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Report of the Third Session
30 September - 4 October 1968

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INTRODUCTION

1. The Codex Committee on Pesticide Residues held its third session in Arnhem, the Netherlands, from 30 September - 4 October 1968. The session was opened by the Chairman, Drs. A. Kruyse, Inspector General of Public Health in charge of Foodstuffs Division, the Netherlands.

The session was attended by Government delegates, experts, observers and advisers from the following 24 countries: Argentina, Australia, Belgium, Brazil, Canada, Czechoslovakia, Denmark, France, the Federal Republic of Germany, Greece, Hungary, Iran, Ireland, Israël, the Netherlands, New Zealand, Norway, Poland, Sweden, Switzerland, Thailand, Turkey, United Kingdom, United States of America.

The following International Organizations were also represented: Council of Europe, European Economic Community, FRUCOM, GIFAP (International Federation of National Association of Pesticide Manufacturers), ISO/TC 34, 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

2. During the discussion of the Agenda, the Delegation of Canada proposed the inclusion of an item on "principles for establishing and enforcing tolerances". As the working paper submitted by the Delegation of Canada on this subject had been distributed during the first day of the Session, the Committee decided to consider this proposal after the delegates had had an opportunity to study the working paper.

3. Upon the proposal of the Delegation of the Netherlands, the Committee agreed to consider the document CCPR/68/2, submitted by the Netherlands for Agenda item 4, under Agenda item 9.

4. The Delegation of the United Kingdom pointed out that Agenda item 8 would be suitable for a brief review of the monographs submitted by the various delegations as requested in paragraph 24 of the report of the Second Session of the Codex Committee on Pesticide Residues (ALINORM 68/24). The Committee therefore agreed to amend the title of Agenda item 8 to read as follows:

"Progress of Work on and Revision of Priority Lists III, IV and V".

It was agreed that time did not permit the addition of new pesticides to Priority List III.

With regard to the revision of Priority Lists IV and V, the Committee also agreed to accept during the session written requests from delegations for pesticides to be included in these Priority Lists. The delegations were requested by the Chairman to include information on the technological need for the pesticides, the residues found in food and the importance of international trade of the food concerned.

5. The Committee set up a small working party to study the criteria by which the inclusion of pesticides in priority lists should be judged. The working party was to review the relevant statements in previous Reports and draft a statement, for inclusion in the Report of the Committee, which could serve to interpret the last sentence of paragraph 21b of the Report of the Committee's Second Session (ALINORM 68/24).

APPOINTMENT OF RAPORTEURS

6. Dr. K.C. Walker from the Delegation of the U.S.A. and Professor Em. Tilemans from the Delegation of Belgium agreed to act as Rapporteurs and were so appointed by the Chairman. The Delegation of the United Kingdom agreed to assist as in the past.

TOLERANCES AT STEP 7 OF THE PROCEDURE

7. The Committee examined the tolerances sent out to governments by the Codex Alimentarius Commission at its last Session for comments at Step 6 of the Procedure. (See para. 144, Report of the Fifth Session of the Codex Alimentarius Commission).

The Committee had before it comments from governments on these tolerances in working papers CCPR/68/3(1), (2) and (3) and additional government comments which had been received after the closing date for the receipt of documents. During the discussion the following comments and decisions were made:

Malathion in raw cereals

8. The Committee agreed that the tolerance of 8 ppm malathion in raw cereals be submitted to the Codex Alimentarius Commission at Step 8 of the Procedure (see Appendix II).

Hydrogen cyanide in raw cereals

9. Some delegations pointed out that a lower tolerance than 75 ppm for hydrogen cyanide in raw cereals would cover the residues actually observed in raw cereals in their countries. Attention was drawn to the fact that levels of 75 ppm would be found only after application of calcium cyanide and not after the use of hydrogen cyanide gas.

The possibility of setting a time interval between application and enforcement was raised but the Committee was of the opinion that this would not be enforceable.

The Committee agreed that the tolerance of 75 ppm in raw cereals be submitted to the Codex Commission at Step 8 of the Procedure (see Appendix II).

The Delegations of the Federal Republic of Germany and Poland were not in agreement with a limit of 75 ppm.

Hydrogen cyanide in flour

10. The Committee agreed that the tolerance of 6 ppm hydrogen cyanide in flour be submitted to the Codex Alimentarius Commission at Step 8 of the Procedure (see Appendix II).

Estimate of intake of hydrogen cyanide

11. Some delegations stressed that the use of hydrogen cyanide and calcium cyanide on a range of other commodities such as nuts, beans, etc. should be examined by the Joint Meeting so that a better estimate of the total intake of hydrogen cyanide could be made.

Methyl bromide and ethylene dibromide in raw cereals

12. The Committee took note of a statement of the Delegation of the Federal Republic of Germany that work carried out in that country revealed residues of the unchanged organic bromides up to 10 ppm in raw cereals even after four months of storage. The Delegation of France pointed out that the expression of the analytical result in the French translation should be corrected. The Committee agreed that the tolerance of 50 ppm inorganic bromide on raw cereals, determined and expressed as total bromide ion from all sources be referred to the Commission at Step 8 of the Procedure (see Appendix II).

TOLERANCES, TEMPORARY TOLERANCES AND PRACTICAL RESIDUE LIMITS
AT STEP 4 OF THE PROCEDURE

13. The Committee examined the tolerances, etc. sent to governments for comment at Step 3 of the Procedure (see Appendix IV of the Second Session, ALINORM 68/24). The Committee had before it comments from governments on these tolerances in working papers CCPR/68/4(1) and (2) and additional government comments which had been received after the closing date for the receipt of comments. During the discussion the following comments and decisions were made:

A. TOLERANCES

Diphenyl in citrus

14. The Committee agreed that the tolerance of 110 ppm in citrus fruit be submitted to the Commission at Step 5 of the Procedure (see Appendix III). The Delegations of the Federal Republic of Germany and the Netherlands made the observation that a tolerance of 70 ppm was in force in a number of countries.

Hydrogen phosphide in raw cereals

15. The Committee agreed that the tolerance of 0.1 ppm in raw cereals be submitted to the Commission at Step 5 of the Procedure (see Appendix III).

Malathion in fruit (excluding citrus fruit), dried fruit and nuts

16. Some delegations were of the opinion that the tolerance of 8 ppm was too high. It was also pointed out that the situation of one tolerance applying to both fresh and dried fruit appeared anomalous. In this connection it was explained that dried fruits as such were sometimes treated with malathion.

17. The Committee agreed that the tolerance for dried fruits related to the commodity moving in commerce. The attention of the Committee was drawn to the need

to determine the actual residues of malathion in food as consumed. The problem of toxic metabolites such as malaaxon resulting from application of malathion was raised. The Committee noted that the definition of "pesticide residue" took into account such metabolites and agreed that, so far as it was possible, such metabolites should be considered when setting tolerances for pesticide residues.

18. The Committee agreed that the tolerance of 8.0 ppm in fruit (excluding citrus fruit), dried fruit and nuts be submitted to the Codex Alimentarius Commission at Step 5 of the Procedure (see Appendix III). The Delegations of Belgium, the Federal Republic of Germany, France, the Netherlands, Poland and Switzerland expressed reservations about this figure.

Malathion in citrus fruit

19. The Delegate of Turkey stated that a tolerance of 5 ppm was needed to cover the use of malathion in the production of this commodity in Turkey. The Delegation of the U.S.A. expressed its support for this limit.

20. The Committee agreed that the tolerance of 4 ppm in citrus fruit be submitted to the Codex Alimentarius Commission at Step 5 of the Procedure (see Appendix III). The Delegations of the Federal Republic of Germany and France considered this figure too high, while the Delegation of the Netherlands reserved its position.

Malathion in leafy vegetables

21. The Delegate of Turkey proposed that the tolerance of 6 ppm be increased to 8 ppm to take into account residues found in that country. The Committee agreed that the tolerance of 6 ppm in leafy vegetables be submitted to the Commission at Step 5 of the Procedure (see Appendix III). The Delegations of Belgium, the Federal Republic of Germany, the Netherlands, Poland and Switzerland considered that the figure ought to be 3 ppm.

Malathion in vegetables (other than leafy vegetables)

22. The Delegate of Turkey proposed to increase the tolerance of 3 ppm to 8 ppm. The Committee agreed that the tolerance of 3 ppm in vegetables (other than leafy vegetables) be submitted to the Commission at Step 5 of the Procedure (see Appendix III).

B. TEMPORARY TOLERANCES

Ethylene dibromide and methyl bromide

23. The question was raised why the temporary tolerances expressed as inorganic bromide for some commodities were unusually high. It was explained that the high protein content of some of the foodstuffs could lead to these residue levels.

Ethylene dibromide and methyl bromide in dried eggs, spices and herbs

24. The Committee agreed that the temporary tolerance of 400 ppm inorganic bromide determined and expressed as total bromide ion from all sources in dried eggs, spices and herbs be submitted to the Commission at Step 5 of the Procedure (see Appendix III). The Delegations of Belgium, the Federal Republic of Germany, the Netherlands and Switzerland expressed reservations on this figure.

Ethylene dibromide and methyl bromide in dried figs

25. The Committee agreed that the temporary tolerance of 250 ppm of inorganic bromide, determined and expressed as total bromide ion from all sources in dried figs, be submitted to the Commission at Step 5 of the Procedure (see Appendix III). The Delegations of Belgium, the Federal Republic of Germany and the Netherlands reserved their position on all such figures above 50 ppm.

Ethylene dibromide and methyl bromide in avocados

26. The Committee agreed that the temporary tolerance of 75 ppm inorganic bromide, determined and expressed as total bromide ion from all sources, be submitted to the Commission at Step 5 of the Procedure (see Appendix III). The Delegations of the Federal Republic of Germany and the Netherlands reserved their position as in para 25.

Ethylene dibromide and methyl bromide in dried raisins and dates

27. Attention was drawn to the request of the Codex Committee on Processed Fruits and Vegetables for the consideration of a limit of 125 ppm for dried raisins. The Committee agreed, however, that the temporary tolerance of 100 ppm inorganic bromide, determined and expressed as total bromide ion from all sources in dried raisins and dates, be submitted to the Commission at Step 5 of the Procedure (see Appendix III). The Delegations of Belgium and the Netherlands reserved their position as in para 25.

Ethylene dibromide and methyl bromide in dried peaches, dried prunes, other dried fruits, citrus fruits, strawberries and other fresh fruit

28. The Committee agreed that the temporary tolerances of 50 ppm of inorganic bromide for dried peaches, 20 ppm for dried prunes, 30 ppm for other dried fruits (except raisins and dates), 30 ppm for citrus fruit and strawberries, 20 ppm for other fresh fruit, all determined and expressed as total bromide ion from all sources, be submitted to the Commission at Step 5 of the Procedure (see Appendix III).

Lindane

Lindane in raw cereals

29. The Committee, with the exception of a few delegations, considered direct applications of lindane on cereals as undesirable and decided to retain this proposal at Step 4 of the Procedure and to refer back the temporary tolerance of 0.5 ppm for raw cereals to the Joint Meeting on Pesticide Residues (see Appendix IV). The Joint Meeting was requested to reconsider its recommendation for a temporary tolerance and consider the recommending of a practical residue limit. The Delegation of the Federal Republic of Germany and France reserved their position.

Lindane in vegetables and small fruits

30. Some delegations proposed different figures for a temporary tolerance for lindane in vegetables and small fruits. There was also uncertainty about the commodities which had to be included under the heading "vegetables" and "small fruits". The Committee decided to refer back the temporary tolerance of 3.0 ppm for lindane in

vegetables and small fruits to the Joint Meeting on Pesticide Residues, asking for special attention to be given to a classification of "small fruits" (see Appendix IV).

31. An offer of the Codex Secretariat to prepare a list of foods, in cooperation with the Secretariat of the Committee, with clear descriptions of what is understood by various groups of vegetables and fruits, was accepted by the Committee. The Committee noted that this list would also be sent to the Joint Meeting on Pesticide Residues.

Lindane in Milk Products (on a fat basis)

32. The attention of the Committee was drawn to the fact that at the Joint Meeting of December 1967, a practical residue limit of 0.1 ppm for lindane in milk products (on a fat basis) was recommended instead of the temporary tolerance of 0.1 ppm recommended in the 1966 Joint Meeting. Several delegations supported a proposal for a practical residue limit for these products of 0.2 ppm lindane.

33. After taking note of the fact that several countries will provide the results of recent investigations concerning residues of lindane in milk products in the near future to the Joint Meeting, and taking into account that, by referring this item back to the Joint Meeting, a considerable loss of time would occur, whereas these new residue data will be considered in any case by the Joint Meeting, the Committee agreed that a practical residue limit of 0.2 ppm of lindane in milk products (on a fat basis) be submitted to the Commission at Step 5 of the Procedure, (see Appendix III). The Federal Republic of Germany did not agree.

Heptachlor and heptachlor epoxide

Heptachlor and heptachlor epoxide in root vegetables (other than potatoes), cole crops, head lettuce, spinach, other leafy vegetables

34. The recommendations of the Joint Meeting for a temporary tolerance of 0.1 ppm for the vegetables mentioned above and for a practical residue limit of 0.05 ppm for vegetables were clarified by the representative of FAO. It was explained that the practical residue limit of 0.05 ppm referred only to vegetables other than leafy and root vegetables, (see para 56).

35. The Delegations of Denmark and Switzerland pointed out that they would prefer a practical residue limit instead of a tolerance. The Delegate of the Netherlands and the Federal Republic of Germany favoured a temporary tolerance of 0.1 ppm for the above items with the exception of 0.05 ppm for root vegetables. On the request of the Canadian Delegation, the Committee also agreed to exclude sugar beets from these tolerances and to ask the Joint Meeting to recommend a residue level for sugar beets. It was also suggested in connection with the problem of residues in crops not intended for human consumption that a special session for the consideration of pesticide residues in animal feed stuffs should be held (see para 102, p.19).

36. The Committee, with the exception of the above-mentioned Delegations, agreed that the temporary tolerances of 0.1 ppm in root vegetables (other than potatoes and sugar beets), cole crops, head lettuce, spinach and other leafy vegetables be submitted to the Commission at Step 5 of the Procedure (see Appendix III).

Piperonyl butoxide

Piperonyl butoxide in raw cereals

37. On the basis of surveys carried out in the Netherlands, some delegations considered the proposed level of 20 ppm as too high and suggested a level of 10 ppm. However, the FAO/WHO Monograph^(a) on piperonyl butoxide provided some data from which a higher level seemed to be acceptable. It was, therefore, agreed that the temporary tolerances of 20 ppm should be referred to the Commission at Step 5 of the Procedure (see Appendix III). The Delegations of Belgium, Denmark, the Federal Republic of Germany and the Netherlands had reservations on this figure.

Piperonyl butoxide in fruit (for canning), dried fruit, dried vegetables

38. The temporary tolerance of 8.0 ppm was submitted to the Commission at Step 5 of the Procedure (see Appendix III). The Delegations of the Federal Republic of Germany and the Netherlands wanted more information on the residues occurring on post-harvest application and had reservations about this figure.

Piperonyl butoxide in oil seeds and in tree nuts

39. It was agreed to submit the temporary tolerance of 8.0 ppm in oil seeds and tree nuts to the Commission at Step 5 of the Procedure (see Appendix III).

Pyrethrins

Pyrethrins in raw cereals, fruit (for canning), dried fruit, dried vegetables, oil seeds and tree nuts

40. The Committee agreed to submit the temporary tolerance of 3.0 ppm in raw cereals and 1.0 ppm in fruit (for canning), dried fruit, dried vegetables, oil seeds and tree nuts to the Commission at Step 5 (see Appendix III).

C. PRACTICAL RESIDUE LIMITS

Aldrin and dieldrin

Aldrin and dieldrin in whole milk

41. The Committee decided not to consider the figure of 0.003 ppm for whole milk proposed to governments at Step 3 of the previous Session, but to take into consideration the new recommendation of the Joint Meeting on Pesticide Residues for a practical residue limit of 0.005 ppm. Although some delegations expected the results of new food monitoring programmes within a reasonable time, the level of 0.005 ppm was generally acceptable except for the Delegations of Australia and the U.S.A., who considered a level of 0.008 ppm more suitable to meet the actual situation.

The Committee agreed to submit the proposed practical residue limit of 0.005 ppm for whole milk to the Commission at Step 5 of the Procedure (see Appendix III).

(a) see footnote (a) on page 10

Aldrin and dieldrin in milk products (on a fat basis)

42. The Committee agreed that the practical residue limit for aldrin and dieldrin in milk products (on a fat basis) was derived on the basis of a mathematical ratio based on fat content and decided to submit the practical residue limit of 0.125 ppm to the Commission at Step 5, omitting Steps 3 and 4 (see Appendix III).

Aldrin and dieldrin in meat (on a fat basis)

43. The Committee agreed to submit the proposed practical residue limit of 0.2 ppm for aldrin and dieldrin in meat (on a fat basis) to the Commission at Step 5 of the Procedure (see Appendix III).

Aldrin and dieldrin in vegetables

44. The Committee considered the practical residue limit of 0.05 ppm in vegetables at Step 4 in the light of the new recommendation of the Joint Meeting on Pesticide Residues for a temporary tolerance of 0.1 ppm. The Delegation of Denmark was against the establishment of a tolerance and supported the definite proposal for a practical residue limit of 0.05 ppm. The Delegation of the Netherlands stated that it would accept a temporary tolerance of 0.1 ppm for vegetables excluding root vegetables and a practical residue limit of 0.05 ppm for root vegetables. The Committee agreed that the temporary tolerance of 0.1 ppm in vegetables be submitted to the Commission at Step 5 (see Appendix III).

Lindane

Lindane in whole milk

45. In view of the fact that, in the light of the new recommendation of the Joint Meeting, the limit for lindane in milk products (on a fat basis) was increased from 0.1 ppm to 0.2 ppm, the Committee agreed that a practical residue limit of 0.008 ppm lindane in whole milk, instead of the figure of 0.004 ppm at present at Step 4, be submitted to the Commission at Step 5 of the Procedure (see Appendix III).

Lindane in meat (on a fat basis) and poultry (on a fat basis)

46. During the discussion of the Joint Meeting's proposal for a practical residue limit of 0.7 ppm in these commodities the need was expressed for a definition of meat. The Delegations of New Zealand and the United Kingdom proposed a figure of 2 ppm as a practical residue limit. The Committee was of the opinion that such a high figure should not be considered as a practical residue limit, but that this limit should be dealt with as a tolerance. The Committee decided to hold this proposal at Step 4 and to refer it to the Joint Meeting for consideration (see Appendix IV).

Heptachlor and heptachlor epoxide

Heptachlor and heptachlor epoxide in meat (on a fat basis)

47. The Committee considered the practical residue limit of 0.05 ppm at Step 4. The Delegation of U.S.A. was of the opinion that the figure of 0.05 ppm was too low and expressed its support for a practical residue limit of 0.2 ppm.

The Committee agreed that the practical residue limit of 0.05 ppm in meat (on a fat basis) be submitted to the Commission at Step 5 of the Procedure and that the new recommendations of the Joint Meeting made to the third session of the Committee for a practical residue limit of 0.2 ppm be brought to the notice of governments, together with the Step 5 proposals, so that comments can be received in the light of the new recommendation of the Joint Meeting (see Appendix III).

Heptachlor and heptachlor epoxide in potatoes

48. The Committee agreed that the practical residue limit of 0.05 ppm in potatoes be submitted to the Commission at Step 5 of the Procedure (see Appendix III).

Heptachlor and heptachlor epoxide in whole milk

49. The Committee considered the practical residue limit of 0.002 ppm at Step 4. The Delegation of Australia had reservations about the figure pending further investigation of residue levels found in whole milk in that country. The Delegations of Canada and the U.S.A. supported the practical residue limit of 0.005 ppm. The Committee agreed that the practical residue limit of 0.002 ppm in whole milk be submitted to the Commission at Step 5 of the Procedure, and that the new recommendations of the Joint Meeting made to the third session of the Committee for a practical residue limit of 0.005 ppm be brought to the notice of governments together with the Step 5 proposals so that comments can be received in the light of the new recommendations of the Joint Meeting (see Appendix III).

Heptachlor and heptachlor epoxide in milk products (on a fat basis)

50. The Committee considered the practical residue limit of 0.025 ppm at Step 4. The Delegation of the U.S.A. supported the figure of 0.125 ppm while the Delegation of Australia was in favour of a limit of at least 0.05 ppm. The Committee agreed that the practical residue limit of 0.025 ppm in milk products (on a fat basis) be submitted to the Commission at Step 5 of the Procedure and that the new recommendation of the Joint Meeting made to the third session of the Committee for a practical residue limit of 0.125 ppm be brought to the notice of governments together with the Step 5 proposals so that comments can be received in the light of the new recommendations of the Joint Meeting (see Appendix III).

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

51. The Committee had before it a Report ^{a/} of the Joint Expert Meeting on Pesticide Residues held in 1967 containing recommendations for tolerances, temporary tolerances and practical residue limits for pesticides in Priority Lists I and II (see Appendix X of the report of the second session of this Committee, ALINORM 68/24). The Committee noted that certain recommendations, previously sent to governments at Step 3, had been revised by the Joint Experts. These new recommendations were considered by the Committee together with the proposals which

a/ Report of the 1967 Joint Meeting of the FAO Working Party of Experts and the WHO Expert Committee on Pesticide Residues; FAO Meeting Report No. PL: 1967/M/11; WHO Techn. Rep. Ser. No. 391.

were before the Committee at Step 4.

52. The Committee noted that for some pesticides the Joint Meeting reviewed the available data but was unable to recommend ADI's and/or tolerances. The additional information required has been specified in the 1967 monographs.^{a/} These were carbon disulfide, carbontetrachloride, dithiocarbamates, endosulfan, ethylene dichloride and MGK 264. The Committee recommended that those governments which are interested in the use of these pesticides take steps to obtain the additional information for review by the Joint Meeting.

53. In order to facilitate the work of the Committee in the future it was agreed that revised proposals (tolerances, practical residue limits and methods of analysis) of the Joint Meeting should be substituted for the original proposals and sent by the Committee to governments for their comments at the Step reached by the original proposals.

54. Since the monographs of the 1967 Joint Meeting were made available only shortly before the Session, the Committee agreed that the new recommendations of the Joint Meeting on Pesticide Residues could only be briefly discussed.

Carbaryl

55. The Committee agreed that the proposed temporary tolerances for carbaryl in Appendix V be submitted to the governments for comment at Step 3 of the Procedure and that the term "fruit" should replace the words "tree fruits, including citrus, small fruits and berries".

Heptachlor and heptachlor epoxide

56. The Committee agreed that practical residue limits of 0.02 ppm for cereals and 0.05 ppm for vegetables other than those for which tolerances are recommended ^{b/} should be submitted to governments for comment at Step 3 of the Procedure (see Appendix V). The Committee noted that a temporary tolerance of 0.1 ppm for root vegetables (other than potatoes and sugar beets), cole crops, head lettuce, spinach and other leafy vegetables is being submitted to governments for comment at Step 5 of the Procedure (see paras 34 - 36). With respect to the revised recommendations of the Joint Meeting, regarding practical residue limits, the Committee noted that these were being brought to the notice of governments at Step 5 of the Procedure, e.g. whole milk (0.005 ppm), milk products (0.125 ppm) and meat (on a fat basis) (0.2 ppm) (see paras 47, 49, 50).

57. At the request of the Delegations of the Federal Republic of Germany and the Netherlands, the Committee suggested that the Joint Meeting consider the advisability of establishing a practical residue limit for sugar beets. The Canadian Delegation recommended that the matter of residues in sugar beets be referred to the proposed Working Party on the Study of Residues in Animal Feeds in relation to the practical residue limit in milk and other animal products.

Chlordane

58. The Committee agreed that the temporary tolerances and practical residue limits for chlordane in Appendix V be submitted to governments for comment at Step 3 of the Procedure.

a/ 1967 Evaluations of some pesticide residues in food; FAO/PL:1967/M/11/1;
WHO/Food ADD./68.30

b/ see Appendix III

DDT

59. The Committee had before it recommendations of the 1966 and 1967 Joint Meetings of the Experts on Pesticide Residues. The Secretariat of the Joint Meeting drew the Committee's attention to an oversight concerning whole milk and milk products (on a fat basis) resulting in a recommendation for practical residue limits which were too low. The Committee agreed to a practical residue limit of 0.05 ppm for whole milk and a practical residue limit of 1.25 ppm for milk products (on fat basis), subject to these recommendations being confirmed by the FAO Working Party on Pesticide Residues at its next meeting.

60. The Committee agreed that the temporary tolerances and practical residue limits for DDT in Appendix V be submitted to governments for comment at Step 3 of the Procedure.

Diazinon

61. The Australian Delegation pointed out that a tolerance of 0.75 ppm diazinon in meat on a fat basis instead of the proposed figure of 0.5 ppm would be needed in that country and that it was prepared to provide the Joint Meeting with relevant data.

The Committee agreed that the temporary tolerances for diazinon in Appendix V be submitted to governments for comment at Step 3 of the Procedure and accepted the Australian offer.

Aldrin and Dieldrin

62. The Delegation of Canada drew the Committee's attention to the need to examine the residues found in rice hulls for animal feeding purposes. The Committee agreed that the temporary tolerances and the additionally recommended practical residue limit for dieldrin in Appendix V be submitted to governments for comment at Step 3 of the Procedure, bearing in mind that the practical residue limit for whole milk of 0.005 ppm, milk products (on a fat basis) of 0.125 ppm and meat (on a fat basis) of 0.2 ppm were being sent forward at Step 5 of the Procedure (see Appendix III).

Dichlorvos, dimethoate, hydrogen phosphide, parathion

63. The Committee agreed that the tolerances and temporary tolerances for dichlorvos, dimethoate, hydrogen phosphide and parathion in Appendix V be submitted to governments for comment at Step 3 of the Procedure.

LISTING AND CLASSIFICATION OF FOODS

64. The Codex Secretariat offered to prepare a list of foods relevant to the work of the Codex Alimentarius Commission, in cooperation with the Secretariat of the Codex Committee on Pesticide Residues, indicating clearly which food items were included in the various groups of foods. This listing of foods would involve the classification of groups such as "small fruits, berries, meat, milk products, root vegetables" etc. The Committee noted that this list would be made available to the Joint Meeting on Pesticide Residues and to the Codex Committee on Pesticide Residues so that foods relevant to the work of the Codex Commission can be taken

into account when recommendations are made for residue levels and at the same time a greater consistency can be introduced into the presentation of tolerances for food items and groups of food.

POINT OF ENFORCEMENT

65. The Committee recalled the decision taken at its second session concerning point of enforcement. The decisions of the Committee, contained in paras 4 and 5 of the Report of the second session, are given below:

"4...at the point of entry into a country or entry into trade channels within a country".

"5...The Committee agreed that when proposing tolerances, the stage at which the tolerances applied should be specified and that the kind of tolerance should always be stated ..."

66. The Delegation of the United Kingdom proposed to amend the point of enforcement adopted by the second session as quoted above by adding the words "or as soon as practicable thereafter" and to delete the words "entry into trade channels within a country". The Chairman of the FAO Working Party on Pesticide Residues drew the Committee's attention to the fact that in many cases the Joint Meeting had specified the point of enforcement in connection with the various recommendations made.

67. The Committee discussed briefly the meaning of full acceptance in relation to pesticide residues. A number of delegations were of the opinion that international tolerances which had been fully accepted need not necessarily apply to domestic commodities which do not move into export and that, indeed, the fundamental principle of having national tolerances no higher than are required by good agricultural practice in the different regions would, in many instances, be violated if Codex tolerances for commodities moving in international trade were also applied to locally produced commodities.

68. The Committee agreed that this matter be referred to the Commission for consideration. The Delegation of the United Kingdom indicated that it would be raising this matter (viz. acceptance with notification of more stringent requirements) at the coming session of the Codex Committee on General Principles. As regards the question of the point of enforcement, the Committee agreed to retain the phrase "at the point of entry into a country or at the point of entry into trade channels within a country" for all its present tolerance, etc. proposals until its next session when this matter would be reconsidered.

PRINCIPLES FOR ESTABLISHING AND ENFORCING TOLERANCES

69. The Committee examined the note submitted during the session by the Delegation of Canada on the "principles for establishing and enforcing tolerances" (CCPR/68 - Agenda item 4) and comments on this note submitted by the Delegation of the Netherlands. The above papers emphasized the need to arrive at agreement on principles for the establishment of tolerances and practical residue limits, to expedite the work of the Committee and also the need to relate tolerances and toxicological considerations to "good agricultural practice (world-wide)". Several delegates

emphasized the need to keep the levels of pesticide residues in food to a minimum, Further matters discussed were:

- (i) the difficulties which certain tolerances may cause for developing countries
- (ii) the enforcement of tolerances and the difficulties arising from the demands by certain importing countries for certificates that their tolerances were not exceeded

70. The Committee agreed with the recommendations made in the Canadian note, supported by the paper submitted by the Netherlands, and recommended that an ad hoc drafting group be convened to prepare a working document containing general principles for the establishment of Codex tolerances and other related conclusions for discussion at the next session of this Committee. The Delegation of Canada indicated that, subject to confirmation, his Government might be willing to act as a host to the above Drafting Group. The following Delegations indicated that, subject to approval by their individual governments, they would accept invitations to be members of the Drafting Group: Australia, Canada, Denmark, the Federal Republic of Germany, France, the Netherlands, United Kingdom and the United States of America.

71. The Secretariats of FAO and WHO indicated that FAO and WHO would be greatly interested in the work of such an ad hoc Drafting Group and requested that invitations to the Drafting Group be issued in consultation with the above Organizations.

72. The Delegation of the Netherlands agreed to prepare a working paper for the Drafting Group, taking into account any suggestions received from member countries before the 1st January 1969 a/. It was agreed that the report of the Drafting Group should be distributed as a working paper for the coming session of this Committee.

PRIORITY LISTS

73. During this session a small Working Group was appointed by the Chairman to study criteria already laid down in the Reports of the First and Second Sessions of the Codex Committee on Pesticide Residues, and to prepare concise guide lines for the future use of Codex Member Governments in proposing the inclusion of new compounds. The Working Group was composed of representatives from the Delegations of Australia, Israël, the Netherlands, the United Kingdom and the FAO Secretariat.

74. Upon receipt of the report of the Working Group, the Committee considered its own terms of reference which included "the preparation of a list of priorities of those pesticide residues found in food commodities entering international trade for the guidance of the Joint Meeting when considering future work" (Appendix V, Report of the Third Session of the Codex Alimentarius Commission, ALINORM 65/30 page 80). Additionally, the Committee recognized that the Joint Meeting had also to take account of pesticide residue problems of concern to governments which were not members of the Codex Alimentarius Commission and that the Joint Meeting

a/ Suggestions to be sent to Dr. N. van Tiel, Director of the Plant Protection Service, Geertjesweg 15, Wageningen, Holland; with copies to the Chairman of the Committee and the Chief, Food Standards Branch, FAO, Rome.

could only consider a limited number of compounds at any one session.

75. After reviewing the criteria in the setting of priorities for the inclusion of compounds set out in a previous report of the Codex Alimentarius Commission, (para 36, Report of the Third Session, ALINORM 65/30, p.23), and in the Report of the First Session of the Codex Committee on Pesticide Residues (para 11, p.6, ALINORM 66/24), the Committee agreed to the principles and procedure set out in the succeeding paragraphs.

PRINCIPLES FOR SELECTION OF PRIORITIES

76. To qualify for the highest priority, a pesticide residue problem should currently exist, should effect international trade on a significant scale and should either be a matter of public health concern and/or be creating commercial problems. Potential problems of a similar nature should be given a lower priority.

PROCEDURE TO BE FOLLOWED TO ESTABLISH PRIORITIES

77. The Committee agreed that it should, each year, make out a priority list comprising a reasonable number of chemicals and transmit this list immediately to the Secretaries of the Joint Meeting.

78. Any government which wishes to suggest the inclusion of a pesticide in such a priority list for the establishment of an international tolerance should submit a case, bearing in mind the principles set out in para 76 above, to justify consideration by the Committee. The following information should be furnished:

- (a) A statement of the current residue problem, affecting commerce or health, that requires attention,
- (b) identification of the compound (ISO or chemical name),
- (c) the commodities moving in international trade and bearing residues,
- (d) the need for the use of the compound (to include control of indigenous or introduced pests or diseases, or to meet quarantine requirements of importing countries),
- (e) a brief review of the toxicological significance of the residues where appropriate.

BRINGING THE PROCEDURE INTO EFFECT

79. To bring the procedure into effect the Committee agreed that:

- (a) no compounds could be added to the present Priority List III although some could be deleted,
- (b) Priority List IV should be agreed at the present session,
- (c) in respect of compounds on Priority List V et seq., the Committee agreed that government proposals in the form outlined in para 78 above must be submitted in time for consideration at the Fourth or subsequent Sessions of the Codex Committee on Pesticide Residues.

PROGRESS OF WORK AND REVISION OF PRIORITY LISTS III, IV and V

Work assignments

80. The Committee noted that a number of countries which had undertaken work assignments at the last session of the Committee, had submitted extensive documentation containing information on the pesticides in Priority List III for consideration by the Joint Meeting. These countries were Canada (assisted by the U.K), the Federal Republic of Germany, Switzerland and the U.S.A. The Committee expressed its appreciation for the valuable contribution made to the work of the Joint Meeting by these countries.

Revision of the Priority Lists

Priority List III

81. On the request of the Delegation of the U.S.A. endrin was deleted from List III and placed on Priority List V in view of the fact that extensive work was in progress on this compound. A proposal by the Delegation of Switzerland, to add thiometon and formothion to Priority List III, was not accepted because of lack of time for the Joint Meeting to prepare monographs for these compounds before their next meeting. A recommendation by the United Kingdom to delete chloropropylate and chlorobenzylate from Priority List III on the grounds that the criteria in para 76 above had not been met, was rejected by the Committee because work on these compounds was already far advanced. The revised Priority List III is given in Appendix VI.

Priority List IV

82. On the request of the Netherlands Delegation organotin compounds were deleted from Priority List IV and transferred to Priority List V. After examination of the justifications of the newly proposed compounds, the Committee decided to add eight compounds to the list established at the Second Session of the Codex Committee on Pesticide Residues as shown in Appendix VI.

Priority List V

83. The Committee decided to discuss the pesticides already included in List V and those newly proposed at its next session, in order to be able to take into account the criteria for inclusion of compounds to a priority list. The Committee agreed to invite justification for the inclusion of the eight new pesticides as shown in Appendix VI.a/

a/ Information to be sent to the Chairman of the Committee with a copy to the Chief, Food Standards Branch, FAO, Rome, before 1 May 1969.

ESTIMATION OF PESTICIDE RESIDUES INTAKE

84. The Committee was informed that relatively few data on total diet studies have been received to date by the Secretariat. It was, therefore, agreed to remind Member Governments of the importance of these data and to request that appropriate data be submitted to the Secretariat, if possible, before 1 July 1969. a/

85. Additionally, the Committee was informed that WHO had established a computerized programme to estimate intakes of food additives for individual countries or regions. Furthermore, this programme could be adapted to the estimation of intakes of pesticide residues. The Committee agreed that this question should be discussed further at the Joint Meeting in December 1968 and, if considered appropriate, steps should be initiated to obtain data to enable the current WHO programme on the calculation of intake of food additives to be expanded to include the intake of pesticide residues.

METHODS OF ANALYSIS OF PESTICIDE RESIDUES

86. The Committee had before it a working document on methods of analysis of pesticide residues recommended at the Joint Meeting on Pesticide Residues (CCPR/68/7) and an Addendum to it - CCPR/68/7(1) - distributed during the session. The Committee also had before it working papers CCPR/68/7(2), (3) and (4), containing comments from governments and a draft resolution by the United Kingdom Delegation.

87. The Secretariat drew the Committee's attention to para 8 of the Report of the 12th Session of the Executive Committee of the Commission (ALINORM/69/3) relating to methods of analysis for pesticides in food. The Codex Committee on Pesticide Residues also expressed its concern over the lack of accepted referee methods for the tolerances now at various Steps of the Procedure. During the discussion about methods of analysis and sampling, the Committee made the following observations and decisions:

88. The Committee agreed that the Codex Alimentarius should contain methods of analysis and sampling for pesticide residues and noted that for each residue in each type of food one such method of analysis should be established as a referee method to be used in cases of dispute.

89. During the discussion on the need to establish alternate methods for pesticide residues, many delegations were of the opinion that for the purposes of arbitration, only one referee method should be established. The Committee agreed with this view and also agreed that different methods of analysis for pesticide residues may have to be established for different commodities and also for different tolerance levels.

90. When discussing whether or not this Committee should be solely responsible for the elaboration of methods of analysis and sampling in pesticide residues, the Committee agreed with the view of the Executive Committee that these methods of analysis need not be referred to the Codex Committee on Methods of Analysis and Sampling for endorsement.

a/ Data should be sent to the Chief, Food Standards Branch, FAO, Rome, with a copy to Dr. F.W. Whittemore, Crop Protection Branch, FAO, Rome.

91. The Committee agreed with the proposal of the Delegation of the U.K. that, where a collaboratively tested or internationally accepted method of analysis was available, it should be linked with the appropriate tolerance as a referee method.
92. During the discussion of the procedure to be followed for the elaboration of Codex referee methods of analysis and sampling for pesticide residues, the possible cooperation with IUPAC was considered. The Committee decided to refer this matter to the Commission. Methods studied by this Organization might then be suitable for the purposes of the Codex, and could be considered by the Codex Committee on Pesticide Residues with a view to further elaboration as Codex referee methods.
93. The Secretariat of the FAO Working Party on Pesticide Residues indicated that in the future, when making recommendations for methods of analysis, the Working Party would indicate which methods were suitable for adoption as referee methods.
94. The Committee agreed to a proposal of the U.K. that in the absence of tested or internationally accepted methods of analysis, the Codex tolerances should still be issued to governments for acceptance.
95. The Committee also agreed to the following U.K. proposals:
- (i) Countries preparing information for the Joint Meeting on Pesticide Residues should submit in their papers an assessment of the residue methods available, with particular reference to methods suitable for use as referee methods and should recommend international collaborative work where appropriate.
 - (ii) In respect of methods of analysis for tolerances (or for practical residue limits) on which the Joint Meeting on Pesticide Residues has already made recommendations, the Codex Committee on Pesticide Residues should, where appropriate, invite offers to organize international collaborative work on a referee analytical method.
 - (iii) There should be machinery for keeping agreed referee methods under review.

The Delegations of Canada and Israël reserved their position as regards subparagraphs (ii) and (iii) above.

96. The Committee noted that methods of analysis so far recommended by the Joint Meeting on Pesticide Residues and contained in working paper CCPR/68/7, for pesticide residue tolerances at Step 8 of the Procedure, had not all been subjected to collaborative studies. It was, therefore, decided to postpone discussion of these methods pending clarification by the Commission of the procedure to be adopted in respect of the possible cooperation with IUPAC.

MATTERS REFERRED TO THE CODEX COMMITTEE ON PESTICIDE RESIDUES

Glossary of Terms (a)

97. The Committee noted that in compliance with its request at the Second Session the Joint Meeting on Pesticide Residues had prepared a glossary of terms used by

(a) Report of the 1967 Joint Meeting on Pesticide Residues, FAO Meeting Report No. PL:1967/M/11; WHO Techn. Report Ser. No. 391

the Joint Meeting for its work. The Committee noted the definition of pesticide residues proposed by the Joint Meeting and noted that such a definition was required for the General Principles of the Codex Alimentarius. The Committee agreed that governments be invited to comment before the end of March 1969 on the definition of pesticide residues.^{a/} The U.K. undertook to consider these comments and to prepare a proposed definition of pesticide residues for the use of the Codex Committee for consideration at the next session of this Committee.

AMENDMENT OF PARAGRAPH 36(a) OF THE REPORT OF THE THIRD
SESSION OF THE CODEX ALIMENTARIUS COMMISSION

98. The Committee noted that the Commission agreed that para 36(a) should be modified so that governments would also send a copy of toxicological data to the Chairman of the Codex Committee on Pesticide Residues for reference purposes.

TERMS OF REFERENCE OF THE CODEX COMMITTEE ON PESTICIDE RESIDUES

99. With regard to the residues in animal feed stuffs and from other sources, the Committee recommended at its last session that it should deal with all pesticide residues, irrespective of their origin and requested the Commission to endorse this view (see para 12 of the Report of the Second Session). The Committee noted that the Commission, at its fifth session, agreed with the view of the Codex Committee on Pesticide Residues that this Committee should consider the pesticide residues in food, arising from all uses of the pesticides.

INDEX OF CURRENT LEGAL AND STATUTORY PROVISIONS OF VARIOUS
COUNTRIES CONCERNING PESTICIDE RESIDUES IN FOODS

100. The Committee received a document (CCPR/68/9) bearing the above title, from the FAO Legislation Branch. Recognizing the value of the information contained therein, the Committee expressed its appreciation to the FAO Legislation Branch for making this document available to the Committee. It was pointed out that current information of a similar type is published periodically in an FAO Bulletin entitled "Current Food Additives Legislation", a Bulletin which can be obtained from the Publications Section, FAO.

FUTURE WORK

101. The Committee discussed work assignments for pesticides in Priority Lists III and IV which were not covered at the last session. The Delegation of the Federal Republic of Germany undertook to submit information on coumafos in List III. The Delegation of the U.S.A. agreed to submit information on dinocap and quintazene in List IV. The Committee requested that such information should be made available before 1 August 1969 or earlier if possible.

a/ Comments to be sent to the Chairman of the Committee with copies to the Chief, Food Standards Branch, FAO, Rome, and Mr. L.G. Hanson, Chief Executive Officer, Food Standards, Science and Safety Division, Ministry of Agriculture Fisheries and Food, Horseferry Road, London, S.W.1. (definition is given in Appendix VII)

102. The Committee considered a Canadian proposal in connection with pesticide residues in animal feeds. The Committee agreed to recommend to the Codex Alimentarius Commission that FAO be requested to convene a meeting of the FAO Working Party on Pesticide Residues, in conjunction with interested divisions of FAO, as soon as feasible, to consider the problem of pesticide residues in animal feeds in the light of tolerances and practical residue limits now being recommended for meat, milk, milk products and eggs.

OTHER BUSINESS

(a) Matters referred to the 1968 and 1969 Joint Meetings of the FAO Working Party and WHO Expert Committee on Pesticide Residues (a)

103. The Delegation of Australia drew the Committee's attention to para 18.a.2 of the report of its second session in which it is stated that the practical residue limit of 0.1 ppm of aldrin and dieldrin in egg yolk had been sent to governments for comment at Step 3 of the Procedure. The Secretariat pointed out that this practical residue limit was not a recommendation of the Joint Meeting. In the absence of adequate supporting technological justification for this limit the Committee decided to hold the above proposal at Step 4 of the Procedure pending examination by the next Joint Meeting on Pesticide Residues. The Delegation of Australia undertook to provide the necessary information in advance of the Joint Meeting.

104. Various delegations wished the Committee to request future Joint Meetings to recommend tolerances or practical residue limits on additional commodities for certain pesticides which had already been considered. The delegations were informed that before such decisions could be taken by the Joint Meeting, data to support such tolerances or practical residue limits should be submitted to the FAO Secretariat as soon as possible, and in any event, before 1 December 1968 if the problem were to be considered at the 1968 Joint Meeting.

Bearing these requirements in mind, the following Delegations requested the Joint Meeting to consider the advisability of recommending tolerances or practical residue limits for the pesticides and commodities indicated below:

Items to be considered at the 1968 Joint Meeting

<u>Australia</u>	<u>Limit</u>
<u>aldrin and dieldrin</u>	
practical residue limit, egg yolk	0.1 ppm
<u>carbaryl</u>	
temporary tolerance, meat (on a fat basis)	1.0 ppm
temporary tolerance, milk products (on a fat basis)	0.1 ppm
temporary tolerance, raw cereals	1.0 ppm
<u>lindane</u>	
practical residue limit, egg yolk	0.2 ppm
<u>diazinon</u>	
tolerance, meat (on a fat basis)	0.75 ppm

(a) All matters referred to the Joint Meeting on Pesticide Residues are summarized in Appendix IX

	<u>Limit</u>
<u>DDT</u> practical residue limit, egg yolk	0.5 ppm
<u>ethion</u> tolerance, meat (on a fat basis)	not specified
<u>Canada</u>	
<u>malathion</u> tolerance, meat (on a fat basis)	not specified
<u>Federal Republic of Germany</u>	
<u>heptachlor</u> practical residue limit, sugar beets	not specified
<u>Netherlands</u>	
<u>malathion, ethylene dibromide, methyl bromide</u> tolerance, cereal products	not specified
<u>heptachlor and heptachlorepoide</u> practical residue limit, sugar beets and carrots (and exclude carrots from current tolerance figure)	0.05 ppm
<u>New Zealand</u>	
<u>lindane</u> practical residue limit, meat (on a fat basis)	2.0 ppm
<u>United Kingdom</u>	
<u>lindane</u> practical residue limit, meat (on a fat basis)	2.0 ppm

Items to be considered at the 1969 Joint Meeting

U.S.A.

carbaryl

re-evaluation of ADI

(b) Support of programme at FAO Headquarters

105. The Committee drew the attention of the Codex Alimentarius Commission to the increased work-load on the FAO Secretariat of the Joint Meeting caused by the pressing need to furnish timely documentation for the sessions of the Committee. It noted that although monographs resulting from sessions of the Joint Meeting were required by delegations at least three months in advance of planned sessions this deadline had never been met. The Committee considered that the proper support of its work at FAO Headquarters required immediate attention.

(c) Pest control practices and the transportation of pesticides on ships carrying grain in international trade

106. The Canadian Delegation wished the Committee to draw the attention of the Codex Alimentarius Commission to the pesticide residue problem caused by unregulated pest control practices (in respect of stowage, etc. of foodstuffs) on

common carriers transporting foodstuffs in international trade and to the difficulties arising at the points of unloading. The Delegation of Canada undertook to prepare a working paper for the next session of the Committee.

(d) Requests from Codex Committees

107. The Secretariat drew the Committee's attention to a recommendation of the Codex Committee on Processed Fruits and Vegetables that a tolerance of 250 ppm for methyl or ethyl formate in dried raisins should be considered. The Committee agreed that before it could refer such tolerances to the Joint Meeting on Pesticide Residues, information was required to justify their inclusions in the Priority List, and drew the attention of the Codex Committee on Processed Fruits and Vegetables to paras 76 to 79 where the criteria for the inclusion of compounds on priority lists, agreed by this Committee, are set out.

108. The Secretariat also drew the Committee's attention to para 21 of the Report of the Sixth Session of the Codex Committee on Cocoa Products and Chocolate. The Committee took note that the above Committee had received information from the Office International du Cacao et Chocolat on levels of pesticide residues found in cocoa beans and that it had requested that tolerances be recommended for pesticides, as contained in the OICC report (CX 5/1.3 (OICC) May 1968) in respect of cocoa beans and derived products. The Secretariat of the Joint Meeting indicated to the Committee that the information contained in the Report of the OICC was sufficient to enable the Joint Meeting to consider the recommendations for tolerances for pesticide residues for these products. The Committee requested the Joint Meeting to comply with the request of the Codex Committee on Cocoa Products and Chocolate and consider the matter of pesticide residues in these commodities as soon as practicable.

DATE AND PLACE OF NEXT SESSION

109. The Committee agreed that the Fourth Session of the Codex Committee on Pesticide Residues should be held in the Netherlands in the autumn of 1969, if possible just before or after the planned meeting of the Codex Committee on Food Additives. The exact dates and location will be fixed by the Secretariat of the Committee in consultation with the Joint FAO/WHO Food Standards Programme on the basis of the time-table of Codex sessions agreed by the Commission.

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TOLERANCES TO BE SUBMITTED TO THE
CODEX ALIMENTARIUS COMMISSION AT STEP 8

<u>Compound</u>	<u>Food</u>	<u>Tolerance</u> (ppm)	<u>Relevant paragraph</u> <u>of this report</u>
ethylene dibromide			see inorganic bromide
hydrogen cyanide	raw cereals	75	9, 11
hydrogen cyanide	flour	6	10, 11
inorganic bromide, determined and expressed as total bromide ion from all sources	raw cereals	50	12
malathion	raw cereals	8	8, 17
methyl bromide			see inorganic bromide

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

<u>Compound</u>	<u>Food</u>	<u>Tolerance or temporary tolerance (ppm)</u>	<u>Practical residue limit (ppm)</u>	<u>Relevant paragraph of this report</u>
aldrin and dieldrin	vegetables	0.1 ***	0.005 ***	44
	whole milk		0.125 ***	41
	milk products		on a fat basis	42
	meat		0.2 ***, on a fat basis	43
diphenyl	citrus fruit	110		14
heptachlor and heptachlor epoxide (from application to seed and soil only)	root vegetables, except sugar beets (b)	0.1 *		34-35
	potatoes	0.1 *	0.05 *	48
	cole crops	0.1 *		34-35
	leafy vegetables (head lettuce, spinach)			34-35
	meat		0.05 * (0.2** ^a), on a fat basis	47
	whole milk		0.002* (0.005 ^a)	49
	milk products		0.025* (0.125* ^a), on a fat basis	50
hydrogen phosphide	raw cereals	0.1		15

(a) New recommendation of the Joint Meeting on Pesticide Residues (FAO Meeting Report No. PL:1967/M/11; WHO Techn.Rep.Ser. No. 391)
 (b) See Appendix IX and paragraph 35

<u>Compound</u>	<u>Food</u>	<u>Tolerance or temporary tolerance (ppm)</u>	<u>Practical residue limit (ppm)</u>	<u>Relevant paragraph of this report</u>	
lindane	whole milk		0.008 *	45	
	milk products		0.2 *, on a fat basis	32-33	
malathion (a)	fruit, except citrus fruit	8		16-18	
	dried fruit	4		19-20	
	nuts	8		16-18	
	vegetables, except leafy vegetables	8		16-18	
		3		22	
		6		21	
inorganic bromide (determined and expressed as total bromide from all sources)	fruit, except avocados	20 *		28	
	citrus fruit	75 *		26	
	strawberries	30 *		28	
	dried fruit, except dried dates	30 *		28	
	dried figs	30 *		28	
	dried peaches	100 *		27	
	dried prunes	250 *		25	
	dried raisins	50 *		28	
	herbs and spices	20 *		28	
	dried eggs	100 *		27	
		400 *		24	
		400 *		24	
	piperonyl butoxide	raw cereals	20 ***		37
		fruit, for canning	8 ***		38
dried fruit		8 ***		38	
dried vegetables		8 ***		38	
oil seeds		8 ***		39	
tree nuts		8 ***		39	

(a) see Appendix IX and paragraph 17 of this report for malaoxon

<u>Compound</u>	<u>Food</u>	<u>Tolerance or temporary tolerance (ppm)</u>	<u>Practical residue limit (ppm)</u>	<u>Relevant paragraph of this report</u>
pyrethrins	raw cereals	3 *		40
	fruit for canning	1 *		40
	dried fruit	1 *		40
	dried vegetables	1 *		40
	oil seeds	1 *		40
	tree nuts	1 *		40

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- * Temporary: results of work required should be made available not later than June 1970
 - ** Temporary: results of work required should be made available not later than June 1971
 - *** Temporary: results of work required should be made available not later than June 1972

TEMPORARY TOLERANCES AND PRACTICAL RESIDUE LIMITS

HELD AT STEP 4 AND REFERRED TO THE JOINT

MEETING ON PESTICIDE RESIDUES

<u>Compound</u>	<u>Food</u>	<u>Temporary tolerance (ppm)</u>	<u>Practical residue limit (ppm)</u>	<u>Relevant paragraph of this report</u>
aldrin and dieldrin	egg yolk		0.1	103
lindane	raw cereals	0.5		29
	small fruits	3.0		30
	vegetables	3.0		30
	meat		0.7 on a fat basis	46
	poultry		0.7 on a fat basis	46

TOLERANCES, TEMPORARY TOLERANCES AND PRACTICAL RESIDUE LIMITS
TO BE SUBMITTED TO GOVERNMENTS AND INTERESTED INTERNATIONAL

ORGANIZATIONS FOR COMMENTS AT STEP 3

<u>Compound</u>	<u>Food</u>	<u>Tolerance or temporary tolerance (ppm)</u>	<u>Practical residue limit (ppm)</u>	<u>Relevant paragraph of this report</u>	
aldrin and dieldrin (combined total aldrin and dieldrin)	raw cereals, except rice	0.05 ***	0.02 ***	62	
	fruit, except citrus fruit	0.1 *** 0.05 ***			
carbaryl	rice	2.5 *		55	
	fruit, incl. melons	10.0 *			
	vegetables, except leafy vegetables	5.0 * 10.0 *			
	brassica	10.0 *			
	cucurbits	10.0 *			
	olives	10.0 *			
	nuts	10.0 *			
	cotton seed	5.0 *			
	* (residue largely in the skin of poultry; other meat animals show no residue) ..	* poultry	5.0 *		
	chlordane (residues resulting from soil treatment only and determined as alpha and gamma chlordane)	raw cereals, except sweet corn	0.1 *		0.1 *
pop corn (vegetables (d))		0.1 *			
large root vegetables		0.3 *			
small root vegetables (except carrots)		0.2 *			

<u>Compound</u>	<u>Food</u>	<u>Tolerance or temporary tolerance (ppm)</u>	<u>Practical residue limit (ppm)</u>	<u>Relevant paragraph of this report</u>	
chlordane (continued)	(vegetables (d) continued)				
	leafy vegetables	0.3 *			
	stalk vegetables	0.3 *			
	sugar beets	0.1 *			
	pod vegetables	0.1 *			
		in the whole			
		pod			
	tomatoes (and related garden crops)	0.1 *		55	
	cucurbits	0.2 *			
	(fruit (d))				
berries		0.1 *			
	pineapple	0.2 *			
	DDT (DDT, DDD and DDE singly or in any combination)	(fruit (d))			
		apples	7.0 *		
		pears	7.0 *		
		peaches	7.0 *		
		apricots	7.0 *		
		berries	7.0 *		
		strawberries	1.0 *		
		cherries	3.5 *		
plums		3.5 *			
citrus fruit		3.5 *			
tropical fruit vegetables, except root vegetables meat		3.5 *			
		7.0 *			
		1.0 *			
		7.0 *			
		7.0 *			
		on a fat basis			
	poultry	7.0 *			
		on a fat basis			
	fish	7.0 *			
		on a fat basis			
				59,60	

<u>Compound</u>	<u>Food</u>	<u>Tolerance or temporary tolerance (ppm)</u>	<u>Practical residue limit (ppm)</u>	<u>Relevant paragraph of this report</u>
DDT (continued)	whole milk milk products		0.05 (a) * 1.25 (a) * on a fat basis	59,60
	nuts (shelled)	1.0 (b) *		
diazinon	fruit, except peaches citrus fruit vegetables, except cole crops meat	0.5 * 0.7 * 0.7 * 0.5 * 0.7 * 0.5 * on a fat basis		61
dichlorvos (content of dichloro- acetaldehyde (DCA) to be reported where possible)	raw cereals cereal products vegetables, except canned vegetables frozen vegetables fruit (except citrus fruit)	2.0 * 0.3 * 0.3 * 0.1 * 0.1 * 0.1 *		63
dimethoate (residues to be reported as dimethoate plus the oxygen analogue)	tree fruit vegetables, except tomatoes peppers	2.0 * 2.0 * 1.0 * 1.0 *		63
heptachlor and heptachlor epoxide	raw cereals vegetables (c)	0.02 * 0.05 *		56,57

<u>Compound</u>	<u>Food</u>	<u>Tolerance or temporary tolerance (ppm)</u>	<u>Practical residue limit (ppm)</u>	<u>Relevant paragraph of this report</u>
hydrogen phosphide	cereal products (only items to be cooked)	0.01)	63
	dried vegetables	0.01)	
	spices	0.01)	
parathion	vegetables (except carrots)	0.7 *)	63
	fruit, except peaches	1.0 *)	
	apricots	0.5 *)	
	citrus fruit	0.5 *)	
		0.5 *)	

* Temporary: results of work required should be made available not later than June 1970
 ** Temporary: results of work required should be made available not later than June 1971
 *** Temporary: results of work required should be made available not later than June 1972

- (a) subject to confirmation by the Joint Meeting on Pesticide Residues
- (b) erroneously omitted during session; to be confirmed by the Codex Committee on Pesticide Residues
- (c) not including the tolerances for more specific groups of vegetables at Step 5; see Appendix III
- (d) no proposals for limits have, as yet, been made

PRIORITY LISTS

PRIORITY LIST III

azinphos methyl
phosphamidon
ethylene oxide
lead arsenate
calcium arsenate
ethion
dicofol

fenchlorphos
dioxathion
ruelene^R
chlorobenzilate
chloropropylate
coumafos
oxythioquinox

PRIORITY LIST IV *

Countries responsible for providing
information in the form of mono-
graphs (a)

binapacryl
dinocap
quintozene
dichlofluanid
captan
folpet
difolatan
ortho-phenylphenol and
sodium salt
parathion methyl
toxaphene
formothion
thiometon
diphenylamine
ethoxyquin
thiabendazole
hexachlorobenzene (b)

Federal Republic of Germany
U.S.A.
U.S.A.
Federal Republic of Germany
U.S.A.
U.S.A.
U.S.A.
U.S.A.
U.S.A.
U.S.A.
U.S.A.
Switzerland
Switzerland
U.S.A.
Canada
Australia
Australia

* fenitrothion will be considered by the Joint Meeting in 1969 together with other priority IV substances

PRIORITY LIST V

Countries responsible for
supplying justification for
use (c)

atrazin	Switzerland
simazin	Switzerland
promethryn	Switzerland
barban	Federal Republic of Germany
di-allate	Canada
paraquat	United Kingdom
diquat	United Kingdom
2,4-D	U.S.A.
2,4,5-T	U.S.A.
pyrazon (=PCA)	Federal Republic of Germany
endrin	U.S.A.
organotin compounds	The Netherlands
methylbronuron	Switzerland
chloroxuron	Switzerland
fluometuron	Switzerland
chlormequat	The Netherlands assisted by the Federal Republic of Germany
dichloropropene, whether or not mixed with dichloropropane	The Netherlands

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- (a) see report of the Second Session and paragraph 101 of this report
(b) Practical residue limit
(c) see paragraph 83 of this report

DEFINITION OF PESTICIDE RESIDUES (a)

A pesticide residue is a residue in or on a food of any chemical used for the control of pests and the term includes derivatives of such chemicals. The amounts are expressed in parts by weight of the chemical and/or derivative per million parts by weight of the food (ppm).

Explanatory note

In interpreting this definition it is proposed to include the consideration of any substance which may, at a given time, be known to be derived from the product and which may be held to influence the toxicology of the residue. Residues from unknown sources (i.e. background residues) will be considered as well as those from known uses of the chemical in question. The term pesticide will be held to include any constituent of a pesticide used for the control of pests during the production, transport, marketing or processing of food or which may be administered to animals for the control of insects or arachnids in or on their bodies; it will not apply to antibiotics or other chemicals administered to animals for other purposes, such as to stimulate their growth or to modify their reproductive behaviour, or to fertilizers or, at least for the present, to other substances, other than herbicides, used to influence the rate of growth of plants.

-
- (a) References: para 97 of this Report; Appendix I of the Report of the 1967 Joint Meeting of the FAO Working Party of Experts and the WHO Expert Committee on Pesticide Residues (FAO Meeting Report No. PL: 1967/M/11, WHO Techn.Rep.Ser. No. 391).

COLLECTIVE LIST OF TOLERANCES, TEMPORARY
 TOLERANCES AND PRACTICAL RESIDUE LIMITS
 UNDER CONSIDERATION

(T = tolerance; TT = temporary tolerance; PRL = practical residue limit)

<u>Compound</u>	<u>Food</u>	<u>Limit in ppm</u>	<u>Type of limit</u>	<u>At Step</u>
1. aldrin and dieldrin	raw cereals, except	0.02	PRL	3
	rice	0.05	TT	3
	fruit, except	0.1	TT	3
	citrus fruit	0.05	TT	3
	vegetables	0.1	TT	5
	whole milk	0.005	PRL	5
	milk products	0.125 on	PRL	5
		a fat basis		
	meat	0.2 on a	PRL	5
		fat basis		
	egg yolk	0.1	PRL	4
2. carbaryl	raw cereals, except	1	T	(a)
	rice	2.5	TT	3
	fruit, incl. melons	10	TT	3
	vegetables, except	5	TT	3
	leafy vegetables	10	TT	3
	brassica	10	TT	3
	cucurbits	10	TT	3
	Olives	10	TT	3
	nuts	10	TT	3
	cotton seed	5	TT	3
	poultry	5	TT	3
	meat	1 on a	T	(a)
		fat basis		
	milk products	0.1 on a	T	(a)
		fat basis		
	cocoa beans and derived products	(e)	T	(a)
3. chlordane (residues resulting from soil treatment only and determined as alpha and gamma chlordane)	raw cereals,	0.1	PRL	3
	sweet corn	0.1	TT	3
	popcorn	0.1	TT	3
	(vegetables (d))			
	large root vegetables	0.3	TT	3
	small root vegetables (except carrots)	0.2	TT	3
	leafy vegetables	0.3	TT	3
	stalk vegetables	0.3	TT	3
	sugar beets	0.1	TT	3
	pod vegetables	0.1 (in the	TT	3
		whole pod)		
	tomatoes (and related crops)	0.1	TT	3
cucurbits	0.2	TT	3	

<u>Compound</u>	<u>Food</u>	<u>Limit in ppm</u>	<u>Type of limit</u>	<u>At Step</u>
3. chlordane (continued)	(fruit (d))			
	berries	0.1	TT	3
	pineapple	0.2	TT	3
4. diazinon	fruit, except	0.5	TT	3
	peaches	0.7	TT	3
	citrus fruit	0.7	TT	3
	vegetables, except	0.5	TT	3
	cole crops	0.7	TT	3
	meat	0.5 (on a fat basis)	TT	3
5. dichlorvos (content of dichlor- acetaldehyde (DCA) to be reported where possible)	raw cereals	2	TT	3
	cereal products	0.3	TT	3
	vegetables, except	0.3	TT	3
	canned vegetables	0.1	TT	3
	frozen vegetables	0.1	TT	3
	fruit, except	0.1	TT	3
	citrus fruit (d)			
6. DDT (DDT, DDD and DDE, singly or in any combination)	(fruit (d))			
	apples	7	TT	3
	pears	7	TT	3
	peaches	7	TT	3
	apricots	7	TT	3
	berries	7	TT	3
	strawberries	1	TT	3
	cherries	3.5	TT	3
	plums	3.5	TT	3
	citrus fruit	3.5	TT	3
	tropical fruit	3.5	TT	3
	vegetables, except	7	TT	3
	root vegetables	1	TT	3
	meat	7 (on a fat basis)	TT	3
	poultry	7 (on a fat basis)	TT	3
	fish	7 (on a fat basis)	TT	3
	whole milk	0.05 (a)	PRL	3
	milk products	1.25 (a)	PRL	3
	nuts (shelled)	1 (b)	TT	3
	egg yolk	0.5	PRL	(a)
cocoa beans and derived products	(e)	T	(a)	

<u>Compound</u>	<u>Food</u>	<u>Limit in ppm</u>	<u>Type of limit</u>	<u>At Step</u>
7. dimethoate (residues to be reported as dimethoate plus the oxygen analogue)	tree fruit	2	TT	3
	vegetables, except tomatoes	2	TT	3
	peppers	1	TT	3
		1	TT	3
8. diphenyl.	citrus fruit	110	T	5
9. heptachlor and heptachlor- epoxide (from application to seed and soil only)	raw cereals	0.02	PRL	3
	vegetables, except root vegetables	0.05	PRL	3
	sugar beets	0.1	TT	5
	carrots	0.05	PRL	(a)
	potatoes	0.05	PRL	(a)
	cole crops	0.05	PRL	5
	leafy vegetables, incl. head lettuce	0.1	TT	5
	spinach	0.1	TT	5
	meat	0.1	TT	5
		0.05 (on a fat basis)	PRL	5
		0.002	PRL	5
	0.025 (on a fat basis)	PRL	5	
10. ethion	meat	(e)	T	(a)
11. ethylene dibromide	see inorganic bromide			
12. hydrogen cyanide	raw cereals	75	T	8
	flour	6	T	8
13. hydrogen phosphide	raw cereals	0.1	T	5
	cereal products (only items to be cooked)	0.01	T	3
	dried vegetables	0.01	T	3
	spices	0.01	T	3
14. inorganic bromide (determined and expressed as total bromide ion from all sources)	raw cereals	50	T	8
	cereal products	(e)	T	(a)
	fruit, except avocadoes	20	TT	5
	citrus fruit	75	TT	5
	strawberries	30	TT	5
	dried fruit, except dried dates	30	TT	5
	dried figs	100	TT	5
	dried peaches	250	TT	5
	dried prunes	50	TT	5
	dried raisins	20	TT	5
	herbs and spices	100	TT	5
	dried eggs	400	TT	5
	cocoa beans and derived products	400	TT	5
		(e)	T	(a)

	<u>Compound</u>	<u>Food</u>	<u>Limit in ppm</u>	<u>Type of limit</u>	<u>At Step</u>
15.	lindane	raw cereals	0.5	TT	4
		small fruits	3	TT	4
		vegetables	3	TT	4
		meat	0.7 (on a fat basis)	PRL	4
		poultry	0.7 (on a fat basis)	PRL	4
		egg yolk	0.2	PRL	(a)
		whole milk	0.008	PRL	5
		milk products	0.2 (on a fat basis)	PRL	5
		cocoa beans and derived products	(e)	T	(a)
		16.	malathion	raw cereals	8
cereal products	(e)			T	(a)
fruit, except citrus fruit	8			T	5
dried fruit	4			T	5
vegetables, except leafy vegetables	8			T	5
meat	3			T	5
nuts	6			T	5
meat	8			T	5
meat	(e)(on a fat basis)			T	(a)
17.	methyl bromide			see inorganic bromide	
18.	parathion	vegetables, except carrots (d)	0.7	TT	3
		fruit, except peaches	1	TT	3
		apricots	0.5	TT	3
		citrus fruit	0.5	TT	3
		raw cereals	20	TT	5
19.	piperonyl butoxide	fruit, for canning	8	TT	5
		dried fruit	8	TT	5
		dried vegetables	8	TT	5
		oil seeds	8	TT	5
		tree nuts	8	TT	5
		raw cereals	3	TT	5
20.	pyrethrins	fruit for canning	1	TT	5
		dried fruit	1	TT	5
		dried vegetables	1	TT	5
		oil seeds	1	TT	5
		tree nuts	1	TT	5

(a) To be considered by the 1968 Joint Meeting on Pesticide Residues

(b) Subject to confirmation by the Joint Meeting on Pesticide Residues

(c) Erroneously omitted during the Session, to be confirmed by the Codex Committee on Pesticide Residues

(d) No proposals for limits have, as yet, been made

(e) Limit to be established by the Joint Meeting

MATTERS FOR CONSIDERATION BY THE 1968

JOINT MEETING ON PESTICIDE RESIDUES

<u>Compound</u>	<u>Matter referred</u>	<u>Relevant paragraph of this report</u>
aldrin and dieldrin	* PRL for egg yolk	103
carbaryl	T, 1 ppm (on a fat basis) in meat	104
carbaryl	T, 0.1 ppm (on a fat basis) in milk products	104
carbaryl	T, 1 ppm in raw cereals	104
carbaryl	T, cocoa beans and derived products from pre-harvest treatment	108
DDT	PRL, 0.5 ppm in egg yolk	104
DDT	T, cocoa beans and derived products from pre-harvest treatment	108
diazinon	T, 0.75 ppm (on a fat basis) in meat	61
ethion	T, for meat (on a fat basis)	104
HCN	review of total intake	11
heptachlor and heptachlorepoide	PRL, 0.05 ppm in sugar beet	35, 57
heptachlor and heptachlorepoide	PRL, 0.05 ppm in carrots	104
inorganic bromide	review of total intake from brominated pesticides	104
inorganic bromide	T, cocoa beans and derived products	108
inorganic bromide	T, cereal products	104
lindane	PRL, 0.2 ppm in egg yolk	104
lindane	PRL, 0.5 ppm in raw cereals	104

<u>Compound</u>	<u>Matter referred</u>	<u>Relevant paragraph of this report</u>
lindane	PRL, 2 ppm (on a fat basis) in meat	108
lindane	T, cocoa beans and derived products from pre-harvest treatment	108
lindane	clarification of the 1967 Joint Meeting recommendation for T on vegetables and small fruits	30
lindane	reconsideration of 1967 recommendation for T on raw cereals as against PRL	29
malathion	T for meat (on a fat basis)	104
malathion	T, cereal products	104
malathion	inclusion of malaaxon with malathion	17

T = tolerance; PRL = practical residue limit