper prepared by the Federal Republic of Germany (CX/PR 70/11) bearing the above title.

This document had been prepared on the request of the 4th session of the Committee (para 33 ALINORM 70/24), taking into account comments received on the decisions recorded in paras 6 to 32 of the report of the 4th session. The Committee decided to postpone discussion of the above paper until 1t had been examined by the Agenda Committee, meeting during the session (see para 15), and the Ad Hoc Working Group

GUIDELINES FOR THE USE OF PESTICIDES

- 17. The Committee considered the document (CX/PR 70/6) entitled "Introduction on Guidelines for the Use of Pesticides", which had been prepared by the Netherlands with the assistance of the Secretariats of FAO and WHO in conformity with the request of the Committee recorded in para 17 of the Report of the 4th session of this Committee (ALINORM 70/24).
- 18. Several delegations were of the opinion that, for the purpose of this Committee, this document paid too much attention to the problem of environmental contamination by pesticides and stressed that this problem should only be considered inasmuch as it related to residues appearing in food. The representative of WHO suggested that the document might be more suitably entitled "Suggested Guidelines for the Use of Pesticides to ensure Minimum Residue Levels in Food". He also suggested deleting much of the introductory background material of the document. The delegation of the United Kingdom suggested that the "Guidelines" should be a brief and concise document and that the format of the document on General Principles for the Use of Food Additives be used as a model.
- 19. The Committee requested that the document under consideration be re-drafted by the Netherlands delegation with the assistance of FAO and WHO and be presented in its revised form for consideration at the next session of the Codex Committee on Pesticide Residues.

CLASSIFICATION OF FOODS AND DEFINITION OF FOOD GROUPS

20. The Secretariat had been requested by the 4th session of the Committee to prepare a paper on the above subject taking into consideration comments received from participants at the 4th session of the Committee. In the absence of comments, except from the Federal Republic of Germany, the Secretariat prepared another working paper combining those prepared for the 4th session of the Committee (Ref. No. CCPR/69/8/1). The document drew the Committee's attention to the difficulties encountered in attempting to classify food commodities into groups for the purposes of pesticide residue control. It also contained comments by the Secretariat on the food groups actually referred to by the Joint Meeting on Pesticide Residues, as well as suggestions for a number of definitions of foods such as meat, poultry meat, and milk, which, in the opinion of the Secretariat, needed to be defined so that the recommendations for tolerances would be made more meaningful.

- 21. The delegation of Israel requested the Committee to clarify whether a tolerance established for a particular raw food commodity also applied to the propessed products. In this connection, the delegation of the Federal Republic of Germany stressed that the residues of pesticides would nearly always decrease during processing and that much lower levels would be found in the processed product. They pointed out that the amount which remained after processing was, in fact, determined by good manufacturing practice; e.g. quick-frozen vegetables were cleaned, trimmed, bleached, salted, etc. before being quick-frozen, and these manufacturing processes lead to a decrease in the amount of pesticide residues in the quick-frozen products. On the other hand, it was pointed out that drying processes could lead to a raising of the level of pesticide residues.
- 22. The Committee recognized that eventually it might be necessary to recommend pesticide residue tolerances for processed food products but that absence of actual residue data information made such specific recommendations impossible at the present time. The Committee agreed that, for the time being, the tolerances established for the raw food commodities should also normally apply to the processed products, including frozen and canned products. As regards the paper prepared by the Secretariat it was agreed that it should be used as a reference document during the discussion of the tolerances and that it should also be made available to the Joint Meeting on Pesticide Residues for information. Governments represented at this session were requested to send their detailed comments to the:

Chief Joint FAO/WHO Food Standards Programme FAO, Rome

as soon as possible, with a copy to the Chairman of the Committee.

PART II

- A. TOLERANCES, TEMPORARY TOLERANCES AND PRACTICAL RESIDUE LIMITS

 AT STEP 7 OF THE PROCEDURE (sent to the Commission at Step 5 at the 4th Session).
- 23. The Committee examined the tolerances, temporary tolerances and practical residue limits which had been forwarded by the Commission to governments for comment at Step 6 of the Procedure (see Appendix VII of the Report of the 4th Session, ALINORM 70/24). The Committee had available comments received prior to and after the closing date for the receipt of comments, from governments on these tolerances in working papers CX/PR 70/2 and CX/PR 70/2/1. In a general statement the delegation of Denmark pointed out that in view of the cumulative nature of several chlorinated pesticides only practical residue limits would be acceptable. The delegation of the Federal Republic of Germany made a general reservation in the light of the EEC directives which were being elaborated.

The question was raised by the delegation of France as to what metabolites were included in the tolerance as proposed by the Joint Meeting on Pesticide Residues. In reply it was pointed out that where it was recognized that metabolites of texicological significance were present, these were, as a general rule, included in Codex tolerances. Several delegations were of the opinion that the tolerances for broad classes of food would have to be re-examined in the future to take into account residues found in specific crops following good agricultural practice. This would lead to the establishment of additional tolerances which would be exceptions to the general tolerances. During the discussion the following comments and decisions were made:

ALDRIN AND DIELDRIN

(The limits apply to aldrin and dieldrin singly or in combination and are expressed as dieldrin).

24. The attention of the Committee was drawn to paras 119 and 120 of the Report of the 7th Session of the Commission which stated that maximum levels for pesticide residues sent out for acceptance at Step 9 were of a temporary nature and would be subject to review by the Commission. The representative of WHO informed the Committee that aldrin and dieldrin would be reviewed at the next session of the Joint FAO/WHO Meeting on Pesticide Residues in November 1970, with particular emphasis on dieldrin.

Aldrin and dieldrin in raw cereals except rice

25. The Committee agreed to submit the practical residue limit of 0.02 ppm in raw cereals except rice to the Commission at Step 8 of the Procedure (see Appendix II).

Aldrin and dieldrin in rice

- 26. The delegate of Japan pointed out that the limit of 0.05 ppm would result in the ADI being exceeded since rice was a staple dietary item in that country. He, therefore, proposed a figure of 0.005 ppm which was the limit of detection using gas-liquid chromotography (GLC). After full discussion, during which the question was also raised whether or not a practical residue limit would be more appropriate, the Committee decided to return the temporary tolerance of 0.05 ppm to Step 6 for further comments (see Appendix IV) and to request information on the following:
 - a) use pattern of the pesticide
 - b) residue data, including residues resulting from the use in animal feed, as well as residues in fruit juices resulting from the use of rice husks as clarifying agents
 - c) fate of the residue during processing

The delegation of Australia undertook to make available data on the fate of residues during processing. The Committee noted that the proposed temporary tolerance applied to the raw agricultural product: rough rice.

Aldrin and dieldrin in fruit, except Citrus fruit

27. In order to clarify which crops were included in the class "fruit" the Committee agreed to return the temporary tolerance of 0.1 ppm to Step 6 (see Appendix IV) and to request governments to specify the types of fruit treated. The Committee requested the Joint Meeting to examine the data submitted.

Aldrin and dieldrin in Citrus fruit

28. The delegation of the U.S.A. pointed out that the residues resulted from the dust from treated soil during harvest. The delegations of Denmark, the Federal Republic of Germany and France reserved their position concerning this tolerance since, in their opinion, substitutes should be sought for this pesticide. The Committee agreed to submit the temporary tolerance of 0.05 ppm in Citrus fruit to the Commission at Step 8 of the Procedure (see Appendix II).

Aldrin and dieldrin in raw eggs (on a shell-free basis)

29. The question was raised as to the type of products covered by the term "eggs on a shell-free basis". It was agreed that the term covered egg white plus egg yolk and would, therefore, include the fresh eggs as well as whole egg pulp. It was pointed out that, in the case of egg powder, calculations could be made on the basis of the reconstituted product. In view of available data supporting a lower maximum level of 0.05 ppm, the delegations of Netherlands, Australia, Denmark, the Federal Republic of Germany and Sweden reserved their position. The Committee agreed to submit a practical residue limit of 0.1 ppm for eggs (on a shell-free basis) to the Commission at Step 8 (see Appendix II).

CARBARYL

Carbaryl in rice

30. The Committee considered the temporary tolerance of 2.5 ppm in rice. The delegation of the Netherlands were of the opinion that a tolerance of 0.8 ppm was sufficient. This was supported by the delegations of Denmark, the Federal Republic of Germany and Japan. The delegations of the U.S.A., Australia and the U.K. stated that, in their opinion, a tolerance of 0.8 ppm might interfere with international trade and supported the limit of 2.5 ppm recommended by the Joint Meeting on Pesticide Residues. The Committee decided that the temporary tolerance of 2.5 ppm be submitted to the Commission at Step 8 of the Procedure (see Appendix II).

Carbaryl in fruit, vegetables, leafy vegetables, brassica, cucumbers, melons, pumpkins, squash, nuts, olives and raw cottonseed

31. Attention was drawn to the Report of the 1969 Joint Meeting, on Pesticide Residues giving the results of the recent re-evaluation

of tolerances for some of the above commodities. The Committee noted that fruits and vegetables had been specified in greater detail and that for certain commodities lower tolerances had been proposed. Several delegations pointed out that they had received this report too late and that, therefore, they were not in a position to study the new recommendations. Furthermore, the above Joint Meeting report still referred to "cucurbits (including melons)" were referred to although the Codex Committee on Pesticide Residues, at its last session, agreen that the term "cucurbits" should be taken to mean only cucumbers, melons (including cantaloups), pumpkins and squash (see para 88 ALINORM 70/24). The Committee agreed to return the proposed tolerances to Step 6 of the Procedure and to request comments from governments on the new recommendations proposed by the Joint Meeting on Pesticide Residues (see Appendix IV).

Carbaryl in poultry

32. The Committee considered the temporary tolerance of 5 ppm in poultry (on a whole meat basis including skin). A number of delegations were of the opinion that the proposed tolerance should be re-expressed on a whole poultry basis and that the figure of 5 ppm should be revised. In this connection, it was noted that there was a certain amount of international trade in chicken skin and that most of the pesticide residue was found on the skin of poultry. The Committee decided to retain the proposed tolerance at Step 7 of the Procedure (see Appendix III) and to refer this matter to the Joint Meeting on Pesticide Residues. Delegations were invited to submit all available information on carbaryl in poultry to the Joint Meeting as soon as possible.

CHLORDANE

33. The delegations of Australia and the Federal Republic of Germany stated that they were opposed to the use of chlorinated cyclodiene pesticides and that they could not, therefore, accept tolerances for these compounds.

The delegation of France was opposed to the foliar application of these pesticides.

Chlordane in raw cereals except sweet corn and popcorn

34. The Committee agreed to submit the practical residue limit of 0.1 ppm in raw cereals (except sweet corn and popcorn) to the Commission at Step 8 of the Procedure (see Appendix II).

Chlordane in sweet corn

35. The delegation of the U.S.A. stated that a tolerance of 0.1 was insufficient in view of residues found following good agricultural practice. The Committee agreed to submit the temporary tolerance of 0.1 ppm in sweet corn to the Commission at Step 8 of the Procedure (see Appendix II).

Chlordane in popcorn

36. The Committee agreed to submit the temporary tolerance of 0.1 ppm in popcorn to the Commission at Step 8 of the Procedure (see Appendix II). The term "popcorn" was understood to refer to the raw commodity.

Chlordane in berries

37. The Committee agreed to return the proposed temporary tolerance of 0.1 ppm for chlordane in berries to Step 6 of the Procedure (see Appendix IV), and to request governments to supply information on the different types of fruit on which this pesticide was used.

Chlordane in pineapple

38. The delegation of the Netherlands pointed out that insufficient data had been provided in the monographs of the Joint Meeting on Pesticide Residues to support the proposal for a tolerance of 0.2 ppm chlordane in pineapple and reserved their position concerning this tolerance. The Committee agreed to submit the temporary tolerance of 0.2 ppm to the Commission at Step 8 of the Procedure (see Appendix II).

Chlordane in sugar beets

39. The spokesman of IUPAC, informed the Committee that work was in progress on the terminal residues of chlordane. Furthermore, the Committee was informed by the delegation of the U.S.A. that new data had been submitted to the Joint Meeting on Pesticide Residues on this compound. In view of the above the Committee agreed to retain the temporary tolerance of 0.1 ppm in sugar beets at Step 7 (see Appendix III) of the Procedure and to request the Joint Meeting on Pesticide Residues to review the new information which had become available.

Chlordane in vegetables except carrots

40. The Committee discussed the temporary tolerance of 0.3 ppm in vegetables except carrots. The Committee noted that the 1969 Joint Meeting on Pesticide Residues had changed its previous recommendation to "root vegetables (except carrots), leafy and stalk vegetables". The Committee agreed that a further clarification of the above classes was necessary. The Committee, therefore, decided to return the temporary tolerance of 0.3 ppm for vegetables, except carrots, to Step 6 of the Procedure and to request governments to indicate the vegetables which would be covered by the tolerance.

Chlordane in carrots

41. The need to establish a maximum level for residues of chlordane in carrots was discussed.

The Committee decided to refer this matter to the Joint Meeting on Pesticide Residues. It was agreed that the establishment of a practical residue limit was appropriate since the Committee was not aware of any intentional use of chlordane for this type of root vegetables. The Committee noted that any recommendation for chlordane in carrots would be submitted to it at Step 2 of the Procedure.

Chlordane in pod vegetables

42. It was pointed out that chlordane had certain restricted soil applications to replace other chlorinated hydrocarbons. The Committee decided to advance the temporary tolerance of 0.1 ppm (on a whole pod basis) in pod vegetables to Step 8 of the Procedure (see Appendix II).

Chlordane in tomatoes

43. In discussing the temporary tolerance of 0.1 ppm in tomatoes, the delegation of the Netherlands stated that this figure was unnecessarily high in view of the residue of 0.01 ppm described in the monographs of the Joint Meeting on Pesticide Residues. The delegation of Canada supported this view but was of the opinion that a practical residue limit should be established. The delegation of the U.S.A. pointed out that a limit of 0.1 ppm was required for soil treatment purposes. The delegation of Australia was of the opinion that, in view of the very restricted use of this pesticide, the burden placed on the ADI would be very small. The Committee agreed to submit the temporary tolerance of 0.1 ppm in tomatoes to the Commission of Step 8 of the Procedure (see Appendix II). The Netherlands delegation reserved their position.

Chlordane in peppers, eggplant and pimentos

44. The Committee agreed to submit the temporary tolerance of 0.1 ppm of chlordane in peppers, eggplant and pimentos to the Commission at Step 8 of the Procedure (see Appendix II).

Chlordane in cucumbers, melons, pumpkins and squash

45. The Committee discussed the temporary tolerance of 0.2 ppm for the above commodities. The delegation of the Netherlands, supported by the delegations of Canada and the U.S.A. expressed the view that a limit of 0.1 ppm was sufficient. The Committee agreed to reduce the tolerance to 0.1 ppm in cucumbers, melons (including cantaloups) pumpkins and squash and to submit it to the Commission at Step 8 of the Procedure (see Appendix II).

DDT

(The limits apply to DDT, DDD and DDE, singly or in any combination)

DDT in apples, pears, peaches, apricots, berries, strawberries, cherries, plums, Citrus fruit, tropical fruit, vegetables, root vegetables, meat, poultry and nuts

- 46. Several delegations supported a proposal from the delegation of the Netherlands, to return this matter to the Joint Meeting on Pesticide Residues as the proposed figures did not take into account recent important changes in the use pattern of DDT and recent reviews of the tolerances for this pesticide. The Committee agreed to return the proposed tolerances for DDT in the above commodities to Step 6 of the Procedure (see Appendix IV) and to request governments to send further comments with additional information about the use pattern of DDT in their country. It was agreed that information received should be made available directly to the Joint Meeting on Pesticide Residues.
- 47. The delegation of the U.S.A. drew attention to the need to consider the pest control needs with regard to DDT in countries with a developing agriculture. The Committee was in agreement with this view. The representative of WHO drew attention to the studies under way in four laboratories involving long-term feeding studies in rodents with a view to assessing the possible potential carcinogenic hazard of DDT. He indicated that this information would probably be available for consideration by the Joint Meeting on Pesticide Residues in 1971. In response to a question concerning the toxicological evaluation of this pesticide the representative of WHO stated that toxicological data had been the only basis for reducing the ADI of DDT at the 1969 Joint Meeting on Pesticide Residues and that environmental data had not been considered in this respect.

DDT in fish

- 48. The delegations of the Netherlands and Sweden referred to para 106 of the Report of the 4th Session of the Committee (ALINORM 70/24) containing a proposal to establish a practical residue limit in fish, as residues in fish were the result only of incidental contamination. Furthermore, there was also some doubt concerning the magnitude of the proposed limit. The Committee decided to return the proposed tolerance for DDT in fish to Step 6 of the Procedure (see Appendix IV) and agreed that the practical residue limit should be expressed on a whole product basis, Governments were requested to provide more data on the residues of DDT in fish as well as methods of analysis used. The delegation of Sweden drew the Committee's attention to new methods of analysis for the determination of PCB compounds in the presence of other chlorinated hydrocarbons.
- 49. The delegation of Canada drew attention to the practice of treating dried fish with DDT in some tropical countries and suggested that FAO collect information on this matter.

DDT in milk and milk products

50. With reference to para 112 of the Report of the 7th Session of the Commission (ALINORM 70/43), the Committee agreed to amend the practical residue limits for whole milk and milk products to read "milk and milk products: 1.25 ppm on a fat basis", and to submit this practical residue limit to the Commission at Step 8 of the Procedure (see Appendix II). It was agreed that the term "milk" was to be taken to mean the milk obtained from various species of dairy animals.

DIAZINON

Diazinon in fruit except peaches and Citrus fruit

51. The Committee agreed to submit a temporary tolerance of 0,5 ppm in fruit (except peaches and Citrus fruit) to the Commission at Step 8 of the Procedure (see Appendix II). The delegations of Canada and the U.S.A. indicated that a higher tolerance would have to be established for some fruits, since the general tolerance of 0.5 ppm did not take these into account.

Diazinon in peaches and Citrus fruit

52. The delegations of Austria, Belgium, France and the Netherlands stated that a limit of 0.5 ppm would be more appropriate for the above commodities. The delegations of Australia and the U.S.A. pointed out that a tolerance of 0.75 ppm was required by good agricultural practice in their countries. The Committee agreed to submit the temporary tolerance of 0.7 ppm in peaches and Citrus fruit to the Commission at Step 8 of the Procedure (see Appendix II).

Diazinon in vegetables except cole crops and leafy vegetables

53. The delegations of Canada and the U.S.A. were of the opinion that for some vegetable items a higher tolerance would have to be established in the future since this compound was being used as a replacement for DDT. It was agreed that governments should be requested to indicate the vegetables which should be exempted from the general tolerance and to provide information on the residues found. The Committee agreed to submit the temporary tolerance of 0.5 ppm in vegetables (except cole crops and leafy vegetables) to the Commission at Step 8 of the Procedure (see Appendix II).

Diazinon in cole crops

54. The delegations of the Federal Republic of Germany and the Netherlands were of the opinion that a limit of 0.5 ppm would be more appropriate. The Committee agreed to submit the temporary tolerance of 0.7 ppm in cole crops to the Commission at Step 8 of the Procedure (see Appendix II).

Diazinon in leafy vegetables

- 55. During the discussion of the tolerance for diazinon in leafy vegetables it was pointed out that this compound had been scheduled for review by the forthcoming Joint Meeting on Pesticide Residues. In reply to a question the representative of WHO informed the Committee that aldrin, dieldrin and chlordane were to be reviewed at the same time as diazinon but that it was not possible or desirable to indicate at this time, what changes, if any, would be made to the ADI of these substances. The Committee agreed to return the temporary tolerance of 0.7 ppm diazinon in leafy vegetables to Step 6 of the Procedure (see Appendix IV) and to request governments to supply details of use pattern and residues found in this class of vegetables.
- 56. In discussing the tolerance recommendations for diazinon, the delegations of Australia and Canada expressed concern that the Committee frequently did not give due regard to the recommendations of the Joint Meeting for tolerances. The Chairman, however, pointed out that this Committee had the task of proposing tolerances to the Codex Alimentarius Commission and that this was based on the recommendations of the Joint Meeting on Pesticide Residues. It was within the terms of reference of this Committee to amend proposed tolerances in the light of information supplied to the Committee.

Diazinon in meat

57. The question was raised whether the tolerance should be expressed on a whole meat basis. It was agreed to delete the footnote: "tolerance to be applied at slaughter". It was pointed out that IUPAC had recommended that the problem of analysis of meat and the problem of determining the basis for the expression of tolerances be investigated and that IUPAC would examine this matter after reference to the Joint Meeting. The Committee agreed to retain the temporary tolerance of 0.75 ppm for meat (on a fat basis) at Step 7 of the Procedure (see Appendix III), and to request the Joint Meeting on Pesticide Residues to examine this matter. It was pointed out that partitioning of diazinon and its metabolites between the fatty and aqueous phases in meat would have a strong bearing on the way the tolerance should be expressed.

DICHLORVOS

(content of dichloracetaldehyde to be reported where possible)

Dichlorvos in raw cereals

58. It was agreed to submit the temporary tolerance of 2 ppm for raw cereals to the Commission at Step 8 of the Procedure (see Appendix II).

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Dichlorvos in cereal products

59. The Committee agreed that the term "cereal products" referred to the milled product intended for human consumption and decided to submit the temporary tolerance of 0.3 ppm in cereal products (milled and for human consumption) to the Commission at Step 8 of the Procedure (see Appendix II).

Dichlorvos in fresh vegetables

60. In view of the low ADI of dichlorvos, the delegation of the Netherlands, supported by the Federal Republic of Germany, proposed a temporary tolerance of 0.1 ppm in vegetables, since, in their opinion, a limit of 0.3 ppm would curtail other applications of this pesticide. The Committee decided that the temporary tolerance of 0.3 ppm in vegetables be submitted to the Commission at Step 8 of the Procedure. (see Appendix II). The delegations of the Netherlands and the Federal Republic of Germany were opposed to this decision.

Dichlorvos in canned and frozen vegetables

61. In the light of the discussion on tolerances for pesticide residues in processed foods (see paras. 21-22) and the fact that the Joint Meeting on Pesticide Residues had withdrawn its previous recommendations, the Committee agreed to delete the temporary tolerances for dichlorvos in canned and frozen vegetables.

Dichlorvos in fruit except Citrus fruit

62. The Committee noted that dichlorvos was also used for post harvest treatment during storage and that, therefore, it was appropriate to recommend a general tolerance for fruit. It was agreed to submit the temporary tolerance of 0.1 ppm in fruit except Citrus fruit to the Commission at Step 8 of the Procedure (see Appendix II). It was agreed that the need to exempt Citrus fruit should be clarified at a future date.

DIMETHOATE

(The limits apply to dimethoate plus its oxygen analogue and are expressed as dimethoate)

Dimethoate in tree fruit (including Citrus fruit)

63. The delegation of the Netherlands, supported by the delegations of Austria, the Federal Republic of Germany and France, proposed a temporary tolerance of 1.5 ppm dimethoate in which 0.4 ppm of the oxygen analogue may be included. The delegations of Canada and the U.S.A, informed the Committee that a tolerance of 2 ppm was required by good agricultural practice in certain regions. The Committee decided to submit the temporary tolerance of 2 ppm in tree fruit (including Citrus fruit) to the Commission at Step 8 of the Procedure (see Appendix II).

Dimethoate in vegetables except tomatoes and peppers

64. The same objections to a limit of 2 ppm were expressed by the same delegations as in paragraph 63. The delegation of the U.S.A. pointed out that their written comments were in error. Tolerances had been established for tomatoes and peppers in their country. The Committee decided to submit the temporary tolerance of 2 ppm in vegetables, except tomatoes and peppers, to the Commission at Step 8 of the Procedure (see Appendix II).

Dimethoate in tomatoes and peppers

65. It was agreed to submit the temporary tolerance of 1 ppm for tomatoes and peppers to the Commission at Step 8 of the Procedure (see Appendix II).

HEPTACHLOR

(The limits apply to heptachlor and its epoxide and are expressed as heptachlor)

Heptachlor in raw cereals

66. It was agreed to submit the practical residue limit of 0.02 ppm for raw cereals to the Commission at Step 8 of the Procedure (see Appendix II).

Heptachlor in vegetables except carrots

67. The Committee decided to submit the practical residue limit of 0.05 ppm for vegetables, except carrots, to the Commission at Step 8 of the Procedure (see Appendix II).

Heptachlor in carrots

68. The delegation of Canada stated that the limit of 0.1 ppm was too low in the light of new data available in that country. The delegation of the Netherlands was of the opinion that the limit was too high and that available data indicated that 0.05 ppm was sufficient.

The Committee decided to submit the practical residue limit of 0.1 ppm in carrots to the Commission at Step 8 of the Procedure (see Appendix II).

Heptachlor in meat (on a fat basis)

69. A practical residue limit of 0.2 ppm in meat (on a fat basis) was adopted by the fourth session of this Committee and was submitted to the Commission at Step 8 of the Procedure (see para. 47 of Λ LINORM 70/24). At the 7th session of the Commission the delegations of the U.S.A. and the Netherlands had referred to recent data on residues in meat imported in their countries,

(see para. 111 of the Report of the Commission). The Commission decided to return the above limit to Step 7 of the Procedure for consideration by this Committee. As the delegations of the Netherlands and the U.S.A. withdrew their reservation made previously at the 7th session of the Commission, the Committee agreed to submit its previous recommendation for a practical residue limit of 0.2 ppm to the Commission at Step 8 of the Procedure (see Appendix II). It agreed that the term "meat on a fat basis" should be amended to "meat" and expressed on the rendered or extracted fat".

HYDROGEN PHOSPHIDE

Hydrogen phosphide in cereal products

70. The Committee agreed to divide the category "cereal products" into "flour and other milled cereal products" and "breakfast cereals" as proposed by the Joint Meeting on Pesticide Residues. It was agreed to submit the proposed tolerance of 0.01 ppm for flour and other milled cereal products to the Commission at Step 8 of the Procedure (see Appendix II). The Committee decided, however, to retain the proposed tolerance of 0.01 ppm in breakfast cereals at Step 7 of the Procedure (see Appendix III) and to refer this matter back to the Joint Meeting in view of some doubts concerning the actual intake of residues resulting from the consumption of products which were not cooked before consumption or which were consumed dry. It was further pointed out that the limit of detection was not 0.01 ppm as had been stated in para 129 of the Report of the 4th session, but 0.001 ppm.

Hydrogen phosphide in dried vegetables and spices

71. The Committee agreed to submit a tolerance of 0.01 ppm in dried vegetables and spices to the Commission at Step 8 of the Procedure (see Appendix II).

LINDANE

Lindane in raw cereals

72. Several delegations were not in favour of a direct post-harvest application of this pesticide on cereals. Direct application was all the more undesirable since this would also lead to residues in animal products. The attention of the Committee was drawn to the situation in tropical regions and countries with a developing agriculture, where it might be difficult to change the use pattern of lindane until economic alternatives become available. The Committee agreed to return the temporary tolerance of 0.5 ppm to Step 6 (see Appendix IV) of the Procedure and to ask governments for further information on the use pattern of this pesticide and residues resulting from such uses.

Lindane in cranberries, cherries, grapes, plums, strawberries and vegetables

73. The delegation of the Netherlands, supported by the delegation of Austria, Belgium, France and Poland, expressed the view that the proposed limit of 3 ppm was unnecessarily high and that, also considering the low ADI, a limit of 2 ppm for these items was more appropriate. The delegations of Canada and the U.S.A. were not in a position to comment on the proposed limit as the tolerances for lindane in these commodities were under review in their countries. The delegation of Finland was in favour of a tolerance of 1 ppm and the delegation of Japan indicated that recent investigations carried out in that country revealed residues below 0.5 ppm. Some delegations pointed out that many food commodities contained residues of beta-BHC and that this matter would have to be investigated in the future. The Committee agreed to return the temporary tolerance of 3 ppm in cranberries, cherries, grapes, plums, strawberries and vegetables to Step 6 of the Procedure (see Appendix IV) and to ask governments for comments.

PARATHION

Parathion in vegetables except carrots

- 74. The delegations of Canada and the U.S.A. stated that they would consider the proposed limit of 0.7 ppm although residues of up to 1.0 ppm had been found in their country. Statements were made by several delegations that a limit in excess of 0.5 ppm would not be acceptable to their countries. The delegation of Canada requested the Chairman to determine from the Meeting whether those delegations which proposed a tolerance of 0.5 ppm or lower would be prepared to consider a limit of 0.7 ppm resulting from good agricultural practice in other countries. The delegation of the Netherlands replied, indicating that it was willing to consider tolerances higher than 0.5 ppm provided the vegetables in which higher residues were found following good agricultural practice were specified.
- 75. The attention of the Committee was drawn to the fact that in some countries the tolerance applied to a sum of parathion methyl and parathion ethyl. The delegation of France pointed out that the colorimetric method used at present did not determine residues of parathion methyl and ethyl separately. After full discussion, the Committee agreed to return the temporary tolerance of 0.7 ppm in vegetables, except carrots, to Step 6 of the Procedure (see Appendix IV) and to ask governments to indicate with supporting data, including also residue data on paraoxon (if possible), for which vegetables tolerances were required. In addition, governments were asked to provide information on methods of analysis and also to express an opinion as to whether parathion methyl should be included in the tolerance for parathion ethyl. If was agreed that the comments should be submitted directly to the Joint Meeting on Pesticide Residues.

/ ^ くっ B. TOLERANCES AND PRACTICAL RESIDUE LIMITS AT STEP 7 OF THE PROCEDURE (Returned to Step 6 of the Procedure at the 4th Session)

76. The Committee examined at Step 7 of the Procedure the tolerances and practical residue limits returned to Step 6 at the 4th Session of the Committee (see Appendix VI of the Report of the 4th Session of the Codex Committee on Pesticide Residues, ALINORM 70/24) with a request for further comments. The Committee had before it comments from governments on these tolerances and practical residue limits in working papers CX/PR 70/3 and CX/PR 70/3/1. During the discussions the following comments and decisions were made:

ALDRIN AND DIELDRIN

(The limits apply to aldrin and dieldrin, singly or in any combination expressed as dieldrin)

Aldrin and dieldrin in milk and milk products

77. The 1969 Joint Meeting on Pesticide Residues had reconsidered the practical residue limit of 0.005 ppm in whole milk and of 0.125 ppm (on a fat basis) in milk products, but did not recommend any changes. The Committee agreed to the editorial change suggested by the Commission and decided to submit a practical residue limit of 0.125 ppm (on a fat basis) in milk and milk products to the Commission at Step 8 of the Procedure (see Appendix II).

Aldrin and dieldrin in meat

The 1969 Joint Meeting on Pesticide Residues had reconsidered the practical residue limit of 0.2 ppm (on a fat basis) in meat but did not recommend any change. The delegation of Sweden was of the opinion that the limit should be expressed on the whole meat basis instead of on a fat basis, and indicated that investigations carried out in their country suggested a limit of 0.01 ppm. Other delegations preferred to express the limit on a fat basis to overcome sampling problems. In their experience it appeared that residues of this type of compounds were almost exclusively in the fat and not in the aqueous phase. After a discussion on methods of sampling and analysis, the Committee agreed to amend the term "on a fat basis" and to submit the practical residue limit of 0.2 ppm in meat (determined and expressed on the rendered or extracted fat) to the Commission at Step 8 of the Procedure (see Appendix II). The attention of the Committee was drawn to the intention of IUPAC to carry out investigations on the problem of residue determinations in meat and the way in which results should be expressed.

LINDANE

Lindane in milk and milk products

The Committee considered the practical residue limit of 0.2 ppm in milk and milk products (on a fat basis) on which further government comments had been requested. The Committee noted that this limit was twice that recommended earlier by the Joint Meeting on Pesticide Residues, and that no data had been received in support of the higher figure. Since, according to the delegations of Canada, France, Australia and Argentina, residues of this magnitude were actually found in milk despite a reduction of the direct application of lindane, the Committee decided to submit the practical residue limit of 0.2 ppm lindane in milk and milk products (on a fat basis) to the Commission at Step 8 of the Procedure (see Appendix II). The delegations of Denmark, the Federal Republic of Germany, Norway, Sweden and Switzerland were opposed to this decision on the basis that the Joint Meeting had recommended a practical residue limit of 0.1 ppm and that this reflected the residues actually encountered in their countries.

MALATHION

(The limits apply to malathion plus its oxygen analogue)

Malathion in fruit except Citrus fruit

80. The Committee noted that the 1969 Joint Meeting had suspended its recommendation for 8 ppm malathion in fruit pending review and clarification of this class of food in 1970. The Committee agreed to hold this tolerance at Step 7 (see Appendix III) pending further recommendations from the Joint Meeting on Pesticide Residues.

Malathion in Citrus fruit

81. Some delegations were in doubt whether a tolerance of 4 ppm was necessary as it did not appear to be supported by data in the monographs of the Joint Meeting on Pesticide Residues, which indicated a rapid disappearance rate. The delegations of Israel and the U.S.A. pointed out that sprays of malathion often had to be applied one or two days before harvest. The Committee agreed to submit the proposed tolerance of 4 ppm malathion in Citrus fruit to the Commission at Step 8 of the Procedure (see Appendix II). It was understood that this level of residue in the whole fruit would not lead to residues in excess of 0.5 ppm in the pulp.

Malathion in dried fruit

82. Some delegations were of the opinion that the items included in this class should be specified. Since malathion was applied directly during drying, the Committee agreed that a general

tolerance might be appropriate and decided to submit the tolerance of 8 ppm in dried fruit to the Commission at Step 8 of the Procedure (see Appendix II).

Malathion in nuts

83. The Committee noted that the limit was also based on post harvest treatment and that it applied to the whole nut. The Committee agreed that a separate tolerance for shelled nuts should also be established. The Committee decided to submit the tolerance of 8 ppm in whole nuts in the shell to the Commission at Step 8 of the Procedure (see Appendix II). The Joint Meeting on Pesticide Residues was requested to recommend a tolerance for shelled nuts, and governments were requested to furnish data on this subject directly to the Joint Meeting.

Malathion in vegetables and leafy vegetables

- 84. The Committee reconsidered the tolerance of 3 ppm in vegetables (except leafy vegetables) and of 6 ppm in leafy vegetables. The delegations of Denmark, the Federal Republic of Germany and the Netherlands were of the opinion that the wide use of malathion could easily result in the intake exceeding the ADI, particularly if such high limits were established. In reply to a question, the Delegation of Denmark informed the Committee that the intake calculations had not been based on total diet studies. Taking note of the fact that malathion was scheduled for review by the next Joint Meeting on Pesticide Residues and noting that the tolerance for vegetables other than leafy vegetables had been suspended at the 1969 Joint Meeting pending review and clarification in 1970, the Committee decided to hold the tolerances for vegetables and for leafy vegetables at Step 7 of the Procedure (see Appendix III).
- 85. The delegation of France was of the opinion that tolerances should also be established for malathion in pulses. Interested governments were requested to supply information directly to the Joint Meeting on Pesticide Residues.
- C. TEMPORARY TOLERANCES AT STEP 7 (held at Step 7 at the 4th session)
- 86. The Commission examined at Step 7 the temporary tolerances held at Step 7 at the 4th session of the Committee and referred to the Joint Meeting on Pesticide Residues (see Appendix V of the Report of the 4th session of the Codex Committee on Pesticide Residues, ALINORM 70/24). During the discussions the following comments and decisions were made:

ALDRIN AND DIELDRIN

(The limits apply to aldrin and dieldrin, singly or in any combination, and are expressed as dieldrin).

Aldrin and dieldrin in vegetables

87. On the request of the Committee the Joint Meeting on Pesticide Residues had specified the vegetables falling into this class as indicated below. In reply to a question, the representative of FAO informed the Committee that, in view of a lack of residue data, no tolerance could be established for potatoes. The delegation of the Netherlands was of the opinion that a practical residue limit of 0.05 ppm instead of a temporary tolerance of 0.1 ppm for carrots was more appropriate. The delegations of Austria, the Federal Republic of Germany and Japan were of the opinion that the limit of 0.1 ppm was too high for all the vegetable items. The Committee decided to submit the temporary tolerance of 0.1 ppm in asparagus, broccoli, Brussek sprouts, cabbage, carrots, cauliflower, cucumber, eggplant, horseradish, lettuce, onions, parsnips, peppers, pimentos, potatoes, radishes and radish tops to the Commission at Step 8 of the Procedure (see Appendix II).

INORGANIC BROMIDE

(determined and expressed as total bromide ion from all sources).

Inorganic bromide in fruit (except avocados, Citrus fruit and strawberries)

88. The Committee had asked the Joint Meeting on Pesticide Residues for a more detailed specification of "fruit" as a commodity. It was noted that this had not been possible but that the Joint Meeting would probably be in a position to review the matter in 1971. In order not to delay the progress of this recommendation the Committee decided to submit the temporary tolerance of 20 ppm of inorganic bromide in fruit (except avocados, Citrus fruit and strawberries) to the Commission at Step 8 of the Procedure (see Appendix II).

Inorganic bromide in dried fruit (except dried dates, figs, peaches, prunes and raisins)

89. The Committee had asked the Joint Meeting on Pesticide Residues for a further specification of the commodity "dried fruit," but noted that this had not been possible. The Committee decided to submit the temporary tolerance of 30 ppm of inorganic bromide in dried fruit (except dried dates, figs, peaches, prunes and raisins) to the Commission at Step 8 of the Procedure (see Appendix II). It was understood that the matter of residues of unchanged organic bromides would be examined in the future.

Inorganic bromide in dried eggs

90. The Committee had asked the Joint Meeting on Pesticide Residues to review the proposed temporary tolerance of 400 ppm in dried eggs in view, particularly, of the possibility of the

formation of alkylated addition compounds with protein and other constituents of egg. The representative of FAO informed the Committee that the temporary tolerance had been suspended at the 1969 Joint Meeting pending review and clarification in 1971. The Committee, therefore, decided to retain the proposed tolerance at Step 7 of the Procedure (see Appendix III).

PART III

TOLERANCES, TEMPORARY TOLERANCES AND PRACTICAL RESIDUE LIMITS

AT STEP 4 OF THE PROCEDURE (submitted to Governments at Step 3 at the 4th Session)

- 91. The Committee examined the tolerances, temporary tolerances and practical residue limits sent to governments for comment at Step 3 of the Procedure (see Appendix IX of the Report of the 4th session of the Codex Committee on Pesticide Residues, ALINORM 70/24) The Committee had before it comments from governments on these tolerances, temporary tolerances and practical residue limits in working papers CX/PR 70/7 and CX/PR 70/7/1.
- 92. In a general statement the delegation of Canada declared that they found it difficult to evaluate the possible acceptance of the tolerances suggested in some cases because the monographs of the Joint Meeting on Pesticide Residues were not consistent in providing technical data on the dosage, timing and number of applications and the minimum interval from last application to harvest for these proposals. They recommended that the secretariats of the Committee and the FAO prepare a table setting forth this information in order to allow the members of the Committee to compare the technical data considered by the Joint Meeting on Pesticide Residues with the use patterns and resulting residues in their countries. The Committee was in agreement with this recommendation.

AZINPHOS - METHYL

Azinphos-methyl in fruit except apricots and grapes

93. Several delegations stated that a specification of the fruits to be included in this general classification was needed before this tolerance could be considered. The delegation of the Federal Republic of Germany indicated that in their opinion a tolerance of 0.4 ppm was sufficient. The Committee decided to return the temporary tolerance of 1 ppm in fruit, except apricots and grapes, to Step 3 of the Procedure (see Appendix VII) and to ask governments to indicate, with supporting data, for which fruits tolerances were required.

Azinphos-methyl in apricots and grapes

94. The delegation of the United Kingdom considered that the proposed limit of 4 ppm was rather high for apricots and questioned whether this residue resulted from good agricultural practice in the producing countries.

The delegation of France expressed the opinion that 4 ppm would be too high for grapes. The Committee agreed to submit the temporary tolerance of 4 ppm in apricots and grapes to the Commission at Step 5 of the Procedure (see Appendix V).

Azinphos-methyl in vegetables

95. The Committee agreed that it was desirable to specify which vegetables were included in this class and decided to return the temporary tolerance of 0.5 ppm in vegetables to Step 3 of the Procedure (see Appendix VII). Governments were asked to indicate with supporting data, for which vegetables tolerances were required,

INORGANIC BROMIDE

(Determined and expressed as total bromide ion from all sources)

Inorganic bromide in whole-meal flour

96. The delegation of Australia stated that they considered the tolerance of 50 ppm was too low and that data had been submitted to FAO to support a tolerance of 100 ppm in this and other similar milled grain products. The Committee agreed to advance the temporary tolerance of 50 ppm in whole-meal flour to Step 5 of the Procedure (see Appendix V), noting that the results of the evaluation would be available in 1972.

CARBARYL

Carbaryl in meat of cattle, goat and sheep

97. The delegations of Canada and the Federal Republic of Germany stated that they were not in a position to comment on the proposed tolerance since carbaryl was currently under review. Delegations were asked to send all available information on the toxicology and residues of carbaryl in meat to the Joint Meeting on Pesticide Residues with a copy to the Chairman of the Committee. The representative of WHO drew attention to a possible further review of the toxicology of carbaryl by the forthcoming 1970 Joint Meeting on the basis of data which have recently become available to the experts. He also pointed out that the change in the ADI, following the deliberations of the 1969 Joint Meeting, could be explained by the "Further work required" for carbaryl, which is listed in the draft report of that Joint Meeting. The Committee decided to submit a temporary therance of 1 ppm in meat of cattle, goat and sheep to the Commission at Step 5 of the Procedure (see Appendix V).

CHLOROBENZILATE

Chlorobenzilate in Citrus fruit

98. The Committee agreed to submit a temporary tolerance of 1 ppm in Citrus fruit to the Commission at Step 5 of the Procedure (see Appendix V).

The delegation of the United States did not agree with the proposed figure, and was of the opinion that the tolerance was too low to accommodate the use of this pesticide in their country.

Chlorobenzilate in apples and pears

99. The delegation of the Federal Republic of Germany proposed a limit of 1.5 ppm. It was agreed to delete the phrase "on a whole fruit basis" as the tolerances normally applied to raw agricultural products on a whole product basis, unless otherwise specified. The Committee agreed to submit a temporary tolerance of 5 ppm in apples and pears to the Commission at Step 5 of the Procedure (see Appendix V).

Chlorobenzilate in almonds, walnuts and melons (including cantaloung

100. The Committee agreed to submit a temporary tolerance of 0.2 ppm in almonds and walnuts (on a shell-free basis) and 1 ppm in melons (including cantaloups) to the Commission at Step 5 of the Procedure (see Appendix V).

CHLOROPROPYLATE

Chloropropylate in Citrus fruit, apples, pears, tomatoes and cantaloups

101. The Committee agreed to submit a temporary tolerance of 3 ppm in Citrus fruit, apples and pears and 1 ppm in tomatoes and cantaloups to the Commission at Step 5 of the Procedure (see Appendix V). The phrase "on a whole fruit basis" was deleted. The delegation of Switzerland enquired whether the ADI for chloropropylate would be re-evaluated in the light of recent toxicological data submitted. The representative of WHO drew attention to the monograph on chloropropylate arising from the 1968 Joint Meeting on Pesticide Residues. He pointed out that in contrast to chlorobenzilate, only a temporary ADI had been established for chloropropylate and, therefore, chloropropylate would automatically come up for review at the 1972 Joint Meeting. The monograph outlined certain toxicological requirements for chloropropylate which would need to be fulfilled before the WHO Expert Committee could be expected to consider modifying the ADI.

COUMAPHOS

(to be determined as coumaphos and its oxygen analogue and expressed as coumaphos)

Coumaphos in meat

102. The Committee decided to submit a temporary tolerance of 0,5 ppm in meat (determined and expressed on the rendered or extracted fat) to the Commission at Step 5 of the Procedure (see Appendix V).

The delegation of Canada indicated that information was needed on the distribution of the residues between the fat and the agueous phases. The delegation of Australia informed the Committe that virtually the entire residue was found in the fat but that this was not indicated in the monograph of the Joint Meeting on Pesticide Residues.

Coumaphos in poultry and eggs

103. The Committee agreed to submit a temporary tolerance of 0.5 ppm in poultry (on a fat basis) and a temporary tolerance of 0.05 ppm in eggs (on a shell-free basis) to the Commission at Step 5 of the Procedure (see Appendix V).

CRUFOMATE

Crufomate in whole milk and meat

104. The Committee decided to submit a temporary tolerance of 0.05 ppm in whole milk and a temporary tolerance of 1 ppm in meat (determined and expressed on the rendered or extracted fat) to the Commission at Step 5 of the Procedure (see Appendix V). The delegation of Canada stated that, in their opinion, a practical residue limit would be more appropriate and that the establishment of limits in milk products would also be advisable. Furthermore information was needed on the distribution of the residues between the fat and the aqueous phases.

DDT

(The limits apply to DDT, DDD and DDE singly or in any combination)

DDT in eggs

105. The Committee agreed to submit a practical residue limits of 0.5 ppm in eggs (on a shell-free basis) to the Commission at Step 5 of the Procedure (see Appendix V).

DICOFOL

Dicofol in fruit and vegetables

106. In order to clarify which crops were included in the classes "fruit" and "vegetables" the Committee agreed to return the temporary tolerance of 5 ppm to Step 3 of the Procedure (see Appendix VII) and to request governments to indicate, with supporting data, to which fruits and vegetables the above tolerance should apply.

Dicofol in hops

107. Since it was not clear whether the tolerance applied to green or dried hops, the Committee decided to return this temporary tolerance to Step 3 of the Procedure (see Appendix VII)

and to request information from governments on the residues found in these commodities. It was agreed that a tolerance for dried hops was required since this was the commodity moving mainly in international trade.

Dicofol in tea

108. The Committee agreed to hold the temporary tolerance in tea at Step 4 of the Procedure (see Appendix VI) and to ask the Joint Meeting on Pesticide Residues to re-examine this matter. It was agreed that only one tolerance was required, i.e. for tea, whether blended or not, taking into account residues which might occur following good agricultural practice.

DIOXATHION

(Residues of cis and trans isomers of principal active ingredient to be determined and expressed as sum of both)

Dioxathion in pome fruit

109. The Committee agreed to submit a temporary tolerance of 5 ppm in pome fruit to the Commission at Step 5 of the Procedure (see Appendix V). The delegation of the Federal Republic of Germany stated that a tolerance of 0.4 ppm was sufficient in their country and could not accept a higher limit. It was noted that this class of fruit consisted mainly of apples, pears and quinces.

Dioxathion in grapes and Citrus fruit

110. The Committee agreed to submit a temporary tolerance of 2 ppm in grapes and a temporary tolerance of 3 ppm in Citrus fruit to the Commission at Step 5 of the Procedure (see Appendix V).

Dioxathion in meat

111. The delegations of Denmark and the Netherlands expressed their concern about the application of dioxathion to cattle and poultry in view of the persistent nature and the low ADI of this substance. Some doubt was expressed as to whether residues were found only in the fat. It was agreed that this matter should be clarified. As dioxathion was used extensively for direct application to livestock in several countries, the Committee decided to submit a temporary tolerance of 1 ppm in meat (determined and expressed on the rendered or extracted fat) to the Commission at Step 5 of the Procedure (see Appendix V).

ENDOSULFAN

(To be measured and expressed as total endosulfan A and B and endosulfan sulphate)

Endosulfan in fruit and vegetables

112. The Committee agreed to return the temporary tolerance of 2 ppm in fruit and vegetables to Step 3 of the Procedure (see Appendix VII) and to request governments to indicate, with supporting data, as to which fruits and vegetables the above tolerance should apply.

ETHION

Ethion in fruit (except grapes) and vegetables

113. The Committee agreed to return the temporary tolerance of 1 ppm in fruit and temporary tolerance of 0.5 ppm in vegetables to Step 3 of the Procedure (see Appendix VII) and to request governments to indicate, with supporting data, as to which fruits and vegetables the above tolerance should apply.

Ethion in tea

114. The Committee agreed to hold the temporary tolerance in tea at Step 4 of the Procedure (see Appendix VI) and to ask the Joint Meeting on Pesticide Residues to re-examine this matter. It was agreed that only one tolerance was required, i.e. for tea, whether blended or not, taking into account residues following good agricultural practice.

Ethion in grapes

115. The Committee agreed to submit a temporary tolerance of 2 ppm in grapes to the Commission at Step 5 of the Procedure (see Appendix V).

FENCHLORFOS

(The limits apply to fenchlorfos plus its oxygen analogue and are expressed as fenchlorfos).

116. The delegation of Canada stated that they could not consider the proposed temporary tolerances until a quantitative method of determination of the oxygen analogue of fenchlorfos was established.

Fenchlorfos in whole milk

117. The delegation of the Netherlands was of the opinion that there was also a need to establish a tolerance for milk products. The Committee decided to submit the temporary tolerance of 0.04 ppm in whole milk to the Commission at Step 5 of the Procedure (see Appendix V).

Fenchlorfos in whole egg (on a shell free basis)

118. The Committee agreed that a for the sake of consistency, the tolerance should be re-expressed for the whole egg on a shell-free

basis. The Committee decided that the temporary tolerance of 0.05 ppm for egg yolk, recalculated as 0.03 ppm in the whole egg, on a shell-free basis, should be submitted to the Commission at Step 5 of the Procedure (see Appendix V).

Fenchlorfos in meat

119. Some delegations objected to the limit of 7.5 ppm, since they considered it unnecessarily high and doubted whether it reflected good agricultural practice. Other delegations were of an opposite view and were in favour of 7.5 ppm. The Committee decided to return the temporary tolerance of 7.5 ppm in meat, on a fat basis, to Step 3 of the Procedure (see Appendix VII) for further comments, requesting governments to provide residue data as well as information on the oxygen analogue of fenchlorfos directly to the Joint Meeting on Pesticide Residues.

LINDANE

Lindane in egg yolk

120. The Committee discussed the practical residue limit of 0.2 ppm in egg yolk in the light of the conclusions concerning fenchlorfos in egg yolk (see para 118) but decided to submit the practical residue limit of 0.2 ppm in egg yolk to the Commission at Step 5 of the Procedure (see Appendix V). It was agreed that governments should be requested to comment on the way the tolerance should be expressed.

Lindane in meat

121. The Committee considered the practical residue limit of 2 ppm in meat (on a fat basis) which had been referred to the Joint Meeting on Pesticide Residues for re-examination (see para 137 of the Report of the Codex Committee on Pesticide Residues, ALINORM 70/24). The representative of FAO pointed out that no re-examination had been possible in the absence of new data. Recognizing that in some countries the direct application of lindane to cattle was registered, the Committee decided to submit a temporary tolerance instead of a practical residue limit of 2 ppm in meat (determined and expressed on the rendered or extracted fat) to the Commission at Step 5 of the Procedure (see Appendix V).

Lindane in poultry

122. The Committee noted that the recommendation concerning poultry had been erroneously omitted from the table in the Report of the 1968 Joint Meeting on Pesticide Residues. The Committee considered the proposal for a practical residue limit of 0.7 ppm in poultry (on a fat basis) and agreed to submit this recommendation to the Commission at Step 5 of the Procedure (see Appendix V).

It was also agreed that governments should be requested to comment on the way the tolerance should be expressed, i.e. on a "whole poultry" or on a "fat basis".

MALATHION

(The limits apply to malathion plus its oxygen analogue)

Malathion in whole meal and flour from rye and wheat

123. The delegation of Australia suggested an amendment to broaden the description of this commodity so that it would read "milled products from raw cereals". In view of a lack of supporting data in other cereal products, the Committee decided to submit the proposed tolerance of 2 ppm in whole meal and flour from rye and wheat to the Commission at Step 5 of the Procedure (see Appendix V). It was also agreed that governments should be requested to comment on the Australian proposal and to provide the necessary data.

PARATHION -METHYL

Parathion-methyl in cole crops and cucurbits

124. The Committee agreed to submit a temporary tolerance of 0.2 ppm for cole crops and cucurbits to the Commission at Step 5 of the Procedure (see Appendix V).

Parathion-methyl in fruit and vegetables (except cole crops and cucurbits)

125. The Committee decided to return the temporary tolerances of 0.2 ppm for fruit and 1 ppm for vegetables (except cole crops and cucurbits) to Step 3 of the Procedure (see Appendix VII) and to request governments to indicate for which crops tolerances would be required and to provide the relevant supporting data.

Parathion-methyl in cottonseed oil

126. The Committee agreed to submit a temporary tolerance of 0.05 ppm to the Commission at Step 5 of the Procedure (see Appendix V).

PARATHION

Parathion in fruit

127. The Committee received a clarification on a discrepancy between tolerances for parathion in the monograph and the Report of the 1967 Joint Meeting on Pesticide Residues (see para 132 of the Report of the 4th session of this Committee, ALINORM 70/24). The Committee took note of this clarification and agreed that the temporary tolerance of 1 ppm in peaches, apricots and Citrus fruit

should be submitted to the Commission at Step 5 of the Procedure (see Appendix V).

128. The Committee decided to return the general temporary tolerance of 0.5 ppm in fruit (except apricots, Citrus fruit and peaches) to Step 3 of the Procedure (see Appendix VII) and to request governments to specify, with supporting data, for which crops tolerances would be required.

PHOSPHAMIDON

129. The delegations of Canada and the United Kingdom stated that the method of determination of residues using the cholinesterase inhibition method was not sufficiently specific to determine phosphamidon in the presence of similar pesticides. The Committee noted that the tolerances had been based on supervised trials involving only phosphamidon and that, therefore, the validity of the recommendations of the Joint Meeting on Pesticide Residues were not in doubt. The Committee was informed that a new GLC method was in the process of publication.

Phosphamidon in raw cereals

130. The Committee agreed to submit a temporary tolerance of 0.1 ppm in raw cereals to the Commission at Step 5 of the Procedure (see Appendix V).

Phosphamidon in fruits and vegetables

131. The Committee agreed to submit temporary tolerances of 0.5 ppm in apples and pears, 0.4 ppm in Citrus fruit, 0.1 ppm in water melons, tomatoes, lettuce and cucumbers, and 0.2 ppm in cole crops to the Commission at Step 5 of the Procedure (see Appendix V). The Committee agreed that the general temporary tolerances of 0.2 ppm in fruit (except the above mentioned specific fruit items) and vegetables (except the above mentioned specific vegetable items) be sent to governments for comment at Step 3 of the Procedure (see Appendix VII) 1. It was agreed that governments be requested to indicate, with supporting data, for which specified crops tolerances would be required. Information was also requested on the required rate and frequency of application, pre-harvest intervals and resultant residues in root vegetables.

¹⁾ Note by the Secretariat: the recommendation of the Joint Meeting on Pesticide Residues for a tolerance of 0.2 ppm in vegetables has been inadvertently omitted from the report of the Joint Meeting. It must therefore be regarded as a new recommendation (subject to confirmation by the Joint Meeting) considered at Step 2 by the Committee at this Session.

PART IV

TOLERANCES, TEMPORARY TOLERANCES AND PRACTICAL RESIDUE LIMITS AT STEP 2 OF THE PROCEDURE

- 132. The Committee had before it the Report of the 1969 Joint Meeting on Pesticide Residues (Advance copy for use by the Codex Committee on Pesticide Residues) containing recommendations for tolerances, temporary tolerances and practical residue limits for various pesticide residues at Step 2 of the Procedure. A summary of the recommendations of the Joint Meeting (CX/PR 70/Draft Report/Appendix VII), distributed at the session, also served as a working document.
- 133. Several delegations pointed out that they had received the report of the Joint Meeting on Pesticide Residues too late to enable them to study the recommendations in detail. It was pointed out by the Chairman that, effectively, Step 2 represented a point at which tolerances recommended by the Joint Meeting entered the Codex Procedure and that Step 4 was more appropriate for detailed discussions, since the Committee had before it comments from governments. It was agreed that the monographs were essential for governments to consider the recommendations at Step 3. The FAO representative informed the Committee that the Monographs of the 1969 Joint Meeting would be distributed by the end of the year. It was also stated that all effort would be made to ensure that the reports of the Joint Meeting would be made available in time, so that member countries of the Codex Alimentarius Commission have ample opportunity to study the recommendations contained therein.
- 134. The Committee agreed that the tolerances, temporary tolerances and practical residue limits appearing in Appendix VII be sent to governments for comments at Step 3 of the Procedure.

PART V

DISCUSSION OF THE REPORT OF THE AGENDA GROUP SET UP DURING THE MEETING (see para 15)

135. The Chairman of the Codex Committee introduced the agenda that had been drawn up by the Agenda Committee consisting of members from Australia, Canada, Denmark, the Federal Republic of Germany, Israel, the Netherlands, the United Kingdom, the U.S.A. and the representatives of FAO and WHO (see para 15). He pointed out that the formation of an Ad Hoc Working Group would have to meet the requirements of the Codex Commission as set out in para 162 of the Commission Report. Participants in the Ad Hoc Working Group would be asked to prepare preliminary papers and the standard of these papers would need to meet the requirements indicated in the Commission's report.

The Committee agreed that it was necessary to discuss the agenda as set out in Appendix VIII of this report and to prepare working papers on basic controversial issues for the next meeting of the Codex Committee on Pesticide Residues. Furthermore, it was agreed that the convening of such an Ad Hoc Working Group, preferably under the auspices of the Codex Commission, was vital to the continuation of the work of Codex Committee on Pesticide Residues. It was also agreed that the members of the above mentioned Agenda Committee should be members of the Ad Hoc Working Group. The Committee agreed, at the suggestion of the delegation of the Federal Republic of Germany, that invitation to participate in the deliberations of the Ad Hoc Working Group should be open to all interested members of the Codex Alimentarius Commission, with the understanding that the points at issue would be allowed full discussion in detail. It was also agreed that the Ad Hoc Working Group was of a preparatory nature and it was understood that its report would be discussed in full detail at the next Session of the Codex Committee on Pesticide Residues. The Committee strongly requested the Codex Secretariat to pursue this matter through the appropriate channels in FAO and WHO in order to arrive at a solution preferably in the next two months.

PART VI

METHODS OF ANALYSIS FOR PESTICIDE RESIDUES

- 137. The Committee had before it the documents CX/PR 70/5 containing comments from governments, CX/PR 70/5 Add. 1 containing comments from Canada and CX/PR 70/5 Add. 2 containing comments from New Zealand. The Committee noted that the governments had been officially requested to send their comments on the methods of analysis so far recommended by the Joint Meeting on Pesticide Residues to the Committee. Only five governments responded to this request.
- 138. The Committee discussed whether the methods of analysis for pesticide residues should be elaborated as Codex referee methods as defined in para 1 of the General Principles for the Establishment of Codex Methods of Analysis (Procedural Manual of the Codex Alimentarius Commission, 2nd Edition), or whether the Committee should make recommendations for one or more methods which would be suitable for regulatory purposes. The latter approach would make it possible for governments to select and agree upon a method for referee purposes when the requirement arose. It was pointed out that if the Codex Committee were to embark on the establishment of referee methods, this would have to be done according to the Procedure for the Elaboration of Codex standards. It was pointed out that the Joint Meeting on Pesticide Residues was recommending methods of analysis suitable for the measurement of residues at the recommended tolerance levels. The Committee's attention was drawn to the definition by the Joint Meeting on Pesticide Residues of "referee" and "regulatory" methods of analysis (see the report of the 1968 Joint Meeting). The representative of IUPAC, stated that IUPAC was not in favour of a rigid specification of methodology but preferred methods which had been published in reputable chemical journals.

It was pointed out that it was more important to select a competent referee laboratory for the purposes of settling disputes.

- 139. The Committee was in favour, at least for the time being, of recommending methods of analysis which would be suitable for the purpose of enforcing Codex tolerances. It was also agreed that the Reports of the Codex Committee on Pesticide Residues should state that the analytical methods recommended at the present time were recommended as suitable for purposes of enforcement of tolerances.
- 140. The Committee endorsed its previous decision to cooperate with IUPAC (para 153 ALINORM 70/24). It was also agreed that advantage should be taken of any opportunity to cooperate with any other international organization that might be expert in the field of pesticide residue analysis. The spokesman for IUPAC informed the Committee that the IUPAC statutes would permit this organization to enlist additional assistance and to carry out collaborative work with existing national and international groups competent in this field for the development of analytical methods for communication to the Codex Committee on Pesticide Residues.
- 141. The Committee discussed the order of priorities of pesticides which should be submitted to IUPAC. It was decided that the pesticides at present at Steps 8 and 9 of the Procedure should receive priority.
- 142. After discussing the procedure to be adopted with the methods of analysis so far recommended by the Joint Meeting, the Committee agreed that the comments so far received from governments should be made available to IUPAC for information and comment. The Secretariat was asked to prepare a list of methods of analysis already proposed by the Joint Meeting and to circulate this document to governments for comments. Relevant comments should also be made available to IUPAC.

PART VII

REVISION OF THE PRIORITY LISTS

Justification of pesticides in Priority List VI

143. The Committee considered various papers containing justification for use of the pesticides in Priority List VI (see Appendix X, ALINORM 70/24).

The representative of WHO drew the attention of the Committee to the fact that the heavy workload of the Joint Meeting on Pesticide Residues did not allow to deal with all the proposed compounds of Priority List VI. It was therefore agreed to limit this list to five or six compounds. The delegation of the United Kingdom was of the opinion that only those substances which had been justified on the basis of the criteria adopted at the 3rd session should be included in the Priority List and those that failed to meet these criteria should be added to a Reserve List.

It was noted that no justification had been received for 2,4-D, benomyl, phosalone and diuron. The representative of WHO informed the Committee that 2,4-D (and 2,4,5-T) were already scheduled for consideration by the Joint Meeting on Pesticide Residues.

- 144. In keeping with paragraph 76 of the report of the 1968 session (ALINORM 69/24) and in the light of present knowledge, the Committee decided to delete the remainder of the compounds from Priority List VI and transfer these to Priority List VII (see paragraphs 146 and 147) and to a Reserve-List (see paragraph 148).
- 145. The Committee agreed to place the following compounds on List VI: chlorfenvinphos, chlorphenamidine, fenthion, omethoate, trichloronate and trichlorphon (see Appendix IX).

Establishment of Priority List VII

- 146. The Committee agreed that the following compounds, which were deleted from Priority List VI should be included in Priority List VII: benomyl, bromophos, fensulfothion, mevinphos, monocrotophos and phosalone (see Appendix IX).
- 147. The Committee took note of a room document presented by the delegation of Australia, containing compounds which could be of interest for future priority lists. With regard to this proposal it was decided to place the compound "Dursban" (no common name known), bromophos-ethyl, carbophenothion and metidathion on Priority List VII. With further reference to the Australian proposal to include also tricyclohexyl tinhydroxide in this list, the representative of WHO informed the Committee that the toxicology of this compound would be considered by the Joint Meeting on Pesticide Residues this year. Therefore no necessity existed to include this compound in any priority list. The compounds tentatively listed in Priority List VII are shown in Appendix IX, with the countries responsible for supplying justification for use.

Establishment of a Reserve-List

148. The Committee agreed that a number of compounds which did not meet the necessary criteria for establishment of priorities could be deleted from Priority List VI and placed in the Reserve List (see Appendix IX and para 147).

PART VIII

DEFINITION OF PESTICIDE RESIDUES

149. The Committee had before it a paper prepared by the Secretariat on the definition of various terms used by the Codex Committee on Pesticide Residues (CX/PR 70/9) and a paper containing proposals by the delegations of the United Kingdom and the Netherlands on the definition of pesticide residues (CX/PR 70/9 add. 1).

- 150. The Secretariat pointed out that certain terms needed defining for the better understanding of the tolerances, temporary tolerances and practical residue limits of pesticide residues recommended by the Codex Alimentarius Commission. It was also desirable to define "pesticide residues" so as to describe the scope of the meaning of the term "pesticide" as used in the context of the Codex Alimentarius. It was stressed that this was not intended to delineate the terms of reference of the Committee.
- 151. The Committee agreed that no real difficulties existed regarding the publications containing the tolerances, temporary tolerances and practical residue limits adopted by the Codex Alimentarius Commission at Step 8 of the Procedure in this respect. The Committee requested the Secretariat to give further consideration to the problem of definitions and to report to the Committee at its next session.

PART IX

MATTERS OF INTEREST TO THE COMMITTEE

152. The Committee considered a paper prepared by the Secretariat containing extracts from the report of the 7th session of the Commission (CX/PR 70/13). The Committee noted that it had dealt with the various matters contained in the paper at previous agenda items. It also noted that the Commission had endorsed the decision reached at the 4th session of the Committee in respect of the acceptance of recommended tolerances for pesticide residues (see para 163, ALINORM 70/43 and paras 7, 8 and 9 ALINORM 70/24).

FUTURE WORK

153. In view of the present work-load of the Committee no new proposals for additional future work were received.

OTHER BUSINESS

The use of the Spanish language

154. The delegations of Argentina and Venezuela drew the Committee's attention to paras 21 to 36 of the Report of the 7th session of the Commission (ALINORM 70/43). They stressed that the use of the Spanish language, as a working language of the Codex Committee on Pesticide Residues, would greatly increase the possibilities of participation of the Spanish speaking countries which represented a total of some 250 million people in the world. The Committee agreed to make a statement to this effect in the report.

Facilitation of the establishment of international tolerances for pesticide residues

155. As a result of a paper tabled at the Session by the U.S.A. delegation, the Committee agreed that it had reached a critical point in the deliberations regarding the establishment of international tolerances for pesticide residues.

The Committee recognized the right and the need to discuss the recommendations of the Joint Meeting on Pesticide Residues. However, it was of the opinion that when a delegation proposed a numerical value either higher or lower than that proposed by the Joint Meeting and under consideration by the Codex Committee on Pesticide Residues, that delegation should support this proposed change with data or with well founded reasoning as appropriate.

- 156. The Committee agreed that residue data on imported commodities, particularly where the treatment history was known, was of great importance and encouraged delegations to provide such information. The Committee recommended that the delegations present their comments and questions in detail in writing to the Committee and that these comments and questions should be forwarded to member governments. The Committee agreed that these actions should be completed no less than 4 months before its next scheduled meeting. Similarly, the monographs arising from the deliberations of the Joint Meeting on Pesticide Residues should be available at least two months prior to the next scheduled meeting. This procedure would permit delegations to assemble the necessary documentation to respond to the comments and questions.
- 157. Regarding para 155 above, it was also emphasized that the monographs of the Joint Meeting on Pesticide Residues should present sufficient relevant data and reasoning so as to enable governments to comment on the validity of the conclusions of the Joint Meeting with respect to tolerances recommended.

Estimate of potential pesticide residue intake

- 158. The Committee discussed the paper prepared by the WHO Secretariat describing a pilot study on the above subject (CX/PR 70/14). The representative of WHO indicated that the paper at this stage represented an attempt to calculate which pesticides were unlikely to result in potential daily intake exceeding the ADI's in specific countries, even if all food commodities, for which the Joint Meeting on Pesticide Residues had recommended tolerances, bore residues to the limit of these tolerances and no reduction of residues occurred between harvest and consumption. It was understood that in the case of the nine pesticides which fell into this category, the recommended tolerances would still be in accordance with good agricultural practice.
- 159. The Chairman stressed the importance of this work of WHO in the interest of human health. The Committee unanimously agreed that the study should be continued. It was also agreed that the results obtained from this study indicated that it was useful to calculate the potential daily intake of pesticide residues using average food consumption figures for individual countries as compiled by FAO. In the case of those pesticides, where there was clearly no potential for the ADI to be exceeded it was agreed that further work on the reduction of residue levels during storage, processing and cooking was not essential and that there was no need to include those compounds in monitoring studies so long as the tolerance figures and the acceptable daily intakes for them remain unchanged.

- For the other pesticides, the potential intake of which exceeded the ADI, available information on the disappearance of residues prior to consumption should be compiled and the intake figures recalculated. Where adequate information was not available, the Committee recommended that work should be initiated in order to obtain the necessary data. When, upon recalculation of the estimated potential intake using the lower figures for residue levels, there still remains a possibility of exceeding the ADI, further monitoring studies should be carried out. In these cases such studies should be conducted in several countries on a continuing basis. It was noted that the results of studies using "average" rather than "high" consumption figures may enable a change to be made in the temporary nature of the tolerances. In conclusion, the Committee agreed that the results of this study should not be interpreted in such a manner as to condemn the current use of any pesticides but rather to show that further work on the intake of certain pesticides may be unnecessary and also to establish priorities in other cases where such work was needed.
- 161. The delegation from Canada, in commenting on the document prepared by the WHO Secretariat, drew attention to the fact that the study did not take into account information which had recently become available to IUPAC and to other international bodies, which provided information on the reduction of certain pesticides resulting from cooking or processing. It was also urged that countries provide further information on this subject.

Work of the Inter-governmental Maritime Consultation Organization (IMCO)

162. The delegation of Canada gave a brief resumé of the work done by the Safety Committee of the above organization concerning the protection of food during transit by ship. He pointed out that further progress had been made on the preparation of an Operational Manual for the ship's captain on the use of pesticides. The representative of WHO informed the Committee that his Organization was actively participating in this work. The Committee agreed that the work of this Committee and the recommendations made by the Commission for pesticide residue tolerances should continue to be made known to IMCO in order to bring consistency into the recommendations of IMCO and the Codex Alimentarius Commission. The delegations present were requested to follow the work of IMCO more closely in their respective countries so that this can be achieved.

Establishment of priorities for pesticide residues

163. The delegation of Israel proposed that the pesticide residues to be included in the Codex priority list should undergo a preliminary examination by a Board of Referees appointed by the Committee. It was noted that the existing procedure for the establishment of priorities described in paras 77 and 78 of the

report of the 3rd session of the Committee (ALINORM 70/24) required that governments, wishing to suggest the inclusion of pesticides in a particular priority list, submit a paper containing the justifications for the consideration of the pesticide by the Joint Meeting on Pesticide Residues. The Committee agreed that there was no need for the appointment of such a Board of Referees and that the papers justifying the priorities of the pesticide residues should continue to be discussed by this Committee.

Procedure for establishing tolerances

164. The delegations of Israel and Australia made reference to para 169 of the Report of the 4th Session of the Committee (ALINORM 70/24). They raised again the point of the very slow mechanism involved in establishing Codex pesticide residue tolerances, even though the omission of Steps 6, 7 and 8 was indicated as a possibility in entirely uncontroversial situations. They stressed the urgency of this matter and asked the Codex Secretariat to look into this problem and to draw the attention of the Executive Committee to this matter. The Secretariat undertook to do this and to convey the results to the 6th session of the Codex Committee on Pesticide Residues.

Proposals for additional tolerances

165. The delegation of the Netherlands pointed out the need of a practical residue limit to be established for dichlorvos in meat products and suggested a maximum level of 0,5 ppm on a whole product basis. They indicated that although the use of dichlorvos in meat storage practice is prohibited in the Netherlands the proposed residue limit was necessary to accomodate with residues occuring in trade, derived from the use of dichlorvos strips in meat storage and processing places in some countries. They further recommended that a maximum level for inorganic bromide be established in potatoes to control the use of fumigants as a quarantine measure. The Committee agreed that the Joint Meeting be requested to consider this matter. The delegation of the Netherlands and other interested delegations were requested to submit the necessary data to the Joint Meeting on Pesticide Residues.

GIFAP

166. The Committee's attention was drawn to para 170 of the Report of the 4th session of the Codex Committee on Pesticide Residues (ALINORM 70/24) concerning the cooperation of industry in order to expedite the establishment of international tolerances. Two representatives, speaking on behalf of GIFAP, stated that this organization was actively cooperating in the work of this Committee and the Joint Meeting on Pesticide Residues and that they were convinced that the members GIFAP would continue to make available data to the Joint Meeting on Pesticide Residues.

PART X

DATE AND PLACE OF NEXT SESSION

167. The Committee was informed that the Codex Commission, at its 7th session, agreed to schedule its sessions to take place at 18 months intervals. The possibility existed that the Codex Committee on Pesticide Residues would not meet until early 1972. It was pointed out that this was subject to confirmation by the Codex Alimentarius Commission when establishing the schedule of Codex sessions.

ADOPTION OF THE REPORT

168. The Committee adopted the Draft Report with amendments as the Report of its 5th Session.

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TOLERANCES, TEMPORARY TOLERANCES AND PRACTICAL RESIDUE LIMITS TO BE SUBMITTED TO THE CODEX ALIMENTARIUS COMMISSION AT STEP_8

| carbaryl | | rice | 2.5 | | 30 |
|------------|--------------------------|-----------------------|----------------------------|-------------------------|----------------------|
| | | tops | 0.1 | | 5 · |
| | | radishes and radish | . . | • | · |
| • | | potatoes | 0.1 | • | 5 · |
| | | pimentos | 0.1 | | Ś |
| | | peppers | 0.1 | | · ` |
| | | parsnips | 0.1 | • | · ` |
| | | onions | 0.1 | | ` |
| | | 1ettuce | 0.1 | | \ |
| | | horseradish | 0.1 | , | 3 " |
| | | eggplant | 0.1 | | 87 |
| | | cucumber | 0.1 | | · |
| | | carlots | 0.1 | • | Ś |
| | | carrots | 0.1 | | \ |
| | | cabbage | 0.1 | | \ |
| | | brussels sprouts | 0.1 | | \ |
| | | asparagus broccoli | 0.1 | | ζ |
| | arerarin | | 0.1 | 0.2 |) ' |
| | expressed as dieldrin | meat (3) | | 0.2 | 5 78 |
| | tion and are | products | | a fat basis | |
| | any combina- | milk and milk | 4 * | basis (2) 0.125 on | 77 |
| | singly or in | | • | shell-free | |
| | dieldrin | eggs | | 0.1 on a | 29 |
| | aldrin and | citrus fruits | 0.05 | 2 4 | 28 |
| dieldrin | apply to | (except rice) | | 0.02 | 25 |
| aldrin and | The limits | raw cereals | | | |
| | | | (ppm) | (ppm) | report |
| | method | | temporary tolerance (1) | <u>residue</u> limit | paragraph of this |
| Compound | Analytical | Food | Tolerance or | Practical | Relevant |
| 0 1 | | . . | <i>a</i> . 1 | | |

| Compound | Analytical method | Food | Tolerance or temporary tolerance (1) (ppm) | Practical residue limit (ppm) | Relevant paragraph of this report |
|-----------|---|--|---|-------------------------------|--|
| chlordane | residue to be measured as alpha plus gamma chlor-dane | raw cereals except: sweet corn popcorn pineapple pod vegetables | 0.1 0.1 0.2 0.1 on a whole pod | 0.1 | 34 35 36 38 42 |
| | | tomatoes peppers eggplant pimentos cucumbers melons (incl. cantaloups) pumpkins squash | basis 0.1 0.1 0.1 0.1 0.1 0.1 0.1 | | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ |
| DDT | the limits apply to DDT, DDD and DDE singly or in any combination | milk and milk products | | 1.25 on a fat basis | 50 |
| diazinon | | fruit except: peaches citrus fruit vegetables except: cole crops leafy vegetables | 0.5 0.7 0.7 0.5 0.7 see Step 6 | | 51 }52 53 54 55 |

Appendix II Page 2

| Compound | Analytical method | Food | Tolerance or temporary tolerance (1) (ppm) | Practical residue limit (ppm) | Relevant paragraph of this report |
|-----------------------|--|--|--|-------------------------------|--|
| dichlorvos | content of dichlor acetaldehyde (DCA) to be reported where possible | raw cereals cereals products (milled and for human consumption) fresh vegetables fruit (except citrus fruit) | 2 0.3 0.3 0.1 | | 58 59 60 62 |
| dimethoate | residues to be determined as dimethoate and its oxyger analogue and expressed as dimethoate | <u> </u> | 2 2 1 1 | | 63 64 }65 |
| heptachlor | combined residues of heptachlor and its epoxide to be determined and expressed as heptachlor | raw cereals vegetables except: carrots meat (3) | | 0.02 0.05 0.1 0.2 | 66 67 68 69 |
| hydrogen phosphide | | flour and other milled cereal products dried vegetables spices | 0.01 0.01 0.01 | | 70 }71 |

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| Compound | Analytical method | Food | Tolerance or temporary tolerance (1) (ppm) | Practical residue limit (ppm) | Relevant paragraph of this report |
|----------------------|--|--|--|-------------------------------|--|
| inorganic bromide | determined and expressed as total bromide ion from all sources | fruit (except avocados, Citrus fruit and strawberries) dried fruit (except dried dates, figs, peaches, prunes and raisins) | 20 30 | | 88 89 |
| lindane | | milk and milk products | | 0.2 on a fat basis | 79 |
| malathion | | citrus fruit dried fruit whole nuts in the shell | 4 8 8 | | 81 82 83 |

- (1) underlined: not temporary not underlined: temporary
- (2) The term "egg" covers egg white plus egg yolk and, therefore, includes products such as fresh whole eggs or whole egg pulp. The limit of 0.1 ppm based on the shell-free egg is equivalent to 0.25 ppm in egg yolk.
- (3) To be determined and expressed on the rendered or extracted fat.

TOLERANCES AND TEMPORARY TOLERANCES HELD AT STEP 7 AND REFERRED TO THE JOINT MEETING ON PESTICIDE RESIDUES

| Compound | Analytical method | Food | Tolerance or temporary tolerance (1) (ppm) | Relevant paragraph of this report |
|----------------------|--|--|---|-----------------------------------|
| carbary1 | | poultry | 5 on a whole meat basis including skin | 32 |
| chlordane | residue to be measured as alpha plus gamma chlordane | sugar beets | 0.1 | 39 |
| diazinon | | meat | 0.75 on a fat basis | 57 |
| hydrogen phosphide | | breakfast cereals | 0.01 | 70 |
| inorganic bromide | determined and expressed as total bromide ion from all sources | dried eggs | 400 | 90 |
| malathion | | vegetables except: leafy vegetables fruit (except citru fruit) | 2 .s <u>6</u> 8 | }84 80 |

⁽¹⁾ underlined : not temporary not underlined : temporary

TEMPORARY TOLERANCES AND PRACTICAL RESIDUE. LIMITS RETURNED TO STEP 6 WITH A REQUEST FOR FURTHER COMMENTS

| | SIEP 0 | WITH A REQUEST FO | R FURTHER COMMENTS | • | |
|------------------------|--|--|---|-------------------------------|--|
| Compound | Analytical method | <u>Food</u> | Temporary tolerance (ppm) | Practical residue limit (ppm) | Relevant paragraph of this report |
| aldrin and dieldrin | the limits apply to aldrin and dieldrin singly or in any combination and are expressed as dieldrin | rice fruit (except citrus f | 0.05 0.1 ruit) | | 26 27 |
| carbaryl | | raspberries blackberries boysenberries peaches nectarines apricots citrus fruit strawberries blueberries apples bananas (pulp) grapes okra asparagus leafy vegetables except: brassica beans peas (incl. pod) tomatoes peppers eggplant cucumbers | 10 10 10 10 10 10 7 7 7 7 5 5 5 10 10 10 | | 31 |

Appendix IV Page 1

Appendix IV Page 2

| Compound Analytical method | <u>Food</u> | Temporary tolerance (ppm) | Practical residue limit (ppm) | Relevant paragraph of this report |
|----------------------------|---|---------------------------------|-------------------------------|--|
| diazinon | leafy vegetables | 0.7 | | 55 |
| lindane | raw cereals cranberries cherries grapes plums strawberries vegetables | 0.5 3 3 3 3 3 | | 72 } 73 |
| parathion | vegetables (except carrots) | 0.7 | | 75 |

⁽¹⁾ to be determined and expressed on the rendered or extracted fat.

TOLERANCES, TEMPORARY TOLERANCES AND PRACTICAL RESIDUE LIMITS TO BE SUBMITTED TO THE CODEX ALIMENTARIUS COMMISSION AT STEP 5

| Compound | Analytical method | Food | Tolerance or temporary tolerance (1) (ppm) | Practical residue limit (ppm) | Relevant paragraph of this report |
|----------------------|---|---|--|-------------------------------|--|
| azinphos methyl | | apricots grapes | 4 4 | } | 94 |
| carbaryl | | meat of cattle goat and sheep | 1 | | 97 |
| chloro- benzilate | | citrus fruit apples pears almonds | 1 5 5 0.2 on a shell | } | 98 99) |
| | | walnuts melons (incl. cantaloups) | free basis 0.2 on a shell free basis | | 100 |
| chloro- propylate | | citrus fruit apples pears tomatoes cantaloups | 3 3 3 1 | | 101 |
| coumaphos | residues to be determined as coumaphos and its oxygen analogue and expressed as coumaphos | meat (2) poultry eggs | 0.5 0.5 on a fat basis 0.05 on a shell free basis (3) | | 102 |

Appendix V Page 2

| Compound lindane | Analytical method | Food egg yolk meat (2) poultry | Tolerance temporary tolerance (ppm) | (1) | Practical residue limit (ppm) 0.2 0.7 on a fat basis | Relevant paragraph of this report 120 121 122 |
|----------------------|--|---|--|------|--|--|
| malathion | | whole meal and flour from rye and wheat | } <u>2</u> | | · | 123 |
| parathion | | peaches apricots citrus fruit | 1 1 1 | | |) 127 |
| parathion- methyl | | cole crops cucurbits cottonseed oil | 0.2 0.2 0.05 | .` . | | 124 |
| phosphamidon | residues to be determined by cholinesterase inhibition technique and results to be expressed as phosphamidon | apples pears citrus fruit water melons tomatoes lettuce | 0.1 0.5 0.5 0.4 0.1 0.1 | | | 130 |
| | | cole crops | 0.2 | | | } |

- (1) underlined : not temporary not underlined f temporary
- (2) to be determined and expressed on the rendered or extracted fat
- (3) The term "egg" covers egg white plus egg yolk and, therefore, includes products such as fresh whole eggs or whole egg pulp.

TEMPORARY TOLERANCES HELD AT STEP 4 AND REFERRED TO THE JOINT MEETING ON PESTICIDE RESIDUES

| Compound | Analytical method | <u>Food</u> | Temporary tolerance (ppm) | Relevant paragraph of this report |
|----------|-------------------|--|---------------------------|--|
| dicofol | | tea (blended) except: tea from a particular estate for blending only | 1 - 5 | 108 |
| ethion | | tea (blended) except: tea from a particular estate for blending only | 7 | 114 |

TOLERANCES, TEMPORARY TOLERANCES AND PRACTICAL RESIDUE LIMITS TO BE SUBMITTED TO GOVERNMENTS AND INTERNATIONAL ORGANIZATIONS FOR COMMENTS AT STEP 3

| Compound | Analytical method | Food | Tolerance or temporary tolerance (1) (ppm) | Practical residue limit (ppm) | Relevant paragraph of this report |
|----------------------------|--|--|--|-------------------------------|-----------------------------------|
| azinph os methyl | | fruit (except apricots | 1 | | 93 |
| ше спут | | and grapes) vegetables | 0.5 | | 95 |
| binapacryl | | cherries peaches apples grapes pears plums nectarines | 1 0.5 0.5 0.5 0.3 0.2 | | 134 |
| captafol | recommendations relate only to the parent compound | cherries (sour) | 15 10 2 5 2 1 0.5 0.2 | | } } } } } |
| captan | | apples cherries pears apricots citrus fruit peaches plums rhubarb tomatoes cranberries | 40 40 30 20 15 15 15 15 | | 134 |

Appendix VII
Page 1

Appendix VII Page 2

| Compound | Analytical method | <u>Food</u> | Tolerance or temporary tolerance (1) (ppm) | Practical residue limit (ppm) | Relevant paragraph of this report |
|--------------|--|--|---|--------------------------------------|-----------------------------------|
| ethoxyquin | | apples pears | 3 3 | | 34 |
| fenchlorfos | residues of fenchlorfos and its oxygen analoques to be determined and expressed as fenchlorfos | meat (2) | 7.5 | | 119 |
| fenitrothion | | apples cherries grapes lettuce red cabbage tea (green at harvest) tomatoes cocoa milk products meat or fat of meat milk (whole) | 0.5 0.5 0.5 0.3 0.3 0.2 0.1 | 0.5 n a fat basi 0.03 0.002 |) } } } 134 |
| folpet | recommandations apply only to the parent compounds | currants (fresh) grapes blueberries cherries raspberries apples citrus fruit tomatoes strawberries cucumbers | 30 25 25 15 15 10 10 5 | | } } } } } } |

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| Compound | Analytical method | Food | Tolerance or temporary tolerance (1) (ppm) | residue limit | Relevant paragraph of this report |
|------------------------|--|---|--|-------------------------------------|-----------------------------------|
| folpet (contd) | | cantaloups (whole) water melons (whole onions |) 2 2 2 | | 34 |
| formothion | residues present as dimethoate to be covered by recommendations for dimethoate | | 0.3 2 | | }134 |
| heptachlor | combined resi- dues of heptachlor and its epoxide to be determined and expressed as heptachlor | sugar beets | 0.1 | | 134 |
| hexachloro- benzene | | fat of cattle fat of sheep fat of goats fat of pigs fat of poultry eggs | | 1 1 1 1 1 1 1 on a shell free basis | 134 |
| | | milk products raw wheat cereal products (from wheat) milk (whole) | | 0.3 0.05 0.01 | } |

Appendix VII Page 4

| Compound | Analytical method | <u>Food</u> | Tolerance or temporary tolerance (1) (ppm) | Practical residue limit (ppm) | Relevant paragraph of this report |
|---------------------------------------|----------------------|--|--|-------------------------------|-----------------------------------|
| orthophenyl- phenol (and sodium salt) | | cantaloups (whole) pears carrots peaches sweet potatoes apples plums prunes citrus fruit cucumbers peppers cantaloups (edible portions) pineapple tomatoes cherries nectarines | 120 25 20 20 15 15 15 10 10 10 10 2 | | 134 |
| parathion | | fruit (except peaches) apricots, citrus fruit) | 0.5 | | 128 |
| parathion- methyl | | fruit vegetables (except cole crops and cucurbits) | 0.2 | | } 125 |
| phosphamidon | | fruit (except apples pears, citrus frui water melons) vegetables (except cucumbers, lettuce, tomatoes and cole crops) | 0.2 | | } 131 } |

Appendix VII Page 5

| Compound | Analytical method | Food | Tolerance or temporary tolerance (1) (ppm) | Practical Relevant residue paragraph limit of this (ppm) report |
|-----------------------|-------------------|---|--|---|
| piperonyl butoxide | | vegetables dried codfish | 8 | } 134 |
| pyrethrins | | vegetables dried co đ fish | 1 | }134 |
| quintozene | | mushrooms peanuts (whole) bananas (whole) lettuce peanuts (kernels) beans (navy) potatees tomatoes cottonseed brocolli cabbage bananas (pulp) beans (other than nav pepper (bell) | 10 5 1 0.3 0.3 0.2 0.2 0.1 0.03 0.02 0.02 0.02 0.01 y) 0.01 | 134 |

(1) underlined : not temporary not underlined : temporary

(2) to be expressed on the rendered or extracted fat

AGENDA 1/

(for discussion by an Ad Hoc Working Group)

1. Good Agricultural Practice

- a) Re-examination of concept and drafting of a new definition.
- b) Examination of "Good Agricultural Practices" for some important selected foods.

2. Tolerance

- a) Examination of existing concepts with proposals for clarification.
- b) Types of tolerance.

3. Procedures for Establishing Tolerances

- a) Summary of procedures in individual countries.
- b) Outline of procedure followed by the Joint Meeting on Pesticide Residues.

4. Stages at which Tolerances are Enforced

5. Sampling

- a) Objectives of sampling.
- b) Possibility of sampling by standard procedures in practice.
- c) Ways in which standard sampling procedures might be drawn up for commodities in international trade.
- d) How to decide what commodities and residues warrant priority in the consideration of standard sampling procedures.

6. Enforcement

- a) Degree of administrative descreation.
- b) Criteria for acceptance.

^{1/} See para 15.

Countries responsible for providing information in the

form of monographs (a)

PRIORITY LISTS

PRIORITY LIST V

thiabendazole fentin acetate
paraquat fentin chloride
diquat fentin hydroxide
endrin chlormequat

PRIORITY LIST VI

chlorfenvinphos

chlorphenamidine

fenthion

fenthion

fenthoate

frederal Republic of Germany

PRIORITY LIST VII

Countries responsible for supplying justification for use (a) benomy1 United States of America. assisted by the Netherlands bromophos Federal Republic of Germany bromophos-ethyl Federal Republic of Germany carbophenothion United States of America "DURSBAN" (no common name yet) Israel and Australia fensulfothion Federal Republic of Germany Switzerland and Australia methidathion The Netherlands mevinphos

⁽a) See report of the Fourth Session and paragraphs 143 - 148 in this report.

^{*} Justification for use already received.

monocrotophos

Switzerland*

phosalone

France

RESERVE-LIST

Countries responsible for supplying justification for use (a)

atrazin

Switzerland*

chloroxuron

Switzerland*

diuron

fluometuron

Switzerland*

Switzerland*

metobromuron

Switzerland*

metoxuron

Switzerland*

prometryn pyrazon (= PCA)

Federal Republic of Germany

simazin

Switzerland*

⁽a) See report of the Fourth Session and paragraphs 143 -148 in this report.

Justification for use already received.