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ALINORM 74/24

JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX ALIMENTARIUS COMMISSION
Tenth Session, Rome, 1-12 July 1974

REPORT OF THE SEVENTH SESSION OF THE
CODEX COMMITTEE ON PESTICIDE RESIDUES
The Hague, 4-9 February 1974

INTRODUCTION

1. The Codex Committee on Pesticide Residues held its seventh session in The Hague, the Netherlands, from 4 to 9 February 1974. Mr. A.J. Pieters, Public Health Officer of the Ministry of Public Health and Environmental Hygiene, Foodstuffs Division, acted as Chairman. The session was attended by government delegates, experts, observers and advisers from the following 33 countries: Argentina, Australia, Austria, Belgium, Brazil, Burundi, Canada, Czechoslovakia, Denmark, Finland, France, Federal Republic of Germany, Ghana, Hungary, Iceland, Ireland, Israel, Italy, the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, South Africa (observer), Spain, Swaziland (observer), Sweden, Switzerland, Thailand, Turkey, United Kingdom, United States of America. 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), European and Mediterranean Plant Protection Organization (EPPO), and the International Union of Pure and Applied Chemistry (IUPAC). A list of participants, including officers from FAO and WHO, is set out as Appendix I to this Report.

2. The session was opened by a speech of welcome by Mr. J.P.M. Hendriks, State Secretary of Public Health and Environmental Hygiene, who welcomed the participants on behalf of the government of the Netherlands. Mr. Hendriks traced the history of the use of pesticides stressing the importance of the role of pest control agents in the production of food not only in increasing yield but also in protecting harvested produce. He also stressed the importance of setting maximum limits for the residues of pesticides to ensure that they were based on good agricultural practice and that the residues in food did not represent a hazard to health. Mr. Hendriks stressed the need to clarify the obligations of governments accepting recommended Codex maximum limits for pesticide residues. He thanked Drs. A. Kruijse, former Chairman of the Committee for his efforts in promoting the work of the Committee and expressed his satisfaction that Drs. Kruijse would continue to participate in the work of the Committee. He then wished the Committee success in its work.

3. The Chairman expressed regret for the considerable delay in the distribution of various documents, due in part to postal difficulties and also to uncertainty with regard to the date for the session resulting from the postponement of the Third Session of the Codex Committee on General Principles.

4. The Committee paid tribute to the late Dr. H. Rauscher of the Federal Republic of Germany and to the late Dr. H. Hurtig of Canada and expressed deep regret at the loss of these two active members, who had contributed effectively to the work of the Committee.

ADOPTION OF THE AGENDA

5. The Committee adopted the agenda with a slight re-arrangement of the order of items to be discussed. Items 11 and 12 were moved to precede item 9.

SETTING UP OF THE AD HOC WORKING GROUPS

6. The Committee agreed to adopt the same working procedure it had followed at its previous session by setting up two Ad Hoc working groups to meet during the session and to report to the Committee under the appropriate agenda items:

(a) Ad Hoc Working Group on Methods of Analysis

- (i) to examine all the comments received from governments, IUPAC, etc.;
- (ii) wherever possible, to make recommendations for appropriate methods of analysis on the basis of the procedure whereby appropriate and suitable methods of analysis could be developed so that the Committee could then proceed with their elaboration in accordance with the Codex procedure for the elaboration of Codex methods of analysis (see paras 127-128, ALINORM 72/24A);
- (iii) In view of the magnitude of the task of recommending suitable methods of analysis for the large number of tolerances already proposed, the Committee agreed that priority should be given to those methods of analysis which were intended to apply to tolerances and practical residue limits at advanced steps in the Codex procedure and especially those which had already been recommended to governments for acceptance.

The membership of the Ad Hoc working group consisted of members of the following delegations: Canada, Federal Republic of Germany, Hungary, Israel, Netherlands, Switzerland, United Kingdom and USA. Dr. E.E. Turtle, representing the Secretariat of the Joint Meeting, participated at the meetings of the working group.

(b) Ad Hoc Working Group on Priority Lists (already set up at the 6th Session to continue until the end of the present session)

The terms of reference of the Ad Hoc Working Group were to establish Priority Lists on the basis of proposals and comments from governments. The membership of the Ad Hoc group consisted of members of the following delegations: Australia, Federal Republic of Germany, Canada, Israel, Netherlands, Switzerland, United Kingdom and USA. Dr. E.E. Turtle who represented the Secretariat of the Joint Meeting on Pesticide Residues, participated at the meetings of the Ad Hoc Group. The representative of EPPO participated as an observer.

APPOINTMENT OF RAPORTEURS

7. Mr. K. Walker (USA) and Mr. G. Viel (France) were appointed to act as rapporteurs to the Committee.

DISCUSSION OF THE REPORT OF THE THIRD JOINT FAO/WHO CONFERENCE ON FOOD ADDITIVES AND CONTAMINANTS (CX/FA 73/13 - Unedited version)

8. At the 9th session of the Codex Alimentarius Commission it was noted that the above mentioned Conference would cover food additives as well as contaminants. However, the deliberations of the Conference - which took place in October 1973 - did not extend to pesticide residues nor did the Conference deal with the procedure followed by the Joint FAO/WHO Meeting on Pesticide Residues with regard to the toxicological evaluation of and recommendations relating to pesticide residues. The Conference had requested FAO and WHO to consider the desirability of holding a conference of the appropriate government authorities, which might deal with various aspects of pesticides.

9. The Committee concurred that it would be most useful if a conference on various aspects related to the use of pesticides were organized. The representative of FAO informed the Committee that FAO had provided for a conference on pesticides in the budget of the present biennium (1974/75), but that the agenda of the meeting, which was planned to be held in 1975, was still open.

10. The Committee particularly held the view that the proposed conference should deal with questions associated with pesticide residues and recommended that the conference be a joint FAO/WHO effort.

11. The representative of WHO informed the Committee that in the present budgetary period no funds had been provided for such a conference. The Committee requested WHO to reconsider this matter.

12. After further discussion of the desirability of holding such a conference, the Committee agreed that (a) the conference should preferably be a joint one convened by FAO and WHO; (b) it should review the overall FAO programme on pesticides, and (c) the agenda should include items listed in Appendix V to this Report (see also paras 194 and 195). A number of countries were of the opinion that if a joint conference could not be held, a FAO conference should, in any case, take place.

MATTERS OF INTEREST TO THE COMMITTEE

Report of the 9th Session of the Commission (paras 53-54 and 238-248, ALINORM 72/35)

13. The Committee noted that, in response to its request, a consultation on the potential daily intake of pesticide residues had been held by WHO and that the consultation had made such proposals to WHO and governments as would clarify the approach which should be used in further dietary surveys and calculations of potential intakes of pesticide residues.

14. The Committee was also informed that the question of acceptance procedures for Codex limits for pesticide residues had been referred by the Commission to the Codex Committee on General Principles. In this respect the Committee expressed its regret that the Third Session of the latter Committee would be held after the present session and that, as a result, the fundamental question of the acceptance procedure for Codex maximum residue limits for pesticide residues remained unresolved at the present time.

15. The Committee accepted the explanation of the Secretariat that the reason for not preparing a paper setting out the difficulties in arriving at Codex pesticide residue limits for the Third Session of the Joint FAO/WHO Conference on Food Additives and Contaminants - as requested by the Commission - was due to the fact that, because of a heavy agenda, the Conference did not include the question of pesticide residues on its agenda.

16. The Committee noted that the Commission, at its 9th Session, had decided to hold at Step 8 all the Codex pesticide residue limits submitted to it by the 6th Session of this Committee, but that the limits submitted to the Commission at Step 5 had been advanced by the Commission to Step 6 of the Codex Procedure.

Report of the 19th Session of the Executive Committee (para 34, ALINORM 74/3)

17. The Committee was informed that, following the recommendations of the UN Conference on Human Environment (Stockholm, 1972), WHO was planning, within the limits of budgetary provisions, to intensify its work in areas related to the Joint FAO/WHO Food Standards Programme. WHO also planned to conduct studies to fill gaps which existed in scientific data on pesticide residues. Some delegations expressed the opinion that it would be especially desirable to conduct experimental work to generate data on pesticides of long usage on which new data were not likely to be forthcoming. The Committee considered it important to its work that this be done.

Report of the 7th Session of the Codex Committee on Foods for Special Dietary Uses (para 70, ALINORM 74/26)

18. The Committee decided not to reconsider, at this time, the general provision in respect of pesticide residues appearing in several standards for foods for infants and children (sub-section 6.1) and agreed that its previous endorsement of the provision would still hold.

Report of the 7th Session of the Codex Committee on Food Labelling (para 58, ALINORM 72/22)

19. Some delegations drew the Committee's attention to a suggestion to the 7th Session of the Labelling Committee that the General Standard for the Labelling of Prepackaged Foods should contain a statement to the effect that pesticide residues complying with legal tolerances should not be required to be listed on the label or

to accompany the product when sold at the retail level. The Committee agreed with the statements contained in para 58 of ALINORM 72/22 and further recalled its previous decision concerning its objections to a system of certification of compliance with pesticide residue limits.

Reports of the Joint FAO/WHO Meeting on Pesticide Residues

20. The Committee agreed with the proposal of the Chairman that in the future the technical reports of the Joint Meeting should also be placed before the Committee at the earliest possible stage, to enable the Committee to consider not only the proposed tolerances but also the general considerations of the Joint Meeting. The Committee agreed that it was essential for it and the Joint Meeting to use the same definitions of the various terms and requested the representatives of FAO and WHO to give special attention to this matter.

Third Session of the Codex Committee on General Principles

21. On the request of several delegations, the Chairman agreed to distribute the Secretariat paper on acceptance procedures (CX/GP 74/3) to the Committee for information. The FAO Secretariat pointed out that other documents concerning the acceptance of Codex maximum residue limits for pesticides, acceptance with minor deviations, criteria for determining when it is appropriate to publish a Recommended Standard as a "Codex" standard, and other procedural matters, besides the Secretariat paper had been distributed well in advance of the Codex Committee on General Principles. The delegation of Israel urged members of the Committee to attend the session of the Codex Committee on General Principles, and in any event, those members who had participated at the last session of the Ad Hoc Working Group on Pesticide Residues which was held in Copenhagen (Ref. ALINORM 72/24).

CLASSIFICATION OF FOODS AND DEFINITIONS OF FOOD GROUPS

22. At its 5th session, the Committee, when discussing various tolerances recommended by Joint Meetings for broad classes of foods, was not entirely clear which specific food commodities were involved. The 1970 Joint Meeting discussed this matter (see Report of Joint Meeting 1970, para 2.10, FAO Agricultural Studies, No. 87) and agreed to apply certain principles in making recommendations for tolerances.

23. The 6th Session of the Committee endorsed the approach of the 1970 Joint Meeting and stressed the need to use consistent terminology. The 1973 Joint Meeting discussed the matter further and agreed also to deal with the matter at its next session.

24. During the session, the Committee was presented with a document "Classification of Foods and Definition of Food Groups" (CX/PR 74/4), prepared by the delegation of the USA. As members of the Committee had not been able to study the proposal in detail in advance of the session, it was agreed to request governments to comment on the paper prior to its consideration by the 1974 Joint Meeting. The Committee expressed its appreciation for the work done by the USA.

25. It was further agreed to request the 1974 Joint Meeting to make recommendations with regard to the applicability of the proposed classifications and definitions.

CONSIDERATION OF THE INTAKE OF PESTICIDE RESIDUES

26. At its 6th session, the Committee had considered a paper (CX/PR 72/8) prepared by WHO on potential intake of pesticide residues for which tolerances had been recommended by the Joint Meeting such as would allow the proper use of pesticides in agriculture, would protect the health of the consumer and would facilitate international trade (previous WHO papers: CX/PR 70/13, FAD/RES/69.24a).

27. The results of this study covering 35 pesticides, based on total estimated diets in four countries located in three regions of the world, indicated that the average potential intake of pesticide residues was in general much lower than the ADI. As there remained certain reservations about the applicability to other regions of the figures presented, the Committee requested WHO to carry out additional studies (see also ALINORM 72/24A, paras 35-44).

28. For the present session of the Committee, WHO had prepared a paper (CX/PR 74/8) in which an assessment had been made of all those pesticides (67) for which both acceptable daily intakes (ADIs) and tolerances (including temporary ADIs and temporary tolerances) had been established by the Joint Meeting. These compounds included all those evaluated or re-evaluated up to 1973.

29. The principle of this study was the same as that followed in the previous one in that it was assumed, among others, that the consumer would ingest only food containing the particular residues at the maximum of the limit and that none was lost in storage, preparation and cooking. The number of countries had been increased to five and the food consumption data had been updated. The WHO paper made reference to the Report of the Third Joint FAO/WHO Conference on Food Additives and Contaminants, i.e. although it was appreciated that the estimates obtained were not accurate, they provided, however, reasonable indication of the order of magnitude of the potential intake.

30. From the results of the study the conclusion was drawn by WHO that for 51 pesticides not even a theoretical possibility existed that the ADI might be exceeded. Seven compounds were found in the theoretical calculation to be potentially present in quantities approaching their ADIs and in addition the calculations indicated that, on the premise that all food consumed contained residues at the maximum limit, there was a theoretical possibility that the ADIs for DDT, aldrin, dieldrin and hexachlorobenzene might be exceeded.

31. In the discussion of the WHO paper the Committee, while appreciating the fact that the study could, to some extent, be regarded as an indication of priorities for further investigation of the intake of pesticide residues, agreed that the conclusions should be regarded with considerable reservation. The results of the study could be misinterpreted and thus could lead to false conclusions with regard to the use of certain pesticides.

32. The Committee was of the opinion that, in order to clarify the approach and the limitations of the WHO study, the next WHO paper should contain details of the way the estimates had been arrived at and on the basis of what data. The representative of WHO agreed to include such information in the next paper.

33. The delegation of the USA introduced a revision of a paper (CX/PR 74/2) prepared for the previous session of the Committee, dealing with the relationship between calculated theoretical daily intakes and actual daily intake of certain pesticides. The paper showed that for the pesticides studied, the actual intake as determined on the basis of direct measurement of food as consumed was many times lower than the calculated intakes based on food intake data and tolerances.

34. The Committee stressed that the type of information contained in the US paper demonstrated that when pesticides were used according to good agricultural practice in the USA, the resulting residues were considerably less, with the exception of aldrin and dieldrin, than the ADIs. The US delegation stated that the paper also proposed that in the absence of data on the fate of residues after harvest, a figure of 10% of the calculated theoretical intake could be used in evaluating whether tolerances could exceed the ADI.

CONSIDERATION OF CODEX MAXIMUM RESIDUE LIMITS FOR PESTICIDES

35. As a new approach in the consideration of Codex Maximum Residue Limits for pesticides, the Committee discussed these limits on a substance by substance basis rather than grouped on the basis of Codex steps. For this purpose a summary list of all Codex Maximum Residue Limits had been prepared by the Codex Alimentarius Secretariat, contained in document CX/PR 74/3.

36. Governments had sent comments on Codex Maximum Residue Limits (a) at Step 3 of the Codex Procedure (see Appendices VII and VIII, ALINORM 72/24A and circular letters CL 1973/11 and CL 1973/17); (b) at Step 6 of the Codex Procedure (see Appendices III, IV, V and VI, ALINORM 72/24A and circular letters CL 1972/30 Part C and CL 1972/31); (c) at Step 9 (proposed amendments) (see circular letter CL 1973/30 Part G and Appendix 2). The Committee had before it working papers CX/PR 74/5/1 and CX/PR 74/5/2, summarizing these comments and room document CX/PR 74/3-Add. 1 giving changes and new

limits, proposed by the 1973 Joint Meeting. The Committee agreed that it was not in a position to consider in detail the proposals from the 1972 Joint Meeting, because the report and the evaluations of that meeting were not generally available, but took into account the changes proposed to former maximum limits by the 1972 and 1973 Joint Meetings.

37. The Chairman drew attention to the fact that the question of the acceptance of Codex Maximum Residue Limits had still not been resolved and that, following the decision of the Commission, this question would be brought before the Codex Committee on General Principles. As the latter Committee had not met prior to the session of the Codex Committee on Pesticide Residues, no recommendations were available concerning the question of acceptances (see also para 14).

38. Before starting the discussion on the individual items, the delegation of the Federal Republic of Germany stated that, in their opinion, a number of the proposed Codex Maximum Residue Limits, especially concerning the persistent chlorinated hydrocarbons, were too high. However, in order to facilitate the progress of the Committee's work, they would refrain from reserving their position with respect to eventual acceptance of individual maximum residue limits and would refer generally to their written comments.

39. The delegation of Switzerland stated that the use of pesticides in Switzerland was regulated by law. As long as the existing Swiss law was not amended, Switzerland could accept only those proposed Codex Maximum Residue Limits which did not exceed the limits in their country. The delegation of Switzerland further stated that several organochlorine pesticides had been withdrawn not only from use in agriculture but also from products used by the public (sprays, dusting agents, etc.) in their law. The existing tolerances for these pesticides had been cancelled and replaced by "practical residue limits". Furthermore, according to Swiss law, no tolerances could be established for a pesticide if this pesticide was not authorized for use in Switzerland. As a consequence of the present situation, Codex tolerances for DDT, aldrin, dieldrin, chlordane, endrin, heptachlor/heptachlor epoxide could not be accepted by Switzerland. Codex tolerances for other pesticides and Codex "practical residue limits" for the above mentioned organochlorine pesticides could, under certain reservations, be accepted.

40. The delegation of the United States stated that the United States supported the principles of the Codex Alimentarius Commission and intended to fully carry out, within the framework of existing laws, its responsibility when considering the acceptance of Codex standards. They expressed their regret that the meaning as to what constituted "acceptance" of a Codex standard had not been clarified by the Commission. Until such clarification has been made and a national policy established, they could concur only in those proposed Codex levels that were equal to existing national levels. The establishment of "rules of acceptance" would permit a re-evaluation of the position of the United States.

41. The Chairman drew attention to the fact that the terms of reference of this Committee were of a technical nature. Delegations should express their opinion, on the basis of the Joint Meeting's Evaluations and any other data, whether the proposed limits were toxicologically safe and reflected good agricultural practice in the producing countries. Statements on acceptability exclusively on the basis of the legal situation in the different countries were not sufficient.

42. Where proposed Codex maximum residue limits were adopted without comments or objections by the Committee, no mention of the particular Codex maximum limits is made, in the following paragraphs. The practical residue limits and tolerances considered by the Committee are given in Appendix II together with item numbers, specified after each commodity below.

ALDRIN AND DIELDRIN

43. The delegation of Denmark pointed out that, in their view, persistent chlorinated hydrocarbons should no longer be used on crops because these substances showed a tendency to accumulate in the food chain. For this reason any limits proposed should be "practical residue limits". Their remark applied not only to aldrin and dieldrin but also to chlordane, DDT, endrin and heptachlor.

Rice (rough): 1.2

44. The attention of the Committee was drawn to the fact that at the 1972 Joint Meeting the term "rice (rough)" was changed into "rice in husk". This change was accepted by the Committee.

Fruit (except Citrus fruit): 1.3

45. The Committee agreed that the Joint Meeting should again be requested to specify the fruits to which the tolerance of 0.1 ppm applies and that member governments be again requested to provide information to the Joint Meeting. The Committee, therefore, decided to return this tolerance to Step 6.

Milk and Milk Products: 1.5

46. The Committee noted that the 1970 Joint Meeting had rounded off the practical residue limit of 0.125 ppm to 0.15 ppm. This was accepted by the Committee. The delegation of Switzerland was opposed to this change. As regards this item, it was also decided that the Joint Meeting should be requested to specify tolerances to significant figures which are relevant to analysis.

Carrots: 1.11

47. The Committee noted that the 1970 Joint Meeting had changed the tolerance of 0.1 ppm into a practical residue limit of 0.2 ppm. The delegation of the Netherlands pointed out that no supporting data to raise the figure of 0.1 ppm were given in the 1970 Evaluations. The Committee decided not to propose to change the original limit of 0.1 ppm at Step 9 of the Procedure, except that it should be changed to a practical residue limit.

Lettuce: 1.16

48. As a number of countries were not in favour of the recommendation by the 1970 Joint Meeting to change the limit for lettuce of 0.1 ppm TT to a 0.2 ppm PRL, the Committee decided not to recommend to the Commission that the 0.1 ppm TT be amended. However, it agreed to change the tolerance into a PRL considering that this did not constitute a substantial change requiring the amendment procedure.

Potatoes: 1.21

49. The increase of the tolerance of 0.1 ppm for potatoes to 0.2 ppm, proposed by the 1970 Joint Meeting was not accepted by the Committee. After a full discussion on whether or not this limit should be a "tolerance" or a "practical residue limit", the Committee decided not to recommend to the Commission that the tolerance of 0.1 ppm be amended. However, it agreed with the Joint Meeting to change the temporary tolerance into a tolerance.

AZINPHOS-METHYL

50. The Committee was informed through room document CX/PR 74/3-Add.1 that azinphos-methyl had been reviewed by the 1973 Joint Meeting which had recommended additional tolerances for a number of fruits and vegetables besides those previously established and which were in fact before the Committee. The Joint Meeting had also recommended that the temporary tolerances be changed to tolerances. The Committee decided that: 2.1 fruit (except apricots and grapes) and 2.4 vegetables, be returned to Step 6 and that the Joint Meeting be requested to specify tolerances for specific items in these groups in the light of the recommendations of the 1973 Joint Meeting on Pesticide Residues and comments from governments. 2.2 apricots and 2.3 grapes were returned to Step 6. Governments were asked for comments on the new proposals made by the 1973 Joint Meeting.

51. The delegate of New Zealand brought forward a proposal for a separate tolerance for kiwi fruit. This proposal was supported by residue data provided as a room document (Room Document No. 1) to the Committee. The Committee agreed to insert in the list of tolerances a limit of 4 ppm for kiwi fruit based on the total fruit (safety interval of 28 days) and a limit of 0.4 ppm based on the edible part.

BINAPACRYL

Cherries: 3.1

52. Some delegations considered the proposed tolerance of 1 ppm too high. The delegation of the Netherlands pointed out that no residue data concerning cherries had been provided in the 1969 Evaluations to support the proposed limit. Therefore, the Netherlands reserved their position. The Committee decided to return the proposed tolerance of 1 ppm to Step 6 and also to ask the Joint Meeting for clarification.

Peaches: 3.2

53. The delegations of the Federal Republic of Germany and Switzerland could not agree with the proposed tolerance of 1 ppm, as in their opinion, this tolerance was too high. The Committee decided to submit the tolerance of 1 ppm in peaches to the Commission at Step 8 of the Procedure.

Nectarines: 3.7

54. The Committee decided to change the tolerance of 0.2 ppm in nectarines to 0.3 ppm in order to bring it in line with the tolerance for plums and to submit the limit of 0.3 ppm to the Commission at Step 8 of the Procedure.

BROMOPHOS AND BROMOPHOS ETHYL

55. As the technical report and monographs of the 1972 Joint Meeting were not yet available, the Committee decided not to discuss items 4.1 to 4.35 and 5.1 to 5.25 but to retain them at Step 3 in order to enable governments to comment on these figures as soon as the above mentioned publications became available.

CAPTAFOL

Cucumbers: 6.6

56. The delegation of the Netherlands proposed a limit of 2 ppm, as for melons, instead of 1 ppm. The Committee agreed to this change and decided to submit a temporary tolerance of 2 ppm to the Commission at Step 8 of the Procedure.

Apricots: 6.7 and Plums: 6.8

57. Several delegations expressed the view that the proposed limits did not reflect actual good agricultural practice because the residue data presented in the 1969 Evaluations covered only use during blossom time. The Committee decided to return the temporary tolerance of 0.5 ppm in apricots and of 0.2 ppm in plums to Step 6 and to ask governments to provide data to the Joint Meeting.

CAPTAN

58. The delegation of Denmark made a general statement that limits above 15 ppm were not acceptable because of the theoretical risk of exceeding the ADI. The delegation of the Federal Republic of Germany supported this view. The delegation of the USA informed the Committee that data on residues of captan in several crops was available in the USA and agreed to send these data to the Joint Meeting.

Apples: 7.1

59. As the data included in the 1969 Evaluations showed a large variation of residues on apples sprayed at the same rate and after observing a same waiting period, the Netherlands reserved their position. In their opinion, a tolerance of 15 ppm was sufficient. The Committee decided to return the proposed tolerance of 40 ppm in apples to Step 6 with a request to governments to send data to the Joint Meeting.

Cherries: 7.2

60. The Committee agreed to submit the tolerance of 40 ppm in cherries to the Commission at Step 5 of the Procedure and requested governments to send residue and other data to the Joint Meeting.

Pears: 7.3

61. The Committee decided to return the tolerance of 30 ppm in pears to Step 6 of the Procedure and to request governments to send residue and other data to the Joint Meeting.

Strawberries: 7.12

62. The Committee noted that at the 1973 Joint Meeting the tolerance of 10 ppm was increased to 20 ppm. The Committee agreed to submit a tolerance of 20 ppm in strawberries to the Commission at Step 5 of the Procedure.

CARBARYL

Rice: 8.1

63. The Committee was informed that the limit of 2.5 ppm in rice had been changed by the 1973 Joint Meeting to 3 ppm in rice (rough). The Committee decided to recommend to the Commission a tolerance of 3 ppm in rice (rough), considering that this did not constitute a substantive change requiring the amendment procedure.

Meat of Cattle, Goat and Sheep: 8.34

64. The Committee noted that the limit had been decreased from 1 ppm to 0.2 ppm by the 1973 Joint Meeting. It was decided to submit the tolerance of 0.2 ppm to the Commission at Step 8 of the Procedure.

CARBON DISULFIDE

65. The attention of the Committee was drawn to the fact that the limits of 50 ppm in raw cereals (9.1), 10 ppm in milled cereal products (9.2) and of 0.05 ppm in bread and other cooked cereal products (9.3) were quoted erroneously in the 1971 Evaluations and that they should be 10 ppm, 2 ppm and 0.5 ppm, respectively. After a full discussion about the status and the merits of the proposed "guideline levels" ^{1/}, it was decided that these levels should not be taken up in the Codex Procedure. The delegate of Israel expressed the opinion that whenever new terms relating to the work of this Committee were defined by the Joint Meeting, it would be highly desirable to have these terms discussed and approved by this Committee prior to being used by the Committee. It was agreed that when the Joint Meeting would be in a position to propose tolerances which were recognized as being safe from the toxicological point of view, the limits would be introduced into the Codex Procedure. Governments were urgently requested to send residue and toxicological data to the Joint Meeting.

CARBON TETRACHLORIDE

66. The same decisions were taken for items 10.1 to 10.3 as for carbon disulfide (para 65).

CARBOPHENOTHION

67. As neither the technical report nor the monographs of the 1972 Joint Meeting were available, it was decided not to discuss the limits but to retain them (items 11.1 to 11.23) at Step 3 and to request governments for their comments.

^{1/} Guideline levels are intended to assist administering authorities, even though either ADIs have not been established for the individual products, or temporary ADIs established at an earlier date have been withdrawn. The levels recommended are those that need not be exceeded if good practices are followed. With regard to fumigants, they are intended to be applied at one of the stages indicated at items 9, 23, 24 and 52, Appendix II, in the knowledge that, when so applied, residues of unchanged fumigants in foods as offered for consumption would not exceed an amount close to the limit of determination by present analytical methods.

CHLORDANE

68. The delegation of Denmark made similar remarks as at para. 43. The delegation of Switzerland pointed out that, as chlordane was not registered for use in their country, only a PRL would be acceptable and, in any event, not above 0.1 ppm.

Raw Cereals: 12.1 to Water Melon, Cantaloups: 12.11

69. The Committee agreed to the changes made by the 1970 and 1972 Joint Meetings with regard to items 12.1 to 12.11 at Step 9 of the Codex Procedure and decided to recommend to the Commission that the Step 9 Codex maximum residue limits be amended in the light of new proposed lower limits.

Potatoes: 12.15 to Collards: 12.31

70. A number of countries could not accept the limits proposed for these items. As new data on residue levels and the nature of the residues were available, the Committee decided to return items 12.15 to 12.31 to Step 6 and to ask the Joint Meeting to review the new data provided by governments.

Almonds: 12.36 to Edible Soyabean Oil: 12.56

71. The delegations of Canada and the Netherlands did not agree with most of the proposed limits which, in their opinion, were unnecessarily high in view of the fact that chlordane was not used for application to foliage.

CHLORMEQUAT

72. Because the technical report and the monographs of the 1972 Joint Meeting were not yet available, the Committee decided not to discuss items 15.1 to 15.7, but to retain them at Step 3 in order to enable governments to comment on these figures as soon as the above cited publications became available.

CHLOROBENZILATE

Apples: 16.5 and Pears: 16.6

73. Proposals for tolerances for apples and pears, as amended by the 1972 Joint Meeting, were returned to Step 6 of the Procedure, with a request for comments from governments on the new limits.

Grapes: 16.7, Tomatoes: 16.8 and Milk (whole): 16.9

74. The Committee decided to retain these items at Step 3 of the Procedure in order to enable governments to comment as soon as the monographs from the 1972 Joint Meeting became available.

CHLORPYRIFOS

75. The Committee agreed to retain the items 17.1 to 17.25 at Step 3 in order to enable governments to comment as soon as the monographs from the 1972 Joint Meeting became available.

COUMAPHOS

Eggs: 18.1, Poultry: 18.2 and Meat: 18.3 - 18.4

76. The proposals for temporary tolerances for these items were returned to Step 6 of the Procedure. It was noted that the 1972 Joint Meeting had limited its recommendations to meat of cattle, sheep, pigs and goats, and had revised its limits previously recommended.

Milk and Milk Products: 18.4

77. The temporary tolerance was not discussed but retained at Step 3 of the Procedure, as the 1972 monographs of the Joint Meeting were not yet available.

2,4-D

78. The typographical error of the 1971 Joint Meeting's report was corrected. The delegation of the USA stated that the new proposals (0.02 ppm) were not sufficient to accommodate the use of 2,4-D in their country.

DDT

79. Taking into account that toxicological studies on DDT were still in progress and that new residue data from producing and importing countries were needed to permit a re-evaluation of the maximum residue limits for this compound, the Committee decided to return the proposed limits for items 21.3 to 21.17 to Step 6 of the Procedure, with the request to governments to provide any relevant data to the Joint Meeting. (See also para 43).

DIAZINON

Cole Crops: 22.5

80. The Committee was informed that the proposed tolerance of 0.7 ppm had been withdrawn by the 1970 Joint Meeting.

Cherries: 22.8

81. As the residue data presented in the 1970 Evaluations did not exceed the 0.5 ppm level, it was decided to withdraw the tolerance of 0.7 ppm in cherries thereby including cherries in the general tolerance of 0.5 ppm in fruit.

Wheat, Barley, Rice (polished): 22.9

82. The delegation of Canada proposed a limit of 0.05 ppm, being the limit of detection, instead of 0.1 ppm because the data presented in the 1970 Evaluations showed no detectable residues. It was explained that the limit of 0.1 ppm had been proposed to accommodate the treatment of shipholds as recommended by IMCO, and that levels below 0.1 ppm were difficult to measure.

Almonds: 22.10 to Sunflower Seed: 22.17

83. As the data presented in the 1970 Evaluations did not demonstrate the need for a limit of 0.5 ppm for these items, the Committee decided to change the tolerance to 0.1 ppm and invited governments to provide data to substantiate the limit of 0.1 ppm.

Sweet Corn: 22.18

84. Some delegations expressed the view that there was no technical difference between sweet corn (in kernel) and the various seeds and nuts and, therefore, proposed that the tolerance of 0.1 ppm should be applied. The delegation of USA pointed out that sweet corn can be treated close to harvest in contrast to small grains and, therefore, was in favour of the limit of 0.7 ppm for sweet corn. The Committee agreed to retain the limit at 0.7 ppm and to request governments to provide data to substantiate this proposed limit.

Olives: 22.19 and Olive Oil: 22.20

85. The question was raised as to whether the proposed limit of 2 ppm, taking into account the high consumption of these commodities in the Mediterranean countries, would lead to an excessive intake of diazinon.

1,2-DIBROMOETHANE and 1,2-DICHLOROETHANE

86. The Committee noted that the limits proposed were "Guideline levels". It decided, as with carbon disulphide and carbon tetrachloride, not to take up these levels in the Codex Procedure until the Joint Meeting was in a position to recommend tolerances which were considered safe from a toxicological point of view. The delegations of Australia and the United Kingdom informed the Committee that they were already collecting data and that this information would be made available to the Joint Meeting. The Committee agreed to request other governments also to supply information concerning residues found as well as toxicological data.

DICHLORVOS

Raw Cereals: 25.1 to Fruit (except Citrus fruit): 25.3

87. The Committee agreed to recommend to the Commission to adopt the new proposals of the 1970 Joint Meeting considering that these did not constitute a substantial change requiring the amendment procedure.

Vegetables (except lettuce): 25.4

88. The Committee decided to return the proposed tolerance of 0.5 ppm to Step 6 and to request a third round of government comments. These comments were expected to include proposals for limits in specific vegetable crops and the necessary residue data for further considerations by the Joint Meeting.

Cocoa Beans: 25.5

89. The delegation of the Federal Republic of Germany considered the proposed tolerance of 5 ppm too high taking into account that the residue level in the cocoa butter would be even higher.

Coffee Beans: 25.6 to Miscellaneous Food Items: 25.17

90. The Committee held the view that the proposed tolerances could be advanced to Step 5 with the recommendation to the Commission to omit Steps 6, 7 and 8.

DICOFOL

91. The delegation of Canada, supported by the delegation of Switzerland, stated that they could not accept the proposed limits as these were not in agreement with the data presented in the 1968 Evaluations. Furthermore, based on the structural relationship with DDT, a restriction in the use of dicofol was requested.

92. In view of the availability of new toxicological data, the delegation of the Netherlands was of the opinion that WHO should be requested to reconsider the ADI. They indicated that the data would be made available to the Joint Meeting.

Fruit: 26.1 to Tea (dry manufactured): 26.4

93. In the light of the remarks made above, the Committee decided to return the tolerances of 5 ppm in fruit and vegetables to Step 6 and also to return the tolerances of 5 ppm in hops (dried) and tea (dry manufactured) to Step 3. Governments were requested to provide data concerning toxicology, plant and animal metabolism, persistence in the environment and residue data.

DIOXATHION

Milk and Milk Products: 28.5 and Stone Fruit: 28.6

94. As neither the monograph nor the technical report of the 1972 Joint Meeting were available, these items were not discussed but retained at Step 3 so that government comments could be obtained.

DIPHENYLAMINE

Apples: 30.1

95. On the proposal of the delegation of the Netherlands the Committee agreed to request WHO to reconsider the ADI in the light of the results of a long-term study on mice.

DIQUAT

Rice (in husk): 31.1 to Rice (polished): 3.10

96. As these new proposals for tolerances in beans (31.5), sunflower seed (31.6), potatoes (31.8) and rice (polished) (31.10) had been made by the 1972 Joint Meeting (see para 94), it was decided to retain these items at Step 3.

97. Concerning sorghum (31.3), peas (31.4), onions (31.7) and maize (31.9), the Committee recommended to the Commission to advance the tolerances to Step 5, with a recommendation to omit Steps 6, 7 and 8.

Edible Oils: 31.11

98. It was explained to the Committee that the limit of 0.1 ppm had been proposed by the Joint Meeting instead of a lower limit as in milk and meat because of analytical difficulties at lower levels.

Barley: 31.12 to Meat and Meat Products: 31.20

99. As neither the monographs nor the technical report of the 1972 Joint Meeting were available, these items were not discussed but retained at Step 3 of the Procedure.

ENDOSULFAN

100. A number of delegations held the view that limits had been set for a too broad class of fruits and vegetables and requested that more specific tolerances be established. They indicated that residues as low as 0.2 ppm were found on some foods, while residues above 2 were found on others. The Committee requested the Joint Meeting to reconsider the tolerances for fruits and vegetables and to elaborate on the two groups of commodities. Governments were requested to supply data on this subject to the Joint Meeting.

ENDRIN

101. The delegation of Denmark repeated their statement made for the other persistent chlorinated hydrocarbons (see para 43). As the use of endrin was not permitted, and therefore, a practical residue limit of 0.005 ppm was in force in their country, the delegation of Switzerland could not accept higher limits for residues of endrin.

Poultry: 33.10 and Eggs: 33.11

102. With regard to the residue limits for poultry and eggs, some delegations were of the opinion that the proposed limit was too high, considering the information before the Joint Meeting. The Committee agreed to request governments to provide data on residue levels in eggs and poultry so that these limits could be reconsidered. In addition, the Committee agreed to request the Joint Meeting to make a proposal for a practical residue limit in meat. Governments were asked to send residue data.

Sweet Corn: 33.12

103. It was noted that the 1972 Joint Meeting had deleted the tolerance for maize oil which had been included erroneously instead of sweet corn. The Committee agreed to make corresponding changes to the proposed Codex limits.

ETHION

104. It was noted that the limits proposed by the Joint Meeting were no longer temporary. A correction was made by the Committee in the level for tea which in the 1970 Evaluations had been listed as 5 ppm but was listed erroneously as 7 ppm in the subsequent reports. The Committee further noted the withdrawal by the Joint Meeting of the general tolerances for "fruits" and "vegetables", which had been replaced by specific commodities.

105. The remaining residue limits were not discussed as they had resulted from the 1972 Joint Meeting. On the suggestion of the delegation of Israel, it was agreed that when considering the proposed limits for lemons, limes and oranges, the Committee should consider establishing a general limit for Citrus fruits.

FENCHLORFOS

106. The Committee noted that the 1972 Joint Meeting had withdrawn the limit for meat and had changed the limit for eggs. It was agreed to request the Commission to return the limit for eggs held at Step 8 to Step 6 so that the new proposal of the Joint Meeting could be considered in the light of comments.

FENITROTHION

Apples: 37.1 to Milk and Milk Products: 37.10

107. Awaiting the review of new toxicological data by WHO, it was decided to return these items to Step 6 of the Procedure.

FENSULFOTHION

Maize: 38.1 to Edible Offal of Cattle, Goats and Sheep: 38.11

108. As neither the monographs nor the technical report of the 1972 Joint Meeting were available, these items were not discussed.

FENTHION

109. The delegation of the Netherlands expressed its concern about the toxicity of this compound but had no objection to advance the proposed limits to Step 5 of the Procedure.

Oranges: 39.11

110. On the proposal of the delegation of Israel, the term "oranges" was replaced by "Citrus fruit".

Meat: 39.13

111. As the Committee considered that difficulties could arise from the existence of two tolerances for meat, viz. 2 ppm for fat of meat (39.5) and 0.5 ppm for meat (39.13), it was decided to withdraw the limit expressed on meat.

FENTIN

112. The delegation of Switzerland was of the opinion that the limits in celery and potatoes were too high. The delegation of the Federal Republic of Germany was in favour of lowering the limit in carrots to 0.1 ppm, especially as this commodity was consumed by infants and children. The delegation of the Netherlands supported this proposal, pointing out that the present limit of 0.2 ppm covered only extreme cases of residue levels. The Chairman, referring to the tolerances proposed by the 1972 Joint Meeting, was of the opinion that the items 40.8 and 40.9 should read "Roasted coffee beans" and "Rice (hulled)". The Secretariat undertook to look into this matter.

FOLPET

113. Some delegations requested explanation on why the ADI had been changed by the Joint Meeting from 0.16 to 0.1 mg/kg body-weight. The representative of WHO explained the "rounding off" procedure used by the Joint Meeting in making this change. After a short discussion of the significance of the various factors which were involved in arriving at a calculation of the ADI, the Committee expressed its concern about the consequences involved in "rounding off" procedures and requested the Joint Meeting for a clarification of this matter.

114. The delegation of Denmark indicated that they would review their opinion given in the written comments, i.e. not to accept levels above 15 ppm.

115. The delegation of the Federal Republic of Germany could not accept levels above 15 ppm.

Blueberries: 41.3

116. The Secretariat was requested to give the appropriate description for "blueberries" to which the proposed limits given in the monograph applied.

Strawberries: 41.8

117. The attention of the Committee was drawn to the fact that the 1973 Joint Meeting had raised the limit in strawberries from 5 ppm to 20 ppm. It was decided to return this new proposed limit to Step 6 and ask governments for comments.

FORMOTHION

118. The Committee decided, in the light of recent revisions by the 1973 Joint Meeting, to return the tolerances for this substance to Step 3 of the Procedure.

HEPTACHLOR 1/

Root Vegetables: 43.3 to Leafy Vegetables: 43.6

119. The Committee noted that the 1970 Joint Meeting had withdrawn these proposals.

Milk and Milk Products: 43.7

120. The Committee accepted the 1970 Joint Meeting proposal for a PRL of 0.15 ppm on a fat basis instead of 0.125 ppm. The Committee considered this a minor change, taking into account analytical accuracy.

Meat: 43.8

121. The 1970 Joint Meeting proposed to include poultry in this item (at Step 9). The Committee accepted this proposal but considered that the PRL of 0.2 ppm in poultry on a fat basis should be regarded as a new and separate proposal at Step 3 of the Procedure.

Carrots: 43.9

122. Some delegations considered a PRL of 0.1 ppm sufficient and more in agreement with good agricultural practice than the proposed value of 0.2 ppm. The Committee decided to return this proposal to Step 6 with a request to governments to supply data in support of these or other limits to the Joint Meeting.

Sugar Beets: 43.10

123. The Committee noted that the 1971 Joint Meeting had changed a TT of 0.1 ppm into a PRL of 0.05 ppm. This was accepted by the Committee for submission to the Commission at Step 5.

1/ See also para 43.

Pineapple: 43.11 to Citrus Fruit: 43.18

124. The Committee agreed to submit the proposals for PRLs for these items to the Commission at Step 5 of the Procedure, with a recommendations to omit Steps 6, 7 and 8.

HEXACHLOROBENZENE

125. The Committee took note of some minor amendments proposed by the 1972 and 1973 Joint Meetings and was in agreement to submit the PRL proposal for items 44.1 to 44.7 to the Commission at Step 8 of the Procedure. Some delegations drew attention to the fact that high residues in food from animal origin were mostly caused by feeding contaminated feedstuffs to the animals.

HYDROGEN PHOSPHIDE

126. The proposed tolerances were submitted to the Commission at Step 5 with a recommendation to omit Steps 6, 7 and 8 of the Procedure.

LINDANE

127. The Committee noted that the Joint Meeting had changed all tolerances for this substance to temporary tolerances. The representative of WHO explained that, on the basis of new information on lindane, the Joint Meeting had changed the ADI to a temporary ADI, but anticipated that further toxicological information would be forthcoming.

128. The Committee accepted a number of minor amendments of editorial nature proposed by the Joint Meeting for the items 48.2 to 48.5 and decided to recommend to the Commission to retain the proposals for TTs for the items 48.6 to 48.10 to Step 8 of the Procedure. It was understood that in the item raw cereals, the item rice (in husk) was also included.

Vegetables: 48.11

129. In the light of comments made by delegations, the Committee agreed to return the tolerance of 3 ppm for vegetables to Step 6 of the Procedure, with a request for further data from governments regarding specific vegetables and their appropriate tolerances.

MALATHION

Lettuce: 49.6 to Broccoli: 49.15

130. A number of delegations expressed the view that the proposed tolerances for the items lettuce to broccoli were unnecessarily high. With a reasonable waiting period it was believed that these figures could be reduced to 3 ppm in view of the high volatility of the compound. The Committee decided to return the proposed figures to Step 6 and to ask governments again for comments, including the proposal to lower the limits to 3 ppm but bearing in mind that the tolerance had to accommodate foodstuffs moving in international trade. Governments were also requested to provide residue data in support of their proposals.

Tomatoes: 49.16, Kale: 49.17, Green Beans: 49.20 and Pears: 49.23

131. The delegation of the Federal Republic of Germany informed the Committee that the proposed figures for these items were or could be acceptable in contrast with their written comment.

Celery: 49.21

132. The Joint Meeting was requested to give a definition of the term "celery" in connection with the proposed tolerance of 6 ppm. Governments were invited to submit proposals with supporting residue data including the variety of celery for which a tolerance is required. The Committee decided that the tolerance of 6 ppm in celery be returned to Step 6.

Grapes: 49.33

133. As neither the monographs nor the technical report of the 1972 Joint Meeting were available, this item was not discussed.

MANCOZEB

Potatoes: 50.1

134. The Committee was informed that until now no specific analytical methods for the different dithiocarbamates were available but that work on an analytical method for the determination, for enforcement purposes, of the metabolite ethylene thiourea was in progress.

METHIDATHION

Citrus Fruit: 51.1 to Eggs: 51.26

135. As neither the monographs nor the technical report of the 1972 Joint Meeting were available, these items were not discussed.

METHYL BROMIDE

Nuts: 52.1 to Peanuts: 52.11

136. The Committee noted that the proposed levels were "guideline levels" (see para 65). The same decisions as for the other fumigants discussed earlier were made, i.e. not to take these proposals up in the Codex Procedure until the Joint Meeting could recommend tolerances which are considered to be safe from a toxicological point of view. Governments were asked to provide data as requested by the 1971 Joint Meeting.

MEVINPHOS and MONOCROTOPHOS

137. As neither the monographs nor the technical report of the 1972 Joint Meeting were available, the proposed maximum residue limits for mevinphos and monocrotophos were not discussed.

OMETHOATE

Apples: 55.1 to Plums: 55.7

138. The delegation of the Netherlands stated that a tolerance of 2 ppm for these items was not acceptable for the following reasons: in the Netherlands omethoate itself is used as a pesticide and, therefore, residues of omethoate do not only occur as a metabolite resulting from a treatment with dimethoate. In addition, there is a distinct difference in the ADIs for omethoate and dimethoate, viz. 0.005 mg/kg and 0.02 mg/kg, respectively.

139. The Committee decided to submit a tolerance of 2 ppm for the items 55.1 to 55.7 to the Commission at Step 5 of the Procedure.

ORTHO-PHENYL-PHENOL

Cantaloups: 56.1

140. In view of the fact that a proposal for a maximum residue limit had already been established in the edible portion of cantaloups (see item 56.9), the Committee decided to delete the proposed tolerance of 120 ppm in cantaloups on a whole fruit basis.

Pears: 56.2 to Peppers: 56.16

141. The delegation of Switzerland could not accept any of the proposals except that for Citrus fruit. The Committee decided to submit all the items, except apples, to the Commission at Step 8 of the Procedure. It was decided to return the proposed tolerance of 15 ppm on apples to the Joint Meeting for reconsideration because this limit seemed to be too low in the opinion of several delegations. It was noted that relevant data in support of the above view had already been submitted by the Netherlands to the Joint Meeting.

PARAQUAT

Cottonseed: 57.1 to Sugar Cane Juice: 57.4

142. The Committee noted that the proposals for cotton seed meal and for sugar cane juice had been withdrawn by the 1972 Joint Meeting.

143. As the limit for potatoes was raised to 0.2 ppm by the 1972 Joint Meeting, Discussion of this proposal was postponed pending government comments.

144. The description of cottonseed oil (refined) was amended by the Committee to: cottonseed oil (refined and edible) in order to avoid possible confusion, since "refined cottonseed oil" was a term used in industry to describe also an inedible product.

Rice (in husk): 57.5 to Milk (whole): 57.12

145. As neither the monographs nor the technical report of the 1972 Joint Meeting were available, the proposed tolerances were not discussed.

PARATHION

Citrus Fruit: 58.3

146. The Committee agreed to return the proposed tolerance of 1 ppm in Citrus fruit to Step 6 and to request the Joint Meeting to reconsider this recommendation as the figure seemed to be too low. The delegation of Israel agreed to obtain additional data although this insecticide was not used in Israel.

PARATHION-METHYL

Vegetables (except cole crops and cucumbers): 59.6 to Fruit (except cantaloups and melons): 59.7

147. The delegation of Canada could not accept the proposed tolerances due to lack of adequate information in Canada on toxicology and metabolism. The delegation of Israel requested specific tolerances for different fruits and vegetables in addition to the proposals already made by the Joint Meeting. The Committee decided to return the proposed tolerances of 1 ppm in vegetables (except cole crops and cucumbers) and of 0.2 ppm in fruit (except cantaloups and melons) to Step 6 and requested the Joint Meeting to review the toxicological data and to propose additional specific tolerances for fruits and vegetables. Governments were requested to send data to the Joint Meeting. The delegate of Israel was of the opinion that the question of occupational hazard arising from the use of methyl and ethyl parathions should be referred to WHO.

Cole Crops: 59.1 to Cottonseed Oil: 59.5

148. The attention of the Committee was drawn to these items being "held at Step 8". In view of the remarks in para 147, it was agreed to request the Commission to return these temporary tolerances to Step 7.

PHOSALONE

Apples: 60.1 to Rape seed: 60.21

149. As the monographs and the technical report of the 1973 Joint Meeting were not available, these items were not discussed.

PHOSPHAMIDON

Fruit: 61.10 and Vegetables: 61.11

150. On the request of the delegation of Israel, the Committee decided to return the tolerance of 0.2 ppm for fruit and vegetables to Step 6 and to request the Joint Meeting to make further proposals for specific tolerances for fruits and vegetables in addition to the already proposed ones.

Root Vegetables: 61.12 and Potatoes: 61.13

151. Although the proposed tolerances originated from the 1972 Joint Meeting and the monographs were not yet available, and since there was general agreement on the proposed level, the Committee decided to submit the tolerance of 0.05 ppm in root vegetables and potatoes to the Commission at Step 5 with a recommendation to omit Steps 6, 7 and 8 recognizing that this tolerance is a level at or about the limit of detection.

PIPERONYL BUTOXIDE and PYRETHRINS

Fruit for Canning: 62.2 resp. 63.2

152. The Committee adopted the proposal of the Joint Meeting to change "fruit for canning" to "fresh fruit" considering that this classification did not constitute a substantive change of the Step 9 tolerances which would require the amendment procedure.

Vegetables: 62.7

153. The general tolerance for piperonyl butoxide in vegetables was returned to Step 6 because a number of delegations were of the opinion that pre-harvest use of this pesticide led to lower residue levels. The Joint Meeting was requested to evaluate the information to be supplied by governments and a report on analytical methods which would be submitted to FAO by IUPAC.

Dried Cod Fish: 62.8 resp. 63.8

154. The Committee was informed that the 1972 Joint Meeting had deleted the tolerances for these pesticide residues in dried cod fish.

Peanuts (whole): 62.9

155. The Committee noted that no tolerance had been recommended for pyrethrins in peanuts by the Joint Meeting. Considering that this was possibly an omission as pyrethrins and piperonyl butoxide were usually used in combination, the Committee adopted a tolerance for pyrethrins in peanuts of 1 ppm and requested the Joint Meeting to confirm this tolerance.

Fish (dried): 62.10 resp. 63.9

156. As the monographs and the technical report of the 1972 Joint Meeting were not available, these proposals were not discussed.

QUINTOZENE

157. The delegation of Canada expressed their concern about the toxicology of quintozone and stated that the proposed tolerances were not acceptable to them. The representative of WHO informed the Committee that two carcinogenicity studies were in progress and that it was intended to review the ADI in 1975.

Mushrooms: 64.1

158. As there was some doubt as to whether the data provided in the monographs corresponded to a proper use of quintozone, and whether the proposed limit of 10 ppm was not unnecessarily high, the Committee decided to return the proposed limit to Step 6 and requested the Joint Meeting to review this limit. Governments were requested to provide data.

Lettuce: 64.3

159. The Committee decided to return this item to Step 6 because of the proposal made by the 1973 Joint Meeting to raise the figure from 0.3 ppm to 3.0 ppm. Governments were requested for comments.

Peanuts: 64.4

160. As the 1973 Joint Meeting had proposed to change the temporary tolerance for peanuts (determined in the kernels) from 0.3 ppm to 2.0 ppm, it was decided to return this tolerance to Step 6 and to ask governments for comments.

Navy Beans: 64.5

161. The question was raised as to whether it was necessary to establish a separate tolerance for navy beans of 0.2 ppm while for other dry beans a tolerance of 0.01 ppm had been proposed. The Committee decided to return this proposal to Step 6 and to ask governments to indicate whether a separate tolerance was required, supported by residue data.

THIABENDAZOLE

Citrus Fruit: 65.1 to Bananas (in the pulp): 65.3

162. The Committee noted that the 1972 Joint Meeting had raised the limit for Citrus fruit to 10 ppm on the basis that increased resistance of fungi to the compound required this increase. The Committee agreed to submit the tolerances of 10 ppm for Citrus fruit, 3 ppm for bananas and 0.4 ppm for banana pulp to the Commission at Step 5 of the Procedure with the recommendation that Steps 6, 7 and 8 be omitted.

Apples: 65.4 and Pears: 65.5

163. Some delegations considered the proposed tolerance of 10 ppm too high, whereas other delegations expressed the need for a 10 ppm limit.

TRICYCLOHEXYLTIN

Apples: 67.1 and Pears: 67.2

164. The delegation of the Netherlands reserved their position as they were of the opinion that the proposed limit of 2 ppm was rather high and as the use of tricyclohexyltin in the Netherlands was much wider than only on apples and pears. It was decided to submit the tolerance of 2 ppm for apples and pears to the Commission at Step 5. The Joint Meeting was requested to propose tolerances for cucumbers, gherkins, tomatoes, melons and peppers (bell). Governments were requested to provide residue data. The delegation of the Netherlands informed the Committee that they had already provided data on gherkins grown under glass to the Joint Meeting.

GOOD AGRICULTURAL PRACTICE

165. At earlier sessions of the Committee various aspects of good agricultural practice in relation to the use of pesticides were considered in detail. In this connection, the delegation of Canada had undertaken to distribute a questionnaire on the use of pest control agents on selected crops in different parts of the world. The result of this enquiry had been presented to the Committee at its 6th session (see also ALINORM 72/24A, para 19). In order to expand the coverage of the investigation, the Canadian delegation had distributed a revised questionnaire to governments subsequent to the 6th session of the Committee with the request to provide additional relevant data on the use of pesticides on selected food commodities.

166. The replies received were found to be more numerous (32 countries) and more complete (several hundred pesticides in a number of commodities) than in previous years but were received rather late. As a result, the compilation of the data and printing of the report were delayed. However, summary tables of this report (CX/PR 74/9) were made available to the delegates. The delegation of Canada informed the Committee that the full report would become available shortly and it would also cover

the rates of application of pesticides and the pests against which they were used.

167. The Committee expressed its appreciation for the work done by the Canadian delegation and agreed that the compilation of information on important pesticides in use on major crops would be of great assistance to the work of the Committee. It was further noted that the document would not only be of great value to the Committee in establishing priorities, but would also be of wide interest to governments. The Committee accepted the generous offer by the Canadian delegation to update the document periodically and agreed that this need not be on a yearly basis. In the intervening years data could be assembled on such pesticides and crops which had not yet been covered by the study.

168. The Committee noted that the Working Group on Priorities had considered this possibility and had advised the Canadian delegation on the food commodities and crops which were of greatest interest at this time. The Committee was informed that it was expected that the questionnaire would be distributed in a similar format as previously and would request information on the use of pesticides in relation to the following:

- a) the storage of cereal grains, oil seed crops and cereal products used for animal feed; and
- b) in the control of pests during the production of oil seed crops, corn and potatoes.

169. The representative of EPPO presented a memorandum to the Committee in which he offered his Organization's assistance in investigating the reasons which lead to excessive pesticide residues on commodities and giving assistance in investigating and recommending appropriate action. He requested that the Committee formally entrust EPPO with this work. The Committee welcomed such cooperation but on a voluntary and informal basis.

GUIDELINES FOR THE USE OF PESTICIDES

170. At the 4th session of the Committee (1969), the delegation of the Netherlands offered to prepare a paper in collaboration with FAO and WHO on guidelines for the use of pesticides (ALINORM 70/24, para 17). The Committee considered the scope of the paper presented at the 5th session in 1970 to be too broad and requested that it be redrafted in a more concise form (ALINORM 71/24, paras 17 and 18). This amended document was discussed at the 6th session in 1972 where it was agreed that a further paper should be elaborated jointly by the delegations of Australia, the Netherlands and the USA bearing in mind specified fundamental principles (ALINORM 72/24A, paras 130-133).

171. The corresponding document (CX/PR 74/10) presented to this session of the Committee was introduced by the delegation of the Netherlands which pointed out that in addition to the guidelines proper, the paper contained a survey of principles and practices with regard to the safe use of pesticides, based on the assumption that these compounds were necessary tools in food production but which, because of their nature, required regulation. The main issue contained in the guidelines was how to ensure the correct use of pesticides in accordance with good agricultural practice leading to residue levels which would not represent a hazard to the health of consumers.

172. The Committee agreed to consider the guidelines at its next session in the light of comments from governments. It was envisaged that, on the basis of comments received, a revised text of the guidelines proper would be prepared by the delegation of the Netherlands and considered by the Committee at Step 2 at its next session.

SAMPLING PLANS FOR THE DETERMINATION OF PESTICIDE RESIDUES IN FOOD

173. The former Chairman of the Committee, Drs. A. Kruyse, introduced document CX/PR 74/7 describing a sequential sampling plan which might represent a unified approach concerning the acceptability of lots of food commodities moving in international trade, complying with the Codex maximum limits for pesticide residues. The approach took into consideration the fact that a limit imposed on the mean concentration in a lot, considered by a number of countries as the maximum residue limit, was incompatible with the last definition of a Codex tolerance adopted by the Committee. It was the intention to establish the acceptance quality level (AQL) of lots to

correspond to Codex maximum limits in such a way that the probability of rejecting a lot complying with the AQL (i.e. Codex maximum residue limit) would be small and that the acceptance number, i.e. the upper value of defectives found in the sample, would replace the acceptance value, i.e. the upper value of the mean concentration in the sample. The paper contained other details concerning action by control inspectors as regards acceptance or rejection of lots.

174. The Committee expressed its appreciation to Drs. Krussse for preparing this document and considered that it represented a good basis for further discussions. It desired that the paper would be distributed with an accompanying circular letter and that governments be requested to study the paper in detail and send their comments to the Secretariat.

175. The Committee accepted the offer of the delegation of the Netherlands to act as a point of liaison for the receipt of government comments and to prepare a paper summarizing these comments for the next session of the Committee. Important aspects of sampling which were specified by the delegation of the Federal Republic of Germany in the last session of the Committee (see ALINORM 72/24A, para 17), would also be taken into account.

176. The delegation of Canada proposed that the Netherlands should also assume chairmanship of any Ad Hoc working group which might meet before the next session of the Committee to discuss sampling. The following delegations expressed interest in participating at such an informal meeting: Canada, Federal Republic of Germany, Israel, the Netherlands, the United Kingdom and the USA.

DISCUSSION ON METHODS OF ANALYSIS

177. At the beginning of the session a Working Group had been set up to meet during the session to discuss the various proposed methods of analysis and to inform the Committee of its conclusions under the appropriate agenda item (see also para 6 of this Report). The report of the Ad Hoc group was presented by Dr. P.A. Greve, Chairman of the group (see Appendix IV to this Report).

178. The Committee discussed the report of the Ad Hoc group and concurred with the conclusions and recommendations contained therein. It was understood that the definition of "good analytical practice" related only to the analysis of pesticide residues.

179. As regards priorities for the consideration of analytical methods for pesticide residues, the Committee agreed that:

- a) comments should, as agreed at the last session, be invited on the methods included in the monographs of the Joint Meeting and that these comments should be placed before the Committee;
- b) methods should be developed for those pesticides for which tolerances were at advanced Steps in the Procedure so that tolerance recommendations submitted to governments at Step 9 would be backed by suitable methods;
- c) other aspects such as importance in international trade of the commodity concerned, importance of the pesticide, difficulties in the analysis of the residue, etc., should also be considered in respect of priorities for the consideration of methods of analysis.

180. The Committee also discussed whether, at this stage, it would be appropriate to publish the methods so far adopted as being suitable in assisting parties in dispute. It was concluded that it was sufficient, for the time being, to include the methods in an appendix to the present report as the methods were under constant review by the Committee.

181. The delegation of Australia introduced a working paper reporting the results of a collaborative study, carried out in Australia, on the determination of malathion in wheat, in which laboratories in the Netherlands and the United Kingdom had also taken part. In view of the wide variation disclosed and the importance of such variations in determinations for regulatory purposes, the delegation of Australia offered to arrange further collaborative studies. In the first place, they proposed to use a homogeneous sample containing organochloride pesticides. The proposal was made that

in addition to methods of choice of the laboratories concerned, one of the recommended (Codex) methods should also be subjected to collaborative study. A number of delegations indicated their interest for this collaborative endeavour and expressed their willingness to participate in it. The delegation of Australia undertook to contact the various delegations and report back to the Committee.

182. The Committee decided to request the members of the Working Group to continue with their work (by correspondence in the intervening period) until the end of the 8th session. This arrangement was considered to be of assistance to the work of the Committee, since part of the work of the Group could thus be done in advance of the next session of the Committee and it could obviate the necessity to hold frequent Group meetings during the session.

ESTABLISHMENT OF PRIORITY LISTS

183. The Committee had before it the report of the Ad Hoc Working Group on Priority Lists as indicated under para 6 of this report. The Chairman of the Group, Mr. E.R. Houghton, introduced the conclusions of the Group. The Committee was informed that the criteria applied in making the various recommendations were those which had been elaborated for this purpose at the 6th session of the Committee and that the Group had classified the compounds into three priority groups.

184. The FAO Secretary to the Joint Meeting stated that the priority list would be followed to the greatest extent possible, but that the Joint Meeting was also committed to re-evaluate a number of compounds it had considered earlier.

185. The Committee concurred with the recommendations of the Ad Hoc Group and agreed that the report of the Group should be appended to the Committee's report (Appendix III). It requested the Secretariat to issue a circular letter similar to the one issued in conjunction with the report of the 6th session (including an improved questionnaire) asking for detailed information from governments. The Committee was informed that in the past, as a rule, industry had supplied the data contained in the pertinent monographs. The representative of WHO pointed out that full detailed toxicological data rather than only a summary of results of toxicological investigations was required by the Joint Meeting.

186. The Committee set up a new Ad Hoc Working Group on Priority Lists consisting of the Federal Republic of Germany, Israel, the USA, the Netherlands, Canada, Switzerland, UK, Australia, EPPO (observer) and FAO/WHO (secretariat). It was agreed that the Group should continue to remain in being until the end of the next session and to carry on its work by correspondence, if necessary. This would ensure that part of the work on the establishment of priority lists could be effected prior to the 8th session of the Committee and would also provide assistance to the Committee in considering the question of priorities during the next session. The Group was also requested to further collaborate with the delegation of Canada (coordinator) on the elaboration of a questionnaire on the use of pesticides on some selected foods.

OTHER BUSINESS

Statement by WHO

187. The representative of WHO further clarified the attitude of the Joint Meeting as regards "rounding off" of acceptable daily intakes previously established or to be established in the future, in order to avoid misunderstanding. He pointed out that in the future the Joint Meeting would endeavour to propose acceptable daily intakes to one significant figure in order to avoid giving the impression of greater than actual precision. As regards folpet, the reduction of the ADI from 0.16 ppm to 0.1 ppm was based on a re-evaluation of available data and not on an arithmetical rounding off to one significant digit (see also para 113 of this Report).

Relationship between the Joint FAO/WHO Meeting on Pesticide Residues and the Codex Committee on Pesticide Residues - Statement by the USA

188. "Since the beginning of the Codex Committee on Pesticide Residues the recommendations of the FAO/WHO Joint Meeting on Pesticide Residues regarding ADIs, pesticide residue tolerances, practical residue limits and analytical methods have served as the scientific basis of the work of the Codex Committee on Pesticide Residues. The valuable assistance rendered by this expert body is sincerely appreciated. Over the years of the work of the Codex Committee on Pesticide Residues the need for expert assistance has increased. This increase has been due in part to additional interest on the part of more nations and increased demands for ADIs and Codex maximum pesticide residue limits.

189. During the sessions of the Codex Committee on Pesticide Residues, we have considered several hundred proposed pesticide residue limits. There has been difficulty on the part of nations in concurring with the proposed limits. In addition, on several occasions the Committee has found it necessary to recommend that matters be returned to the Joint Meeting for further clarification or for review and justification. In some instances the action was based on the availability of new data, in other instances the information made available to the Joint Meeting appeared not to have been complete. One of the major points within the Committee that appears to contribute to the difficulty in nations accepting proposed residue limits is the lack of information on the agricultural practices that are involved in the establishment of Codex maximum residue limits as recommended by the Joint Meeting. Another factor appears to be the lack of clear criteria for the establishment of ADIs and maximum residue limits. These problems are understandable when one considers the limited number of members on the Committees of the Joint Meeting on Pesticide Residues due to budgetary limitation.

190. We are aware of some of the problems facing the members of the Joint Meeting on Pesticide Residues. We believe that members of the Codex Committee on Pesticide Residues can be of assistance in many areas. We further believe that the Codex system of national contact points can be better utilized for acquiring information from member nations on toxicology, use pattern, residue data and tolerances so that monographs on pesticides become more fully documented. We respectfully suggest that the Chairman consider the establishment of an appropriate body, within the Codex Committee on Pesticide Residues, to study the relationship between the Joint Meeting and the Codex Committee and to work with the Joint Meeting on the problems outlined above and any other where joint action may be beneficial. We believe that this action is necessary to improve the efficiency of both groups".

191. The Committee accepted the statement of the delegation of the USA and requested governments to send their observations on the existing working procedures and relationship between the Joint Meeting and the Committee. The delegation of the USA agreed to prepare a paper on the basis of government comments for the next session of the Committee. The Committee agreed that a small Ad Hoc Working Group could meet prior to the 8th session to discuss the US working paper, should this prove necessary. The delegations of the Netherlands, Israel, Canada, the Federal Republic of Germany and Australia expressed their interest in participating in this work.

Proposal of Eppo

192. The representative of Eppo recommended that a standing panel be set up under the auspices of the Codex Committee on Pesticide Residues, which, on the grounds of available information, would establish provisional tolerance levels to be tentatively recommended to all member governments of the Codex Alimentarius. This approach would be particularly useful for those relatively new pesticides.

193. The Committee recalled that at a previous session it had considered but not adopted a similar proposal for provisional tolerances. It was decided to refer the statement by Eppo to the delegation of the USA so that it could be taken into consideration when considering the working procedures of the Committee in relation to the Joint Meeting.

Items for Consideration by the Proposed Joint Conference on Pesticides (see para 12)

194. The delegation of the USA, supported by the delegations of Israel, Canada and the Netherlands, reiterated their view concerning the need to hold a Joint FAO/WHO Conference to discuss, inter alia, problems related to pesticide residues. In the opinion of these delegations, an FAO Conference should be held, preferably not later than 1975, if it proved unlikely that WHO could make budgetary arrangements to hold a Joint FAO/WHO Conference. The delegations of the Federal Republic of Germany and Australia supported the above view except that, in their opinion, the Committee should strongly support the holding of a Joint Conference.

195. Suggestions for topics which, in the opinion of the Committee, the Conference might discuss are given in Appendix V.

Tolerances for Pesticide Residues in Processed Foods

196. The delegation of Israel drew the Committee's attention to the need for consideration of pesticide residue tolerances for processed foods. The Committee agreed that this matter required further consideration in the future and recalled its previous decision that, where appropriate, tolerances recommended for raw agricultural commodities would also apply to the processed commodity (see ALINORM 72/24A, para 139).

Statement by Argentina

197. The delegation of Argentina, supported by the delegation of Spain, reiterated their statement made at previous sessions concerning the need to provide documentation and interpretation in the Spanish language so as to enable Spanish speaking countries to participate in the work of the Committee. The Secretariat stated that all efforts had been made and would be made in the future to ensure that as many Codex documents as possible were translated into Spanish.

Date of Next Session

198. The Committee noted that the next session would probably be held in February 1975.

APPENDIX I

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APPENDIX II

SUMMARY OF CODEX MAXIMUM RESIDUE LIMITS FOR PESTICIDES

Abbreviations used in this Appendix

- T - Codex Tolerance
- TT - Temporary Codex Tolerance
- PRL - Practical Residue Limit
- TPRL - Temporary Practical Residue Limit
- GL - Guideline Level
- JMPR - Joint FAO/WHO Meeting on Pesticide Residues
- CCPR - Codex Committee on Pesticide Residues
- Step - "Step" in the Procedure for the Elaboration of Codex Maximum Limits for Pesticide Residues (see "Elaboration of Codex Standards" Procedural Manual, 3rd Ed., of the Codex Alimentarius Commission)

Definitions

Pesticide (the substances listed alphabetically and given in capital letters)

For the purposes of the Codex Alimentarius, the term "pesticide" means any substance or mixture of substances intended for preventing or controlling any pest and includes any substance or mixture of substances intended for use as a plant-growth-regulator, defoliant or dessicant. The term excludes fertilizers and antibiotics or other chemicals administered to animals for other purposes such as to stimulate their growth or to modify their reproductive behaviour.

Pesticide Residue (the substance or substances given under the heading "Residue")

For the purposes of the Codex Alimentarius, a "pesticide residue" means any substance or substances in food for man or animals resulting from the use of a "pesticide". It also includes any specified derivatives, such as degradation and conversion products, metabolites and reaction products which are considered to be of toxicological significance.

Codex Tolerance (or Codex Maximum Residue Limit)

For the purposes of the Codex Alimentarius, a "Codex Tolerance" or "Codex maximum residue limit" is the maximum concentration of a pesticide residue that is recommended by the Codex Alimentarius to be legally permitted in or on a food commodity. The concentration is expressed in parts by weight of pesticide residue per million parts by weight of the food or food commodity. In general, a Codex tolerance or Codex maximum residue limit refers to the residue resulting from the use of a pesticide under circumstances designed to protect the food or food commodity against pest attack, according to good agricultural practice (as defined under "General Principles of CA" in the 3rd Ed. of the Procedural Manual of the Codex Alimentarius Commission). When a residue results from circumstances not designed to protect the food or food commodity in question against pest attack, the maximum concentration recommended is designated as a "practical residue limit".

Guideline Level

Guideline levels are intended to assist administering authorities, even though either ADIs have not been established for the individual products, or temporary ADIs established at an earlier date have been withdrawn. The levels recommended are those that need not be exceeded if good practices are followed. With regard to fumigants, they are intended to be applied at one of the stages indicated at items 9, 23, 24 and 52, Appendix II, in the knowledge that, when so applied, residues of unchanged fumigants in foods as offered for consumption would not exceed an amount close to the limit of determination by present analytical methods.

Note

Unless otherwise indicated, Codex maximum residue limits (Codex tolerances or practical residue limits) are expressed in mg/kg (ppm) on a whole product basis.

1. ALDRIN and DIELDRIN (HHDN and HEOD)

Residue: Aldrin and dieldrin, singly or in combination, expressed as dieldrin.

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Change</u> <u>proposed</u> <u>by CCPR</u>	<u>Paragraph</u>
1.1 Raw cereals (except rice)	0.02	PRL	9	-	-
1.2 Raw rice (paddy)	0.02	T	held at 8	-	44
1.3 Fruit (except Citrus fruit)	0.1	T	returned to 6 1/	-	45
1.4 Citrus fruit	0.05	T	9	-	-
1.5 Milk and milk products	0.125 on a fat basis	PRL	9	0.15	46
1.6 Meat	0.2 2/	PRL	9	-	-
1.7 Eggs 3/	0.1 on a shell-free basis	PRL	held at 8	-	-
1.8 Asparagus	0.1	T	9	-	-
1.9 Brussels sprouts	0.1	T	9	-	-
1.10 Cabbage	0.1	T	9	-	-
1.11 Carrots	0.1	TT	9	PRL	47
1.12 Cauliflower, broccoli	0.1	T	9	-	-
1.13 Cucumbers	0.1	T	9	-	-
1.14 Eggplants (aubergines)	0.1	T	9	-	-
1.15 Horse-radishes	0.1	T	9	-	-
1.16 Lettuce	0.1	TT	9	PRL	48
1.17 Onions	0.1	T	9	-	-
1.18 Parsnip	0.1	T	9	-	-

1/ Returned for second round of government comments and to the JMPR.

2/ Determined and expressed on the rendered or extracted fat.

3/ The term "eggs" covers egg white plus egg yolk and, therefore, includes products such as fresh whole eggs or whole egg pulp.

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Change</u> <u>proposed</u> <u>by CCPR</u>	<u>Paragraph</u>
1.19 Peppers	0.1	T	9	-	-
1.20 Pimentos	0.1	T	9	-	-
1.21 Potatoes	0.1	TT	9	T	49
1.22 Radish	0.1	T	9	-	-
1.23 Radish tops	0.1	T	9	-	-

2. AZINPHOS-METHYL

Residue: Azinphos-methyl.

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
2.1 Fruit 2/	1	T	Returned to 6 1/	} 50
2.2 Apricots	4	T	Returned to 6 1/	
2.3 Grapes	4	T	Returned to 6 1/	
2.4 Vegetables	0.5	T	Returned to 6 1/	
2.5 Kiwi fruit	4 in the whole fruit	T	3	51
2.6 Kiwi fruit	0.4 in the edible part	T	3	51

1/ Second round of government comments.

2/ See Report of 1973 JMPR for further specified items.

3. BINAPACRYL

Residue: Binapacryl

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
3.1 Cherries	1	T	Returned to 6 4/	52
3.2 Peaches	1	T	Advanced to 8	53
3.3 Apples	0.5	T	Advanced to 8	-
3.4 Grapes	0.5	T	Advanced to 8	-
3.5 Pears	0.5	T	Advanced to 8	-
3.6 Plums	0.3	T	Advanced to 8	-
3.7 Nectarines	0.3 3/	T	Advanced to 8	54

3/ Changed from 0.2 to 0.3 by the 7th session of the CCPR.

4/ Returned to the JMPR for clarification.

4. BROMOPHOS

Residue: Bromophos

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
4.1 Olives	5	TT	3	} 55
4.2 Olive oil	5	TT	3	
4.3 Apples	2	TT	3	
4.4 Lamb's lettuce	2	TT	3	
4.5 Leeks	2	TT	3	
4.6 Radishes	2	TT	3	
4.7 Pears	1	TT	3	
4.8 Plums	1	TT	3	
4.9 Red currants	1	TT	3	
4.10 Carrots	1	TT	3	
4.11 Celery	1	TT	3	
4.12 French beans	1	TT	3	
4.13 Savoy cabbage	1	TT	3	
4.14 Spinach	1	TT	3	
4.15 Blackberries	0.5	TT	3	
4.16 Black currants	0.5	TT	3	
4.17 Cherries	0.5	TT	3	

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
4.18 Gooseberries	0.5	TT	3	55
4.19 Peaches	0.5	TT	3	
4.20 Strawberries	0.5	TT	3	
4.21 Lettuce	0.5	TT	3	
4.22 Sugarbeet (roots)	0.5	TT	3	
4.23 Meat of sheep	0.5 1/	TT	3	
4.24 Rape seed	0.2	TT	3	
4.25 Rapeseed oil	0.2	TT	3	
4.26 Wheat	0.2 2/	TT	3	
4.27 Broccoli	0.1	TT	3	
4.28 Red cabbage	0.1	TT	3	
4.29 Cabbage	0.1	TT	3	
4.30 Cauliflower	0.1	TT	3	
4.31 Cucumbers	0.1	TT	3	
4.32 Kohlrabi	0.1	TT	3	
4.33 Onions	0.1	TT	3	
4.34 Peas	0.1	TT	3	
4.35 Milk (whole)	0.02 3/	TT	3	

- 1/ Determined and expressed on the rendered or extracted fat.
 2/ Tolerance based on residues likely to be found at harvest.
 3/ Level at or about the limit of determination.

5. BROMOPHOS-ETHYL

Residue: Bromophos-ethyl

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
5.1 Apples	2	TT	3	55
5.2 Pears	2	TT	3	
5.3 Plums	2	TT	3	
5.4 Carrots	2	TT	3	
5.5 Spinach	2	TT	3	
5.6 Meat of cattle	2 5/	TT	3	
5.7 Red currants	1	TT	3	
5.8 Brussels sprouts	1	TT	3	
5.9 Sweet cherries	0.5	TT	3	
5.10 Gooseberries	0.5	TT	3	
5.11 Peaches	0.5	TT	3	
5.12 Celeriac	0.5	TT	3	
5.13 Rapeseed oil	0.5	TT	3	
5.14 Black currants	0.2	TT	3	
5.15 Lettuce	0.2	TT	3	
5.16 Strawberries	0.1	TT	3	
5.17 Rape seed	0.1	TT	3	
5.18 Cabbage	0.1	TT	3	
5.19 Kohlrabi	0.05	TT	3	
5.20 French beans	0.05	TT	3	
5.21 Beans (without pod)	0.02 4/	TT	3	
5.22 Cauliflower	0.02 4/	TT	3	
5.23 Onions	0.02 4/	TT	3	
5.24 Sugar beets	0.02 4/	TT	3	
5.25 Milk (whole)	0.02 4/	TT	3	

- 4/ Level at or about the limit of determination. (Tolerances listed as temporary in the 1972 monographs but not listed as temporary in the 1972 JMPR Report).
 5/ To be determined and expressed on the rendered or extracted fat.

6. CAPTAFOL

Residue: Captafol

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
6.1 Peaches	15	TT	Advanced to 8	-
6.2 Cherries (sour)	10	TT	Advanced to 8	-
6.3 Cherries (sweet)	2	TT	Advanced to 8	-
6.4 Tomatoes	5	TT	Advanced to 8	-
6.5 Melons	2	TT	Advanced to 8	-
6.6 Cucumbers	2 ^{1/}	TT	Advanced to 8	56
6.7 Apricots	0.5	TT	Returned to 6 ^{2/}	57
6.8 Plums	0.2	TT	Returned to 6 ^{2/}	57

1/ Changed from 1 to 2 by the 7th Session of the CCPR.

2/ Returned for a second round of government comments and to the JMPR.

7. CAPTAN

Residue: Captan

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
7.1 Apples	40	T	Returned to 6 ^{3/ 4/}	59
7.2 Cherries	40	T	Advanced to 5 ^{4/}	60
7.3 Pears	30	T	Returned to 6 ^{3/ 4/}	61
7.4 Apricots	20	T	Advanced to 8	-
7.5 Citrus fruit	15	T	Advanced to 8	-
7.6 Peaches	15	T	Advanced to 5	-
7.7 Plums	15	T	Advanced to 8	-
7.8 Rhubarb	15	T	Advanced to 8	-
7.9 Tomatoes	15	T	Advanced to 8	-
7.10 Cranberries	10	T	Advanced to 8	-
7.11 Raspberries	10	T	Advanced to 5	-
7.12 Strawberries	20 ^{5/}	T	Advanced to 5	62
7.13 Cucumbers	10	T	Advanced to 8	-
7.14 Lettuce	10	T	Advanced to 8	-
7.15 Green beans	10	T	Advanced to 8	-
7.16 Peppers	10	T	Advanced to 8	-
7.17 Raisins	5	T	Advanced to 5	-

3/ Second round of government comments.

4/ Referred to the JMPR for reconsideration on the basis of data to be supplied by governments.

5/ Changed from 10 to 20 by the 7th Session of the CCPR on the recommendation of the 1973 JMPR.

6/ Changed from TT to T by the 1973 JMPR.

8. CARBARYL

Residue: Carbaryl

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Change</u> <u>proposed</u> <u>by CCPR</u>	<u>Paragraph</u>
8.1 Rice	2.5	TT	9	Rice (rough) 3 T	63
8.2 Apricots	10	TT	held at 8	}	}
8.3 Asparagus	10	TT	held at 8		
8.4 Blackberries	10	TT	held at 8		
8.5 Boysenberries	10	TT	held at 8		
8.6 Leafy vegetables	10	TT	held at 8		
8.7 Brassica	5	TT	held at 8	T	-
8.8 Nectarines	10	TT	held at 8		

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Change</u> <u>proposed</u> <u>by CCPR</u>	<u>Paragraph</u>
8.9 Nuts (whole in the shell)	10	TT	held at 8	}	
8.10 Okra	10	TT	held at 8		
8.11 Olives (unprocessed)	10	TT	held at 8		
8.12 Peaches	10	TT	held at 8		
8.13 Raspberries	10	TT	held at 8		
8.14 Blueberries ^{2/}	7	TT	held at 8		
8.15 Citrus fruit	7	TT	held at 8		
8.16 Strawberries	7	TT	held at 8		
8.17 Apples	5	TT	held at 8		
8.18 Bananas	5 in the pulp	TT	held at 8		
8.19 Beans	5	TT	held at 8		
8.20 Eggplant (aubergines)	5	TT	held at 8		
8.21 Grapes	5	TT	held at 8		
8.22 Peas (in the pod)	5	TT	held at 8		
8.23 Peppers	5	TT	held at 8		
8.24 Tomatoes	5	TT	held at 8		
8.25 Cucumbers	3	TT	held at 8		
8.26 Melons, cantaloupes	3	TT	held at 8		
8.27 Pumpkins	3	TT	held at 8		
8.28 Squash	3	TT	held at 8		
8.29 Cotton seed (whole)	1	TT	held at 8		
8.30 Nuts (shelled)	1	TT	held at 8		
8.31 Olives (processed)	1	TT	held at 8		
8.32 Poultry skin	5	TT	held at 8		
8.33 Poultry	0.5 in the total edible portions	TT	held at 8		
8.34 Meat of cattle, goat and sheep	0.2 ^{1/}	T	advanced to 8		64
8.35 Sweet corn	1 in the kernels	T	advanced to 8		-
8.36 Potatoes	0.2	T	advanced to 8		-

^{1/} Changed from 1 to 0.2 by the 7th Session of the CCPR on the recommendation of the 1973 JMPR.

^{2/} Blueberry (or Huckleberry) includes the following varieties: *V. corymbosum* L., *V. angustifolium* Ait., *V. ashei* Reade, etc.

9. CARBON DISULPHIDE

Residue: Carbon disulphide

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
9.1 Raw cereals ^{4/}	10	GL	<u>3/</u>	} 65
9.2 Milled cereal products	2	GL	<u>3/</u>	
9.3 Bread and other cooked cereal products ^{5/} ^{6/}	0.5	GL	<u>3/</u>	

^{3/} Not taken up in the Codex Procedure until cleared toxicologically by the JMPR.

^{4/} To apply at point of entry into a country and, in the case of cereal for milling, if product has been fully exposed to air for a period of at least 24 hours after fumigation and before sampling.

^{5/} To apply to milled cereal products to be subjected to baking or cooking.

^{6/} To apply at point of retail sale or when offered for consumption.

10. CARBON TETRACHLORIDE

Residue: Carbon tetrachloride

<u>Food</u>	<u>Limit (mg/kg)</u>	<u>Type of Limit</u>	<u>Step</u>	<u>Paragraph</u>
10.1 Raw cereals 2/	50	GL	1/	} 65, 66
10.2 Milled cereal products 3/	10	GL	1/	
10.3 Bread and other cooked cereal products 4/	0.05	GL	1/	

1/, 2/, 3/, 4/ See 3/, 4/, 5/, 6/ in item 9 on page 36.

11. CARBOPHENOTHION

Residue: Total residue of carbophenothion, its sulphoxide and sulphone, together their corresponding oxygen analogues, if present, expressed as carbophenothion.

<u>Food</u>	<u>Limit (mg/kg)</u>	<u>Type of Limit</u>	<u>Step</u>	<u>Paragraph</u>
11.1 Lemons	5	TT	3	} 67
11.2 Spinach	2	TT	3	
11.3 Meat of cattle and sheep	1 5/	TT	3	
11.4 Apricots	1	TT	3	
11.5 Nectarines	1	TT	3	
11.6 Peaches	1	TT	3	
11.7 Prunes	1	TT	3	
11.8 Grapefruits	1	TT	3	
11.9 Limes	1	TT	3	
11.10 Oranges	1	TT	3	
11.11 Apples	0.5	TT	3	
11.12 Pears	0.5	TT	3	
11.13 Broccoli	0.5	TT	3	
11.14 Brussels sprouts	0.5	TT	3	
11.15 Cauliflower	0.5	TT	3	
11.16 Olive oil	0.2	TT	3	
11.17 Olives (unprocessed)	0.1	TT	3	
11.18 Sugar beet	0.1	TT	3	
11.19 Milk and milk products	0.1 on a fat basis	TT	3	
11.20 Potatoes	0.02 6/	TT	3	
11.21 Rapeseed	0.02 5/	TT	3	
11.22 Walnuts	0.02 on a shell-free basis 6/	TT	3	
11.23 Pecans	0.02 on a shell-free basis 6/	TT	3	

5/ To be determined and expressed on the rendered or extracted fat.

6/ Level at or about the limit of determination. (Tolerances listed as temporary in the 1972 monographs but not listed as temporary in the 1972 JMPR Report).

12. CHLORDANE

Residue: Combined residues of cis- and trans-chlordane and, in the case of animal products, combined residues of cis- and trans-chlordane and "oxychlordane".

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Change</u> <u>Proposed</u> <u>by CCPR</u>	<u>Paragraph</u>
12.1 Raw cereals	0.1	TPRL	9	wheat, rye, oats, rice (polished) sorghum: 0.05 T	69
12.2 Sweet corn	0.1	TT	9	maize: 0.05 T	
12.3 Popcorn	0.1	TT	9	0.05 T	
12.4 Pineapple	0.2	TT	9	0.1 T	
12.5 Pod vegetables	0.1 on a whole pod basis	TT	9	beans, peas: 0.02 T	
12.6 Tomatoes	0.1	TT	9	0.02 T	
12.7 Peppers	0.1	TT	9	0.02 T	
12.8 Eggplant (aubergines)	0.1	TT	9	0.02 T	
12.9 Pimento	0.1	TT	9	0.02 T	
12.10 Cucumber	0.1	T	9	-	
12.11 Watermelon, cantaloupe	0.1	T	9	-	
12.12 Pumpkin	0.1	T	9	-	-
12.13 Squash	0.1	T	9	-	-
12.14 Sugar beets	0.3	T	held at 8	-	-
12.15 Potatoes	0.3	T	returned to 6	1/	70
12.16 Sweet potatoes	0.3	T	returned to 6	1/	
12.17 Rutabagas	0.3	T	returned to 6	1/	
12.18 Turnips	0.3	T	returned to 6	1/	
12.19 Parsnips	0.3	T	returned to 6	1/	
12.20 Radishes	0.3	T	returned to 6	1/	
12.21 Asparagus	0.2	T	returned to 6	1/	
12.22 Broccoli	0.2	T	returned to 6	1/	
12.23 Brussels sprouts	0.2	T	returned to 6	1/	
12.24 Cabbage	0.2	T	returned to 6	1/	
12.25 Celery	0.2	T	returned to 6	1/	
12.26 Cauliflower	0.2	T	returned to 6	1/	
12.27 Mustard greens	0.2	T	returned to 6	1/	
12.28 Spinach	0.2	T	returned to 6	1/	
12.29 Swiss chard	0.2	T	returned to 6	1/	
12.30 Lettuce	0.2	T	returned to 6	1/	
12.31 Collards (Coleworts)	0.02	T	returned to 6	1/	
12.32 Milk and milk products	0.05 on a fat basis	PRL	advanced to 5	-	-
12.33 Meat	0.05 ^{2/}	PRL	advanced to 5	-	-
12.34 Poultry	0.05 on a fat basis	PRL	advanced to 5	-	-
12.35 Eggs ^{3/}	0.02 on a shell-free basis	PRL	advanced to 5	-	71
12.36 Almonds	0.1	T	advanced to 5	-	
12.37 Bananas	0.1	T	advanced to 5	-	
12.38 Figs	0.1	T	advanced to 5	-	
12.39 Filberts	0.1	T	advanced to 5	-	
12.40 Guavas	0.1	T	advanced to 5	-	
12.41 Mangoes	0.1	T	advanced to 5	-	
12.42 Olives	0.1	T	advanced to 5	-	

1/ Returned for third round of government comments and to the JMPR for reconsideration on the basis of new data to be supplied by governments.

2/ To be determined and expressed on the rendered or extracted fat.

3/ The term "eggs" covers egg white plus egg yolk and, therefore, includes products such as fresh whole eggs or whole egg pulp.

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
12.43 Passion fruit	0.1	T	advanced to 5	-
12.44 Papayas	0.1	T		
12.45 Pecans	0.1	T		
12.46 Pomegranates	0.1	T		
12.47 Strawberries	0.1	T		
12.48 Walnuts	0.1	T		
12.49 Citrus fruit	0.02	T		
12.50 Pome fruit	0.02	T		
12.51 Stone fruit	0.02	T		
12.52 Crude soya bean oil	0.5	T		
12.53 Crude linseed oil	0.5	T		
12.54 Crude cottonseed oil	0.1	T		
12.55 Edible cottonseed oil	0.02	T		
12.56 Edible soya bean oil	0.02	T		

13. CHLORDIMEFORM

Residue: Sum of chlordimeform and its metabolites determined as 4-chloro-o-toluidine and expressed as chlordimeform.

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
13.1 Pears	5	TT	advanced to 5	-
13.2 Peaches	5			
13.3 Prunes	5			
13.4 Apples	3			
13.5 Grapes	3			
13.6 Plums	3			
13.7 Strawberries	3			
13.8 Cherries	2			
13.9 Citrus fruit	2			
13.10 Brassica	2			
13.11 Cottonseed oil (crude or refined)	2			
13.12 Cottonseed	2			
13.13 Beans	0.5			
13.14 Fat, meat and meat products of cattle	0.5			
13.15 Milk (whole)	0.05			
13.16 Milk products	0.5			

14. CHLORFENVINPHOS

Residue: Expressed as the sum of the alpha and beta isomers of chlorfenvinphos.

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
14.1 Carrots	0.4	T	advanced to 5	-
14.2 Celery	0.4			
14.3 Meat	0.2 ^{1/}			
14.4 Milk and milk products	0.2 on a fat basis			
14.5 Cauliflower	0.1			
14.6 Radish	0.1			
14.7 Horseradish	0.1			
14.8 Tomatoes	0.1			
14.9 Brussels sprouts	0.05			
14.10 Cabbage	0.05			
14.11 Broccoli	0.05			
14.12 Swedes (Rutabagas)	0.05			

^{1/} To be determined and expressed on the rendered or extracted fat.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
14.13 Turnips	0.05	T	advanced to 5	-
14.14 Potatoes	0.05			
14.15 Sweet potatoes	0.05			
14.16 Onions	0.05			
14.17 Leeks	0.05			
14.18 Eggplant (aubergines)	0.05			
14.19 Mushrooms	0.05			
14.20 Peanuts (shelled)	0.05			
14.21 Maize (grain)	0.05			
14.22 Wheat	0.05			
14.23 Cotton seed	0.05			
14.24 Rice (raw or polished) (*)	0.05			

15. CHLORMEQUAT 1/

Residue: Chlormequat cation

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
15.1 Oats	5	T	3	72
15.2 Rye	5			
15.3 Wheat	3			
15.4 Pears	3			
15.5 Grapes	1			
15.6 Raisins and other dried vine fruits	1			
15.7 Milk and milk products	0.1 2/			

1/ Usually as the chloride.

2/ Level at or about the limit of determination.

16. CHLOROENZILATE

Residue: Chlorobenzilate

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Change proposed by CCPR</u>	<u>Paragraph</u>
16.1 Citrus fruit	1	TT	held at 8	T	-
16.2 Melons, cantaloupes	1	TT	held at 8		
16.3 Almonds	0.2 on a shell-free basis	TT	held at 8		
16.4 Walnuts	0.2 on a shell-free basis	TT	held at 8		
16.5 Apples	2	T	returned to 6		73
16.6 Pears	2	T	returned to 6		73
16.7 Grapes	2	T	3		74
16.8 Tomatoes	0.2	T	3		74
16.9 Milk (whole)	0.05 3/	T	3		74

3/ Level at or about the limit of determination.

17. CHLORPYRIFOS

Residue: Chlorpyrifos

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
17.1 Meat of cattle	2 4/	T	3	75

4/ To be determined and expressed on the rendered or extracted fat.

(*) Note by the Secretariat: The 1971 Evaluations of the JMPR do not appear to support the inclusion of raw rice (paddy) in the tolerance.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>			
17.2 Apples	1	}	}	}			
17.3 Chinese cabbage	1						
17.4 Grapes	1						
17.5 Kale	1						
17.6 Pears	0.5						
17.7 Carrots	0.5						
17.8 Tomatoes	0.5						
17.9 Beans	0.2						
17.10 Eggplant (aubergines)	0.2						
17.11 Peppers	0.2						
17.12 Raspberries	0.2						
17.13 Meat of sheep and of poultry	0.2 1/				T	3	75
17.14 Lettuce	0.1						
17.15 Sugar beets	0.1						
17.16 Raw rice (paddy)	0.1						
17.17 Celery	0.05						
17.18 Cotton seed	0.05						
17.19 Cottonseed oil (crude)	0.05						
17.20 Mushrooms	0.05						
17.21 Onions	0.05						
17.22 Cauliflower	0.01 2/						
17.23 Red cabbage	0.01 2/						
17.24 Potatoes	0.01 2/						
17.25 Milk	0.01 on a fat basis 2/						

1/ To be determined and expressed on the rendered or extracted fat.
 2/ Level at or about the limit of determination.

18. COUMAPHOS

Residue: Coumaphos and its oxygen analogue, expressed as coumaphos.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
18.1 Eggs 3/	0.05 on a shell-free basis	} TT	} returned to 6	}
18.2 Poultry	1 on a fat basis			
18.3 Meat of cattle	1 4/			
18.4 Meat of sheep, pigs and goats	0.5 4/			
18.5 Milk and milk products	0.5 on a fat basis			

3/ The term "eggs" covers egg white plus egg yolk and, therefore, includes products such as fresh whole eggs or whole egg pulp.
 4/ To be determined and expressed on the rendered or extracted fat.
 5/ Returned for second round of government comments.

19. CRUFOMATE

Residue: Crufomate

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Change</u> <u>proposed</u> <u>by CCPR</u>	<u>Paragraph</u>
19.1 Milk (whole)	0.05	TT	held at 8	T	-
19.2 Meat	1	T	advanced to 8	-	-

20. 2,4-D

Residue: 2,4-D

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
20.1 Barley	0.02 <u>1/</u>	T	advanced to 5	78
20.2 Oats	0.02 <u>1/</u>			
20.3 Rye	0.02 <u>1/</u>			
20.4 Wheat	0.02 <u>1/</u>			

1/ Erroneously given as 0.2 ppm in the 1971 Report of the JMPR.

21. DDT

Residue: DDT, DDD and DDE, singly or in any combination. 2/

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
21.1 Milk and milk products	1.25 on a fat basis	PRL	9	-
21.2 Eggs <u>3/</u>	0.5 on a shell-free basis	PRL	held at 8	-
21.3 Apples	7	T	returned to 6 <u>4/</u>	79
21.4 Apricots	7			
21.5 Pears	7			
21.6 Peaches	7			
21.7 Small fruits	7			
21.8 Strawberries	1			
21.9 Vegetables	7			
21.10 Root vegetables	1			
21.11 Meat	7 <u>5/</u>			
21.12 Poultry	7 on a fat basis			
21.13 Cherries	3.5			
21.14 Citrus fruit	3.5			
21.15 Plums	3.5			
21.16 Tropical fruit	3.5			
21.17 Nuts (shelled)	1			

2/ Codex maximum residue limits are subject to regular review.

3/ The term "eggs" covers egg white plus egg yolk and, therefore, includes products such as fresh whole eggs or whole egg pulp.

4/ Returned for third round of government comments and referred to the JMPR for reconsideration on the basis of data to be supplied by governments.

5/ To be determined and expressed on the rendered or extracted fat.

22. DIAZINON

Residue: Diazinon 6/

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Change proposed by CCPR</u>	<u>Paragraph</u>
22.1 Fruit	0.5	T	9	cherries are included <u>7/</u>	-
22.2 Peach	0.7	T	9	-	-
22.3 Citrus fruit	0.7	T	9	-	-

6/ Residues decline rapidly during storage and shipment; the Codex maximum residue limits are based on residues likely to be found at harvest or slaughter.

7/ "Fruit" includes cherries as the Step 3 tolerance of 0.7 mg/kg in cherries has been deleted by the 7th Session of the CCPR.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Change</u> <u>proposed</u> <u>by CCPR</u>	<u>Paragraph</u>
22.4 Vegetables	0.5	T	9	-	-
22.5 Cole crops	0.7	TT	9	withdrawn	80
22.6 Meat of cattle, sheep and pigs	0.7 ^{1/}	T	held at 8	-	-
22.7 Leafy vegetables	0.7	T	held at 8	-	-
22.8 Cherries	-	-	withdrawn	-	81
22.9 Wheat, barley, rice (polished)	0.1	T	advanced to 5	-	82
22.10 Almonds	0.1 on a shell-free basis ^{2/}	T	advanced to 5	-	}
22.11 Walnuts	0.1 on a shell-free basis ^{2/}	T	advanced to 5	-	
22.12 Filberts	0.1 on a shell-free basis ^{2/}	T	advanced to 5	-	
22.13 Pecans	0.1 on a shell-free basis ^{2/}	T		-	
22.14 Peanuts	0.1 on a shell-free basis ^{2/}	T		-	
22.15 Cotton seed	0.1 ^{2/}	T	advanced to 5	-	
22.16 Safflower seed	0.1 ^{2/}	T		-	
22.17 Sunflower seed	0.1 ^{2/}	T		-	
22.18 Sweet corn	0.7 in the kernels	T		-	
22.19 Olives (unprocessed)	2	T		-	
22.20 Olive oil	2	T		-	85

^{1/} To be determined on the extracted or rendered fat.

^{2/} Changed from 0.5 to 0.1 by the 7th Session of the CCPR.

23. 1,2-DIBROMOETHANE (Syn.: Ethylene dibromide)

Residue: 1,2-dibromoethane

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>			
23.1 Raw cereals ^{3/}	20	}	}	}			
23.2 Milled cereal products ^{3/}	5				GL	4/	86
23.3 Bread and other cooked cereal products ^{3/}	0.1						

^{3/} See footnotes ^{3/}, ^{4/} and ^{5/} at items 9.1, 9.2 and 9.3, respectively.

^{4/} Not taken up in the Codex Procedure until cleared toxicologically by the JMPR.

24. 1,2-DICHLOROETHANE (Syn.: Ethylene dichloride)

Residue: 1,2-dichloroethane

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>			
24.1 Raw cereals ^{5/}	50	}	}	}			
24.2 Milled cereal products ^{5/}	10				GL	6/	86
24.3 Bread and other cooked cereal products ^{5/}	0.1						

^{5/} See footnotes ^{3/}, ^{4/} and ^{5/} at items 9.1, 9.2 and 9.3, respectively.

^{6/} Not taken up in the Codex Procedure until cleared toxicologically by the JMPR.

25. DICHLORVOS

Residue: Dichlorvos, including, where present, dichloroacetaldehyde 1/

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Change</u> <u>proposed</u> <u>by CCPR</u>	<u>Paragraph</u>	
25.1 Raw cereals	2	TT	9	T	}	
25.2 Cereal products (milled and intended for human consumption)	0.3	TT	9	Milled products from raw grain, 0.5 T		
25.3 Fruit (except Citrus fruit)	0.1	TT	9	Fresh fruit (apples, pears, peaches, straw- berries, etc.) 0.1 T		87
25.4 Vegetables (except lettuce)	0.5	}	6	2/ -	88	
25.5 Cocoa beans	5		5	5	-	89
25.6 Coffee beans (green)	2		-	-	-	
25.7 Soya beans	2		-	-	-	
25.8 Lentils	2		-	-	-	
25.9 Peanuts	2		-	-	-	
25.10 Mushrooms	0.5		-	-	-	
25.11 Lettuce	1		-	-	-	
25.12 Tomatoes	0.5		T	5	-	90
25.13 Meat of cattle, sheep, goats and pigs	0.05				advanced to 5 with the recommendation that Steps 6, 7 and 8 be omitted	
25.14 Poultry	0.05				-	
25.15 Eggs 3/	0.05 on a shell-free basis				-	
25.16 Milk (whole)	0.02				-	
25.17 Miscellaneous food items not otherwise specified (e.g. bread, cakes, cheese, cooked meat, etc.) 4/	0.1			-		

1/ Residues decline rapidly during storage and shipment. Codex maximum residue limits are based on residues likely to be found at harvest or slaughter.

2/ Third round of government comments.

3/ The term "eggs" covers egg white plus egg yolk and, therefore, includes such products as fresh whole eggs and whole egg pulp.

4/ The tolerance is intended to cover residues resulting from use of dichlorvos in storage warehouses.

26. DICOFOL

Residue: dicofol

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
26.1 Fruit	5	}	}	}
26.2 Vegetables	5			
26.3 Hops (dried)	5			
26.4 Tea (dry manufactured)	5			
		T	6	5/ 91-93

5/ Returned for a second round of government comments and to the JMPR.

27. DIMETHOATE

Residue: Dimethoate and its oxygen analogue, expressed as dimethoate.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
27.1 Tree fruit (including Citrus fruit)	2	} T	} 9	} -
27.2 Vegetables	2			
27.3 Tomatoes	1			
27.4 Peppers	1			

28. DIOXATHION

Residue: cis- and trans- isomers of principal active ingredient, determined and expressed as sum of both.

<u>Food</u>	<u>Limit</u> (mg/kg) 1/	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Change</u> <u>proposed</u> <u>by CCPR</u>	<u>Paragraph</u>
28.1 Citrus fruit	3	TT	held at 8	T	-
28.2 Meat	1 2/	TT	held at 8	Meat of cattle, goat, sheep, pigs 1 T 2/	-
28.3 Apples, pears, quinces	5	T	advanced to 8	-	-
28.4 Grapes	2	TT	advanced to 8	T	-
28.5 Milk and milk products	0.2 on a fat basis	T	3	-	94
28.6 Stone fruit (apricots, cherries, peaches, plums, prunes)	0.1 3/	T	3	-	94

1/ Tolerances are based on residues likely to be found at harvest or slaughter.

2/ To be determined and expressed on the rendered or extracted fat.

3/ Level at or about the limit of determination.

29. DIPHENYL

Residue: Diphenyl

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
29.1 Citrus fruit	110	T	9	-

30. DIPHENYLAMINE

Residue: Diphenylamine

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
30.1 Apples	10	T	returned to 6 4/	95

4/ Returned for a second round of government comments and referred to JMPR.

31. DIQUAT 5/

Residue: Diquat cation

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
31.1 Raw rice (paddy)	5	T	advanced to 5	96, 97
31.2 Rape seed	2	T	advanced to 5	96, 97

5/ As dichloride, dibromide or possibly other salts.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>		
31.3 Sorghum	2	}	advanced to 5 1/	}		
31.4 Peas	0.1		advanced to 5 1/			
31.5 Beans	0.5 3/		3			
31.6 Sunflower seed	0.5 3/		3			
31.7 Onions	0.1		advanced to 5 1/			
31.8 Potatoes	0.2 3/		3			
31.9 Maize	0.1		advanced to 5 1/			
31.10 Rice (polished)	0.2 3/		3			
31.11 Edible oils (sesame seed, rape seed, sunflower seed, cotton seed oils)	0.1		T		advanced to 5	98
31.12 Barley	5				3	}
31.13 Poppy seed	5		3			
31.14 Wheat	2		3			
31.15 Cotton seed	1		3			
31.16 Wheat flour	0.2		3			
31.17 Sugar beet	0.1		3			
31.18 Vegetable crops	0.05 2/		3			
31.19 Milk (whole)	0.01 2/		3			
31.20 Meat and meat products	0.05 2/		3			

1/ Recommended the omission of Steps 6, 7 and 8.

2/ Level at or about the limit of determination.

3/ Changed to these limits from 0.1 ppm by the 1974 CCPR on the proposal of the 1972 JMPR.

32. ENDOSULFAN

Residue: Determined and expressed as total endosulfan A and B and endosulfan sulphate.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>	
32.1 Fruit	2	}	returned to 6 4/	}	
32.2 Vegetables	2		returned to 6 4/		
32.3 Tea (dry manufactured)	30		T		
32.4 Cotton seed	0.5				advanced to 5
32.5 Cotton seed oil (crude)	0.2				
32.6 Raw rice (paddy) (*)	0.1				

4/ Returned for a second round of government comments and referred to the JMPR.

33. ENDRIN

Residue: Combined residues of endrin and delta-keto-endrin.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>		
33.1 Cotton seed	0.1	}	}	}		
33.2 Cotton seed oil (crude)	0.1					
33.3 Cotton seed oil (edible)	0.02					
33.4 Apples	0.02				T	advanced to 5
33.5 Wheat	0.02					
33.6 Barley	0.02					
33.7 Sorghum	0.02					
33.8 Rice (husked or polished)	0.02					
33.9 Milk and milk products	0.02 on a fat basis				PRL	

(*) Note by the Secretariat: The residue data refer to rice before the removal of husk (see 1972 Report and 1971 Evaluations of the JMPR); the term "unpolished rice", being incorrect, was, therefore, changed by the Secretariat to "raw rice".

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
33.10 Poultry	1 on a fat basis	PRL	} advanced to 5	102
33.11 Eggs ^{1/}	0.2 on a shell-free basis	PRL		102
33.12 Sweet corn	0.02	T		103

^{1/} The term "eggs" covers egg white plus egg yolk and, therefore, includes such products as fresh whole eggs and whole egg pulp.

34. ETHION

Residue: Determined as ethion and its oxygen analogue and expressed as ethion.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
34.1 Grapes	2	} T	} advanced to 8	} 104, 105
34.2 Tea (dry manufactured)	5 ^{2/}			
34.3 Meat of cattle	2.5 ^{3/}			
34.4 Fruit (except grapes)	-	} T	} 3	} 104, 105
34.5 Vegetables	-			
34.6 Apples	2			
34.7 Lemons	2			
34.8 Limes	2			
34.9 Oranges	2			
34.10 Plums	2			
34.11 Prunes	2			
34.12 Strawberries	2			
34.13 Nectarines	1			
34.14 Peaches	1			
34.15 Pears	1			
34.16 Apricots	0.1 ^{4/}			
34.17 Cherries	0.1 ^{4/}			
34.18 Almonds (shelled)	0.1 ^{4/}			
34.19 Chestnuts (shelled)	0.1 ^{4/}			
34.20 Filberts (shelled)	0.1 ^{4/}			
34.21 Pecans (shelled)	0.1 ^{4/}			
34.22 Walnuts (shelled)	0.1 ^{4/}			
34.23 Beans	2			
34.24 Melons	2			
34.25 Tomatoes	2			
34.26 Eggplant (aubergines)	1			
34.27 Garlic	1			
34.28 Onions	1			
34.29 Pimentos	1			
34.30 Peppers	1			
34.31 Cucumbers	0.5			
34.32 Squash	0.5			
34.33 Cotton seed	0.5			
34.34 Maize (grain)	0.05 ^{4/}			
34.35 Edible offal of cattle	0.75			
34.36 Meat of goats, horses, pigs, poultry and sheep	0.2 ^{3/ 4/}			
34.37 Edible offal of goats, horses, pigs, poultry and sheep	0.2 ^{4/}			
34.38 Milk and milk products	0.5 on a fat basis ^{4/}			

^{2/} Changed from 7 to 5 by the 7th session of CCPR as erroneously stated as 7 in the report of the JMPR.

^{3/} To be determined and expressed on the rendered or extracted fat.

^{4/} Level at or about the limit of determination.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
34.39 Eggs 1/	0.2 on a shell-free basis 2/	T	3	104, 105

- 1/ The term "eggs" covers egg white plus egg yolk and, therefore, includes such products as fresh whole eggs and whole egg pulp.
 2/ Level at or about the limit of determination.

35. ETHOXYQUIN

Residue: Ethoxyquin

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
35.1 Apples	3	T	advanced to 8	-
35.2 Pears	3	T	advanced to 8	-

36. FENCHLORFOS

Residue: To be determined as fenclorfos and its oxygen analogue and expressed as fenclorfos.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Change proposed by CCPR</u>	<u>Paragraph</u>
36.1 Milk (whole)	0.04	TT	held at 8	deleted (see 36.3)	-
36.2 Eggs 3/	0.03 on a shell-free basis 4/	TT	held at 8	7/	106
36.3 Milk and milk products	2 on a fat basis	T	3	-	-
36.4 Meat of cattle, goat and sheep	10 5/	T	3	-	} 106
36.5 Meat of pigs	2 5/	T	3	-	
36.6 Poultry	0.01 6/	T	3	-	

- 3/ The term "eggs" covers egg white plus egg yolk and, therefore, includes products such as fresh whole eggs or whole egg pulp.
 4/ Corresponds to 0.05 in egg yolk.
 5/ To be determined and expressed on the rendered or extracted fat.
 6/ Level at or about the limit of determination.
 7/ Change proposed by the JMPR: 0.05 T; the Commission is requested to return the temporary tolerance, together with the change proposed by the JMPR, to Step 6.

37. FENITROTHION

Residue: Fenitrothion

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>	
37.1 Apples	0.5	})	returned to 6 10/	} 107	
37.2 Cherries	0.5				
37.3 Grapes	0.5				
37.4 Lettuce	0.5				
37.5 Dried green tea	0.3				
37.6 Red cabbage	0.3				
37.7 Tomatoes	0.2				
37.8 Cocoa beans 11/	0.1				
37.9 Meat	0.03 8/ 9/				TPRL
37.10 Milk and milk products	0.05 on a fat basis 9/				TPRL

- 8/ To be determined and expressed on the rendered or extracted fat.
 9/ Level at or about the limit of determination.
 10/ Returned for a second round of government comments and referred to the JMPR.
 11/ Note by the Secretariat: Data quoted in the 1971 Evaluations of the JMPR refer to cocoa beans; "cocoa" was, therefore, changed by the Secretariat to "cocoa beans".

38. FENSULFOTHION

Residue: Fensulfothion, its oxygen analogue, oxygen analogue sulphone and the sulphone, determined and expressed as fensulfothion.

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
38.1 Maize (grain), including kernels of field corn and popcorn	0.1	T	3	108
38.2 Onions	0.1			
38.3 Potatoes	0.1			
38.4 Swede (Rutabagas)	0.1 (roots)			
38.5 Tomatoes	0.1			
38.6 Peanuts (shelled)	0.05 1/			
38.7 Pineapple	0.05 1/			
38.8 Sugar beet	0.05 1/			
38.9 Bananas	0.02 1/			
38.10 Meat of cattle, goats and sheep	0.02 1/ 2/			
38.11 Edible offal of cattle, goats and sheep	0.02 1/			

1/ Level at or about the limit of determination.

2/ To be determined and expressed on the rendered or extracted fat.

39. FENTHION

Residue: Fenthion and its major metabolites, determined separately or together and expressed as fenthion.

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>	
39.1 Apples	2	TT	advanced to 5	-	
39.2 Peaches	2				
39.3 Cherries	2				
39.4 Lettuce	2				
39.5 Meat	2 4/				
39.6 Cabbage	1				
39.7 Cauliflower	1				
39.8 Olives	1				
39.9 Olive oil	1				
39.10 Grapes	0.5				
39.11 Citrus fruit 3/	0.5				
39.12 Peas	0.5				
39.13 Meat	-			withdrawn	111
39.14 Squash	0.2				
39.15 Wheat	0.1				
39.16 Rice	0.1			advanced to 5	-
39.17 Milk products	0.1 on a fat basis				
39.18 Milk (whole)	0.05				

3/ Changed from "oranges" to "Citrus fruit" by the 1974 CCPR.

4/ To be determined and expressed on the rendered or extracted fat.

40. FENTIN

Residue: Total fentin, excluding inorganic tin, expressed as fentin hydroxide.

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
40.1 Celery	1	T	advanced to 5	112
40.2 Sugar beet	0.2 on a soil-free basis	T	advanced to 5	112

<u>Food</u>	<u>Limit (mg/kg)</u>	<u>Type of Limit</u>	<u>Step</u>	<u>Paragraph</u>	
40.3 Carrots	0.2 on a soil-free basis	T	advanced to 5	112	
40.4 Potatoes	0.1 on a soil-free basis				
40.5 Celeriac	0.1 on a soil-free basis				
40.6 Peanuts	0.05 on a shell-free basis 1/				
40.7 Cocoa beans	0.1 1/				3
40.8 Coffee (roasted beans)	0.1 1/ 2/				3
40.9 Rice (hulled)	0.1 1/				3
40.10 Pecans	0.05 on a shell-free basis 1/				3

1/ Level at or about the limit of determination.

2/ Data in the 1970 Evaluations support "roasted" coffee beans, but the reports of the JMPR and 1972 Evaluations refer to "raw beans".

41. FOLPET

Residue: Folpet

<u>Food</u>	<u>Limit (mg/kg)</u>	<u>Type of Limit</u>	<u>Step</u>	<u>Paragraph</u>
41.1 Currants (fresh)	30	T	advanced to 8	-
41.2 Grapes	25			-
41.3 Blueberries 3/	25			116
41.4 Cherries	15			-
41.5 Raspberries	15			-
41.6 Apples	10			-
41.7 Citrus fruit	10			-
41.8 Strawberries	20 4/			117
41.9 Tomatoes	5			-
41.10 Cantaloupe	2			-
41.11 Cucumbers	2			advanced to 8
41.12 Onions	2			-
41.13 Water melons	2			-

3/ Blueberry (or Huckleberry) includes the following varieties: V. corymbosum L., V. angustifolium Ait., V. ashei Reade, etc.

4/ Changed from 5 to 20 ppm by the 1974 CCPR on the recommendation of the 1973 JMPR.

42. FORMOTHION

Residue: Determined as dimethoate and its oxygen analogue and expressed as dimethoate.

<u>Food</u>	<u>Limit (mg/kg)</u>	<u>Type of Limit</u>	<u>Step</u>	<u>Paragraph</u>
42.1 Black currants	2	TT	3 5/	118
42.2 Strawberries	0.3	TT	3 5/	118

5/ Returned for second round of government comments.

43. HEPTACHLOR

Residue: Combined residues of heptachlor and its epoxide, expressed as heptachlor.

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Change</u> <u>proposed</u> <u>by CCPR</u>	<u>Paragraph</u>
43.1 Raw cereals	0.02	PRL	9	-	-
43.2 Vegetables	0.05	PRL	9	-	-
43.3 Root vegetables	0.1	TT	9	} withdrawn }	} 119
43.4 Potatoes	0.05	TPRL	9		
43.5 Cole crops	0.1	TT	9		
43.6 Leafy vegetables	0.1	TT	9		
43.7 Milk and milk products	0.125 on a fat basis	PRL	9		
43.8 Meat	0.2 <u>1/</u>	PRL	9	-	121
43.9 Carrots	0.2	PRL	6	} returned to 6 <u>2/</u> advanced to 5	122
43.10 Sugar beets	0.05	PRL	5		-
43.11 Pineapple	0.01 in the total edible portion	T	5	} advanced to 5 <u>3/</u> }	} 124
43.12 Tomatoes	0.02	PRL			
43.13 Cotton seed	0.02	PRL			
43.14 Soya bean	0.02	PRL			
43.15 Edible soya bean oil	0.02	PRL			
43.16 Eggs <u>4/</u>	0.05 on a shell-free basis	PRL			
43.17 Crude soya bean oil	0.5	PRL			
43.18 Citrus fruit	0.01	PRL			
43.19 Poultry	0.2 on a fat basis	PRL	3		

1/ Determined and expressed on the rendered or extracted fat.

2/ Third round of government comments.

3/ Proposed omission of Steps 6, 7 and 8.

4/ The term "eggs" covers egg white plus egg yolk and, therefore, includes products such as fresh whole eggs or whole egg pulp.

44. HEXACHLOROBENZENE

Residue: Hexachlorobenzene

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
44.1 Meat of cattle, sheep, goat and pig	1 <u>5/</u>	} PRL }	} advanced to 8	} 125
44.2 Poultry	1 on a fat basis			
44.3 Eggs <u>6/</u>	1 on a shell-free basis			
44.4 Milk and milk products	0.5 <u>7/</u>			
44.5 Raw cereals	0.05			
44.6 Flour and similar milled cereal products	0.01			

5/ To be determined and expressed on the rendered or extracted fat.

6/ The term "eggs" covers egg white plus egg yolk and, therefore, includes products such as fresh whole eggs or whole egg pulp.

7/ Changed from 0.3 to 0.5 by the 7th session of the CCPR.

45. HYDROGEN CYANIDE

Residue: Hydrogen cyanide

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
45.1 Raw cereals	75	T	9	-
45.2 Flour	6	T	9	-

46. HYDROGEN PHOSPHIDE (Syn.: Phosphine)

Residue: Hydrogen phosphide

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
46.1 Raw cereals	0.1	T	9	-
46.2 Flour and other milled cereal products	0.01		9	-
46.3 Dried vegetables	0.01		9	-
46.4 Spices	0.01		9	-
46.5 Breakfast cereals	0.01		held at 8	-
46.6 Nuts	0.01		advanced to 5	} 126
46.7 Peanuts	0.01		with proposal	
46.8 Dried fruit	0.01		to omit Steps	
46.9 Cocoa beans	0.01		6, 7 and 8	
46.10 Dried foods	0.01			

47. INORGANIC BROMIDE 1/

Residue: Determined and expressed as total bromide ion from all sources.

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
47.1 Raw cereals	50	T	} 9	}
47.2 Citrus fruit	30	TT		
47.3 Strawberries	30	TT		
47.4 Avocados	75	TT		
47.5 Dried prunes	20	TT		
47.6 Dried peaches	50	TT		
47.7 Raisins, sultanas, currants (dried products)	100	TT		
47.8 Dried dates	100	TT		
47.9 Dried figs	250	TT		
47.10 Herbs, spices	400	TT		
47.11 Fruit	20	TT		
47.12 Dried fruit	30	TT		
47.13 Whole meal flour	50	T		

1/ Resulting from the use of organic bromide fumigants.

48. LINDANE (Syn.: gamma-BHC or gamma-HCH)

Residue: Lindane

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Change proposed by CCPR</u>	<u>Paragraph</u>
48.1 Milk and milk products	0.2 on a fat basis	PRL	9	TPRL eggs 0.1 on a shell-free basis TPRL	127, 128
48.2 Eggs 2/	0.2 in the yolk	PRL	held at 8		

2/ The term "eggs" covers egg white plus egg yolk and, therefore, includes products such as fresh whole eggs or whole egg pulp.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Change</u> <u>proposed</u> <u>by CCPR</u>	<u>Paragraph</u>	
48.3 Poultry	0.7 on a fat basis	PRL	held at 8	TPRL	} 127,128	
48.4 Meat of cattle, pigs and sheep	2 <u>1/</u>	T	held at 8	TT		
48.5 Raw cereals (including rice)	0.5	T	held at 8	TT		
48.6 Cherries	3	TT	} advanced to 8	-		
48.7 Cranberries	3	TT		-		
48.8 Grapes	3	TT		-		
48.9 Plums	3	TT		-		
48.10 Strawberries	3	TT		-		
48.11 Vegetables	3	TT	returned to 6	-		} 127,129
48.12 Beans, dried	1	TT	advanced to 5	-		

1/ Determined and expressed on the rendered or extracted fat.

49. MALATHION

Residue: Combined residues of malathion and malaaxon.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
49.1 Raw cereals	8	} T	9	-
49.2 Citrus fruit	4		9	-
49.3 Dried fruit	8		9	-
49.4 Nuts (whole in the shell)	8		9	-
49.5 Whole meal and flour from rye and wheat	2		held at 8	-
49.6 Lettuce	8		} returned to 6 <u>2/</u>	} 130
49.7 Endive	8			
49.8 Cabbage	8			
49.9 Spinach	8			
49.10 Blackberries	8			
49.11 Raspberries	8			
49.12 Cherries	6			
49.13 Peaches	6			
49.14 Plums	6			
49.15 Broccoli	5			
49.16 Tomatoes	3	advanced to 8	131	
49.17 Kale	3	advanced to 8	131	
49.18 Turnips	3	returned to 6 <u>2/</u>	-	
49.19 Apples	2	returned to 6 <u>2/</u>	-	
49.20 Green beans	2	advanced to 8	131	
49.21 Celery	1	returned to 6 <u>2/</u>	132	
49.22 Strawberries	1	} advanced to 8	} -	
49.23 Pears	0.5			
49.24 Blueberries <u>3/</u>	0.5			
49.25 Peas (in the pod)	0.5			
49.26 Cauliflower	0.5			
49.27 Peppers	0.5			
49.28 Eggplant (aubergines)	0.5			
49.29 Kohlrabi	0.5			
49.30 Root vegetables (except turnips)	0.5			
49.31 Swiss chard (chard)	0.5			
49.32 Collards	0.5	3	133	
49.33 Grapes	8			

2/ Returned for a third round of government comments.

3/ Blueberry (or Huckleberry) includes the following varieties: V. corymbosum L., V. angustifolium Ait., V. askei Reade, etc.

50. MANCOZEB

Residue: Mancozeb

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
50.1 Potatoes	1	TT	advanced to 5	134

51. METHIDATHION

Residue: Methidathion 1/

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>			
51.1 Citrus fruit	2	}	}	}			
51.2 Apples	0.5						
51.3 Pears	0.5						
51.4 Apricots	0.2						
51.5 Cherries	0.2						
51.6 Nectarines	0.2						
51.7 Peaches	0.2						
51.8 Plums	0.2						
51.9 Prunes	0.2						
51.10 Grapes	0.2						
51.11 Cabbage	0.2						
51.12 Cauliflower	0.2						
51.13 Leafy vegetables	0.2						
51.14 Beans	0.1				TT	3	135
51.15 Peas	0.1						
51.16 Tomatoes	0.1						
51.17 Maize (grain)	0.1						
51.18 Sorghum (grain)	0.1						
51.19 Cotton seed oil (crude)	1						
51.20 Cotton seed	0.2						
51.21 Hops (dried)	3						
51.22 Tea (dry, manufactured)	0.1	4/	}	}			
51.23 Potatoes	0.02 2/						
51.24 Meat, fat and edible offal of cattle, sheep, pigs and poultry	0.02 2/						
51.25 Milk and milk products	0.02 2/						
51.26 Eggs 3/	0.02 on a shell-free basis 2/	4/					

- 1/ Residues in animal products from feeding on treated forage and plant products.
- 2/ Level at or about the limit of determination.
- 3/ The term "eggs" covers egg white plus egg yolk and, therefore, includes products such as fresh whole eggs or whole egg pulp.
- 4/ Listed as temporary in the 1972 Monographs but not listed as temporary in the 1972 JMPR Report.

52. METHYL BROMIDE (Syn.: Bromomethane)

Residue: Bromomethane

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
52.1 Nuts	100 5/	}	}	}
52.2 Peanuts	100 5/			
52.3 Raw cereals	50 5/			
52.4 Cocoa beans	50 5/			

- 5/ To apply at point of entry into a country and, in case of cereal for milling, if product has been freely exposed to air for a period of at least 24 hours after fumigation and before sampling.
- 6/ Not taken up in the Codex Procedure until cleared toxicologically by the JMPR.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
52.5 Dried fruits	20 <u>1/</u>	GL	<u>2/</u>	136
52.6 Milled cereal products	10 <u>3/</u>			
52.7 Bread and other cooked cereal products	0.5 <u>4/</u>			
52.8 Cocoa products	0.5 <u>4/</u>			
52.9 Dried fruits	0.5 <u>4/</u>			
52.10 Nuts	0.5 <u>4/</u>			
52.11 Peanuts	0.5 <u>4/</u>			

- 1/ To apply at point of entry into a country and, in case of cereal for milling, if product has been freely exposed to air for a period of at least 24 hours after fumigation and before sampling.
- 2/ Not taken up in the Codex Procedure until cleared toxicologically by the JMFR.
- 3/ To apply to milled cereal products to be subjected to baking or cooking.
- 4/ To apply to commodity at point of retail sale or when offered for consumption.

53. MEVINPHOS

Residue: cis- and trans- isomers determined and expressed as sum of both.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
53.1 Broccoli	1	T	3	137
53.2 Brussels sprouts	1			
53.3 Cabbage	1			
53.4 Cauliflower	1			
53.5 Collards	1			
53.6 Cherries	1			
53.7 Strawberries	1			
53.8 Apples	0.5			
53.9 Grapes	0.5			
53.10 Peaches	0.5			
53.11 Lettuce	0.5			
53.12 Spinach	0.5			
53.13 Cucumber	0.2			
53.14 Tomatoes	0.2			
53.15 Apricots	0.2			
53.16 Citrus fruit	0.2			
53.17 Pears	0.2			
53.18 Carrots	0.1			
53.19 Beans	0.1			
53.20 Onions	0.1			
53.21 Peas	0.1			
53.22 Potatoes	0.1			
53.23 Turnips	0.1			
53.24 Melons	0.05			

54. MONOCROTOPHOS

Residue: Monocrotophos

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
54.1 Apples	1	TT	3	137
54.2 Pears	1	TT		
54.3 Hops (dried)	1	T		
54.4 Citrus fruit	0.2	T		
54.5 Tomatoes	0.5	T		
54.6 Beans	0.2	T		
54.7 Brussels sprouts	0.2	T		
54.8 Cabbage	0.2	T		
54.9 Cauliflower	0.2	T		

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>		
54.10 Onions	0.1	T	}	}		
54.11 Peas	0.1	T				
54.12 Coffee (raw beans)	0.1	T				
54.13 Cotton seed	0.1	T				
54.14 Carrots	0.05 <u>1/</u>	T				
54.15 Maize (grain)	0.05 <u>1/</u>	T				
54.16 Potatoes	0.05 <u>1/</u>	T				
54.17 Turnips	0.05 <u>1/</u>	T				
54.18 Soya beans	0.05 <u>1/</u>	T				
54.19 Sugar beets	0.05 <u>1/</u>	T				
54.20 Cotton seed oil	0.05	T				
54.21 Meat and edible offal of cattle, goats, pigs, poultry, sheep	0.02 <u>1/</u>	T			3	137
54.22 Milk	0.002 <u>1/</u>	T			3/	
54.23 Milk products	0.02 <u>1/</u>	T			3/	
54.24 Eggs <u>2/</u>	0.02 on a shell-free basis <u>1/</u>	T	3/			

1/ Level at or about the limit of determination.

2/ The term "eggs" covers egg white plus egg yolk and, therefore, includes products such as fresh whole eggs or whole egg pulp.

3/ Residues in products of animal origin arise from feeding treated plant products.

55. OMETHOATE 4/

Residue: Omethoate

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>			
55.1 Apples	2	}	}	}			
55.2 Apricots	2						
55.3 Cherries	2						
55.4 Grapes	2				TT	advanced to 5	138,139
55.5 Peaches	2						
55.6 Pears	2						
55.7 Plums	2						

4/ See also dimethoate and formothion.

56. ORTHO-PHENYLPHENOL (Syn.: 2-phenylphenol) and SODIUM SALT

Residue: 2-phenylphenol and sodium 2-phenylphenate, expressed as 2-phenylphenol.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>			
56.1 Cantaloupe			withdrawn	140			
56.2 Pears	25	}	}	}			
56.3 Carrots	20						
56.4 Peaches	20				advanced to 8		
56.5 Apples	15				T	returned to 6 <u>1/</u>	140,141
56.6 Plums	15						
56.7 Prunes	15				advanced to 8		
56.8 Sweet potatoes	15						
56.9 Cantaloupe	10 in edible portion						

1/ Returned for a second round of government comments in the light of a proposal to increase to 25 mg/kg.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
56.10 Citrus fruit	10	T	advanced to 8	140,141
56.11 Cucumbers	10			
56.12 Pineapple	10			
56.13 Tomatoes	10			
56.14 Cherries	3			
56.15 Nectarines	3			
56.16 Peppers	10			

57. PARAQUAT 1/

Residue: Paraquat cation

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
57.1 Cotton seed	0.2	T	advanced to 5	142-144
57.2 Potatoes	0.2		3	
57.3 Cotton seed oil (edible and refined)	0.05		advanced to 5	
57.4 Sugar cane juice			withdrawn	
57.5 Raw rice (paddy)	10	T	3	145
57.6 Olives (unprocessed)	1			
57.7 Rice (polished)	0.5			
57.8 Sorghum	0.5			
57.9 Maize	0.1			
57.10 Soya beans	0.1			
57.11 Vegetables	0.05 2/			
57.12 Milk (whole)	0.01 2/			145

1/ As dichloride, di-(methylsulphate) and possibly other salts.

2/ Level at or about the limit of determination.

58. PARATHION

Residue: Combined residues of parathion and paraoxon.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
58.1 Vegetables (except carrots)	0.7	T	held at 8	-
58.2 Peaches	1		advanced to 8	-
58.3 Citrus fruit	1		returned to 6 3/	146
58.4 Apricots	1		advanced to 8	-
58.5 Fruit	0.5		advanced to 8	-

3/ Returned for second round of government comments and referred to the JMFR for re-consideration on the basis of data provided by governments.

59. PARATHION-METHYL

Residue: Combined residues of parathion-methyl and its oxygen analogue.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
59.1 Cole crops	0.2	TT	held at 8 5/	148
59.2 Cantaloupe	0.2			
59.3 Melons	0.2			
59.4 Cucumbers	0.2			
59.5 Cotton seed oil	0.05			
59.6 Vegetables	1			
59.7 Fruit	0.2			
			held at 8	
			returned to 6 4/	147
			returned to 6 4/	147

4/ Returned for a second round of government comments and referred to the JMFR.

5/ The Commission is requested to return these temporary tolerances to Step 7.

60. PHOSALONE

Residue: Phosalone

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
60.1 Apples	5	T	3	149
60.2 Grapes	5			
60.3 Peaches	5			
60.4 Plums	5			
60.5 Cherries	2			
60.6 Pears	2			
60.7 Beet roots	2			
60.8 Hops (dried)	2			
60.9 Citrus fruit	1			
60.10 Strawberries	1			
60.11 Broccoli	1			
60.12 Brussels sprouts	1			
60.13 Cabbage	1			
60.14 Cucumber	1			
60.15 Lettuce	1			
60.16 Peas	1			
60.17 Tomatoes	1			
60.18 Chestnuts	0.1 on a shell-free basis 1/			
60.19 Pecans	0.1 on a shell-free basis 1/			
60.20 Potatoes	0.1 1/			
60.21 Rape seed	0.1 1/			

1/ Level at or about the limit of determination.

61. PHOSPHAMIDON

Residue: Expressed as the sum of phosphamidon and its desethyl derivivate.

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
61.1 Raw cereals	0.1	T	advanced to 8	-
61.2 Apples	0.5			
61.3 Pears	0.5			
61.4 Citrus fruit	0.4			
61.5 Cole crops	0.2			
61.6 Water melons	0.1			
61.7 Tomatoes	0.1			
61.8 Lettuce	0.1			
61.9 Cucumbers	0.1			
61.10 Fruit	0.2			
61.11 Vegetables	0.2			
61.12 Root vegetables	0.05 3/			
61.13 Potatoes	0.05 3/			
			returned to 6 2/	150
			returned to 6 2/	150
			advanced to 5 with	
			request to omit Steps	151
			6, 7 and 8	

2/ Returned for a second round of government comments and referred to the JMPR for reconsideration.

3/ Level at or about the limit of determination.

62. PIPERONYL BUTOXIDE

Residue: Piperonyl butoxide

<u>Food</u>	<u>Limit</u> <u>(mg/kg)</u>	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Change</u> <u>proposed</u> <u>by CCPR</u>	<u>Paragraph</u>
62.1 Raw cereals	20	TT	9	-	-

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Change</u> <u>proposed</u> <u>by CCPR</u>	<u>Paragraph</u>
62.2 Fruit for canning	8	TT	9	fresh fruit	152
62.3 Dried fruits	8	TT	9	-	-
62.4 Dried vegetables	8	TT	9	-	-
62.5 Oil seeds	8	TT	9	-	-
62.6 Tree nuts	8	TT	9	-	-
62.7 Vegetables	8	TT	6 1/	-	153
62.8 Dried codfish			withdrawn		154
62.9 Peanuts	8	TT	3	-	155
62.10 Fish (dried)	20	T	3	-	156

1/ Returned for a second round of government comments and referred to the JMPR.

63. PYRETHRINS

Residue: Sum of Pyrethrins I and II and other structurally related insecticidal ingredients of pyrethrum.

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Change</u> <u>proposed</u> <u>by CCPR</u>	<u>Paragraph</u>
63.1 Raw cereals	3	} TT	9	-	-
63.2 Fruit for canning	1		9	fresh fruit	152
63.3 Dried fruits	1		9	-	-
63.4 Dried vegetables	1		9	-	-
63.5 Oil seeds	1		9	-	-
63.6 Tree nuts	1		9	-	-
63.7 Vegetables	1		9	-	-
63.8 Dried codfish			advanced to 8	withdrawn	154
63.9 Fish (dried)	3	T	3	-	156
63.10 Peanuts 2/	1	TT	3	-	155

2/ Referred to the JMPR for confirmation.

64. QUINTOZENE (Syn.: Oxythioquinox)

Residue: Quintozene

<u>Food</u>	<u>Limit</u> (mg/kg)	<u>Type of</u> <u>Limit</u>	<u>Step</u>	<u>Paragraph</u>
64.1 Cultivated, un-processed mushrooms	10	} TT	6 3/	158
64.2 Bananas	1 in the whole product			
64.3 Lettuce	3		advanced to 8	-
64.4 Peanuts	2 in the kernels		returned to 6 3/	159
64.5 Navy beans	0.2		returned to 6 4/	160
64.6 Potatoes	0.2		returned to 6 3/	161
64.7 Tomatoes	0.1		} advanced to 8	}
64.8 Cotton seed	0.03			
64.9 Broccoli	0.02			
64.10 Cabbage	0.02			
64.11 Bananas	0.01 in the pulp			
64.12 Beans (other than navy beans)	0.01			
64.13 Pepper (bell type)	0.01			

3/ Returned for a second round of government comments and to JMPR.

4/ Returned for a second round of government comments at Step 6 and confirmation by the JMPR that limit applies to the kernels.

65. THIABENDAZOLE

Residue: Thiabendazole

<u>Food</u>	<u>Limit (mg/kg)</u>	<u>Type of Limit</u>	<u>Step</u>	<u>Paragraph</u>
65.1 Citrus fruit	10	T	advanced to 5 with the request that Steps 6, 7 and 8 be omitted	162
65.2 Bananas	3			
65.3 Bananas	0.4 in the pulp			
65.4 Apples	10	T	advanced to 5	163
65.5 Pears	10		advanced to 5	163

66. TRICHLORFON

Residue: Trichlorfon

<u>Food</u>	<u>Limit (mg/kg)</u>	<u>Type of Limit</u>	<u>Step</u>	<u>Paragraph</u>
66.1 Peppers	1	TT	advanced to 5	-
66.2 Bananas	0.2			
66.3 Peaches	0.2			
66.4 Brussels sprouts	0.2			
66.5 Cauliflowers	0.2			
66.6 Kale	0.2			
66.7 Sweet corn (see 66.12)	0.2 in kernels plus cob			
66.8 Celery	0.2			
66.9 Beet root (beet)	0.2			
66.10 Wheat	0.2			
66.11 Barley	0.1			
66.12 Maize (except sweet corn)	0.1			
66.13 Apples	0.1			
66.14 Cherries	0.1			
66.15 Oranges	0.1			
66.16 Strawberries	0.1			
66.17 Artichokes	0.1			
66.18 Cabbage	0.1			
66.19 Cow peas	0.1			
66.20 Beans (black eyed, green, lima)	0.1			
66.21 Mustard greens	0.1			
66.22 Pumpkins	0.1			
66.23 Tomatoes	0.1			
66.24 Turnips	0.1			
66.25 Cotton seed	0.1			
66.26 Linseed	0.1			
66.27 Rape seed <u>1/</u>	0.1			
66.28 Safflower seed	0.1			
66.29 Soya beans	0.1			
66.30 Peanuts	0.1 on a shell-free basis			
66.31 Meat, fat and offal of cattle and pigs	0.1			
66.32 Milk (whole)	0.05			
66.33 Sugar beet	0.05			

1/ Listed as flax seed in the 1971 Monographs of the JMPR.

67. TRICYCLOHEXYLTIN (Syn.: Tricyclohexylhydroxystannate)

Residue: Tricyclohexyltin hydroxide

<u>Food</u>	<u>Limit (mg/kg)</u>	<u>Type of Limit</u>	<u>Step</u>	<u>Paragraph</u>
67.1 Apples	2	TT	advanced to 5	164
67.2 Pears	2	TT	advanced to 5	164

REPORT OF THE AD HOC WORKING GROUP ON PRIORITY LISTS

1. The Group, set up at the 6th session of the Committee, was requested on the first day of the session of the Committee to continue its work until the end of the session. In its discussions took part representatives of the delegations of Australia, Canada, the Federal Republic of Germany, Israel, the Netherlands, Switzerland, the United Kingdom and the United States. The representative of FAO participated at the meetings and the representative of EPPO attended the meetings as an observer (see para 6(b)) of the report of the Codex Committee on Pesticide Residues (CCPR).
2. The Group considered a number of candidate compounds proposed from a number of sources as follows:
 - (a) compounds proposed by various countries;
 - (b) compounds referred to in Reports of the Joint Meeting on Pesticide Residues (JMPR), including the 1973 Report;
 - (c) compounds listed by EPPO as causing difficulties in international trade of food commodities;
 - (d) compounds selected from the Report on Good Agricultural Practice shown to be in common use on the food commodities listed in the Report.
3. The resultant list was then considered relative to the compounds already in the JMPR-CCPR procedures and in the light of the 1974 Pilot Study prepared by the WHO Secretariat and represented as a Conference Room Document (CX/PR 74/2) to the 7th Session of the CCPR. Those compounds already in the procedure, or those for which the Pilot Study revealed little chance of exceeding the "acceptable daily intake" were then deleted from the list of candidate compounds.
4. The Working Group further judged the list of candidates on the basis of criteria elaborated in paragraph 134 of the Report of the 6th Session of the CCPR. (These criteria essentially require a compound for consideration to be one "which affects international trade to a significant extent by virtue of its scale of use and residue incidence and for which maximum residue limits should be established").
5. The remaining compounds, after applications of the above mentioned judgement parameters, were then arranged in three groups for consideration by the JMPR.

Priority Groups

Group I consists of compounds for which there is considered to be the greatest need for consideration by JMPR and are listed as follows:

Amino-triazole
Chlorothanonil
Dichloran
Dodine

Group II consists of compounds for which there is judged to be a need for consideration by JMPR and are listed as follows:

Aminozide
Phenamiphos
Pyrimiphos-methyl
Tecnazene

Group III consists of compounds which have been considered previously or are still under active consideration by the JMPR. The Working Group on Priority Lists particularly wished to reaffirm the need for evaluation of these compounds and that all assistance possible be given by countries and manufacturers in providing information. These compounds are listed as follows:

Benomyl
Camphechlor (FAO specifications, AGP:CP/43)
Carbendazim (BCM)
Dichlofluanid
Dimethyldithiocarbamates (e.g. ferbam, thiram, ziram, etc.)
Dinocap
Bis-dithiocarbamates (e.g. mancozeb, maneb, zineb, etc.)
Oxythioquinox (chinomethionat, quintozone)

6. The Working Group recognized that the Joint Meeting would, of necessity, bring to bear a number of judgements in selecting from these lists compounds for evaluation. Those compounds referred to in this report are those which, in the judgement of the Group, require attention to facilitate the work of the CCPR.

7. The Group also considered the compounds tetradifon, chlorfensulfide and tetrasul that have been previously referred to the Joint Meeting. The Group decided that these compounds were not of sufficient concern, at this time, to warrant retaining on the Priority List.

APPENDIX IV

REPORT OF THE AD HOC WORKING GROUP ON METHODS OF ANALYSIS

The Ad Hoc Working Group on Methods of Analysis was formed on the first day of the session of the CCPR. In its discussions took part:

A. Ambrus, Hungary
J.A.R. Bates, United Kingdom
Dr. W.P. Cochrane, Canada
Dr. H. Fischbach, U.S.A.
Dr. H. Frohse, IUPAC
Dr. P.A. Greve, Netherlands (Chairman)
Dr. B. Marek, Switzerland
R.H. Thompson, United Kingdom

1. General Remarks

The Working Group carefully reviewed paragraphs 6 and 128 of the Report of the last session (ALINORM 72/24A) concerning the terms of reference and the report of the Working Group. The Working Group felt that parts of para 128, relating to the procedures to be undertaken in case of dispute, could be misinterpreted. The Working Group considered that the best way for the CCPR to assist parties in dispute would be to provide them with references to reliable methods of analysis, as given below under 2. (see also the General Statement on methods of pesticide residue analysis, submitted by IUPAC (Comptes Rendues of the 27th IUPAC Conference, Munich, August 1973, Meeting of the Commission on Pesticide Residue Analysis, Appendix I)).

The Working Group then examined the comments received from member countries and IUPAC and considered again the criteria for the selection of reliable analytical methods. It re-affirmed its view expressed in the previous report that particular weight should be given to multi-residue methods, gas-liquid chromatographic methods and to methods which had been subjected to collaborative studies. The undertaking and subsequent publication of collaborative studies would, therefore, be extremely helpful in the selection of methods suitable for Codex purposes. When collaborative studies were lacking, published methods which had been validated by more than one laboratory were chosen.

It was considered that the ultimate goal of fair practice in international trade depended, among many other things, on the reliability of the analytical results. This, in turn, particularly in pesticide residue analysis, depended not only on the availability of reliable analytical methods, but also on the experience of the analyst and the maintenance of "good practice in the analysis of pesticide residues", which included:

- (a) regular assessment of the performance of the method at the tolerance level, as well as at the lower limit of determination, by checking the recovery rate, the standard deviation, the blank response, etc.;
- (b) confirmation of the identity of the pesticide by independent tests such as thin-layer chromatography, mass spectrometry, infrared spectroscopy, chemical derivatization, etc.

The Working Group suggested that such aspects of good analytical practice should be included in any questionnaire on methods of analysis to be sent out by the Secretariat.

It was considered essential that reference samples of pesticides, including relevant metabolites, should be available. The Working Group was aware of the fact that some laboratories experienced difficulties in obtaining such samples and believed that CCPR should make available a list of suitable sources of supply. The CCPR could be provided with such information by member countries by means of a questionnaire.

The Working Group also considered whether methods of analysis always included relevant metabolites. It felt, however, that it needed further information on this point before it could make recommendations. It hoped that more information would become available through replies to questionnaires.

2. Comments on Methods of Analysis

2.1 List of Pesticides Considered

In the Circular Letters CL 1973/21, dated September 1973 and CL 1973/32, dated November 1973, comments were requested on the methods of analysis suggested by the 1970, 1971 and 1972 Joint Meetings on Pesticide Residues. This request was directed to governments and interested international organizations in order to facilitate the selection of suitable methods of analysis by the 7th session of the CCPR for those pesticide residues for which Codex maximum residue limits have reached Step 5 or higher in the Codex Procedure.

Comments were also invited on the methods considered as suitable by the 6th session of the CCPR (Appendix IX, ALINORM 72/24A).

These pesticides are (see also document CX/PR 74/3, dated September 1973):

		<u>Highest Step in Codex Procedure as at Sept. 1973</u>
aldrin/dieldrin	see: J.M. Monographs 1970, page 222	9
carbaryl	" " " 1970, " 5	9
chlordane	" " " 1970, " 31	9
chlorobenzilate	" " " 1972, " 137	8
crufomate	" " " 1972, " 222	8
DDT	" ALINORM 72/24A, App. IX	9
diazinon	" J.M. Monographs 1970, page 111	9
dichlorvos	" " " 1970, " 159	9
dimethoate	" " " 1970, " 242	9
dioxathion	" " " 1972, " 236	8
diphenyl	" ALINORM 72/24A, App. IX	9
endosulfan	" J.M. Monographs 1971, page 105	6
ethion	" " " 1972, " 275	7
fenchlorfos	" " " 1972, " 284	8
heptachlor	" " " 1970, " 390	9
hydrogen cyanide	" ALINORM 72/24A, App. IX	9
hydrogen phosphide	" " " " "	9
inorganic bromide	" " " " "	9
lindane	" " " " "	9
malathion	" " " " "	9
parathion-methyl	" J.M. Monographs 1972, page 488	8
piperonyl butoxide	" " " 1972, " 532	9
pyrethrins	" " " 1972, " 546	9

2.2 Comments were Received from:

- Canada
- Federal Republic of Germany
- International Union of Pure and Applied Chemistry, Pesticide Section
- Netherlands
- New Zealand
- Poland
- Sweden
- Switzerland
- United Kingdom
- United States of America

2.3 List of References to Suitable Methods of Analysis ^{1/}

(This list supersedes the previous list given in Appendix IX of ALINORM 72/24A).

2.3.1 Organochlorine Pesticides

(aldrin/dieldrin, chlordane, DDT-complex, endosulfan, heptachlor/heptachlor epoxide and lindane).

General Methods and Techniques

- (a) Official Methods of Analysis of the AOAC, 11th edition (1970), 29.001 and further paragraphs;
- (b) J. Ass. Off. Anal. Chem., 54, 470 (1971);
- (c) J. Ass. Off. Anal. Chem., 55, 428 (1972);
- (d) U.S. Food and Drug Administration, Pesticide Analytical Manual, Section 211.14 and further paragraphs;
- (e) Canadian Department of National Health and Welfare, Analytical Methods for Pesticide Residues in Foods, Queen's Printers, Ottawa (1973);
- (f) De Faubert-Maunder, M.J. et. al., Analyst, 89, 168 (1964);
- (g) Holden, A.V. and Marsden, K., J. Chromat., 44, 481 (1969);
- (h) Mills, P.A. et. al., J. Ass. Off. Anal. Chem., 55, 39 (1972);
- (i) Porter, M.L. and Burke, J.A., J. Ass. Off. Anal. Chem., 56, 733 (1973);
- (j) Wood, N.F., Analyst, 94, 399 (1969).

Other Methods

Special recommendations for the efficiency of the GLC separation and a uniform quantitation procedure for chlordane are given in:

- (k) Comptes Rendues of the 27th IUPAC Conference (Munich, August 1973), Meeting of the Commission on Pesticide Residue Analysis, Appendix II A);
- (l) Criteria document for chlordane, National Research Council of Canada, Associate Committee on Scientific Criteria for Environmental Quality (1974).

2.3.2 Organophosphorous Pesticides

(crufomate, diazinon, dichlorvos, dimethoate/omethoate, dioxathion, ethion, fenchlorfos, malathion and parathion-methyl).

General Methods and Techniques

- (a) Official Methods of Analysis of the AOAC, 11th edition (1970), 29.001 and further paragraphs for diazinon, ethion, fenchlorfos, malathion and parathion-methyl;
- (b) *ibid.*, 29.028 and further paragraphs for diazinon, ethion, malathion and parathion-methyl, extended to further crops in;
- (c) J. Ass. Off. Anal. Chem., 54, 470 (1971);
- (d) Canadian Department of National Health and Welfare, l.c.;
- (e) Abbott, D. et. al., Pestic. Sci., 1, 10 (1970) for diazinon, dioxathion, ethion, fenchlorfos and parathion-methyl;
- (f) McLeod, H.A. and Wales, P.G., J. Agr. Fd. Chem., 20, 624 (1972) for fatty samples especially;
- (g) Mills, P.A. et. al., J. Ass. Off. Anal. Chem., 55, 39 (1972).

Other Methods

For crufomate:

- (h) Rice, J.R. and Dishburger, H.J., Dow Co. ACR 70.4 (1970);

Remark: The Working Group feels that analytical methods for Codex purposes should be published.

For diazinon and diazoxon:

- (i) Machin, A.F. and Quick, M.P., Analyst, 94, 221 (1969), for animal products especially;

For dichlorvos and malathion in grain:

- (j) Report of the UK collaborative panel on dichlorvos and malathion in grain, Analyst, 98, 19 (1973);

^{1/} Subject to editorial revision.

For dichlorvos:

- (k) Dale, , et. al., J. Agr. Fd. Chem., 21, 858 (1973);
- (l) Dräger, G., Pfl. Schutz-Nachr. Bayer, 21, 377 (1968);
- (m) Elgar, K.E., Marlow, R.G. and Mathews, B.L., Analyst, 95, 875 (1970);

For dimethoate/omethoate:

- (n) Steller, W.A. and Pasarella, N.R., J. Ass. Off. Anal. Chem., 55, 1280 (1972).

2.3.3 Other Pesticides (special methods only)

For carbaryl:

- (a) Official Methods of Analysis of the AOAC, 11th edition (1970), 29.066 and further;

Remark: This method is adequate only at relatively high tolerance levels (order of 1 ppm).

For chlorobenzilate:

- (b) U.S. Food and Drug Administration, Pesticide Analytical Manual, Vol. II, Section 120.128;

For diphenyl:

- (c) Official Methods of Analysis of the AOAC, 11th edition, (1970), 29.048 (U.V. method);
- (d) Beernaert, J., J. Chromat., 77, 331 (1973) (GLC method);
- (e) Vogel, J. and Deshusses, J., Mitt. Gebiet Lebensm. Hyg., 56, (1965) (GLC method);

For hydrogen cyanide:

- (f) U.S. Food and Drug Administration, Pesticide Analytical Manual, Vol. II, Section 120.130;

Remark: This method is adequate only at relatively high tolerance levels (order of 5 ppm).

For hydrogen phosphide:

- (g) Bruce, R.B., Robbins, A.J. and Tuft, T.O., Agr. Fd. Chem., 10, 18 (1962);

Remark: This reference is given for information only as validation is considered desirable.

For inorganic bromide:

- (h) Mapes, D.A. and Shrader, S.A., J. Ass. Off. Agr. Chem., 40, 189 (1957);

Remark: This method determines total bromide content and does not distinguish between bromide ion ("inorganic bromide") and unspecified organic bromide present; it also determines as bromide any iodide present. Moreover, this method is adequate only at relatively high tolerance levels (order of 5 ppm). Reference is made to the work of:

- (i) Heuser, S.G. and Scudamore, K.A., J. Sci. Fd. Agric., 20, 566 (1969) and Pestic. Sci., 1, 244 (1970) for simultaneously determining both inorganic bromide and any methylbromide or ethylene dibromide present;

For piperonyl butoxide:

- (j) Official Methods of Analysis of the AOAC, 11th edition (1970), 29.145 and further paragraphs;

For pyrethrins:

- (k) U.S. Food and Drug Administration, Pesticide Analytical Manual, Vol. II, Section 120.128.

APPENDIX V

ITEMS FOR CONSIDERATION BY A PROPOSED JOINT FAO/WHO CONFERENCE ON PESTICIDES

1. Review of FAO and WHO pest control, pesticide and pesticide residue programmes:
 - (a) Review of past history and accomplishment of these programmes.
 - (b) Review of their present status and plans.
 - (c) Review of future plans (both short and long range).
 - (d) Consideration of need or otherwise to strengthen the existing FAO and WHO Programmes in the field of pesticide residues (funding and staffing).
 2. Consideration of the working relationship between the Joint Meeting on Pesticide Residues and the Codex Committee on Pesticide Residues.
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