

# codex alimentarius commission

FOOD AND AGRICULTURE  
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OF THE UNITED NATIONS

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CODEX ALIMENTARIUS COMMISSION

Fourteenth Session, 1981

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

Amendments proposed to Recommended International Maximum Residue Limits have been included in Appendix VI to this Report. Maximum residue limits at Steps 3, 4, 6 and 7 of the Codex Procedure will be included in working paper CX/PR 81/2, to be distributed during 1980, while those at Steps 5 and 8 will be distributed in due course as an ALINORM document

The Hague  
2-9 June 1980

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

The Hague, 2-9 June 1980

INTRODUCTION

1. The Codex Committee on Pesticide Residues held its 12th Session in The Hague, The Netherlands, from 2 - 9 June 1980. Mr. A.J. Pieters, Public Health Officer of the Ministry of Health and Environmental Protection, Foodstuffs Division, acted as Chairman. The session was attended by government delegates, experts, observers and advisers from the following 38 countries:

Argentina	Mexico
Australia	Netherlands, The
Austria	New Zealand
Belgium	Nigeria
Brazil	Norway
Canada	Poland
Chile	Portugal
Czechoslovakia	Romania
Denmark	South Africa, Republic of (observer)
Egypt, Arab.Republic of	
Finland	Spain
France	Sweden
Germany, Federal Republic of	Switzerland
Greece	Tanzania, United Rep. of
Hungary	Thailand
India	United Kingdom
Ireland	United States of America
Israel	Venezuela
Ivory Coast	Yugoslavia
Japan	

The following International Organizations were also represented:

Council of Europe (CE)

European Economic Community (EEC)

International Federation of Margarine Associations (IFMA)

International Federation of National Associations of  
Pesticide Manufacturers (GIFAP)

International Organization for Standardization (ISO)

International Union of Pure and Applied Chemistry (IUPAC)

The list of participants, including officers from FAO  
and WHO, is attached as Appendix I to this Report.

OPENING SPEECH BY THE MINISTER OF HEALTH AND ENVIRONMENTAL  
PROTECTION

2. The Twelfth Session was opened by Dr. L. Ginjaar, Minister of Health and Environmental Protection of the Netherlands. He welcomed the participants and referred to the increased general awareness of the risks connected with the use of chemicals which has led to the development of extensive legislation on toxic substances in many countries. Recent events in The Netherlands, as well as in other countries, have once again confirmed the importance of strict legislation and control. The Minister referred to the spread of pollution over large regions which cross national frontiers, and to the interdependency of countries for their food supply, creating a need for international harmonization of regulations relating to food. Pesticides, although belonging to the group of hazardous chemicals, occupy a special place, as reflected by the fact that they were among the first substances subject to legislation in many countries, and also the first to receive public attention. The Minister emphasized that pesticides are essential in maintaining man's food supply despite the uncertainties of nature. This recognition implies that the use of pesticides must, to a certain extent, be accepted. This situation forces the responsible authorities to decide whether, and at what levels, residues of pesticides should be accepted in food.

A growing awareness of the potential influence of pesticides on the environment in general contributes to the complexity of the problems to which answers are needed.

The Minister drew attention to the important contributions of international organizations in assisting governments to arrive at balanced conclusions in the field of chemical regulation and, at the same time, in harmonizing them internationally.

This is of special importance in the area of pesticides. He then outlined briefly the development of the Joint Meeting on Pesticide Residues and of the Codex Committee on Pesticide Residues and pointed out that these two bodies have learned to work together with an efficient distribution of responsibilities and tasks. This effective symbiosis between the two organizations should not be disturbed.

It is clear from the increasing number of countries participating in the work of the CCPR that governments are well aware of the importance of the Joint FAO/WHO Food Standards Programme and of the support this programme can give to them in the field of pesticides.

The formation of a working party of developing countries within the CCPR indicates the growing importance these countries attribute to the CCPR as a forum for their special problems.

During the session of the Codex Alimentarius Commission last December, many delegations objected to a limitation of the frequency of the sessions of the Codex Committee on Food Additives and of the Codex Committee on Pesticide Residues which had been proposed because of a shortage of staff and other budgetary limitations.

Dr. Ginjaar assured the meeting that the government of The Netherlands, in spite of the budgetary limitations, which are being experienced here, as elsewhere, was fully prepared to host both general subject committees in the future.

The Minister recalled that during the 11th Session concern had been expressed about the influence that WHO's International Programme on Chemical Safety might have on the functioning of the JMPR and, as a result, on the CCPR. This same question was discussed at length during the last session of the Codex Alimentarius Commission in Rome, where the importance of an undisturbed continuation of these activities was stressed. The reassurances given by WHO in Rome were apparently not sufficient to put an end to discussions of this subject, as has become clear during preparations for this session of the CCPR.

Dr. Ginjaar emphasized the important role of the different UN agencies, such as the Food and Agriculture Organization, the International Labour Organization and the United Nations Environmental Programme, especially through its International Register on Potentially Toxic Chemicals (IRPTC). He expressed the opinion that WHO could fulfil a very important role in collecting data, supplying expert knowledge, and harmonizing legislation in the field of chemical safety.

One should also recognize the central coordinating role of WHO in the global Chemical Safety Programme. In fulfilling this task, WHO should acknowledge and use to the fullest extent possible the work carried out by already existing international joint undertakings such as the JMPR. Only by meaningful use of available experience and results would WHO succeed in implementing the Chemical Safety Programme in an expeditious and efficient manner.

The Minister expressed the opinion that the work of the JMPR could be of even greater value if it were integrated into a programme in which not only residue aspects of pesticides but also other environmental factors and safety of workers would be evaluated.

Dr. Ginjaar wished the Committee a successful meeting, noting that it faced a heavy agenda.

3. The Chairman thanked the Minister for taking the time to open the session of the CCPR himself, a reflection of his special interest in the work of the CCPR. He joined the Minister in his wish for a successful outcome of the Session.

#### ADOPTION OF THE AGENDA

4. The Committee agreed to the adoption of the agenda with one addition.



APPOINTMENT OF RAPORTEURS

5. Ms. J.M. Stalker (Canada), Mr. M. Hascoët (France) and Prof. E. Astolfi (Argentina) were appointed to act as rapporteurs to the Committee.

MATTERS OF INTEREST TO THE CODEX COMMITTEE ON PESTICIDE RESIDUES

Report of the 1979 Joint Meeting on Pesticide Residues (JMPR)

6. The Committee had before it the Report of the 1979 Joint Meeting on Pesticide Residues (FAO Plant Production and Protection Paper 20). Several delegations congratulated FAO for publishing this report in time for the session of the CCPR. The delegate of FAO asked for suggestions to further improve these reports. It was suggested that, in order to avoid delays, a photocopied reproduction of the Draft Report should, if necessary, be distributed. The representative of FAO agreed to look into this matter.

Matters arising from the 13th Session of the Commission

(a) Procedure for the Elaboration of Codex MRLs

7. The Committee noted that the Commission had amended the Procedure for the elaboration of Codex MRLs to include reference to the submission of economic impact statements (paras 39-41, ALINORM 79/38).

(b) International programme on chemical safety (IPCS)

8. Several delegations expressed different concerns regarding the WHO IPCS referred to in the report of the thirteenth session of the Codex Alimentarius Commission (ALINORM 79/38).

The delegation of the United States of America expressed concern about the future status of the JMPR and whether its work might be adversely affected by the WHO's establishment of an International Programme on Chemical Safety and asked for an assurance that the JMPR would continue unchanged its scope, selection and procedure. The delegation of The Netherlands asked also for an absolute assurance in this regard. The delegation of Canada expressed concern regarding the possible dilution of the activities of the JMPR should this programme be integrated into evaluation of chemicals other than pesticides. The delegation of the United Kingdom asked for an unequivocal statement from the WHO that this would not occur.

The delegation of Australia raised the question of confidentiality of and proprietary rights to data if the existing procedure of the JMPR were modified as indicated in the document (EB 63/20, Nov. 1978). The delegation of the Federal Republic of Germany expressed the wish to have longer sessions at the JMPR instead of having several sessions each year, in view of the shortage of suitable experts in this field. The WHO representative, in answering questions raised by the delegations, made reference to the recommendations of the First Meeting of the IPCS Programme Advisory Committee (PAC) which met in Research Triangle Park, North Carolina, USA, from 9 to 11 April 1980. The PAC had recommended that a) full and continuing support be given to the on-going activities of the Joint FAO/WHO Meetings on Pesticide Residues in Food, and b) the system of international evaluation developed by the WHO Expert Committees should be rigorously maintained by WHO management.

Evaluating Committees should be coordinated and provided with adequate secretariat support from the Central Unit of the IPCS. With regard to the question of the continuation of the JMPR, the WHO representative assured the CCPR that, for 1980/81, provisions had been made in the WHO regular budget to this end. It was expected that provision for JMPR would continue to be made in the future, subject to the approval of the World Health Assembly.

As regards the issue of confidentiality of data and longer sessions, the representative of WHO explained that these problems would be discussed thoroughly at the forthcoming session of the Technical Committee of the IPCS, which will meet in Geneva in July, 1980.

9. The representative of FAO confirmed that it was FAO's intention that the Joint FAO/WHO Programmes on Pesticide Residues, Food Additives and Codex Alimentarius would continue as before, except that they should be strengthened as a result of the setting up of the IPCS. He indicated that FAO had not signed the WHO/ILO/UNEP inter-agency memorandum on the IPCS. There were, however, no areas of difficulty among the agencies concerning the existing Joint FAO/WHO activities and programmes concerning food. Regarding the proposed activities of IPCS relating to non-human targets, an inter-agency secretariat meeting was to be held in Rome (June 1980) at which FAO would consider its possible involvement with WHO, ILO and UNEP in these aspects of the IPCS.

FAO welcomed the efforts of WHO at securing extra budgetary funds through IPCS to strengthen the work of JMPR, JECFA and the Codex Programme which would also require consequential strengthening so that it could keep pace with the additional work load resulting from the increased activities of the JMPR and JECFA. Meanwhile it was FAO's intention to continue to include provision in its budgetary estimates for future biennia for JMPR and JECFA, subject to the approval of the Organization's governing bodies.

(c) Consideration of the establishment of Codex maximum levels for environmental and industrial pollutants in food

10. The Commission at its thirteenth session had before it a paper (ALINORM 79/9) concerning this subject, prepared by Dr. E. Turtle as an FAO consultant. The Commission decided to circulate paper ALINORM 79/9 to governments for comments and to request the CCPR and the Codex Committee on Food Additives to express their opinion concerning this matter.

11. Comments received from governments had been reproduced in documents CX/PR 80/4-Add.1 and 2 and in room document 3. Several delegations congratulated Dr. Turtle for his excellent work, which clarified the subject through three case studies. After discussion, it was concluded that the Committee was the appropriate forum for consideration of contaminants showing chemical or other similarity to pesticides and that the Commission be advised accordingly. Such contaminants would follow the same procedure as pesticides, including establishment of priorities.

12. The data to be generated for contaminants would be of a different nature from those for pesticides, as good agricultural practice may not apply to contaminants; monitoring would be an important element. The word "contaminant" was preferred to "environmental pollutant".

13. If the Committee assumes this additional responsibility, additional supporting facilities will be needed, and its terms of reference will require amendment by the Commission (See para 16).

(d) Tobacco

14. The Committee noted that the Commission had confirmed that it was not within its terms of reference to establish MRLs for tobacco (para 233, ALINORM 79/38).

(e) Resolution

15. The Committee was informed that the Commission had noted with approval the resolution adopted by the 11th session of the CCPR, which appears as Appendix II to ALINORM 79/24-A.

(f) Animal feeds

16. The Committee noted that the Commission had confirmed that it was within the terms of reference of the CCPR to consider pesticide residues in animal feeds in so far as they might result in residues in foods of animal origin, and had requested that the terms of reference of the Committee be brought up to date in this respect. Following a discussion of a proposal by the Secretariat, the Committee adopted the following suggestion concerning the terms of reference to go to the Commission, noting that there may be a need to make further changes following a decision by the Commission concerning environmental contaminants:

- (i) to establish maximum limits for pesticide residues in specific food items or in groups of food;
- (ii) to establish maximum limits for pesticide residues in certain animal feeding stuffs moving in international trade where this is justified for reasons of protection of human health;
- (iii) to prepare priority lists of pesticides for evaluation by the Joint FAO/WHO Meeting on Pesticide Residues (JMPR);
- (iv) to consider methods of sampling and analysis for the determination of pesticide residues in food and feed; and
- (v) to consider other matters in relation to the safety of food and feed containing pesticide residues.

Matters arising from Codex Committees Sessions

17. The Committee noted that the Codex Committee on Methods of Analysis and Sampling (CCMAS) and the Commission had adopted new definitions for, and a classification of, Codex methods of analysis as well as criteria for their selection. The Committee agreed that the conclusions of the CCMAS regarding Codex methods of analysis should be referred to the ad hoc Working Group on Methods of Analysis for consideration (see para 8 of Appendix II).

18. The CCMAS was expected to discuss the role and definitions of Codex methods of sampling at its next session.

STATEMENT OF THE REPRESENTATIVE OF THE COUNCIL OF EUROPE

19. The Committee was informed that the Committee of Experts on Pesticides of the Council of Europe (Partial Agreement) had finished the revision of the "Pesticides" booklet. The 5th edition was to be published before the end of 1980. It was addressed not only to manufacturers, but also to farmers and other users of pesticides, and could be a valuable reference for authorities concerned with the marketing and use of pesticides.

The booklet carried several new chapters, including:

- recommendations concerning the registration of biological agents used as pesticides;
- efficacy of pesticides.

20. The Committee was also informed about the completion of three draft resolutions, concerning:

- pesticides for household use
- risks of contamination of animal products for human consumption which may result from pesticide residues in feeding-stuffs intended for livestock;
- disposal of surplus pesticides and pesticide containers.

REPORT ON ACCEPTANCES OF RECOMMENDED INTERNATIONAL MAXIMUM LIMITS FOR PESTICIDE RESIDUES

21. The Committee had before it CX/PR 80/4 part II, listing notifications of acceptances received to 29 February and a list of countries which had notified the Secretariat of the situation with regard to acceptances. The Committee was informed that the following countries should be added to the list: Australia, Korea, Libya, Malawi, New Zealand, Nigeria, Switzerland and Zambia.

22. The Committee was reminded that, in addition to full acceptance, target acceptance, and acceptance with specified deviations, countries should be encouraged to recognize that, even where specific types of acceptance cannot be given,

products conforming to Codex MRLs should be allowed to circulate freely within the country's territorial jurisdiction. The delegations of Hungary, Sweden, Finland and Spain informed the Committee verbally of the current situation with regard to acceptances in their countries.

23. The Committee noted that the large majority of replying countries had reacted positively to acceptances and urged more countries to inform the Secretariat on their position to further the harmonization of international MRLs.

#### DEFINITION AND CLASSIFICATION OF FOODS AND FEEDS

24. The Committee had before it documents CX/PR 80/5, 6 and 7 and documents prepared for the previous session CX/PR 79/15 and 15 Add I. It also had before it comments from the USA (CX/PR 80/5 Add I and CX/PR 80/6 Add I) and from countries distributed during the session.

#### Raw foods

25. After discussion of the comments of governments and the suggestions of the Secretariat, the Committee agreed that the classification of raw food products was in a sufficiently advanced state for use by the CCPR and the JMPR. However, governments were requested to send any comments to the Codex Secretariat so that the various lists of foods could be kept up-to-date.

26. The Committee agreed that the establishment of MRLs for groups of food, should continue to be approached on an ad hoc basis. The Committee noted the various considerations listed by the Secretariat in relation to the establishment of "Group MRLs". As to whether such Group Codex MRLs applied only to the foods listed in the Codex classification, or whether "Group MRLs" covered also foods not included in the respective Codex lists, the Committee favoured the former interpretation. It would be open to the Committee at any time to consider changing the list of foods covered by the Group MRL.

Processed Foods

27. The Committee considered a proposal of the Secretariat of the JMPR and Codex for the definition and classification of processed foods and criteria for the establishment of MRLs for such foods.

28. The Committee agreed that, as a matter of principle, MRLs should not be established for processed foods unless there were pressing considerations for their establishment. It was noted that the proposal of the Secretariat reflected the approach followed by the JMPR over the years. In this respect the attention of the Committee was drawn to para 2.9 of the Report of the 1977 JMPR which addressed the question of MRLs for processed foods. It decided that the conclusions of the JMPR and those of the Secretariat should be used in developing guidelines on how processed foods should be handled in relation to pesticide residues. (see paras 148, 185). The delegation of Australia and the USA undertook to prepare such guidelines during this session, for consideration by the Committee.

29. The Committee agreed that the definition and classification of processed foods developed by the Secretariat should be introduced into the next issue of the "Guide to Maximum Limits for Pesticide Residues".

30. With respect to the question of the guidelines mentioned above (i.e. under what conditions should specific MRLs be developed and how should processed foods not covered by specific MRLs be handled) the Committee considered the proposals of the USA and Australia.

31. The text of the Guidelines adopted by the Committee is as follows:



- a) For the purpose of establishing and enforcing maximum residue limits, raw agricultural commodities include, among other things, fresh fruits, whether or not they have been washed, waxed or otherwise treated in their unpeeled or natural form; vegetables in their raw or natural state, whether or not they have been stripped of their outer leaves, washed, waxed or otherwise treated in their unpeeled form, cereal grains, nuts, eggs, raw whole milk, meats and similar agricultural produce. The Classification and Definition of Processed Foods is set out in Appendix I to document CX/PR 80/6.
- b) Whilst the definition of raw agricultural commodities does not include foods that have been processed, fabricated or manufactured, e.g., by cooking, freezing, dehydrating or milling, maximum residue limits should also be recommended for some partly processed commodities such as milled cereal products and vegetables and animal fats, which are important items of international trade.
- c) As processing and cooking generally remove or destroy a substantial amount of the residue present on the raw commodity, for most processed foods the MRL for the raw agricultural commodity applies also to the processed food derived from that specific commodity, provided residues have been removed to the extent possible during processing, and provided residues in the processed food do not exceed that in the equivalent weight of the raw agricultural commodity. In the event residues are greater in the processed food than in the raw agricultural commodity from which it is derived, a separate MRL should be considered for the processed food.
- d) In addition there are a number of situations where special consideration may be needed:
  - (i) when the processed food represents the sole or major food intake of infants and young children;
  - (ii) when toxic interaction or degradation products from pesticides are found in the food during or after processing;
  - (iii) when a significant residue results from a pesticide used in processing or storage practice (including impregnation of wrapping materials).

DEFINITION OF ANIMAL FEEDINGSTUFFS

32. The Committee had requested governments to comment on the above definition which had been prepared by a small Working Group during the eleventh session (see ALINORM 79/24-A/Appendix III).

The Committee noted that the government of New Zealand had replied indicating its agreement to the definition and that the government of The Netherlands had proposed an amended definition which included "by-products of industrial food processing of vegetable origin and products of animal origin which are not suitable or are not used for human consumption".

33. After some discussion, the Committee agreed with the principle that products of animal origin should be included and that, in order to assist the JMPR in considering future MRLs, countries should be requested to provide lists of "animal feedingstuffs" and volume which move in international trade.

34. The definition accepted by the Committee is as follows:

"For the purposes of the Codex Alimentarius, the term "Animal feedingstuffs" means:

- harvested fodder crops and
- by-products of crops and products of animal origin, which are not used for human consumption and which are marketed as such for animal feeding."

INTAKE OF PESTICIDE RESIDUES

(a) Guidelines for the design of pesticide residue and food contaminant intake studies

35. The Committee was informed that "Guidelines for Estimation of Food Contaminants Intake" had been developed jointly by WHO, FAO and UNEP and that these guidelines would be published in due course. The guidelines might be of great importance to the Committee. As their publication was expected before the end of 1980, the Committee decided not to take action at this moment, and to consider them at its next session.

(b) Reports on pesticide residue intake studies in various countries

36. The Committee had before it document CX/PR 80/9 containing a summary of the results of national intake studies in Canada, the United Kingdom and the United States of America and a document summarizing the results of total diet and market basket studies in Australia over the period 1970-1980.

37. These studies showed that total diet and market basket studies carried out in the different countries mentioned indicated that in all cases examined pesticide residue intake was below the ADI and safe from a health point of view. It was emphasized however, that these studies did not permit conclusions to be drawn for those countries where surveys had not yet been carried out. The delegation of Brazil informed the Committee that some monitoring programmes are underway, but no total intake studies.

The delegation of the United Kingdom informed the Committee that a new total diet study was underway in their country, and that results would be made available to the Committee in due course. A centralized structure had been created in their country to provide for more efficient surveys.

Levels of dieldrin in meat and meat products found in surveys in the United Kingdom, although below the ADI had not decreased to the same extent as some other organochlorine residues, although most uses in agriculture had been abandoned. Studies were currently underway to elucidate this situation. It was likely that the main reasons had to be sought in certain industrial uses (mothproofing and wood preservation). All delegations were invited to submit the results of intake studies in their countries to the Committee as this information was considered extremely useful.

#### CONSIDERATION OF AMENDMENTS TO STEP 9 MAXIMUM RESIDUE LIMITS

##### Changes proposed at the 1979 Joint FAO/WHO meetings on pesticide residues to Step 9 maximum residue limits

38. The Committee had before it document CX/PR 80/11, listing the changes proposed by the 1979 JMPR to MRLs at Step 9. The changes proposed for fenitrothion in wheat bran, for inorganic bromide in raw cereals, for methidathion in citrus fruit except mandarins, and for thiometon were not considered substantive.

The Committee requested the Commission to endorse these changes. The proposed changes for thiophanate-methyl and dichlofluanid were also not considered to be substantive. Governments were requested to comment on the new proposals with the view of recommending at the next session that the Commission be requested to endorse the amendments to the existing MRLs at Step 9.

39. The changes proposed for fenitrothion in wheat flour (white), for methidathion on mandarins, for demeton-S-methyl in various animal feeds and for thiabendazole on tomatoes were considered substantive.

Governments were requested to comment on these changes before the next Committee session.

The change proposed for inorganic bromide in whole meal flour was considered. It was decided not to adopt this proposed change. (See para. 53 concerning the proposed deletion of MRL for carbaryl in rice in the husk).

It was recommended that the Secretariat be instructed not to include in the next series of recommended international maximum limits the existing MRLs at Step 9 for demeton-S-methyl in various animal feeds.

The various changes proposed to Step 9 MRLs are summarized in Appendix VI to this report.

#### INORGANIC BROMIDE

40. The delegation of Switzerland drew the attention of the Committee to inorganic bromide. Toxicological research was being carried out in The Netherlands which indicated that the ADI for inorganic bromide seemed too high. The delegation of The Netherlands promised to make these studies available to the Joint Meeting as soon as they were completed. They also indicated that actual residues of bromide in certain vegetables as a result of the use of methyl bromide were often very high.

The delegation of WHO welcomed any new data on this compound. In the meantime the existing ADI remained valid.

#### CONSIDERATION OF CODEX MAXIMUM RESIDUE LIMITS AT STEP 4 AND 7 IN THE LIGHT OF GOVERNMENT COMMENTS

41. The Committee had before it the following documents:
- (a) The Draft-Guide to Codex Maximum Limits for Pesticide Residues, CAC/PR2-1980, summarizing all maximum residue limits recommended up to the 1979 JMPR and including amendments by the 1979 JMPR, and indicating their status in Codex Procedure;
  - (b) The summary of written comments received prior to the Committee's session, CX/PR 80/10 - CX/PR 80/12 and room documents 6, 7, 11 and 12.

42. The Chairman, introducing this agenda item, stressed the importance of indicating at these stages whether the proposals would be acceptable when reaching Step 9 of the procedure. In doing so, it was necessary for countries to give the reasons for their opinion, and to bring supporting data in case of disagreement.

43. The delegation of Japan outlined the system in their country for the elaboration of standards and maximum residue limits. These were established for the purpose of avoiding possible hazard to humans, livestock and the environment. It had not yet been decided to accept or implement Codex MRLs for pesticides not registered in their country.

#### DISCUSSION OF SPECIFIC RECOMMENDATIONS

44. The following paragraphs reflect the discussions concerning individual maximum residue limits. The proposals referred to are those, on which discussion took place. Where no special indication is made, proposals were advanced from Step 4 to Step 5 or from Step 7 to Step 8, as appropriate. Maximum residue limits submitted to Governments at Steps 3 and 6 of the Procedure and those held at Steps 4 and 7 will be included in a working document for the 13<sup>th</sup> Session of the CCPR and distributed to governments during the middle of 1980. Maximum residue limits submitted to the Commission at Steps 5 and 8 will be published separately in due course.

#### BROMOPHOS (No. 4)

##### Blackberries

45. As there was a mistake in CL 1979/42 governments had not had an opportunity to comment on the proposal for blackberries. Consequently the proposal was returned to Step 3.

##### Bran

46. It was brought to the attention of the Committee that the proposal refers to the unprocessed wheat bran only. It was agreed that, as a general rule, the term "bran" without further specification referred to the raw product. The proposal was at Step 4 and not at Step 7 as erroneously mentioned in CAC/PR 2-1980.

#### Wheat bran, Raw cereals, White bread, White flour, and Wholemeal bread

47. The delegations of France, The Netherlands, Hungary and the Federal Republic of Germany were of the opinion that the use of bromophos for a post-harvest treatment could not be considered as good agricultural practice, because of the

persistence of the compound during processing. The delegation of Australia explained however, that insecticides such as bromophos are required in tropical countries to protect cereals because there are no other methods available to protect stored grains against insects. Strains of stored product pests have developed resistance to important fumigants. Liquid grain fumigants are receiving increasing attention because of alleged toxicological problems, which might result in their prohibition.

The Committee decided to advance the proposal for bran to Step 5 and the other proposals to Step 8 of the procedure.

#### BROMOPHOS-ETHYL (No. 5)

##### Maize (kernels and fodder)

48. The delegation of The Netherlands pointed out that the classification number designates only maize (kernels). The Secretariat was asked to clarify this situation, and the proposal was advanced to Step 8.

#### CAPTAFOL (No. 6)

##### Peanut hulls, Peanut kernels, Peanuts (whole)

49. At the suggestion of the delegation of The Netherlands it was decided to delete the item peanut hulls, which are not important in international trade. The suggestion of the Secretariat to have only one MRL for peanuts was not accepted by the Committee. It was decided to advance the proposals for peanut kernels and peanuts (whole) to Step 8 of the procedure. The Secretariat was asked to establish separate classification numbers.

#### CAPTAN (No. 7)

##### Cherries

50. As the Canadian delegation had already sent residue data to be considered by the 1980 JMPR, it was decided to hold this proposal at Step 7.

Potatoes

51. The delegations of the United States and Australia pointed out that the post-harvest use of captan on potatoes could give rise to residues up to 25 mg/kg. They promised to make data available to the JMPR. The proposal was advanced to Step 5.

CARBARYL (No. 8)

Barley, Bran, Wheat, Oats, Rice in husk and Hulled,  
Wheat flour (white) and Whole meal flour

52. The delegations of The Netherlands, the Federal Republic of Germany, Denmark and Switzerland expressed reservations about the proposed limits. The delegation of Australia pointed out that post-harvest use of carbaryl on grains is virtually essential in non-temperate climates, to control those species that are tolerant to organophosphorus compounds and that studies have shown that residues are largely dissipated during processing. The proposals were advanced to Step 8.

Rice in the husk

53. As there is a new proposal for rice in the husk and hulled, the proposal for rice in the husk which was mentioned in CAC/PR 2 - 1980 could be deleted.

CARBOPHENOTHION (No. 11)

54. As governments had not yet had an opportunity to comment on the proposals in the light of the Report of the 1979 JMPR, these were returned to Step 6 of the Procedure.

CHLORDANE (No. 12)

55. The Committee decided to hold the proposals at Step 7, awaiting the outcome of discussions at the 1980 JMPR on the basis of information on actual use patterns provided by governments (See also para 138).



CHLORDIMEFORM (No. 13)

Pig, carcass meat, Poultry, Sheep, carcass meat

56. It was noted that the proposed MRLs should read 0.05 mg/kg, being at the limit of detection. It was decided to advance proposals to Step 5, recommending that Steps 6 and 7 be omitted.

CHLOROBENZILATE (No. 16)

Apples, Grapes, Milk (whole) and Tomato

57. As the 1980 JMPR is to consider the proposals on the basis of data to be provided by the United States of America, it was decided to keep them at Step 7. After re-evaluation, governments will have a new opportunity to comment.

CHLORPYRIFOS (No. 17)

Milk and Milk products

58. The Committee, in advancing the proposals to Step 5, recommended that Steps 6 and 7 be omitted.

2,4-D (No. 20)

Blackberries, Raspberries and Vaccinium Berries  
(e.g. Lingonberries, bilberries)

59. Several delegations were of the opinion that the proposals were too high. The delegation of Sweden informed the Committee that in their country the use of 2,4-D in forests has been suspended for one year to permit re-evaluation. This action has been taken on the basis of toxicological information, referred to the following publications: L. Hardell, Malignant Mesenchymal Tumours and Exposure to Phenoxy Acids- A Clinical Observation, Läkartidningen 74 2753-2754 (1977); L. Hardell, Malignant lymphoma of histiocytic type and exposure to phenoxy acetic acids or chlorophenols, Lancet 1 55-56 (1979).

The Committee decided to keep the proposals, which had been based on data provided by Sweden, at Step 7 of the procedure pending a conclusion on the future use of the compound in Forests in Sweden.

Fruit, vegetables

60. The 1978 JMPR had proposed amended MRLs for these commodities on the basis of replies to the questionnaire, sent to governments a few years ago. Many countries had discontinued the use of this compound, but it had to be recognized that the use on certain fruits and vegetables was still considered Good Agricultural Practice in various countries, especially in tropical climates.

Several delegations indicated that extensive surveys on imported food in their countries had shown that, with one or two exceptions, residues never exceeded 1 mg/kg and were declining with time. It was stated that, although in general proposals had to be based on data from supervised trials, in this case extensive monitoring data could be a basis for internationally acceptable MRLs.

After a long discussion, the Committee decided to agree to an Australian proposal to amend the figures to 1 mg/kg and to advance it to Step 5 as a temporary MRL. On a proposal from The Netherlands, it was agreed that grapes should be kept at 2 mg/kg and advanced to Step 5 as a temporary MRL. This temporary character was to indicate that a review of the figure was necessary on the basis of data on Good Agricultural Practice and on monitoring data, which countries were urged to provide.

Cereals (raw)

61. On the basis of extensive monitoring, it was decided to agree to an Australian proposal to amend the figure to 0.1 mg/kg as a temporary ERL. The temporary character, as for fruits and vegetables, was to indicate the necessity of a review of the figure on the basis of data which countries were strongly requested to provide.

62. On a question of the delegation of Switzerland regarding the treatment of values outside the normal "statistical" distribution (outliers), the delegate of FAO replied that it was difficult to apply the needed statistics to the data since this would require far more results than were

usually available. However, obvious outliers were eliminated when proposing MRLs.

Milk products

63. The Committee decided to advance the MRL to Step 5 and recommend to the Commission that Steps 6 and 7 of the Procedure be omitted.

DIMETHOATE (No. 27) FORMOTHION (No. 42) OMETHOATE (No. 55)

64. As a result of requests at previous sessions, the JMPR had studied these three compounds together and made recommendations which took into account the fact that dimethoate was a metabolite of formothion and omethoate, in its turn, a metabolite of dimethoate. As the ADI of dimethoate was much higher than the temporary ADI for omethoate, several delegations expressed their concern about the inclusion of omethoate in the residue description of dimethoate.

When applying dimethoate, omethoate usually formed only a minor part of the residue (up to 25% in a few cases) and its presence was not of major toxicological importance. When applying omethoate alone, all of the residue would be in the parent form of this much more toxic compound, which was a reason for concern if levels up to the proposed limits occurred.

It was decided to refer the compounds to the JMPR with the aim of separating the proposals for these compounds in accordance with the general principles concerning the evaluation of metabolites reaffirmed by the 1979 JMPR Report (p. 7 C). From an analytical viewpoint, separate MRLs would not be a problem (See paras 109 and 110).

65. The representative of the WHO pointed to the temporary nature of the ADI for omethoate, indicating that the big difference between the ADI, for dimethoate and omethoate might diminish when the toxicity of omethoate was reviewed on the basis of new data required by the 1979 JMPR (see para. 109).

DIPHENYLAMINE (No. 30)

Apples

66. The Committee noted that the 1979 JMPR had changed the limit from 10 to 5 mg/kg. The proposal was advanced to Step 8 at the new limit.

DIQUAT (No. 31)

67. The Committee noted that there were some objections to the MRLs for grains and grain products. In the case of barley, it was noted that very little treated grain is used for human consumption; the proposal was advanced to Step 8. The MRLs for wheat and wheat flour were also advanced to Step 8, and those for wholemeal flour and wheat bran to Step 5, with a recommendation that Steps 6 and 7 be omitted. The limit for eggs was also advanced to Step 8.

ENDOSULFAN (No. 32)

Meat, Milk and Milk products

68. It was agreed that, since residues in meat, milk, and milk products can result from good agricultural practice in treatment of feed and forage crops, these limits should be considered MRLs rather than ERLs. Governments were again requested to respond to the questionnaire distributed as CL 1980/5, so that the JMPR can re-evaluate these proposals. The proposals were held at Step 7, pending the JMPR's re-evaluation. (Replies had been received from: Canada, Finland, New Zealand, Panama, Poland, Switzerland, UK, USA and Thailand).

FENITROTHION (No. 37)

69. The Committee returned the MRLs for peaches and pears to Step 6 so that Governments can have an opportunity to comment on the changes proposed by the 1979 JMPR. The term 'rice (milled)' was changed to 'rice (polished)' and advanced to Step 8. The delegation of the Netherlands expressed its reservations concerning the MRLs for fenitrothion.

FENTHION (No. 39)

70. The Committee agreed to retain the whole list at Step 7 for re-evaluation by the 1980 JMPR.

LINDANE (No. 48)

Tomatoes

71. As the 1979 JMPR decided to raise the proposal for tomatoes from 0.5 mg/kg to 2 mg/kg, governments had not yet had an opportunity to comment.

The Committee decided to return the proposal to Step 6.

Cocoa butter, Cocoa mass

72. The delegation of Switzerland stated that they would try to make data available to the JMPR to support a decrease of the MRLs. The proposals were advanced to Step 5.

The delegation of Switzerland expressed their opinion that alpha and beta HCH seemed to contaminate food in increasing amounts.

It was recalled that at the request of this Committee a questionnaire had been sent out in 1977 concerning the actual use of technical HCH. On the basis of answers received, the JMPR in 1978 strongly recommended that countries replace technical HCH by lindane or alternative pesticides whenever possible.

MALATHION (No. 49)

Bran of rye, Bran of wheat

73. After some discussion the Committee decided to modify the description so that it would refer to raw bran. The proposals were advanced to Step 8.

PARAQUAT (No. 57)

74. It was agreed by the Committee to replace, in general, the words "edible offal" by "meat by-products" and to send the proposals to Step 8. The group MRL for 'other food Commodities of plant origin' was considered too wide and was deleted. In connection with the MRLs for sunflower meal and sunflower oil the Committee decided to advance them to Step 5 and recommended that Steps 6 and 7 be omitted.

THIABENDAZOLE (No. 65)

Strawberries

75. The Committee noted that the 1979 JMPR had recommended a limit of 1 mg/kg and returned the proposal to Step 6.

TRICHLORFON (No. 66)

76. The Committee noted a proposal by the delegation of the USA to include, in addition to sheep carcass meat, sheep (meat by-products). It was agreed to forward the request to the JMPR. The USA agreed to find out if additional data is available.

As regards the MRLs advanced to Step 5, the Committee recommended that Step 6 and 7 be omitted.

CYHEXATIN (No. 67)

Beans, Peaches, Plums, Strawberries

77. The Canadian delegation noted that the limit on peaches is not sufficient to accommodate Good Agricultural Practice in Canada. Canada will arrange to have data submitted to the JMPR.

78. Several delegations suggested that the limits recommended for plums, strawberries and beans were too high. Limits for beans, peaches, plums and strawberries were returned to the JMPR for reconsideration. Proposals were advanced to Step 5.

DISULFOTON (No. 74)

Animal feeds

79. A number of delegations were of the opinion that disulfoton is very toxic to animals and that MRLs of 10 mg/kg in animal feeds were too high. Furthermore, there was a need to consider residues in animal products carried over from animal feeds.

The opinion was expressed that, in all likelihood, ruminants handle residues of disulfoton differently from rats and that toxicity to rats may not be too relevant.

80. The Committee invited governments to send residue data on animal products to the JMPR. The Secretariat of the JMPR was requested to ascertain whether data had already been received on the basis of previous requests. The MRLs for alfalfa hay and clover hay were held at Step 7 pending receipt of the information requested.

81. The Committee deleted peanut shells in view of the fact that this animal feed did not represent an important item in trade.

#### Potatoes

82. The Committee returned the MRL to Step 6 of the procedure, pending publication of the 1979 Evaluations.

#### PROPOXUR (No. 75)

#### Cocoa beans

83. The Committee noted that, at a previous session, the MRL of 0.05 mg/kg had not been considered appropriate by delegates from producing countries. In order to uphold the aims of the Commission, it was agreed to hold this MRL at Step 7. Governments were requested to make all efforts to provide appropriate residue data so that the MRL could be reconsidered. The delegation of the United Kingdom undertook to obtain data from industry, confirming that indeed residues higher than 0.05 mg/kg were being found in practice.

#### THIOMETON (No. 76)

#### Fodder Beets and Tops

84. It was agreed that this recommendation covered the commodities of fodder beets and fodder beet tops used for animal feeding.

Cottonseed oil, straw (grain crops)

85. The Committee agreed that the MRL of 0.1 mg/kg for these commodities is at the level of determination.

THIOPHANATE-METHYL (No. 77)

Chicken Fat, Chicken Meat

86. Doubt was expressed as to whether the MRL of 0.02 mg/kg represented a realistic limit of determination.

The Ad Hoc Working Group on Methods of Analysis confirmed that the limit of determination is 0.1 mg/kg. The Committee advanced this amended proposal to Step 8.

CHLOROTHALONIL (No. 81)

Banana (whole), Banana (pulp)

87. Noting that, because of changes in agricultural practices, the 1979 JMPR had recommended a lowering of the existing MRLs, the Committee decided to return them to Step 6 of the Procedure to enable governments to comment on the new proposals of the JMPR as soon as the 1979 Evaluations were available.

Raw cereals

88. The delegation of Australia was of the opinion that an MRL of 0.5 mg/kg appeared to be more appropriate on the basis of the data which the 1978 JMPR had available. As the MRL of 0.2 mg/kg was acceptable to other delegations the Committee did not take steps to change the existing MRL.

DICHLLOFLUANID (No. 82)

Onions

89. The Committee noted that onions were at Step 7 and not Step 9 as stated. Since the JMPR Evaluation had been made on the bulb only, it was agreed to make this clear in the MRL reference.



Blackberries

90. It was noted that the proposed figure of 15 mg/kg refer to the parent dichlofluanid only whereas the majority of the monograph figures refer to dichlofluanid/dimethylsulphamide residues expressed as the dichlofluanid parent. The opinion was expressed that, for this reason, an MRL of 10 mg/kg would be more appropriate. It was agreed that the JMPR be requested to reconsider the limit and that the proposal be retained at Step 7.

Eggplant

91. It was agreed to retain the limit for eggplant at Step 7, with a request to the JMPR to reconsider the proposal in the light of a similar proposal for tomatoes at 2 mg/kg and data to be submitted by Governments concerning also glass house culture.

FENAMIPHOS (No. 85)

Carrots

92. The 1978 JMPR had changed the proposal to 0.2 mg/kg. After some discussion, it was decided to advance this proposal to Step 8.

Orange (flesh)

93. As this item is not a commodity in international trade, it was proposed that it be deleted. As the same applied for a number of other compounds and commodities, it was agreed not to change proposals at this time. For the next session of the Committee, the Secretariat would prepare a paper on this subject to enable the Committee to reach a general decision applicable to all such situations. The proposals were advanced to Step 8.

PIRIMIPHOS-METHYL (No. 86)

Cheese

94. After much discussion, the Committee agreed to add a footnote explaining that residues occurred in the outer layer only of cheeses from treatment of racks in store rooms against cheese mites during the maturation process.

Lettuce, Spinach

95. Several delegations expressed the opinion that MRLs seemed high in comparison with those for bromophos. It was pointed out that the data examined by the JMPR showed that bromophos residues declined more rapidly. Proposals were advanced to Step 8.

Peanut (kernels), Peanuts (whole), Peanut Hulls

96. In view of insignificant international trade in peanut hulls as animal feed, the Committee decided to delete them (see para. 49, Capta fol).

SEC-BUTYLAMINE (No. 89)

Citrus Molasses, Dried Citrus Pulp

97. The delegation of the USA was of the opinion that concentration studies indicate a need for an MRL greater than the proposed 50 ppm. The Committee noted that the present MRL was supported by the data available to the JMPR, considering that these products underwent blending and treatment which increased the homogeneity of the products with respect to pesticide residues. The Committee decided to hold the MRLs at Step 7 pending the receipt of data from the USA for reconsideration by the JMPR. It was noted that only some Citrus fruit used by the Citrus juice industry was likely to be treated by this antifungal agent and that the MRLs covered the animal feeds prepared from Citrus which had been so treated.

Meat by-products, Milk, Milk products

98. The MRLs for these products were returned to Step 6 in order to enable governments to comment on the changes proposed by the JMPR.

Carcase meat of cattle, goats, pigs, sheep

99. The Committee advanced the MRLs for these commodities to Step 5 of the Procedure with the recommendation that Steps 6 and 7 be omitted.

CHLORPYRIPHOS-METHYL (No. 90)

Bran

100. It was noted that this commodity referred to wheat bran (see para. 46).

All cereals and cereal products

101. The delegations of The Netherlands, the Federal Republic of Germany, Switzerland and Denmark had reservations concerning the high MRLs set for these products in view of the high consumption of whole meal bread and other whole meal products in those countries.

The Committee agreed that the question of intake of pesticide residues in various countries was a matter for individual countries to consider and could not be resolved by either this Committee or the JMPR.

CYANOPHENPHOS (No. 91)

Cabbage

102. In the opinion of The Netherlands, more residue data were needed for the establishment of an appropriate MRL. The manufacturer's representative in the GIFAP delegation undertook to provide any data available to the JMPR. The MRL for cabbage was held at Step 7 pending evaluation by the JMPR.

Rice (hulled)

103. The Committee questioned whether the MRL for this product had been based on data for rice in the husk and noted that the JMPR Evaluations did not indicate what residue losses occurred during hulling and polishing. The delegation of Japan indicated that the data had, in fact, referred to hulled rice, but that the term "hulled rice" had been incorrectly translated in the Japanese data submitted to the JMPR. The MRL for hulled rice was held at Step 7 pending reconsideration by the JMPR.

ACEPHATE (No. 95)

104. The delegation of the Federal Republic of Germany informed the Committee that the toxicology of this pesticide was under review in that country especially with respect to brain cholinesterase inhibition in the rat and dog and therefore, it had reservations concerning MRLs for this pesticide.

Cabbage

105. The delegation of The Netherlands was of the opinion that more residue data were needed before an appropriate MRL could be established for this product. Noting that acephate was scheduled for re-evaluation by the 1980 JMPR the representative of GIFAP undertook to request the manufacturer to provide the data if available on residues in cabbage for consideration by the JMPR.

Potatoes, Sugar beets

106. The delegation of The Netherlands informed the Committee that following GAP levels of 0.5 mg/kg were never exceeded and questioned the need for an MRL of 1 mg/kg.

107. The Committee decided to hold potatoes, sugar beets and sugar beet leaves at Step 7 and to refer them to the JMPR for reconsideration.

Lettuce, Soybeans

108. The Committee decided to return the MRLs for these commodities of Step 6 in order to enable Governments to comment on the changes recommended by the 1979 JMPR.

General discussion on metabolites of pesticides used as pesticides per se

109. The delegation of the USA was of the opinion that methamidophos, a metabolite of acephate more toxic than the parent compound itself, should be included in the definition of the residue. It was noted that the JMPR had elected to recommend separate MRLs for methamidophos.

The delegation of the Federal Republic of Germany pointed out that this practice would lead to conflict between MRLs set for acephate resulting in residues of methamidophos, and methamidophos per se (e.g. in the case of cottonseed).

Furthermore not all commodities for which MRLs for acephate had been established were covered by MRLs for methamidophos and this could also lead to difficulties.

110. The Committee agreed that the approach to regulating a pesticide and the metabolites of the same pesticide used as a pest control agent per se represented a regulatory problem (see also para 63) which should be considered by the Committee as a general issue. Attention was drawn to the 1979 JMPR report, where general principles concerning the evaluation of metabolites were reaffirmed.

111. It was agreed to request governments to provide information on the approach adopted by them to cover these cases so that the matter could be reviewed at a future session. The JMPR was requested to consider setting MRLs to ensure that the same commodities be covered in respect to both acephate and methamidophos.

#### CARBOFURAN (No. 96)

##### Definition of Residue

112. The delegation of the USA was of the opinion that other metabolites besides the one indicated by the JMPR should be included in the definition of the residue. In this connection it was noted that the JMPR had considered only carbamate metabolites as being significant for the purposes of setting MRLs for carbofuran. Residue data from the USA available to the JMPR had been taken into consideration in terms of the carbamate residues.

In this respect it was noted that it was desirable to keep the definition of residues simple and in keeping with analytical capabilities and resources available for regulatory agencies. This practice was thought to be adequate for ensuring that the pesticide in question would be used in accordance with GAP.

Alfalfa

113. The delegation of France expressed the opinion that fresh alfalfa was not likely to be a significant item in international trade, and enquired why carbofuran had been indicated for monitoring in the 1979 JMPR report. It was explained that it was the intention to see, on the basis of monitoring data, whether the actual use of carbofuran corresponded to the extent of use suggested by the existing MRLs. The reason was not due to any special concern.

CARTAP (No. 97)

114. The Committee was informed by the delegation of The Netherlands that they were not able to accept any tolerances for cartap because of difficulties with the stability of the reference standard. The delegation of Japan explained that one of the difficulties of the analysis was the preparation of the standards.

115. The Ad Hoc Working Group on Methods of Analysis confirmed that a new method of analysis has now been published in the Official Gazette of Japan.<sup>1)</sup> It was decided to retain proposals at Step 7, pending assessment of this method and confirmation from the JMPR that proposed MRLs are based on sound data.

DIALIFOS (No. 98)

Apples, Pears and Milk

116. The Committee decided to advance the proposals to Step 8 although the delegation of The Netherlands was of the opinion that on the basis of experience in their country and the data mentioned in the 1976 Evaluations the MRLs proposed by the JMPR were too high.

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<sup>1)</sup> Official Gazette (Japan) March 20, 1979, 15650.  
No. 4 of a notification issued by the Japanese Environment Agency.  
The English translation is available at Takeda Chemical Industries, Ltd.

It was agreed to recalculate the MRL for milk (on a fat basis) to an 'on the product' basis using the approach adopted by the JMPR.

EDIFENPHOS (No. 99)

Rice (Hulled), Rice in the Husk, Rice (Polished)

117. It was decided to return these proposals to Step 6 of the Procedure to give governments an opportunity to comment on the new MRLs proposed by the 1979 JMPR.

METHAMIDOPHOS (No. 100)

118. The delegation of the Federal Republic of Germany expressed the view that MRLs for methamidophos could only be considered in conjunction with acephate.

Broccoli, Lettuce, Tomatoes

119. Several delegations were of the opinion that the proposed MRLs should be as low as possible to avoid exceeding the ADI. In their opinion MRLs of not more than 1 mg/kg could be established when taking into account a GAP. The Committee decided to refer these proposals back to the JMPR for reappraisal. Governments were requested to provide all available data to the JMPR. The proposals were retained at Step 7.

Cauliflower, Cucumber, Eggplant and Sugar Beets

120. As new MRLs had been proposed by the 1979 JMPR, the Committee returned the proposals to Step 6.

PIRIMICARB (No. 101)

Beans (With Pod)

121. It was decided to return the proposal to Step 6, to give governments an opportunity to comment on the new MRL proposed by the 1979 JMPR.

Alfalfa (green), Alfalfa (hay)

122. The delegation of France informed the Committee that in their country residues were never found at the levels proposed by the JMPR. The delegation of The Netherlands explained that MRLs were based on a dry weight basis to prevent large variations in the residue because of varying moisture content.

The proposal was advanced to Step 5 with the recommendation that Step 6 and 7 be omitted. The delegation of the Fed. Rep. of Germany suggested that in the future MRLs for these products should be set on a similar basis.

Barley, Eggs, Meat, Milk and Oats

123. The Committee agreed to recommend that Steps 6 and 7 be omitted for these proposals.

PHOSMET (No. 103)

Apples, Apricots, Cranberries, Grapes, Nectarines, Peaches and Pears

124. The delegations of Canada and the United States of America undertook to provide data on apples, apricots, cranberries, grapes, nectarines, peaches and pears to the JMPR, justifying higher MRLs because of shorter pre-harvest intervals. Proposals were advanced to Step 5.

Kiwi fruit

125. The proposed MRL for kiwi fruit was returned to Step 3 for comments on a revision proposed by the 1979 JMPR.

DITHIOCARBAMATES (No. 105)

126. The delegation of The Netherlands informed the Committee that recently a method of analysis had been published which determined residues of ethylene bisdithiocarbamate separately from the other dithiocarbamates<sup>1)</sup>.

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1) P.A. Greve en E.A. Hogendoorn, Mededelingen Faculteit Landbouwwetenschappen, Rijksuniversiteit Gent 43 (1978) p. 1263-1268.



This method would be sent to the JMPR for consideration when re-evaluating these compounds in 1980. When this method has been validated, additional data from supervised trials for the different compounds could be used to propose new MRLs for the EBDCs and the DMDCs and thiram separately. The separation is needed because of the possible occurrence of ETU in commodities on which the EBDCs had been applied, and subsequently cooked. It was decided to retain the proposals at Step 7, awaiting the re-evaluation by the JMPR.

ETHIOFENCARB (No. 107)

Beans (with pod), Beans (without pod)

127. These proposals were referred back to the JMPR for reconsideration in the light of the data already available, as the data in the 1978 Evaluations would indicate that for certain beans higher MRLs might be needed. The proposals were retained at Step 7.

Beets (fodder), Beets (tops) and Raw grain

128. As some words seemed to be missing in the 1978 Evaluations, proposals were retained at Step 7 and referred to the JMPR for clarification. The entry Beets, tops, should be Fodder beets, tops. The MRL for "raw grain (barley, oats, wheat) was separated into four separate MRLs for the individual cereals indicated in the brackets.

IPRODIONE (No. 111)

129. The Committee agreed to round off the present figures of 7 mg/kg in plums and strawberries to 10 mg/kg in keeping with its previously agreed practice of presenting MRLs according to a certain progression. The delegation of The Netherlands expressed reservations with respect to black currants and lettuce. All proposals were advanced to Step 8.

PROPARGITE (No. 113)

130. The Committee noted that the 1980 JMPR would be evaluating a carcinogenicity study. All limits were retained at Step 7, with the exceptions of tea (dried manufactured), tomatoes and cucumbers, which were advanced to Step 5. As regards apples and pears the MRLs were returned to Step 6 in order to enable Governments to comment on the changes recommended by the 1979 JMPR.

131. The Canadian delegation presented residue data for propargite on raisins, and noted that the MRL for grapes was adequate to cover the levels found in raisins.

GUAZATINE (No. 114)

132. The Committee noted that of this list only Citrus fruit had a temporary MRL. It also noted that the delegation of Australia would supply data on Citrus fruit for consideration by the 1980 JMPR.

133. All limits were advanced to Step 5, with a recommendation to omit Steps 6 and 7.

TECNAZENE (No. 115)

Chicory (Witloaf)

134. The Committee noted that the reference number should read A 01.0509.

Potato

135. The delegation of the USA questioned the proposed MRL since it was based on potatoes which had been stored for 4-5 months and then washed before analysis. They would attempt to provide data to the JMPR based on a shorter storage period to justify a higher MRL.

TRIFORINE (No. 116)

Black currants, Red currants

136. It was decided to combine these two proposals to read currants (red and black).

137. As there was general agreement with the proposals for this compound, it was decided to recommend that Steps 6 and 7 be omitted.

MAXIMUM RESIDUE LIMITS FOR CHLORDANE, ENDOSULFAN AND HEXACHLOROBENZENE

138. As until now only nine countries <sup>1/</sup> had responded to CL 1980/5, Request for Information on the Uses and Maximum Residue Levels of Chlordane, Endosulfan and Hexachlorobenzene, the representative of FAO asked countries to make data available to the 1980 JMPR. No discussion took place as the proposals for chlordane and endosulfan had already been dealt with in paragraphs 55 and 68 and the Committee felt the necessity to await consideration of the new data by the JMPR.

CONSIDERATION OF GUIDELINE LEVELS

139. The Committee had before it document CX/PR 80/2, summarizing "Guideline Levels" contained in the Reports of the JMPR and document CX/PR 80/4, containing government comments and including a statement from the USA.

140. The delegation of the USA outlined the history of the development of "Guideline Levels" and drew attention to the variety of reasons for which these had been set. The reasons have included:

- a need to accommodate the special circumstances of the volatile fumigants, which leave practically no residues at the time of consumption, though residues may be present in commodities in international trade;
- the existence of contaminants, metabolites, or related chemicals which have toxicological properties worthy of control;
- various other situations in which residues have been evaluated but where, for various reasons, toxicological data for establishment of an ADI have not been evaluate or were not available to the JMPR or had not been developed.

141. Given the above circumstances, and considering the aims of the Commission in recommending safe MRLs on the basis of appropriate toxicological and residue data, the delegation of the USA seriously questioned the need for the CCPR to handle "Guideline Levels" even up to Step 4 of the Procedure.

1/ See para. 68.

This view was supported by the delegations of Brazil and Venezuela, who pointed out that the value of recommendations for MRLs would be undermined by the existence of residue limits not supported by appropriate toxicological evaluation.

142. The representative of WHO and the Codex Secretariat confirmed that the Commission would not endorse residue limits not based on toxicological evaluation by the JMPR, and expressed the opinion that confidentiality of data should not be regarded as a valid reason for toxicological data not being submitted to the JMPR. The Codex Secretariat also pointed out that the only reason the CCPR had agreed to discuss "Guideline Levels" was to expedite its work in recommending MRLs as soon as ADIs had been established by the JMPR.

143. The delegations of Ireland, Federal Republic of Germany and Australia were of the opinion that, provided the toxicological status of the pesticide in question was properly described, "Guideline Levels" could give useful information to governments, and could expedite the work of the Committee.

144. The Committee agreed that "Guideline Levels" would, in the future, not be sent to governments for comments at any Step in the Procedure and should not appear in Codex Working papers or publications. Furthermore, "Guideline Levels" contained in reports of the JMPR should not, as such, be placed on the agenda of the Committee.

#### ANALYSIS OF PESTICIDE RESIDUES

145. The Committee received the report of the Ad Hoc Working Group on Methods of Analysis. It was introduced by the Chairman of the Working Group, Dr. P.A. Greve, Netherlands (See Appendix II). The following questions were discussed by the Committee.

Recommendations for methods of analysis

146. The Committee noted that the Working Group had recommended methods of analysis for all MRLs at Step 5 and beyond of the Procedure and for a certain number of guideline levels. These recommendations had the same format as in the previous year. It is the intention to incorporate them in the next issue of the Guide. They are attached as Annex I to Appendix II of the draft report of the Committee 1/.

147. In several cases the Working Group had noted that suitable analytical methods existed, but not in a published form.

The delegation of GIFAP undertook to request their members to publish these methods for their products.

Expression of MRLs for fat-soluble pesticides in milk and milk products

148. The Working Group considered the comments on the proposal given in par. 170-173 ALINORM 79/24-A on the expression of MRLs for fat-soluble pesticides in milk and milk products.

A level of 2% of fat in milk products was considered by the Working Group to be a practical point of demarcation between "high fat" and "low fat" products (see para. 185). Some delegations preferred a cut-off point of 4% fat. It was pointed out that this would lead to many borderline cases. Any cut-off point would necessarily be arbitrary, and a practical level was therefore preferred. The proposal would be submitted to governments for comments. After a final decision of the Committee, the Secretariat would go through all proposals for milk and milk products and, where necessary, consult the data on which the original proposals had been based to arrive at a logical and consistent presentation.

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1/ The recommendations for methods of analysis will be published in the next issue of the "Guide to Codex Maximum Limits for Pesticide Residues."

Expression of residues relative to analytical practice

149. The delegate of FAO agreed to check whether the expression of the residue was in all cases in line with the general recommendations regarding the treatment of metabolites as described in the Report of the 1979 JMPR.

Codex Guidelines on Good Analytical Practice in Pesticide Residue Analysis

150. In the 1979 Meeting of the Committee it had been promised that a document on Good Analytical Practice would be prepared. This document was completed. A few amendments of an editorial nature concerning the handling of standard reference compounds were made.

The document was considered to reflect the very valuable experience of a group of experts and therefore the Secretariat was requested to publish it in such a way that it would be easily available to all interested parties 1/.

Future work

151. The Committee agreed to the programme of work proposed by the Working Group. The Group would continue to elaborate recommended methods for MRLs at Step 3 and beyond of the Procedure and for 'guideline levels' in anticipation of the establishment of MRLs.

Ethylene bisdithiocarbamates

152. The attention of the Committee was drawn to a recently published method which would distinguish residues of ethylene bisdithiocarbamates from those of other dithiocarbamates and thiram. This method would also be made available to the Joint Meeting (see para 126).

Results of collaborative studies

153. The delegation of Australia informed the Committee of the preliminary results of the collaborative study of residue analysis of inorganic bromide in fumigated grain,

1/ See footnote 1/ p. 41.

reported in document CX/PR 80/16.

Several replies had since been received and it was expected that more replies would be received shortly. After receipt of these replies, a comprehensive summary of the results would be made available to all participants, to the Codex Contact Points and to the Committee.

Preliminary results indicated that a few laboratories had reported results very close to the actual amounts added to the fortified sample and most results were satisfactory. In some cases, however, the results were sufficiently inaccurate that a lot considerably below the MRL would have prevented from moving in international trade, while lots above the MRL would have been accepted. This should be kept in mind when establishing MRLs. There was an indication that one or two of the analytical methods were less accurate than others in use.

The necessity of such studies has once again been demonstrated. The Committee thanked the Australian delegation for their important work and looked forward to the final results of this study.

#### Establishment of an ad hoc Working Group on Methods of Analysis

154. The Committee expressed its appreciation to Dr. Greve and to the outgoing Working Group for the valuable work performed during 1979/1980 and during the present session. The Committee appointed an new Ad Hoc Working Group on Methods of Analysis under the chairmanship of Dr. Greve to continue with the proposed work until the end of the next Session. Membership would be the same as for the outgoing Working Group.

#### SAMPLING

155. The Committee considered the report of the Ad Hoc Working Group on Sampling (see Appendix III to this Report) which was introduced by Mr. J.A.R. Bates, Chairman of the Working Group.

Portion of the commodity to be analysed  
as outlined in ALINORM 79/24-A Appendix VI.

156. The Working Group considered the above in the light of government comments and proposed an amended title "Portion of Commodities to which Codex MRLs apply" for this document. The report also specifies the portion of the raw agricultural commodity to be prepared as the analytical sample. The Committee noted that sections for fish, shellfish, fish roe and amphibians and reptiles had not been included in the table at this time since, to date, only two limits (pyrethrins and piperonyl butoxide for dried fish) had been set.

157. After some discussion and minor amendments in the table, the Committee agreed to forward the revised text for adoption by the Codex Alimentarius Commission at Step 5, with a recommendation to omit Steps 6 and 7 (see Annexe I to Appendix III).

Guidelines on residue trials methods

158. The Committee noted that the Working Group had examined the Guidelines, as contained in CX/PR 80/19, in the light of comments received and had made considerable editorial changes. In addition the Group had prepared a Model Report Form which after distribution to interested parties and consequent revision would be prepared for incorporation in the Guidelines on Pesticide Residue Trials.

159. The Committee noted that in view of the widespread interest and value of the Guidelines, the Secretariat would investigate a means of publishing them so that they would reach as wide an audience as possible in the near future.



160. It was also noted that it was intended to extend the Guidelines trials in which treated crops are fed to animals or the pesticide is applied directly to the animal.

Recommended method of sampling

161. The Working Group did not consider this document since no further government comments had been received following experience in the use of the sampling method. It was noted that the Recommended Method would be incorporated in a future edition of the Guide.

Establishment of an Ad Hoc Working Group on Sampling

162. The Committee thanked Mr. J.A.R. Bates and the Working Group on Sampling for the valuable work performed during 1979/80 and the present session. The Committee decided to appoint a new Ad Hoc Working Group under the chairmanship of Mr. Bates (FAO) to continue with the proposed work until the end of the next session with the same membership as the outgoing Ad Hoc Working Group.

ESTABLISHMENT OF PRIORITY LISTS

163. The Committee had before it the Report of the Ad Hoc Working Group on Priorities (see Appendix IV). The Report was introduced by Prof. Dr. A.F.H. Besemer, Chairman of the Group.

164. The delegate of the United Kingdom informed the Committee that a new ISO name, deltamethrin, will probably be adopted for the compound listed as decamethrin.

165. In reply to a question as to why only a few new compounds were listed, Prof. Besemer indicated that there were 7 new compounds on the agenda for the 1980 JMPR.

The speed at which new pesticides are being developed has perhaps slowed down, and industry has tended, in recent years, to focus on herbicides, which are less likely to result in residues than other categories of pesticides.

166. The Committee deleted bupirimate and tetrachlorvinphos from the Priority Lists because the volume of use of these compounds is not now sufficient to justify priority. Streptomycin was deleted because the present use pattern of this compound is not known to result in residues in food.

167. In reply to a question of the delegation of Belgium concerning the basis for establishing priorities, Prof. Besemer explained that compounds did not necessarily have to meet all of the criteria at the same time, to be placed on Priority Lists.

168. The Committee gratefully accepted the offer of the delegation of Canada to update the Good Agricultural Practice Survey conducted in 1977 and distributed as CX/PR 78/2. The Committee accepted the proposal of the Working Group for a List 2 (including isoprocal), ie. a list of compounds which meet priority criteria and for which data will be available.

#### Setting up a new Ad Hoc Working Group

169. The Committee thanked the Working Group on Priorities for the work it had done and appointed a new Ad Hoc Working Group under the chairmanship of Prof. Dr. A. F. H. Besemer. The delegations of Brazil and France expressed the wish to be part of the Group. Prof. Besemer noted that the Canadian delegation had agreed to continue as the contact point for this Group.

#### REPORT OF THE AD HOC WORKING GROUP ON PESTICIDE RESIDUE PROBLEMS IN DEVELOPING COUNTRIES

170. In introducing the report of the Ad Hoc Working Group (App.V) the Chairman, Prof. Dr. W. F. Almeida, drew special attention to recommendations of the Working Group contained in Annexe I

to the Report. He stressed that developing countries were progressively increasing their interest in the work of the CCPR and were now really participating in CCPR Sessions. He was certain that it would be possible for developing countries to supply more data, in the near future, on pesticide residues in food from tropical areas. Dr. Almeida indicated that the Working Group would endeavour to prepare a well discussed report which should facilitate discussions during the plenary session. He then expressed his thanks to the Committee for stimulating participation by developing countries at Sessions of the CCPR. It was agreed that the Committee should discuss the recommendations in detail.

171. The Working Group had drawn attention to the need of countries for a better distribution of JMPR Monographs and other WHO / FAO data sheets. The Committee was informed that most of these data sheets were based on the information collected by the Vector Control Unit of WHO. The Plant Protection Service also made a limited distribution of certain data which it held in connection with its day to day work concerning agricultural chemicals. The representatives of FAO and WHO undertook to examine how this information could better be made available to interested individuals. It was suggested that Member countries establish a focal point for the receipt and dissemination of this information.

172. Concerning increased Technical Cooperation among Developing Countries (TCDC), the Committee was informed of a series of TCDC consultations in the field of food contamination. It would be possible to increase the emphasis within these consultations on pesticide residue matters. There had been consultations in S.E. Asia. A Regional Consultation for Latin America was to be held in Mexico (3 weeks in November 1980) and similar consultations were planned for anglophone and francophone Africa, with the support of UNDP. Interested countries might wish to contact Dr. R.K. Malik, Senior Officer of the Food Control and Consumer Protection Group, FAO. The Chairman of the Working Group considered that it would be useful if a questionnaire could be sent to developing countries to solicit their views on priority topics for TCDC in the food control area.

173. The Chairman of the Working Group enquired what technical assistance could be provided by FAO to developing countries to improve their national facilities for the analysis of foods in connection with pesticide residues and other food contaminants. The representative of FAO explained that there were currently some 20 projects operated by the Food Standards and Food Control Service to assist countries to establish the infrastructure for food control. Such projects, in addition to assisting in the preparation of regulations, provided training for national personnel and the equipment of analytical laboratories. The analysis of pesticide residues and other contaminants in food routinely formed part of this technical assistance. Specialized training programmes in the control of mycotoxins and other contaminants were also organized by FAO with UNEP financial assistance (as well as the TCDC activities supported by UNDP). FAO and WHO were also assisting developing countries to participate in the FAO/WHO Food Contaminant Monitoring Programme. A series of publications issued by the Food Standards and Food Control Service of FAO gave advice on the establishment of food control services, including laboratory facilities and training requirements, in both chemical and microbiological control. Other manuals in the series covered food law, regulations and various aspects of methodology. The Food Standards and Food Control Service of FAO would be pleased to receive requests from any member country for assistance in the above mentioned areas. The Committee was further informed that the Plant Protection Service of FAO currently had some 7 projects to assist countries with the analytical aspects of their plant protection activities. The programme was known as "Strengthening Plant Protection Services". Enquiries for assistance under this Programme should be directed to the Plant Production and Protection Division, FAO.

Sometimes the assistance would not be immediately available, as once the project had been formulated by FAO and the country concerned, it was then necessary to seek a source of funding. Experience had shown, however, that such funding was usually available within a year or two.

174. Attention was drawn to the fact that the situation with regard to pesticide residues varied greatly from one developing country to another. Several countries had already the necessary legal infrastructure, whilst in others this was completely lacking. In some instances, important residue data had been produced and published. It was emphasized that regional cooperation was often desirable to make good progress.

175. Several delegations from the Latin American Region referred to the dangers in the use of pesticides which are not registered in their countries because of a lack of adequate regulatory and control mechanisms. They were particularly concerned about the use of imported compounds which were not permitted for use in several other countries because of toxicological or environmental concerns. These delegations expressed their need to have prepared by FAO a simplified guide for the step-wise registration of agricultural chemicals. This could be based on the guide issued by FAO in 1970 (**AGP:CP-28**, A model scheme for the Establishment of a National Organisation for the Official Control of Pesticides).

176. The Committee was informed by the representative of IUPAC that his organization could promote scientific programmes in chemistry internationally if there was a clearly defined scientific area for cooperation. Such cooperation can be achieved either by individual membership of chemists in IUPAC Commissions or through national representatives to such Commissions. There were about 20 projects of the Commission on Pesticide chemistry most of which were of relevance to CCPR and JMPR activities. The Committee was further informed that IUPAC could give guidance on formulation analysis chemistry. The Committee was informed by the delegation of the Federal Republic of Germany that the German Agency for Technical Cooperation had established a Pesticide Residue Analysis Programme, and was involved in the training and education of personnel in developing countries. Enquiries should be directed to: German Agency for Technical Cooperation Ltd.,

Pesticide Residue Project, Rheinstrasse 91, Postfach 4001,  
D-6100 Darmstadt, Federal Republic of Germany.

177. The Committee endorsed the Working Group's Report and Recommendations (see Appendix V) and agreed that the Working Group should continue its activities. Prof. Almeida (Brazil) agreed to continue as Chairman and contact point for the next session.

The Committee noted that the contents of the Working Group's Report would be conveyed to the Codex Regional Coordinating Committees. The Coordinating Committee for Latin America would be meeting in Montevideo (Uruguay) in December 1980 and those for Africa and Asia early in 1981.

#### GUIDELINES FOR THE REGULATION OF PESTICIDE RESIDUES IN FOOD

178. The Committee had before it a working paper prepared by the Codex Secretariat for the 11th Session of the CCPR (CX/PR 79/17) and the comments of the USA on the suggestions of the Secretariat (Room Document 9).

179. The Secretariat indicated that it was not the intention to elaborate model regulations for pesticides or their residues in food. Rather it was suggested that guidelines should be elaborated which would touch upon regulatory aspects which required an internationally harmonized approach to facilitate the acceptance of the recommendations of the Commission regarding residues of pesticides in food. Many such aspects had already been discussed by the Committee resulting in appropriate recommendations to governments. Other appropriate recommendations could be developed and included in the Guidelines.

180. The delegation of the USA, supported by a number of delegations, were of the opinion that it was desirable to develop such Guidelines and proposed that, to this end, an Ad Hoc Working Group on Regulatory Principles be established. The representative of WHO expressed the interest of his organization in this work and asked to receive copies of all correspondence exchanged.

181. It was agreed that a Working Group be established which would hold preliminary discussions during the session of the Committee with a view of developing a questionnaire to be sent to governments in order to identify legal obstacles to the acceptance of the recommendations of the Commission. The delegation of the USA undertook to consider the government comments received and prepare a working paper for the next session of the Working Group.

The following delegations expressed their wish to be included in the Ad Hoc Working Group:

Australia, Belgium, Brazil, France, Ireland, Mexico, Spain, New Zealand, Spain, Thailand, The Netherlands, the United Kingdom, USA, and Venezuela Representatives of WHO and FAO agreed to assist in the work of the Group. Dr. J.R. Wessel (USA) was designated as chairman of the Working Group.

#### RECONSIDERATION OF CODEX DEFINITIONS OF TERMS

182. The Committee had before it a paper prepared by the Secretariat at the request of the Chairman of the CCPR (CX/PR 80/21). The paper set out the differences between the JMPR and CCPR definitions and proposed ways to eliminate the differences.

183. A number of delegations were of the opinion that it was not possible to discuss the working paper as it had been received only just before the session.

184. The Committee noted that the definition of Extraneous Residue Limits (ERL) of the JMPR differed significantly from the Codex definition of "Practical Residue Limit" (PRL) and that previously adopted Codex PRLs might have to be changed to MRLs.

185. The delegation of the Federal Republic of Germany expressed the view that terms such as "milk" which describe a number of commodities also needed clarification. The Secretariat indicated that "milk" would fall under the Codex definition of

"processed foods", but agreed that a number of terms used in the Codex Food Classification system would probably have to be described. (see also para. 46).

186. The Committee agreed to refer the consideration of the definitions to the Ad Hoc Working Group on Regulatory Principles. The Chairman of the Working Group agreed to receive any comments on the definitions from participants.

DATE AND PLACE OF NEXT SESSION

187. The Chairman of the Committee indicated that the next (thirteenth) session of the Codex Committee on Pesticide Residues and its Working Groups would take place during the period from 12 to 20 June 1981 in The Hague. Prior to the Plenary meeting, the Ad Hoc Working Group on Methods of Analysis and on Sampling would meet on 12 June at 09.00 hours, the Ad Hoc Working Group on Pesticide Residue Problems in Developing Countries on 13 June at 09.30 hours, on Regulatory Principles on 13 June at 13.00 hours and on Priorities on 13 June at 13.30 hours. Working Groups meeting 12 June were asked to submit their final reports to the Secretariat by 12.00 hours on 15 June, and those meeting 13 June, by 12.00 hours on 16 June.

188. It was agreed that the reports of the Working Groups would be available only in English as conference room documents issued during the Session.

189. Delegations were strongly urged to meet deadlines with their comments to facilitate the work of the Secretariat.



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REPORT OF THE AD HOC WORKING GROUP ON METHODS OF ANALYSIS

1. Membership

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## 2. Agenda

The Working Group discussed the following points:

- recommendations for methods of analysis for pesticide commodity combinations at Step 5 or higher of the Procedure, and for some pesticides for which Guideline levels exist;
- expression of MRLs for fat-soluble pesticides in milk and milk products;
- expression of certain residues related to analytical practice;
- Good Analytical Practice;
- confirmation of residues;
- General Principles for Establishment of Codex Methods of Analysis and Sampling (CCMAS);
- draft standard form for reporting analytical results of field trials;
- future work.

## 3. Recommendations for methods of analysis

The Working Group undertook the up-dating and reviewing of the recommendations given in the previous report (ALINORM 79/24-A). It also undertook the recommendation of methods of analysis for pesticide commodity combinations at Step 5 or higher of the Procedure at the 11th Session of the CCPR, and for some pesticides for which Guideline levels exist (cf par. 175 and 176 of ALINORM 79/24-A).

The format of the recommendations is the same as that used in 1979 and is recommended as such by the Working Group to be incorporated in the next issue of the Guide <sup>1/</sup>. The Working Group noted that in several cases, e.g. for fenbutatin oxide, suitable analytical methods were available, but not in a published form. Publication of such methods in the open literature must, in the opinion of the Working Group, be regarded as a highly valuable support for the Codex work.

## 4. Expression of MRLs for fat-soluble pesticides in milk and milk products

The Working Group discussed the comments of delegations on the proposal given in par. 172 of ALINORM 79/24-A on the expression of MRLs for fat-soluble pesticides in milk and milk products.

<sup>1/</sup> Will be published in the next issue of the Guide to Codex Maximum Limits for Pesticide Residues.

After due consideration being given to all points, it was agreed that the preferred system would be to continue to express the MRLs for fat soluble pesticides on a fat basis for those milk products which have a high fat content, but to use a whole product basis for those commodities with a low fat content.

It was agreed that a level of 2% of fat in the milk product would provide a practical, sensible and convenient point of demarkation between the "high fat" and "low fat" products. Problems associated with the apparent concentration of residues in dried milk powders can be avoided if the MRL is deemed to apply to the correspondingly reconstituted wet product. Similar problems can arise in regard to whole milk, the fat content of which can vary from less than 3% to over 7%. The data on which the recommendations for MRLs for milk were based were usually expressed on the whole product, but have been converted for CCPR purposes to corresponding levels "on a fat basis" on the assumption that milk contains 4% of fat.

The Working Group concluded that it would be desirable and helpful to use a dual mode of expression for MRLs in milk. The basic figure would apply to the whole product, together with the associated figure derived from it on a stated assumed fat content basis.

As an example, the MRL for DDT would be expressed as:

<u>Commodity</u>	<u>MRL</u>
milk	0.05 (1.25 on fat basis assuming 4% fat in milk)
milk products (2% fat or less)*	0.05
milk products (more than 2% fat)*	1.25 (fat basis)

(Dried milk products etc. to be reconstituted before applying MRL)

The Working Group does not regard these as being substantive changes, but merely clarification of the existing position.

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\*The fat content should, wherever possible, be determined according to accepted Codex procedures.

5. Expression of certain residues related to analytical practice

5.1. OP-pesticides containing an -S-group

The Working Group noted that recommended regulatory methods for fenamiphos and fenthion involve oxidation to the sulphone and to the sulphone of the oxygen analogue respectively. The following revised definitions are therefore recommended.

Fenamiphos Total residue of fenamiphos, its sulphoxide and its sulphone, expressed as fenamiphos

Fenthion Total residue of fenthion, its oxygen analogue and their sulphoxides and sulphones, expressed as fenthion.

5.2. Inclusion of P=O-analogues in MRLs

The Working Group noted that the oxygen analogues of dialifos, fenchlorfos and pirimiphos-methyl would be unlikely to constitute an analytically significant proportion of the residue in commodities of animal origin. It is therefore recommended that the residues of these compounds in such commodities should be defined as the parent compounds only. It is recommended that residues of carbophenothion in commodities of animal origin should be defined as sum of carbophenothion, its sulphoxide and its sulphone.

The residue definitions for these compounds in commodities of plant origin should remain as recommended in ALINORM 79/24-A, Appendix V and ALINORM 79/24, Appendix III.

5.3. Nomenclature

The Working Group recommended the following revised definitions:

Chlorfenvinphos: "Chlorfenvinphos (sum of E and Z isomers)"

Ethion "Sum of ethion and its oxygen analogues" (Note the plural)

Phosphamidon "Sum of phosphamidon (E and Z isomers) and N-desethyl-phosphamidon (E and Z isomers)"

Methyl bromide "Bromomethane"

#### 6. Good Analytical Practice

The Working Group discussed the document on Good Analytical Practice prepared by G. Telling and the comments given on it by GIFAP. As a result of this discussion, a finalised version of the document was prepared. The Working Group suggests that, as the document is closely related to the recommendations for methods of analysis both texts be published together in the next issue of the Guide 1/.

#### 7. Confirmation of residues

The Working Group discussed the need for a document to cover specifically the use of gas chromatography-mass spectrometry as a confirmatory technique in residue analysis. It was agreed that such a document would prove to be very long if it were to be comprehensive and might give a false impression of the importance of the technique relative to other, less expensive or less sophisticated techniques. The Group agreed that there was a need an elaboration on section 4.6 in the document on Good Analytical Practice to help analysts select a particular technique from the whole range of confirmatory tests which would incorporate the advantages and limitations of each process.

Mr. Bailey agreed to act as a rapporteur and to receive contributions on this matter up to January 1st, 1981.

#### 8. General Principles for Establishment of Codex Methods of Analysis and Sampling

The Working Group discussed, at the request of the Codex Secretariat, the proposed amendment to General Principles for Establishment of Codex Methods of Analysis and Sampling, as prepared by the Codex Committee on Methods of Analysis and Sampling (CCMAS) at its 11th Session, 2-6 July 1979 in Budapest (cf ALINORM 79/23).

The Working Group concluded that generally the methods recommended by it for CCPR purposes can be classified under "Type III" or "Type IV" (see Appendix II, ALINORM 79/23) and that the criteria for selection given in the CCMAS-document were comparable to those used in the course of the years for CCPR purposes.

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1/ Will be published in the next issue of the Guide to Codex Maximum Limits for Pesticide Residues.



The Working Group also noted that in the CCMAS-document no special emphasis was given to confirmatory tests.

9. Draft standard form for reporting analytical results of field trials

The Working Group briefly discussed a standard form drafted by J.A.R. Bates for reporting analytical results of field trials.

It was agreed that members of the Working Group would study the document and send comments to P.A. Greve not later than May 1st, 1981.

10. Future work

The members of the Working Group committed themselves to considering the pesticide-commodity combinations brought at Step 3 or higher by the 12th Session of the CCPR, as well as the pesticides to which Guideline levels have been given. In this way, analytical methods will have been recommended for all pesticides at present under consideration by CCPR. Suggested methods for consideration by the Working Group at the next meeting should be sent to P.A. Greve until May 1st, 1981.

REPORT OF THE AD HOC WORKING GROUP ON SAMPLING

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Portion of the commodity to be analysed

The Working Group considered comments from members countries on the portion of sampled commodity to be prepared for analysis, as outlined in Appendix VI of ALINORM 79/24-A.

The Group agreed that a more appropriate title would be:  
"portion of commodities to which Codex  
MRLs apply". Following full discussion a number of  
amendments were incorporated in a revised version  
which is presented as Annex I of the Report of the Working Group.

#### Guidelines on Residue Trials Methods

The Working Group reconsidered the Guidelines in the light of comments received. The Group recommended that the agreed revised version should be prepared and distributed widely to interested parties.

Following a proposal from several countries the Group considered a draft of a Model Report Form for the presentation of relevant information which would be valuable to JMPR, CCPR and for use in FAO's programme for the harmonization of registration requirements. It was agreed that a revised version of the form should be prepared for incorporation in the Guidelines on Pesticide Residue Trials.

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#### ANNEX I

#### PESTICIDE RESIDUES IN FOOD

#### PORTION OF COMMODITIES TO WHICH CODEX MAXIMUM RESIDUE LIMITS APPLY AND WHICH IS ANALYSED

(Advanced to Step 5 with the recommendation that  
Steps 6 and 7 be omitted)

#### INTRODUCTION

Codex maximum residue limits are in most cases stated in terms of a specific whole raw agricultural commodity as it moves in international trade. In some instances, a qualification is included that describes the part of the raw agricultural commodity to which the maximum residue limit applies, for example, almonds on a shell-free basis and beans without pods. In other instances, such qualifications are not provided. Therefore, unless otherwise specified, the portion of the raw agricultural commodity to which the MRL applies and which is to be prepared as the analytical sample for the determination of pesticide residues is as described in the following table.

CLASSIFICATION AND EXAMPLES OF COMMODITIES  
UNDER CONSIDERATION BY  
CODEX ALIMENTARIUS COMMISSION

PORTION OF COMMODITY  
TO WHICH THE MRL APPLIES  
(AND WHICH IS ANALYSED)

GROUP 1. ROOT AND TUBER VEGETABLES

Root and tuber vegetables are starchy foods derived from the enlarged solid roots, tubers, corms or rhizomes, mostly subterranean, of various species of plants. The entire vegetable may be consumed.

root and tuber vegetables

beets  
carrots  
celeriac  
parsnips  
potatoes  
radishes  
rutabagas  
sugar beets  
sweet potatoes  
turnips  
yams

Whole commodity after removing tops. Remove adhering soil (e.g. by rinsing in running water or by gentle brushing of the dry commodity.)

GROUP 2. BULB VEGETABLES

Bulb vegetables are pungent flavourful foods derived from the fleshy scale bulbs, or growth buds of alliums of the lily family (Liliaceae). The entire bulb may be consumed following removal of the parchment like skin.

garlic  
leeks  
onions  
spring onions

Bulb/dry onions and garlic. Whole commodity after removal of roots and adhering soil and whatever parchment skin is easily detached. Leeks and spring onions: whole vegetable after removal of roots and adhering soil.

GROUP 3. LEAFY VEGETABLES (EXCEPT BRASSICA VEGETABLES)

Leafy vegetables (except Group 4 vegetables) are foods derived from the leaves of a wide variety of edible plants including leafy parts of Group 1 vegetables. The entire leaf may be consumed. Leafy vegetables of the brassica family are grouped separately.

leafy vegetables  
beet leaves  
corn salad  
endive  
lettuce  
radish leaves  
spinach  
sugar beet leaves  
Swiss chard

Whole commodity after removal of obviously decomposed or withered leaves.

CLASSIFICATION AND EXAMPLES OF COMMODITIES  
UNDER CONSIDERATION BY  
CODEX ALIMENTARIUS COMMISSION

PORTION OF COMMODITY  
TO WHICH THE MRL APPLIES  
(AND WHICH IS ANALYSED)

GROUP 4. BRASSICA (COLE) LEAFY VEGETABLES

Brassica (cole) leafy vegetables are foods derived from the leafy parts, stems and immature inflorescences of plants commonly known and botanically classified as brassicas and also known as cole vegetables. The entire vegetable may be consumed.

brassica leafy vegetables  
broccoli  
Brussels sprouts  
cabbage  
cabbage, Chinese  
cabbage, red  
cabbage, savoy  
cauliflower  
collards  
kales  
kohlrabi  
mustard greens

Whole commodity after removal of obviously decomposed or withered leaves. For cauliflower and headed broccoli analyse flower head only; for Brussels sprouts analyse "buttons" only.

GROUP 5. STEM VEGETABLES

Stem vegetables are foods derived from the edible stems or shoots from a variety of plants.

artichoke  
asparagus  
celery  
chicory (witloof)  
rhubarb

Whole commodity after removal of obviously decomposed or withered leaves. Rhubarb stems only. Celery and asparagus: remove adhering soil.

GROUP 6. LEGUME VEGETABLES

Legume vegetables are derived from the dried or succulent seeds and immature pods or leguminous plants commonly known as beans and peas. Succulent forms may be consumed as whole pods or as the shelled product. Legume fodder is in Group 18.

beans  
broad beans  
dwarf beans  
French beans  
green beans  
kidney beans  
Lima beans  
navy beans  
runner beans  
snapbeans  
soybeans  
peas  
cow peas  
sugar peas

Whole commodity.

CLASSIFICATION AND EXAMPLES OF COMMODITIES  
UNDER CONSIDERATION BY  
CODEX ALIMENTARIUS COMMISSION

PORTION OF COMMODITY  
TO WHICH THE MRL APPLIES  
(AND WHICH IS ANALYSED)

GROUP 7. FRUITING VEGETABLES - EDIBLE PEEL

Fruiting vegetables - edible peel are derived from the immature or mature fruits of various plants, usually annual vines or bushes. The entire fruiting vegetables may be consumed.

cucumbers  
egg plants  
gherkin  
okra  
peppers  
summer squash  
tomato

Whole commodity after removal  
of stems.

GROUP 8. FRUITING VEGETABLES - INEDIBLE PEEL

Fruiting vegetables - inedible peel are derived from the immature or mature fruits of various plants, usually annual vines or bushes. Edible portion is protected by skin, peel or husk which is removed or discarded before consumption.

cantaloupe  
melons  
pumpkin  
squash  
watermelon  
winter squash

Whole commodity after removal  
of stems.

GROUP 9. CITRUS FRUITS

Citrus fruits are produced by trees of the rue family and characterized by aromatic oily peels, globular form, and interior segments of juice filled vesicles. The fruit is fully exposed to pesticides during the growing season. The fruit pulp may be consumed in succulent form and as a beverage. The entire fruit may be used for preserving.

citrus fruits

Whole commodity.

GROUP 10. POME FRUITS

Pome fruits are produced by trees related to the genus pyrus of the rose family (Rosaceae). They are characterized by fleshy tissue surrounding a core consisting of parchment like carpels enclosing the seed. The entire fruit, excepting the core, may be consumed in the succulent form or after processing.

pome fruits  
apples  
pears  
quince

Whole commodity after removal  
of stems.

CLASSIFICATION AND EXAMPLES OF COMMODITIES  
UNDER CONSIDERATION BY  
CODEX ALIMENTARIUS COMMISSION

PORTION OF COMMODITY  
TO WHICH THE MRL APPLIES  
(AND WHICH IS ANALYSED)

GROUP 11. STONE FRUITS

Stone fruits are produced by trees related to the genus prunus of the rose family (Rosaceae) characterized by fleshy tissue surrounding a single hard shelled seed. The entire fruit, except seed, may be consumed in a succulent or processed form.

stone fruits  
apricots  
cherries  
sour cherries  
sweet cherries  
nectarines  
peaches  
plums

Whole commodity after removal of stems and stones but the residue calculated and expressed on the whole commodity without stem.

GROUP 12. SMALL FRUITS AND BERRIES

Small fruits and berries are derived from a variety of plants having fruit characterized by a high surface-weight ratio. The entire fruit, often including seed, may be consumed in a succulent or processed form.

blackberries  
blueberries  
boysenberries  
cranberries  
currants  
dewberries  
gooseberries  
grapes  
loganberries  
raspberries  
strawberries

Whole commodity after removal of caps and stems.  
Currants: fruit with stems.

GROUP 13. ASSORTED FRUITS - EDIBLE PEEL

Assorted fruits - edible peel are derived from the immature or mature fruits of a variety of plants, usually shrubs or trees from tropical or subtropical regions. The whole fruit may be consumed in a succulent or processed form.

dates  
figs  
olives

Dates and olives: whole commodity after removal of stems and stones but residue calculated and expressed on the whole fruit.  
Figs: whole commodity.

CLASSIFICATION AND EXAMPLES OF COMMODITIES  
UNDER CONSIDERATION BY  
CODEX ALIMENTARIUS COMMISSION

PORTION OF COMMODITY  
TO WHICH THE MRL APPLIES  
(AND WHICH IS ANALYSED)

GROUP 14. ASSORTED FRUITS - INEDIBLE PEEL

Assorted fruits - inedible peel are derived from the immature or mature fruits of different kinds of plants, usually shrubs or trees from tropical or subtropical regions. Edible portion is protected by skin, peel or husk. Fruit may be consumed in a fresh or processed form.

avocados  
bananas  
kiwi fruit  
papayas  
passion fruits  
pineapples  
mangoes  
guavas

Whole commodity unless qualified e.g. bananas (pulp). Pineapples: after removal of crown. Avocado and mangoes: whole commodity after removal of stone but calculated on whole fruit.

GROUP 15. CEREAL GRAINS

Cereal grains are derived from the clusters of starchy seed produced by a variety of plants, primarily of the grass family (Gramineae). Husks are removed before consumption.

cereal grains  
barley  
maize  
oats  
rice  
rye  
sorghum  
sweet corn  
wheat

Whole commodity. Fresh corn and sweet corn: kernels plus cob without husk.

GROUP 16. STALK AND STEM CROPS

Stalk and stem crops are various kinds of plants, mostly of the grass family (Gramineae) cultivated extensively as animal feed and for the production of sugar. Stems and stalks used for animal feeds are consumed as succulent forage, silage, or as dried fodder or hay. Sugar crops are processed.

barley fodder and straw  
grass fodders  
maize fodder  
sorghum fodder

Whole commodity.

GROUP 17. LEGUME OILSEED

Legume oilseed are mature seed from legumes cultivated for processing into edible vegetable oil or for direct use as human food.

peanuts

Whole kernel after removal of shell.



CLASSIFICATION AND EXAMPLES OF COMMODITIES  
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CODEX ALIMENTARIUS COMMISSION

PORTION OF COMMODITY  
TO WHICH THE MRL APPLIES  
(AND WHICH IS ANALYSED)

GROUP 18. LEGUME ANIMAL FEEDS

Legume animal feeds are various species of legumes used for animal forage, grazing, fodder, hay or silage with or without seed. Legume animal feeds are consumed as succulent forage or as dried fodder or hay.

alfalfa fodder  
bean fodder  
clover fodder  
peanut fodder  
pea fodder  
soybean fodder

Whole commodity.

GROUP 19. TREE NUTS

Tree nuts are the seed of a variety of trees and shrubs which are characterized by a hard inedible shell enclosing an oil seed. The edible portion of the nut is consumed in succulent, dried and processed forms.

tree nuts  
almonds  
chestnuts  
filberts  
macadamia nuts  
pecans  
walnuts

Whole commodity after removal of shell. Chestnuts: whole in skin.

GROUP 20. OILSEED

Oilseed consists of the seed from a variety of plants used in the production of edible vegetable oils. Some important vegetable oilseeds are byproducts of fibre or fruit crops.

cottonseed  
rapeseed  
linseed  
safflowerseed  
sunflowerseed

Whole commodity.

GROUP 21. TROPICAL SEED

Tropical seeds consist of the seed from several tropical and semitropical trees and shrubs mostly used in the production of beverages and confections. Tropical seeds are consumed after processing.

cacao beans  
coffee beans

Whole commodity.

CLASSIFICATION AND EXAMPLES OF COMMODITIES  
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PORTION OF COMMODITY  
TO WHICH THE MRL APPLIES  
(AND WHICH IS ANALYSED)

GROUP 22. HERBS

Herbs consist of leaves, stems and roots from a variety of herbaceous plants used in relatively small amounts to flavour other foods. They are consumed in succulent and dried forms as components of other foods.

herbs

Whole commodity.

GROUP 23. SPICES

Spices consist of aromatic seed, roots, fruits and berries from a variety of plants used in relatively small amounts to flavour other foods. They are consumed primarily in the dried form as components of other foods.

spices

Whole commodity.

GROUP 24. TEAS

Teas are derived from the leaves of several plants, but principally Camellia sinensis. They are used in the preparation of infusions for consumption as stimulating beverages. They are consumed as extracts of the dried or processed product.

tea

Whole commodity.

GROUP 25. MEATS

Meats are the muscular tissue, including adhering fatty tissue from animal carcasses as prepared for wholesale distribution. The entire product may be consumed.

carcase meat  
carcase meat (carcase fat)  
carcase meat of cattle  
carcase meat of goats  
carcase mat of horses  
carcase meat of pigs  
carcase meat of sheep

Whole commodity. (For fat soluble pesticides a portion of carcase fat is analysed and MRLs apply to carcase fat.)

GROUP 26. ANIMAL FATS

Animal fats are the rendered or extracted fat from the fatty tissue of animals. The entire product may be consumed.

cattle fat  
pig fat  
sheep fat

Whole commodity.

CLASSIFICATION AND EXAMPLES OF COMMODITIES  
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CODEX ALIMENTARIUS COMMISSION

PORTION OF COMMODITY  
TO WHICH THE MRL APPLIES  
(AND WHICH IS ANALYSED)

GROUP 27. MEAT BYPRODUCTS

Meat byproducts are edible tissues and organs, other than meat and animal fat, from slaughtered animals as prepared for wholesale distribution. Examples: liver, kidney, tongue, heart. The entire product may be consumed.

meat byproducts (such as liver, kidney etc.)  
cattle meat byproducts  
goat meat byproducts  
pig meat byproducts  
sheep meat byproducts

Whole commodity.

GROUP 28. MILKS

Milks are the mammary secretion of various species of lactating herbivorous ruminant animals, usually domesticated. The entire product may be consumed.

milks

Whole commodity.

GROUP 29. MILK FATS

Milk fats are the rendered or extracted fats from milk.

milk fats

Whole commodity.

GROUP 30. POULTRY MEATS

Poultry meats are the muscular tissues including adhering fat and skin from poultry carcasses as prepared for wholesale distribution. The entire product may be consumed.

poultry meats (carcase fat)

Whole commodity. (For fat soluble pesticides a portion of carcase fat is analysed and MRLs apply to carcase fat.)

GROUP 31. POULTRY FATS

Poultry fats are the rendered or extracted fats from fatty tissues of poultry. The entire product may be consumed.

Whole commodity.

CLASSIFICATION AND EXAMPLES OF COMMODITIES  
UNDER CONSIDERATION BY  
CODEX ALIMENTARIUS COMMISSION

PORTION OF COMMODITY  
TO WHICH THE MRL APPLIES  
(AND WHICH IS ANALYSED)

GROUP 32. POULTRY BYPRODUCTS

Poultry byproducts are edible tissue and organs, other than poultry meat and poultry fat from slaughtered poultry.

poultry byproducts

Whole commodity.

GROUP 33. EGGS

Eggs are the fresh edible portion of the reproductive body of several avian species. The edible portion includes egg white and egg yolk after removal of the shell.

eggs

Whole egg whites and yolks  
combined after removal of  
shells.

REPORT OF THE AD HOC WORKING GROUP ON PRIORITIES

## PARTICIPANTS:

J.A.R. Bates	FAO
T.J. Beckmann	Australia
A.F.H. Besemer (chairman)	The Netherlands
G. Bressau	Fed.Rep. of Germany
G. Dupuis	GIFAP (Observer)
Mark R. Lynch	Ireland
Dennis F. Papworth	United Kingdom
Ralph T. Ross	USA
J.T. Snelson	Australia
Jean Stalker	Canada
G. Vettorazzi	WHO
B.B. Wats	New Zealand
Geoffrey A. Willis	GIFAP (Observer)

1. Introduction

The Chairman reminded the ad hoc Working Group on Priorities that its charge is as follows:

- a) to assist the CCPR for making recommendations on priority compounds to be submitted to the JMPR for evaluations.
- b) to review the priority lists as delineated in the report from the eleventh session (Appendix VII, ALINORM 79/24-A) for reassessment of their order of priority, and
- c) to make a final report to the CCPR based on the final determination of the compounds in the existing lists as well as the introduction of new priority proposals.

2. Criteria for priority compounds

The Working Group reaffirmed the previously established criteria for placing compounds on priority lists (Appendix V ALINORM 79/24). When used in accordance with good agricultural practice, the criteria considered for priority compounds are as follows:

- a) must result in residues on the food commodity;
- b) must be a matter of public health concern;
- c) must affect international trade to a significant degree;
- d) be creating or to have a potential for creating commercial problems;

- e) must not be already under review at some stage in the Codex procedure; and
- f) must be available for use as a commercial product.

3. Questionnaire

The Working Group reviewed and approved the questionnaire ( Annex 1) which had been distributed to governments earlier. It was agreed that the form accomodates the information required by the group. No specific changes were recommended.

4. Sponsorship of proposals for priority compounds

The Working Group considered and agreed that is is not appropriate to receive submissions directly from industry. It reaffirmed that proposals should carry the endorsement of a national delegation. This will be noted in the letter of request for compounds to be considered at the next session of the ad hoc Working Group on Priorities.

5. New priority proposals

The Group reviewed submissions for establishment of priority status for methiocarb and tiocarbazil.

The Group agreed that methiocarb met the selection criteria and recommended its inclusion for review in 1981. The Group noted from information supplied from the manufacturer that tiocarbazil did not result in residues when used according to currently established practice, and thus did not meet the established criteria.

6. New compounds for the 1980 JMPR

The group noted that the WHO and FAO have included on the provional agenda the following new compounds: ...

amitraz	methacrifos
decamethrin (*)	oxamyl
etrimfos	phenthoate
mecarbam	

---

(\*) deltamethrin - proposed new ISO name.

7. Establishment of 1980 priority lists

The Group then considered the Chemicals which had been proposed for addition to the priority list. It was agreed that the most useful way of presenting confirmation on priorities to the CCPR was by the compilation of three lists as in previous years.

- (a) List I - This consists of compounds judged to meet the selection criteria that can be considered for review by the JMPR in 1981.

diflubenzuron	methiocarb
fenarimol	procymidone
isofenphos	

- (b) List II - This list consists of compounds judged to meet the selection criteria, and which could be considered for review in the succeeding year (1982) or later by the JMPR depending upon the availability of adequate scientific and technical data on the individual compounds. Current expectations are that information will be available for some compounds while others may have to be deferred to subsequent years.

ethoprophos	thiofanox
phoxim	vinclozolin
triazophos	isoprocarb

- (c) List III - This list consists of compounds identified from various sources that tentatively judged to meet the selection criteria and are drawn to the attention to countries and manufacturers. Countries and manufacturers having an interest in compounds on this list should follow procedures outlined in paragraphs 1-3 of this report.

dalapon	pentachlorophenol
famphur	propyzamide
metaldehyde	pyrazophos
naled	quinalphos

8. Compounds removed from the Priority List

After reassessing the priority lists from the eleventh session, the group determined the following compounds no longer met the criteria as set forth in paragraphs 2-4 of this report:

streptomycin

tetrachlorvinphos.

bupirimate

9. Confidentiality and Exclusivity of Data

The group recognized that, in general, there has been excellent support by industry for the submission of data. However, it was noted that there is reluctance from some members of industry to agree to their compound(s) to be evaluated because of confidentiality and exclusivity of data.

The group was aware of some developments to overcome the problem and hoped that those members of industry who had doubts would now be able to supply the data to the Joint Meeting. The group agreed that this should be called to the attention of member countries and GIFAP.

10. Plans for next session:

The 1980 Ad Hoc Working Group recommends that the 1981 Group plan to meet at 1.30 p.m. in the Congresgebouw on the Saturday before the 13th session opens (see also para. 187 of the report of the Committee).

11. Updating of the 1978 survey on Good Agricultural Practices:

The Canadian delegation offered to update the good agricultural practice (GAP) survey conducted in 1978 provided that the group felt that the information was useful to them in developing recommendations for priorities. The Group stated that it has been a most useful source of information and accepted the offer. The Group expressed their appreciation to the Canadian delegation not only for their work which had been put into the GAP report but for the extensive preliminary work which had been put into assembling priority proposals for the 1980 ad hoc working group.





REPORT OF THE AD HOC WORKING GROUP ON PROBLEMS  
IN DEVELOPING COUNTRIES RELATED TO PESTICIDE RESIDUES

1. The above Working Group held its Session during the Twelfth Session of the CCPR (2-9 June 1980, The Hague). It had before it document WG-DC/PR 80/1, provisional agenda WG-DC/PR 80/2, questionnaire distributed to governments on residue analysis and toxicological evaluation and document CX/PR 80/20, Appendix I containing a report by the chairman of the Working Group. The meeting was attended by the following delegates:

Victoriano C. Tolosa	Argentina
E.N. Fitzpatrick	Australia
Maria Elisa W. de Almeida	Brazil
Durval H. da Silva	Brazil
Waldemar F. Almeida (Chairman)	Brazil
H.V. Morley	Canada
K. Voldum-Clausen	Denmark
E. Günther	Fed. Rep. of Germany
B. Jurien de la Gravière	France
G.N. Bhardwaj (Rapporteur)	India
P.M. Vermes	Israel
M.A. Martinez (Rapporteur)	Mexico
Enrique Garcia-Galiano	Mexico
O.A.A. Kupoluyi	Nigeria
Arne Andersson	Sweden
Dicken Johansson	Sweden
E. Celma	Spain
P. Pothisiri	Thailand
V. Natvatananon	Thailand
F. Chandra	United Kingdom
G.B. Pickering	United Kingdom
R.C. Tincknell	United Kingdom
Ed. Johnson	United States of America
F. Ives	United States of America
Stanford N. Fertig	United States of America
Libertad Brito de Saume	Venezuela
Mauro Fernandez	Venezuela
Nelson Morgado C.	Venezuela

Invited to participate

J.A.R. Bates	FAO, Rome
Leslie G. Lodomery	FAO, Rome
G. Vettorazzi	WHO, Geneva

Observers

Burton B. Hodgden	GIFAP - USA
George B. Fuller	GIFAP - USA
Roger C. Blenn	GIFAP - USA

2. The Working Group unanimously re-elected Prof. W.F. Almeida (Brazil) as chairman and Dr. M.A. Martinez (Mexico) and Dr. K. Krishnamurthy (India) - represented by Dr. G.N. Bhardwaj - as rapporteurs of the Working Group. It then adopted the Provisional Agenda without change and decided that its main task was to discuss (a) the revised recommendation contained in document CX/PR 80/20 App.1 leaving the question as to how the recommendations might be implemented to discussions during the plenary session of the CCPR and (b) further action in connection with the questionnaires already issued or envisaged to be issued to governments.

3. The Group received a verbal report by its chairman concerning the activities of the Group since the last session of the CCPR and noted that replies to the first questionnaire (WG-DC 80/2) had been received from a number of countries.

4. It was noted that a number of countries - Argentina, Brazil, Dominican Republic, Mexico, Nigeria, Thailand and Venezuela - had already answered the questionnaire on local available facilities for residue analysis and toxicological evaluation of pesticides. Facilities for residue analysis of organo-chlorine pesticides and for some organo-phosphorus compounds already exist in one or more laboratories in these countries. Several laboratories are in position of receiving a limited number of technical people from other countries for training. Facilities for experimental toxicology and for toxicological evaluation of pesticides are less frequent in developing countries. The Working Group also noted that expertise for the establishment of ADIs and MRLs for pesticides not yet studied and evaluated by FAO/WHO, were very limited in these countries. Nevertheless, a number of these pesticides were already in current usage in developing countries.

5. It was agreed that a list of laboratories in developing countries which are able to receive technical people for training should be distributed through this Working Group. This preliminary list will be progressively completed during the next meetings of this Working Group. During the discussion of this item, delegates from several European and North American countries emphasized that there were several laboratories in these regions in position of receiving people for training. The delegates of these countries stressed that this cooperation already existed but could be easily intensified.

6. The Working Group had detailed discussions of the revised recommendations contained in App.1 of document CX/PR 80/20. It was recognized that a number of the recommendations went beyond the question of setting Codex MRLs for pesticide residues in food and were designed to strengthen the capabilities of developing countries to control the use of pesticides and to generate appropriate residue data and, as a result, participate more effectively in the work of the Commission.

7. The amended version of the Recommendations as adopted by the Working Group is given in Annex I of this Report.

8. During the discussions, it was re-emphasized that in the group on "Developing Countries" there were many countries with a very large geographical area and with different habits and customs. However, all these countries had similar problems in relation to health and especially on food contaminants and pesticide residues. These countries were at different stages of development as far as national legislation, food control, analytical facilities, toxicological evaluation and monitoring programmes were concerned. These problems had a negative effect on the system of pesticide registration, enforcement of regulations and observance of good agricultural practices. In consequence, needs varied from one country to another and it seemed to be no possibility of one solution which would be adequate for all countries. Developing countries should be stimulated to ask for assistance, guidance and documentation from FAO, WHO and governments in order to solve difficulties related to pesticide residues.

RECOMMENDATIONS OF THE AD HOC WORKING GROUP ON PROBLEMS OF DEVELOPING COUNTRIES RELATED TO PESTICIDE RESIDUES, 1980

1.0 The present status of the developing countries in the field of pesticide residues could be summed up as given below:

1.1 Most of the countries in spite of having Food Laws and regulation for prevention of food adulteration do not have adequate laws/regulations for registration of pesticides.

1.2 Facilities for, pre-registration trials on pesticides and their formulation, toxicity tests, residues on crops, stored food commodities, animal foods, processed foods etc., generation of appropriate data on intake and impact of pesticides on environment are inadequate and even non-existing in many countries.

1.3 Wherever laboratory facilities exist, the available equipment is insufficient. The number of laboratories is also inadequate.

1.4 The training of concerned personnel in the field deserves immediate attention.

2.0 In order to overcome these drawbacks, the following action is suggested:

2.1 FAO/WHO should therefore prepare and supply to developing countries, at the earliest, guidelines for a simplified stepwise registration of pesticides with an ultimate aim of preparation of a model pesticides law/regulations for appropriate action by the governments of the developing countries. However, immediately, FAO/WHO and other international bodies should prepare a digest on toxicological data (including toxic hazards and precautions to be taken) and efficacy of pesticides and formulations and supply these to the developing countries.

2.2 For accelerating development in this field, a consultation among the developing countries be arranged in order to study the needs and means so that an action programme on pesticide residues could be drawn up on the basis of priorities decided in this consultation, through a TCDC approach.

2.3 Simultaneously, a collaborative effort among countries, Regional Committees on Pesticides should be established to discuss problems related to pesticides in the Region and that seminars and conferences for exchange of technical informations and experiences gained in this field be held frequently.

2.4 FAO/WHO should also prepare for circulation to developing countries the essential components of an ideal pesticide laboratory covering different food commodities, the specifications and availability of the required equipment.

2.5 FAO/WHO and international organizations such as UNDP, UNEP and IAEA, IUPAC and GIFAP and governments should intensify their assistance to developing countries for establishing suitable laboratory facilities for detailed pesticide analysis and training.

- 2.6 With respect to WHO's new "International Programme on Chemical Safety", the implications especially concerning developing countries should be examined.
- 2.7 That the CCPR and Codex Regional Coordinating Committees should include in their agenda subjects of interest to developing countries in the field of pesticides including those proposed by the Ad Hoc Working Group.
- 2.8 Developing countries should take the following actions:
- (i) Establishment of National Interdepartmental Committees on Pesticide Residues to deal with matters related to pesticide residues and to act as a National Codex Committee and as the Codex contact point in this field;
  - (ii) Ensure control of import, sale, and use of pesticides and of their residues in food;
  - (iii) Take steps to ensure that pesticides are registered on the basis of (a) appropriate data such as those recommended by FAO/WHO; (b) local agricultural information; and (c) the evaluations of the Joint FAO/WHO Meetings on Pesticide Residues;
  - (iv) Preparation of a document indicating the presently available facilities and expertise in developing countries for pre-registration trials, toxicological evaluation, residue analysis, generation of appropriate data on intake of pesticide residues, and impact on the environment;
  - (v) Wherever facilities exist or are developed subsequently, regular monitoring should be carried out. Till then, governments should cooperate/collaborate in residue analysis of food items of national/international importance.
- 2.9 All governments should immediately prepare or update the mailing list of personnel connected with pesticide residues for ensuring timely supply of FAO/WHO documents on the subject.
- 2.10 Even though in previous conferences, a number of similar recommendations had been made, very little follow-up action has been taken and, therefore, a time target should be fixed for implementation of all accepted proposals. Some funds should be earmarked for taking up these recommendations by all governments/UN bodies and other international organizations.

Proposed Amendments to Maximum Residue Limits at Step 9  
(see paras 38-39 of this report)

Part A. Amendments submitted to the Commission for Adoption

	<u>MRL at Step 9</u>	<u>Proposed change</u>	<u>Status</u>
CARBARYL (No. 8)	Rice in husk 3 mg/kg	Rice in husk ) Rice(hulled) ) 5 mg/kg	Step 8
CHLORPYRIPHOS (No. 17)	Milk 0.01 mg/kg on a fat basis Milk products 0.01 mg/kg on a fat basis	Milk 0.1 mg/kg on a fat basis ) Milk products 0.1 mg/kg on a fat basis )	Step 5 (omission of
DDT (No. 21)	Milk products 1.25 mg/kg on a fat basis	1 mg/kg on a fat basis )	Steps 6 and 7 recommended)
FENITROTHION (No. 37)	Wheat bran 20 mg/kg	Raw wheat bran 20 mg/kg ) Processed wheat bran 2 mg/kg )	Non-substantive change
INORGANIC BROMIDE (No. 47)	Raw cereals 50 mg/kg	Cereal grains 50 mg/kg	Editorial change
METHIDATHION (No. 51)	Citrus fruit 2 mg/kg	Citrus fruit (except mandarins) 2 mg/kg	Non-substantive change
TRICHLORFON (No. 66)	Apples 0.1 mg/kg Cabbage 0.1 mg/kg Strawberries 0.1 mg/kg	Apples 2 mg/kg ) Cabbage 0.5 mg/kg ) Strawberries 1 mg/kg )	Step 5 (omission ) of Steps 6 and 7 recommended
DEMETON-S-METHYL (No.73)	Fodders and straws, Legume animal feeds 10 mg/kg (dry), 5 mg/kg (green))	) Replaced by individual ) animal feeds )	) Secretariat has ) been instructed ) by CCPR not to ) include these ) items in the 7 <sup>th</sup> ) Series of Step 9 ) MRLs
THIOMETON (No. 76)	Definition of Residue changed to: sum of thiometon, its sulphoxide and sulphone determined as thiometon sulphone and expressed as thiometon	)	) Non-substantive ) change

Part B. Amendments on which Government Comments are sought

	<u>MRL at Step 9</u>	<u>Proposed change</u>	<u>Status</u>
BROMOPHOS (No. 4)	Blackberries 0.5 mg/kg	1 mg/kg	Step 3
FENITROTHION (No. 37)	Wheat flour (white) 1 mg/kg	3 mg/kg	
INORGANIC BROMIDE (No. 47)	Wholemeal flour 50 mg/kg	Wheat flour (wholemeal) 50 mg/kg <u>1/</u>	Comments pending decision by Commission to initiate amendment procedure
Thiabendazole (No. 67)	Tomatoes 0.1 mg/kg	2 mg/kg	
THIOPHANATE-METHYL (No. 82)	Sweet peppers 2 mg/kg	Peppers 2 mg/kg	
	Barley 0.1 mg/kg )	Cereal grains 0.1 mg/kg <u>3/</u>	
	Oats 0.1 mg/kg )		
	Rye 0.1 mg/kg )		
Wheat 0.1 mg/kg )			

1/ The 1980 CCPR did not adopt this proposed change.

2/ The figure of 10 mg/kg was erroneously included in the report of JMPR. The JMPR, in fact, had recommended an MRL of 5 mg/kg. The CCPR considers this change non-substantive.

3/ The CCPR considers this change non-substantive.