

codex alimentarius commission

FOOD AND AGRICULTURE
ORGANIZATION
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WORLD HEALTH
ORGANIZATION

JOINT OFFICE:

Via delle Terme di Caracalla 00100 ROME: Tel. 5797 Cables Foodagri

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX ALIMENTARIUS COMMISSION
Thirteenth Session

Rome, 3-14 December 1979

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

Note: Unlike the previous reports of the Codex Committee on Pesticide Residues, the present report does not contain lists of proposed maximum residue limits at the various Steps of the Codex Procedure. These proposed maximum residue limits will, henceforth, be included in a "Guide to Codex Maximum Limits for Pesticide Residues". The First Issue of the 'Guide' (Ref. CAC/PR 1-1978) will be issued during 1978. It will serve as an information document and as a working paper for the 11th Session of the Codex Committee on Pesticide Residues. Comments will be requested on proposed maximum residue limits included in the 'Guide' by means of circulars.

The Hague

29 May - 5 June 1978

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX ALIMENTARIUS COMMISSION
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REPORT OF THE TENTH SESSION OF THE
CODEX COMMITTEE ON PESTICIDE RESIDUES
 The Hague, 29 May - 5 June 1978

INTRODUCTION

1. The Codex Committee on Pesticide Residues held its Tenth Session in The Hague, the Netherlands, from 29 May - 5 June 1978. 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 35 countries:

Argentina	Finland	Norway
Australia	France	Portugal
Austria	Fed. Rep. of Germany	Romania
Belgium	Ghana	South Africa (observer)
Brazil	Greece	Spain
Canada	Hungary	Sweden
Colombia	India	Switzerland
Cuba	Ireland	Thailand
Czechoslovakia	Israel	Tunisia
Denmark	Mexico	United Kingdom
Ecuador	Netherlands	United States of America
Egypt	New Zealand	

The following International Organizations were also represented:

Council of Europe
 European Economic Community (EEC)
 International Federation of National Associations of Pesticide Manufacturers (GIFAP)
 International Organization for Standardization (ISO)
 International Union of Pure and Applied Chemistry (IUPAC)

A list of participants, including officers from FAO and WHO, is set out as Appendix I to this Report.

OPENING SPEECH BY THE NETHERLANDS MINISTER FOR HEALTH AND ENVIRONMENTAL PROTECTION

2. The Tenth Session was opened by the Minister of Health and Environmental Protection, Dr. L. Ginjaar, who welcomed the delegates. The Minister gave a brief historical review of the Committee's work which commenced in 1966 and arose from the decision taken in 1963 by the Codex Alimentarius Commission, that standards for pesticide residues should be developed.

At that time public interest in pesticides, particularly in possible negative effects on health and the environment, had been aroused. Legislation had been introduced in many countries relating to both registration procedures and standards for pesticide residues. The Minister pointed out that part of the difficulties of the Committee over the years was related to the different approaches of countries with regard to pesticide regulations. As a result important differences emerged in the registration requirements of countries with well developed pesticide legislation.

These differences were more serious in the case of those countries where legislation was being developed. In some cases the use of certain pesticides led to the occurrence of residues in exported food which was unacceptable to importing countries. This situation has created difficulties in the exchange of both pesticides and of foods.

At present, it was impossible, however, to obtain a sufficient food supply of acceptable quality without the aid of pesticides. Dr. Ginjaar mentioned the initiative of the Director General of FAO in convening a meeting on the harmonization of pesticide registration requirements in October 1977 and which had invited the Committee to elaborate Guidelines on Residue Trials Methodology. This decision indicated the central role the Committee plays in the area of pesticide residues. Further evidence of the importance of the work of the Committee could be derived from the growing number of countries participating in its work. Starting in 1966 with 16 participants, the number had increased to 43 by last year, almost the same number as participated in this year's session of the "mother" organization: the Codex Alimentarius Commission. These 43 delegations represented a large portion of world agriculture and included countries whose economy depended largely on agricultural exports. The Minister pointed out that the Committee's wide representation contributed to the value of its proposals and ensured their validity all over the world.

In the preceeding nine sessions some 1300 proposals for residue limits were discussed. Despite the fact that the Codex procedure with its 10 successive steps is often described as a cumbersome one, the Committee had brought some 900 proposals to Step 8. Most of these had proved to be acceptable to the Codex Alimentarius Commission. To date about half of these proposals had been presented to governments for acceptance; the rest would be presented shortly. A growing number of countries had informed the Codex Alimentarius Commission of their acceptance of recommended maximum residue limits or of the fact that foods complying with Codex maximum residue limits could be circulated freely in their country. It appeared from the present working documents that notifications indicating a free distribution of food complying with Codex maximum residue limits had been received for 80% of the proposals elaborated by the Committee.

Dr. Ginjaar stressed that it was part of the Netherlands government's policy to encourage and to support as much as possible the work of the Codex Alimentarius Commission. The Netherlands also considered it to be their responsibility to encourage the adoption of Codex standards by other international bodies involved in the harmonization of food standards, such as the European Communities. Dr. Ginjaar was of the opinion that the Committee's work influenced the policy of a great number of governments with regard to pesticide residues.

It was apparent, therefore, that the Committee had succeeded in meeting the demands of public health, without unduly restricting agricultural practices, ensuring a continuing supply of food. The work of the Committee had made an impact in another area of endeavour. Many countries were now preparing legislation relating to chemicals hitherto unregulated, and which have an impact on the environment and public health. The experience obtained in the regulation of pesticides proved to be most helpful. It was not by chance that during recent years the Committee had been referred to on several occasions in connection with the establishment of maximum limits of non-pesticidal chemicals.

COMMEMORATION OF DR. RESNICK

3. Before starting the discussions the Chairman recalled the decease of Dr. Chaim Resnick (Israel) last year. Dr. Resnick had contributed substantially to the work of the Committee and it was on his initiative that the Committee had decided to review at its 10th Session its activities to date. Dr. Resnick's interventions during sessions always reflected the fundamental principles on which the Committee's work was based. On behalf of the Committee the Chairman had sent a letter of condolence to the Israeli Minister of Agriculture.

ADOPTION OF THE AGENDA

4. The Committee adopted the agenda in the order proposed with the addition of the following items:

- 4(e) Statement by the Representative of the Council of Europe on Work by that Organization in the Field of Pesticides.
- 8(b) Consideration of an Australian Proposal relating to Guideline levels for Pesticide Residues (Room Document 5).

APPOINTMENT OF RAPORTEURS

5. Dr. M. Lynch (Ireland), Dr. L. Richou-Bac (France) and Mr. E. Astolfi (Argentina) were appointed to act as rapporteurs to the Committee.

MATTERS OF INTEREST TO THE CODEX COMMITTEE ON PESTICIDE RESIDUES

6. The Committee had before it document CX/PR 78/3 and Add.1 summarizing matters arising from reports of the 1976 and 1977 Joint Meeting on Pesticide Residues (JMPR), the Ad Hoc Government Consultation on International Standardization of Pesticide Registration Requirements (Ref. AGP: 1977/M/9), Codex Commodity Committees and the Report of the 12th Session of the Codex Alimentarius Commission (Commission).

REPORT OF THE 1976 JMPR

7. The Committee noted that, on the recommendation of the JMPR, a comprehensive list of the maximum residue limits (MRLs) proposed by the JMPR to date was in preparation. It also noted that a parallel list of recommended Codex MRLs had been drawn up which would be published in the near future. The Committee was informed that the list of MRLs to be issued by the JMPR secretariat would indicate when the JMPR would reconsider particular pesticides and review the further information previously requested by the JMPR.

8. The question was raised as to how those MRLs should be reported where the CCPR had changed the recommendations of the JMPR. The Committee agreed that only Codex recommendations should be included in those publications which are sent to Governments at Step 9 of the Procedure. The Guide to Codex Recommended MRLs which summarized all MRLs at the various Steps in the Codex Procedure should indicate both the Codex MRL and the MRL

recommended by the JMPR (the latter by means of footnotes). The Committee noted that there were very few cases where the recommendations of the JMPR and CCPR differed.

9. The Committee was informed that the 1976 JMPR had considered it desirable to draw up a system of nomenclature and classification of foods and to provide guidance to analysts on the parts of individual foods to be analyzed. It was noted that these questions were being dealt with within the Committee and its ad hoc Working Groups. The Secretariat of the JMPR pointed out that a sufficiently clear indication of the food and the portion of the food to which the data applied often did not accompany data submitted to the Experts. It was also noted that, on the establishment of group MRLs it will be necessary to indicate whether they apply to all foods in a particular group or only to some of the foods listed in the various Codex groups or classes of foods.

REPORT OF THE 1977 JMPR

10. The Committee had before it the report of the 1977 JMPR distributed in limited numbers during the session (English version only). The Secretariat, in introducing the report, drew the Committee's attention to certain conclusions of the JMPR which related to various items on the agenda. It was agreed to consider those conclusions at the opportune moment. It also noted that the JMPR had indicated that generally its recommendations related to residue levels in samples taken at harvest and following Good Agricultural Practice. The Committee expressed its appreciation of the new presentation of the report of the JMPR, which it considered to be more informative.

REPORT OF THE AD HOC GOVERNMENT CONSULTATION ON INTERNATIONAL STANDARDIZATION OF PESTICIDE REGISTRATION REQUIREMENTS

11. The Secretariat drew the attention of the Committee to the fact that a number of the conclusions and recommendations of the Ad Hoc Government Consultation either had a bearing on the work of the CCPR or were complementary to it. The Committee noted Resolution IV of the Consultation, which contained an invitation to the Committee to elaborate "Guidelines on Residue Trials Methodology" which would include experimental design, sampling techniques, pre-analysis storage and preparation, as well as methods of reporting of supervised trials intended for developing residue data and the extent of variation in residue levels following the use of pesticides according to Good Agricultural Practice.

12. The Committee requested the ad hoc Working Group on Sampling to consider this matter and to draft proposals for the development of such Guidelines.

13. The Committee also noted a recommendation of the Consultation to the Director General of the FAO that, in view of the increasing importance of the work on pesticide residues, greater priority should be given to strengthening the facilities needed to collect, collate and disseminate scientific data which formed the basis of the work of the JMPR and the CCPR.

MATTERS ARISING FROM CODEX SESSIONS

14. The Committee noted that the 12th Session of the Commission had stressed the importance of the work on pesticide residues in food and considered that no change in the work programme or terms of reference of the Committee (e.g. reduction of the frequency of meetings) was envisaged. It also noted the conclusions of the Commission that it would not be within the Committee's Terms of Reference to consider limits for contaminants other than those which resulted from the use of pesticides. The Commission had requested the Secretariat to prepare a paper for its 13th Session on the implications of undertaking work on environmental and other pollutants.

15. The Committee was informed of a change in the Procedure for the Elaboration of Standards. The revised Procedure provided for the submission of information on possible economic implications of the proposed MRLs by Codex Committees as well as by governments, at various Steps during the elaboration of Codex MRLs (i.e. Steps 3, 5 and 6).

16. It was further noted that the Guidelines for Good Agricultural Practice in the Use of Pesticides, which the Committee had elaborated, had been adopted by the Session with some minor editorial amendments and would shortly be published as a Codex publication.

17. The Committee noted the request of the Codex Committee on Processed Fruits and Vegetables that international MRLs be established for fumigants in dates. It was agreed that Governments be requested to provide information on the fumigants used on dates together with data on the ensuing residue levels to the Secretariat. It was also agreed that the Codex Committee on Processed Fruits and Vegetables be requested to assist in obtaining such information. It was expected that the 1979 JMPR would consider the question of fumigant residues in dates.

18. The Committee agreed, on the request of the Joint ECE/Codex Alimentarius Group of Experts on Standardization of Quick Frozen Fruits, to consider the question of MRLs in quick frozen foods when discussing the problem of MRLs in processed foods.

INFORMATION ON THE WORK OF THE COUNCIL OF EUROPE IN THE FIELD OF PESTICIDES

19. The Council of Europe representative drew the attention of the Committee to the work of this Organization in the field of pesticides. The 4th edition of the booklet "Pesticides" had appeared at the end of 1977 and had facilitated the work of the Ad Hoc Government Consultation on International Standardization of Pesticides Registration Requirements, held in Rome in October 1977 (see para 11). The scope of this publication had been enlarged to cover both agricultural and non-agricultural pesticides and contained recommendations relating to the labelling and to the disposal of surplus pesticides, as well as guidance on the information which manufacturers should supply to national authorities. The preparation of the 5th edition of this booklet had started. Considerable emphasis will be placed on recent developments in mutagenicity and carcinogenicity testing. It will include a chapter on the use of biological agents. The section relating to effects on the environment will be expanded. The inclusion of a statement on the professional training needed by service company operatives and others engaged in pesticide application was envisaged. A draft resolution concerning the use of pesticides in the home and a paper giving guidelines that national authorities might include in their publications on the use of pesticides, had been elaborated.

REPORT ON ACCEPTANCES BY GOVERNMENTS OF RECOMMENDED MAXIMUM RESIDUE LIMITS FOR PESTICIDES

20. The Committee considered a report on acceptances of recommended MRLs (doc. CX/PR 78/4; CAC/ACCEPTANCES).

21. It was noted with satisfaction that 47 governments had notified the Secretariat of their acceptance or otherwise of recommended Codex MRLs. There were indications that a number of other countries were in the process of preparing their notifications. It was pointed out that in some countries the consideration of recommended MRLs at Step 9 of the Procedure involved extensive consultations and was, therefore, a lengthy procedure. Thus lack of response by a certain country did not necessarily mean that that country did not intend to give consideration to the acceptance of the recommendations of the Commission.

22. The Secretariat informed the Committee that the major part of the responses to recommended MRLs were positive, being full acceptances, limited acceptances, target acceptances, or non-acceptances but with an undertaking that products complying with Codex MRLs would be permitted to be distributed freely. It was noted that all of these forms of notification served to facilitate trade. A number of delegations stressed the need for governments to be as informative as possible in indicating acceptance or not of recommended MRLs. Governments should state their positions on all the recommended Codex MRLs as early as possible, without waiting for the completion of ongoing reviews of their current regulations or for the resolution of legal or constitutional difficulties which prevent them from giving "full acceptance" to recommended Codex MRLs.

23. The delegation of the UK informed the Committee that the "Limited Acceptance" form of acceptance was compatible with present UK legislation. The UK would be able to indicate its decisions on this matter when its position as a member of the EEC had been clarified; it was hoped that this could be done before the end of 1978. Recommended Codex MRLs were given wide currency and recognition in food control activities in the UK.

24. The delegation of the USA indicated that the current US position on the MRLs contained in the 4th and 5th series of recommended Codex MRLs would soon be communicated to the Secretariat.

25. The delegation from Cuba indicated that his Government agreed with the General Principles of the Codex. Cuba was studying the MRLs with a view to gradually notifying its position concerning individual recommended MRLs in accordance with the mechanisms established by the Codex.

26. In discussing the form of non-acceptance classified as "NDCC" in the CAC/ACCEPTANCES the Committee noted various examples of conditions which might be specified by governments for the distribution of foods conforming with Codex MRLs. It was agreed that a requirement that imported foods comply with existing national limits was not a condition intended by para 6.B(ii) of the General Principles of the Codex Alimentarius. The delegation of Norway similarly suggested that the application of Codex MRLs to imports during that part of the year when there was no local production of the foods concerned, but not at other times of the year, was not consistent with para 6.B(ii) above.

27. The Committee considered that the number of acceptances and other positive replies received to date from Governments was encouraging. It agreed that notifications should be as informative as possible and that efforts should be continued to encourage Governments to notify their intentions to accept or give target acceptance, at an early date, and not to wait until they are in a position to notify their formal acceptances or otherwise of Codex recommended MRLs (see para 22).

REVIEW OF THE WORK OF THE CODEX COMMITTEE ON PESTICIDE RESIDUES

28. The discussion of this agenda item was postponed to the end of the session (see paras 187-196).

CLASSIFICATION OF FOODS IN RELATION TO CODEX MAXIMUM RESIDUE LIMITS

29. The Chairman remarked that there had been no government comments on the food classification document, entitled "Definition and Classification of Food and Food Groups for the purpose of Codex Tolerances for Pesticide Residues", which was presented at the last meeting, since it had been available only in English. A second edition of the classification, incorporating minor revisions would be available in the three languages as a part of the "Guide to Codex Maximum Limits for Pesticide Residues" (CAC/PR 1-1978) and would be distributed for government comments. The Chairman observed that the classification system appeared to be a useful, convenient and logical system for adoption by CCPR and JMPR. The Chairman noted that the current alphabetical listing of foods adopted in the Guide (CAC/PR 1-1978) presented difficulties in considering MRLs during sessions of the CCPR and proposed that future editions follow the numerical system for groups and food commodities as in the classification document.

30. The delegation of the Netherlands stated that, although their examination of the system was not complete, they considered that there was a need to standardize the terminology used by different Codex Committees and in some instances a need to include botanical variety names in the classification. They recognized the need for a classification system and undertook to continue work aimed at identifying suitable indicator commodities - i.e. commodities for which data would always be required in establishing group tolerances.

31. The delegation of the Federal Republic of Germany stated that written comments would be provided after publication of the classification system.

32. The FAO representative stated that the JMPR would find the classification useful in its future work. The Secretariat pointed out the benefits to be gained from consolidating all recommendations and the food classification system in the Guide in reducing costs, in avoiding duplication of effort and in the harmonization of nomenclature.

33. The delegation of Cuba stated that the classification system would facilitate communication.

CONSIDERATION OF THE INTAKE OF PESTICIDE RESIDUES

34. The Committee had before it a working paper prepared by the Codex Secretariat (CX/PR 78/7) summarizing the current positions of the CCPR and the JMPR on the question of the estimation of pesticide residue intake.

35. It noted that the 1977 JMPR had concluded that calculations of potential theoretical intake had some value in determining priorities for further studies on pesticide residue intake. They were expressly not suitable for, nor were they intended for use in deciding whether or not to permit the introduction or the extended use of pesticides in a given country. The JMPR had concluded that a critical appraisal of any health risk could only be made by measuring the actual intake of pesticide residues.

36. The Committee reconfirmed its previous position relating to the desirability of determining actual residue intake by means of suitably designed monitoring studies and urged governments to carry out such studies. It agreed that the results of such national studies should be submitted to it as well as to the JMPR for consideration.

37. The question was raised as to whether it would be desirable to develop guidelines for the design of pesticide residue intake studies. The Committee was informed that the Joint FAO/WHO Food and Animal Feed Contaminants Monitoring Programme had such guidelines under consideration and that these would be published before the end of 1978. It was also noted that the Codex Committee on Food Additives had established an ad hoc Working Group to examine the question of food additive intake.

38. The Committee agreed that the Guidelines prepared by the FAO/WHO Monitoring Programme should be considered at the next session at which time it would be decided what further action, if any, should be taken in this respect. The Secretariat was requested to ensure that the work of the Codex Committee on Food Additives and that of the Committee would be fully coordinated and any possible duplication of effort avoided.

GUIDELINE LEVELS FOR PESTICIDE RESIDUES

General Discussion

39. In discussing this agenda item, the Committee had before it document CX/GEN 77/2, November 1977, which contained a list of proposed maximum levels for the residues of a number of pesticides, referred to as "guideline levels" (for which no ADI had been established).

40. An Australian proposal relating to the manner in which guideline levels for pesticide residues might be handled by the CCPR was also considered by the Committee. In speaking to their proposal, the delegate of Australia pointed out that guideline levels were not only of value and interest to the governmental agencies who were responsible at the national level for these matters, but also were of value in bilateral and even multi-lateral trade discussions. He further indicated that there were two distinct classes of pesticides falling into the guideline level category, namely (i) those for which there was a good prospect that adequate toxicological data would be forthcoming in the near future, and (ii) fumigants and other compounds for which the toxicological data would in all probability not be forthcoming. In this context he also stated that, due to cooking, fumigant residues would have largely disappeared by the time the food reached the consumer. The Australian document proposed that guideline levels be formally processed through the Codex elaboration procedures.

41. During the discussion of this matter, it became apparent that the members of the CCPR considered the guideline levels to be of great value and interest to governments. After a full discussion it was agreed that guideline levels should be sent to governments for their information and for their comments and thereby be processed through the early stages of the Codex MRL elaboration procedure. It was recognized that in the absence of an ADI further progress through the procedure would be unlikely. The list of guideline levels sent to governments should include a statement of the reason why the JMPR was unable to establish an ADI. The comments received from governments are to be brought to the attention of both the CCPR and the JMPR. The FAO Secretariat made reference to CL 1977/41, November 1977, inviting government comments on guideline levels and pointed out that only comments on the guideline levels listed in document CX/GEN 77/2 would be referred to the 1978 JMPR. It was noted that guideline levels proposed by the 1976 and 1977 JMPR would be distributed for comment in the near future.

Fumigants

42. The delegation of India drew attention to 1,2-dibromoethane and other fumigants, for which no ADI had been established (see also para 40). In their view a toxicological assessment of these pesticides was urgently required, which would permit the setting of MRLs. The representative of WHO recalled the various discussions on this matter by the JMPR. Due to a lack of data conclusions could not be reached. Long term toxicity studies with such gaseous products were difficult. A re-evaluation was scheduled, however, for a forthcoming session of the JMPR.

It was stressed that the guidance of the JMPR on fumigant residue levels would be of great value to many countries. However since cooking caused residues to disappear before consumption, it was pointed out that the lack of toxicological data was not a very serious problem and that the Guideline levels recommended by the JMPR provided a basis for controlling fumigant residues in food. The attention of the Committee was drawn to another problem, namely the possible formation of unknown reaction products between the food and the fumigants.

43. Several delegations were of the opinion that fumigant residues resulting from treating cereals may remain in the food when reaching the consumer, although these residues decreased by food processing such as milling, cooking and other processes. Attention had also to be paid to commodities other than cereals where no milling process was required, such as fresh or dried fruits and also unroasted coffee.

44. The delegation of Japan in its written comment had asked that guideline levels or, where possible, maximum residue limits be established for commodities treated with 1,2-dibromoethane or methylbromide for quarantine purposes. Guideline levels for these compounds on fresh fruits and vegetables were also requested.

Acutely Toxic Pesticides

45. During the discussion of this agenda item the delegate of Egypt made reference to the problems arising in developing countries as a result of the mishandling of acutely toxic pesticides. The Committee agreed to draw this matter to the attention of the appropriate bodies within WHO which are responsible for occupational health and the safe use of pesticides.

AMENDMENTS TO RECOMMENDED INTERNATIONAL MAXIMUM RESIDUE LIMITS

46. The Committee had before it document CX/PR 78/8. It noted that the amendments it had proposed at its 9th Session to Step 9 MRLs (ALINORM 78/24, App. II, Parts A and B) had been considered by the 12th Session of the Commission, with the exception of thiabendazole which was withdrawn by the Chairman when reporting to the Commission as he held the view that further discussion on the substance by the CCPR was desirable.

47. The Committee was informed that the Commission had agreed that the amendments proposed by the JMPR for lindane be sent to governments at Step 3 and had adopted the proposed amendments to fenitrothion and quintozone (see Part I, App. II, ALINORM 78/24). It was agreed to consider the new maximum residue limits for lindane (cherries, grapes and plums) when discussing MRLs under the appropriate item of the agenda. The Committee also noted that the 1977 JMPR had proposed that the temporary tolerances for captafol (peaches, sour cherries, sweet cherries, tomato, melons and cucumber) and for lindane (carcase meat of cattle, pigs and sheep, raw cereals, cranberries and strawberries) be changed to tolerances. Similarly the Committee observed that practical (or extraneous) residue limits (PRLs) had been substituted for temporary PRLs for lindane (milk, milk products, eggs and poultry). (N.B. These changes will be reflected in the "Guide", CAC/PR 1-1978).

CONSIDERATION OF CODEX MAXIMUM RESIDUE LIMITS (at Steps 4 and 7)

Introduction

48. The Committee had before it the following documents:

- a) a document prepared by the Codex Secretariat (CAC/PR 1-1978, Extract) summarizing all maximum residue limits recommended up to and including the 1976 JMPR. It also included changes proposed by the 1977 JMPR. The document would form chapter 2 of the Guide to Codex Maximum Limits for Pesticide Residues (first issue) which would appear soon after the Committee's Tenth Session. The Guide would contain a first chapter dealing with the Codex classification of foods and a third chapter, consisting of a compilation of recommendations for individual food items;
- b) the report of the Ninth Session of the Committee, ALINORM 78/24 and
- c) the summary of written comments received prior to the Committee's session CX/PR 78/9 and three addenda to this document.

49. The delegation of Austria put forward a suggestion that certain residue limits be adjusted on the basis of a comparison of ADIs and potential intakes using a practical calculation to establish potential intakes. It was explained that, while the calculation (formula) had validity where maximum residue limits covering broad groups of food existed, another approach described in paras 34-38 was preferred in the case of commodity or group MRLs.

50. The delegation of the USA recalled its statement at the Ninth Session concerning changes in the US pesticide law. Particular reference was made to the re-registration of all pesticides formerly registered under the 1947 Statutes, to a review of the tolerance setting policy and to a re-evaluation of previously established tolerances. It was for these reasons that the USA had not been in a position to comment on proposed Codex maximum residue limits; nor, for these reasons, could it comment on most of the proposed MRLs which were before this session of the Committee. The USA had, however, completed its examination of all recommendations at Step 9, and had begun adapting wherever possible US tolerances to recommended Codex maximum residue limits. Additional resources had now been allocated to Codex work in the USA.

51. The delegation of Denmark indicated that they were not in a position to give a clear commitment on the acceptability of maximum residue limits at this session, as consultations currently taking place had to be completed before maximum residue limits on food could be introduced in their country. They hoped to be able to give formal acceptances to a great number of proposals within a year.

The delegation of India informed the Committee that for about 20 pesticides, the national regulations had been modified on the basis of Codex proposals, but taking into account national dietary habits.

52. The Committee noted that the Commission had advanced all proposals presented to it at Step 5 enabling the Committee to discuss them at Step 7. Most of the proposals presented to the Commission at Step 8 had been advanced to Step 9.

The meeting strongly recommended that for a number of proposals, an accelerated procedure should be used, in which Steps 6 and 7 would be omitted. It was agreed that under circumstances where unanimity was immediately apparent on a proposal, such a procedure should be used, giving full motivation for the omission of Steps.

Discussion of Specific Recommendations

53. The following paragraphs reflect the discussions concerning individual maximum residue limits. The proposals mentioned are those on which discussion took place. Where no special indication is made, proposals were advanced from step 3 to step 5 or from step 6 to step 8 as appropriate. These will be included in the "Guide to Maximum Limits for Pesticide Residues" (CAC/PR 1-1978) which will be issued during the middle of 1978 (see also para 48).

AZINPHOS-METHYL

54. The Committee endorsed the view that the figure of 0.2 mg/kg, the MRL for a number of food items, should not be considered as a limit of determination.

BROMOPHOS (No. 4)

Red Currants and Black Currants

55. As the JMPR had recommended a limit of 1 mg/kg for black currants, bringing the proposal into line with that for red currants, the Committee decided to change the entry for red currants. It would now read: "currants, black, red and white". Consequently the Secretariat was requested not to submit to governments at step 9 the item black currants.

Wheat, Maize, Sorghum, White flour, Whole-meal Bread and White Bread

56. The original proposals of 0.2 mg/kg for wheat (1972 JMPR Report) had been changed by the 1975 JMPR to 10 mg/kg for raw grain (maize, wheat, sorghum). The proposal of 10 mg/kg for wheat had been advanced to step 8 by the 1977 session of the Committee, but the Commission had sent it back to the Committee to provide further opportunity for its consideration. The Committee decided to return the proposal for "raw cereals", to step 3. The proposal for white flour, whole meal bread and white bread were also returned to step 3. Governments were invited to comment on these proposals.

57. On the request of the delegation of India it was concluded, that rice was included in the general item "raw cereals". As the JMPR had not received data for bromophos on rice, governments were requested to make residue data available to the JMPR.

Cotton Seed

58. The delegation of Brazil requested that a MRL for bromophos in cotton seed be proposed by the JMPR and undertook to send data, supporting a MRL of 0.5 mg/kg.

Bran

59. As a consequence of the proposed MRL of 10 mg/kg for wheat, a MRL of 20 mg/kg had been proposed for bran by the 1975 JMPR. The delegation of the Netherlands pointed out that bran was used both for human consumption and as an animal feed. Accordingly separate limits may be required for food and for feed bran. It was noted, that the 1977 JMPR had given full consideration to the residues resulting from the use of grain protectants. It was decided to keep the proposal at step 3 and to ask governments to comment on these matters.

60. The Committee was informed that the 1977 JMPR had changed the ADI to 0.04 mg/kg Body-Weight and that the ADI was no longer temporary.

BROMOPHOS-ETHYL (No. 5)

Fat of Sheep

61. This item was changed to the standard terminology to read: "Sheep, carcass meat". It was noted that the MRL should be expressed in the carcass fat. After advancement of these proposals to step 5, the delegation of New Zealand requested that steps 6 and 7 be omitted. However, the delegation of Canada pointed out that they were waiting for additional information and would not support the omission of steps 6 and 7. The Committee agreed to advance the proposals to step 5 and not to recommend the omission of steps.

Maize (Kernels and Fodder)

62. The delegation of the Federal Republic of Germany suggested that this MRL be raised to 0.1 mg/kg and indicated that it would try to make data available to the JMPR to support its proposal.

63. The attention of the Secretariat was drawn to the definition for this food item, kernels being human food and fodder animal feed; separation into two different items might be necessary.

CAPTAFOL (No. 6)

64. The Committee was informed that the 1977 JMPR had increased the ADI to 0.1 mg/kg Body-Weight and that it was no longer temporary.

Cranberries

65. The 1977 session of the Committee had requested the JMPR to see whether the proposal for cranberries could be lowered to 5 mg/kg. The JMPR had, however, confirmed its previous proposal of 8 mg/kg.

The Committee agreed to the proposal and advanced it to Step 8.

Apples and Pears

66. The 1977 session of the Committee was unable to comment on these proposals as no residue data had been presented to the 1973 JMPR. The JMPR, at the request of the Committee had looked at the available, if limited, data and had retained the MRL of 5 mg/kg. The Committee decided to advance the proposals to Step 8.

Meat and Milk

67. The Committee decided that MRLs in milk and in meat of 0.1 mg/kg should be added to the list at Step 3. Data supporting these proposals has been presented to the 1976 JMPR.

CAPTAN (No. 7)

Apples and Pears

68. The 1977 JMPR had lowered the proposals to 25 mg/kg. The Committee agreed to these changes, but decided to keep them at step 6 asking governments to comment on them.

Cherries

69. The JMPR had only old residue data available in proposing an MRL of 40 mg/kg. The delegation of Switzerland called for a lower figure pointing out that in regular import surveys they had never found residues above 15 mg/kg in any fruit commodity examined. The delegation of Canada drew attention to the difference that could exist between residues at farm gate level and residues occurring at import, the latter generally being lower. The Canadian delegation indicated that they were prepared to undertake supervised trials in 1978 and would submit the data to the JMPR. All other delegations were requested to send any available data. It was decided to keep the proposal at step 6.

CARBARYL (No. 8)

Animal Feedstuffs (green), Milk, Milk Products

70. The Committee noted that at its 9th Session it had discussed the appropriate maximum residue limits for animal feedstuffs and the consequential limits for milk and milk products, and had requested governments to comment in the light of the 1976 Evaluations. On the basis of the written observations and an extensive discussion, it was agreed - in line with a recommendation of the 1976 JMPR - that the MRLs proposed related to the parent compound only.

71. It was agreed that the present proposals for maximum residue limits be advanced to step 8 of the Procedure. One delegation stated that the very low maximum limits proposed for milk and milk products ensured that the quantity of metabolites present would also be limited.

Bran, Various Cereals and Rice in Husk and Hulled

72. The Committee decided that "Bran" should read "Bran of wheat". It was pointed out that maize was not among the cereals listed. The Committee noted that for maize no data had been presented for evaluation. It was further noted that in due course the limit for "Rice in husk and hulled" would replace that for "Rice in the husk" (step 9).

73. The Committee decided to request the JMPR to explore the possibility of developing a single group MRL for cereals and to reconsider the limit(s) taking into account possible post harvest treatment of the products.

CARBOPHENOTHION (No. 11)

74. The Committee agreed to request governments to comment at step 6 on the maximum residue limits as proposed. It was further agreed to request specific observations on the feasibility of having a group MRL for Citrus fruit and on the appropriate maximum level. The Committee held the view that a separate limit should be established for Citrus Juice.

CHLORDANE (No. 12)

75. The Committee was reminded of its discussions on chlordane at three previous sessions and noted in particular the environmental problems which could result from the use of this compound. In the absence of further data the JMPR had not reconsidered the compound. It was noted that the use of the compound had been discontinued in a number of countries and that it was gradually being phased out in others. The delegation of the USA stated that in its country consideration was being given to replacing tolerances by action levels for those uses being cancelled. In the US an action level generally served the same purposes as a Codex MRL.

76. It was agreed that a revision of the adopted and proposed maximum residue limits was necessary in the context of present patterns of usage. The Secretariat was requested to seek the following information from governments by means of a circular letter:

- (i) existing uses of the compound;
- (ii) acceptable residue levels of both chlordane and oxychlordane.

The replies would be compiled by FAO for consideration by JMPR.

77. It was noted that the recommendations of the JMPR were based on the evaluation of experimental data relating to residues of the compounds under consideration. Therefore they would remain and not be affected by withdrawals or other restrictive actions taken by member countries which were based on considerations other than the consequences of Good Agricultural Practices. No further action was undertaken on this item.

CHLORDIMEFORM (No. 13)

Pears, Tomatoes, Rice (hulled)

78. The Committee was informed that further toxicological data would shortly be available and would be forwarded to JMPR for consideration at its next meeting. It was agreed to reconsider the proposals in the light of future JMPR recommendations.

CHLORMEQUAT (No. 15)

Oats, Wheat

79. Some delegations questioned the need for a maximum residue level of 10 mg/kg for oats, which would be double the limit for wheat. Following some discussion the Committee concurred with the findings of JMPR that a higher residue limit for oats was warranted.

Various cereal straws

80. The Committee strongly recommended that steps 6 and 7 be omitted.

Bread and Bran

81. The Committee was informed that, at the last session of the Commission, the delegation of Poland had requested that maximum residue limits be elaborated for bread and bran. The delegation of Poland had undertaken during the session of the Commission to provide the necessary data for consideration by JMPR.

CHLORBENZILATE (No. 16)

82. The delegation of the USA informed the Committee that in their country a re-evaluation of this compound had been concluded and that an announcement on this matter would be made shortly. The Secretariat would be informed of their conclusions. Re-evaluation of the compound by the JMPR could only be undertaken when the results of new studies, which were under way, would be at its disposal. It was decided to return the proposals to step 6, giving governments an opportunity to comment on the basis of the new data when it becomes available.

2,4-D (No. 20)

Barley, Oat, Rye, Wheat

83. The delegations of the USA, the Netherlands and Argentina stated that the proposed MRL of 0.2 mg/kg would not be sufficient when using this compound to destroy weeds shortly before harvest. They proposed a MRL of 0.5 mg/kg. The delegations of Sweden and the Federal Republic of Germany preferred a MRL of 0.1 mg/kg, although Germany could agree with a MRL of 0.2 mg/kg. The Committee decided to endorse decision of the JMPR to group these commodities under the terms "raw cereals" and agreed to return the item to step 6 and to refer it to the JMPR for review.

Potatoes

84. The delegation of the Netherlands suggested a lower MRL for protecting potatoes, which is a basic food commodity in that country. The delegation of Cuba agreed and proposed a MRL of 0.1 mg/kg which, in their opinion, covered residues resulting from Good Agricultural Practice. The Committee decided not to change the proposal and to advance it to step 8.

Vaccinium Berries (e.g. lingonberries, bilberries)

85. The Netherlands delegation questioned whether this item was important in international trade. As the delegation of Sweden responded in the affirmative, the item was advanced to step 5.

DDT (No. 21)

86. At the request of the 1977 session of the Committee, a questionnaire had been sent to all member countries seeking information on the actual use pattern in the various parts of the world and seeking informations on residues resulting from authorized uses as well as those resulting from background levels. Responses received indicated that the use of this compound had been phased out in many countries, but answers had not been received from various countries where DDT is known to be used.

87. The delegation of India informed the Committee that DDT, being an inexpensive and effective insecticide, had not been withdrawn from their market. They undertook to provide data on authorized uses. The delegation of Egypt said that DDT was no longer used in their country because of increased pest resistance.

88. The delegation of Brazil informed the Committee, that in their country DDT was only used on cotton, peanuts and soybean and for public health purposes. National MRLs would be adapted to these restrictions.

89. The delegation of Argentina indicated that in their country DDT was mainly used for public health purposes but that DDT was authorized for a limited number of agricultural uses. In response to a question raised by the delegate of Argentina the WHO representative informed the Committee of the existence of a draft WHO Environmental Health Criteria document on DDT and related compounds which would become available shortly. This document summarized the most significant studies on DDT up to 1976.

90. The Committee agreed to return the proposals to step 6 pending the evaluation of answers to the questionnaire.

DIAZINON (No. 22)

Milk and Milk Products

91. In endorsing the proposed MRLs it was recommended that steps 6 and 7 be omitted. 1/

DIPHENYLAMINE (No. 30)

Apples

94. The old data available to the JMPR supported the proposal of 10 mg/kg. The 1978 JMPR, however, proposed to change the figure to 5 mg/kg which was thought to be more realistic in the light of current use patterns. Governments had been asked to submit recent data that could justify a MRL of 10 mg/kg. The Committee decided not to change the figure at this moment and to return it to step 6 to enable governments to comment on both the figures.

1/ For practical reasons the numbers 92 and 93 have not been used in the numbering of paragraphs.

DIQUAT (No. 31)

95. The ADI for this compound was changed by the 1977 JMPR to 0.008 mg/kg body weight on the diquat ion basis.

Barley, Wheat, Wheat Flour

96. The Committee returned these items to step 6, pending the availability of more data. The delegation of the United Kingdom undertook to send data to the JMPR. Other delegations were also requested to make data available.

Eggs

97. The Committee agreed to change the MRL to 0.05, in accordance with the data presented to the 1976 JMPR.

Bread, bran

98. The Committee was asked to send data to enable the JMPR to propose MRLs for bread and bran as Poland had asked that such MRLs be developed.

99. The attention of the JMPR was drawn to the need for more definitive descriptions of commodities such as wheat flour and bran in proposing MRLs.

ENDOSULFAN (No. 32)

Potatoes and Sweet Potatoes

100. Several delegations suggested that this MRL be reduced to 0.1 mg/kg. It was decided to return the proposal of 0.2 mg/kg to step 6 to give governments another opportunity to submit their comments.

Meat, Milk and Milk Products

101. The Committee agreed that the proposals, being practical residue limits, seemed rather high and requested the JMPR to review the situation with regard to these commodities on the basis of the more recent data to be made available by governments. The proposed MRLs were returned to step 6.

Onion

102. After discussion it was concluded that the proposal referred to bulb onions, not to so called spring onions. In order to avoid confusion of this nature the Committee agreed that there was a need both for a botanical and for a commodity description of each crop, as well as for an indication of the part of the crop to be analyzed (see para 30).

ENDRIN (No. 33)

103. The Committee had a lengthy discussion on this pesticide, noting the rapidly declining use of the compound in many parts of the world. It had, however, been used on a large scale in the past, particularly on cotton. In those cases where it was still used the proposed MRL was required. It was anticipated that the declining use of endrin might, in the future, possibly result in its deletion from the list of Codex recommendations. In view of the decreasing usage a questionnaire such as for DDT and BHC was regarded as unnecessary. It was decided to advance the proposal to step 8.

FENITROTHION (No. 37)

104. The attention of the Committee was drawn to some errors in the 1977 JMPR Report. The proposals for rice (polished) of 0.1 mg/kg and for rice in the husk of 0.5 mg/kg should be deleted.

Wheat Bran, Wheat, Wheat Flour (wholemeal)

Wheat flour (white), Rice in the Husk and Hulled, White Bread

105. The Committee was informed that the 1977 JMPR had proposed a group MRL for raw cereals at 10 mg/kg. Concern was expressed at the possible consumer risk such levels could present. The delegation of the United Kingdom informed the Committee, that in several surveys in their country the actual intake appeared to be very low. In many cases authorized uses covered only application to empty containers and storage rooms. In the light of the concern expressed, it was agreed to return the proposals to step 6 to give governments another opportunity to comment on these proposals.

Rice (polished), Rice Bran

106. For the reasons given in the preceding paragraph, it was decided to return these proposals to step 3.

Peaches

107. On the basis of the 1974 Evaluations it seemed that the proposal had been derived from residue data on the "peel" of peaches. It was agreed to refer this item to the JMPR for clarification and to return the proposal to step 6.

Pears

108. The data presented for the 1974 Evaluation did not suggest a firm basis for different proposals for pears and for apples. It was agreed to return the proposal to step 6 and to ask the JMPR to clarify the matter.

FENTHION (No. 39)

109. The Committee noted that the 1977 JMPR had proposed new MRLs and had confirmed the various proposals submitted to it. The MRL for Citrus fruit had been changed from 0.5 to 2 mg/kg. It was agreed to defer discussion of the compound until the JMPR had completed a toxicological evaluation of the pesticide.

HEPTACHLOR (No. 43)

Sugar Beet

110. The Committee was informed that, following a request at the 9th session of this Committee (ALINORM 78/24, para 106), the 1977 JMPR had agreed to reconsider the MRL for sugar beet. The delegations of the Netherlands and France undertook to provide the JMPR Secretariat with the necessary data.

LINDANE (No. 48)

111. The Committee noted that the 12th Session of the Commission had decided that the amendments proposed for cherries, grapes and plums should be circulated to governments for comments at step 3. A circular letter requesting such comments had been issued in May 1978 (CL 1978/15) and the replies would be considered at the 1979 Session of the Committee.

Various commodities

112. The Committee agreed unanimously to advance the proposals to step 5 of the Procedure with the recommendation that steps 6 and 7 be omitted in view of the very extensive use of this compound.

MANCOZEB (No. 50)

113. It was agreed to postpone discussion of proposals for this fungicide to the next session of the Committee when governments would have had an opportunity to consider the Report of the 1977 JMPR.

OMETHOATE (No. 55)

114. The Chairman informed the Committee that, at the 12th Session of the Commission, he had proposed that the step 8 proposals concerning omethoate residues be returned to step 7, in order to permit the Committee and the JMPR to reconsider the maximum residue limits with a view to harmonizing the proposed levels for omethoate, dimethoate and formothion. The Committee concurred with the procedure followed and agreed to discuss the various commodities at step 7 and step 4 at its 11th Session in the light of the JMPR recommendations.

115. The delegation of the Netherlands in its written comments had questioned the usefulness of limits for sugar beet in the absence of MRLs for milk and meat. The delegation undertook to provide data to the JMPR to permit the establishment of MRLs for both milk and meat.

PARAQUAT (No. 57)

Sunflowerseed

116. Some delegations questioned the need to set the maximum residue limit for paraquat cation as high as 2 mg/kg. As additional residue data were available, the Committee requested the JMPR to reconsider the limit at the earliest opportunity. The proposed MRL of 2 mg/kg was not advanced.

Various commodities

117. As the proposed MRLs were generally acceptable to the Committee it was decided that they should be advanced to step 5 of the Procedure.

General considerations

118. The question was raised as to whether the di-(methylsulphate) salt of paraquat was used in agriculture. Some delegations indicated that this form of paraquat was in use to a limited extent. The delegation of Brazil, supported by the representative of WHO, was of the opinion that the di-(methylsulphate) moiety of paraquat, on the basis of long term tests, represented a health hazard (IARC Monographs Vol. 4, p. 274). They considered that the use of this salt of paraquat should be discontinued. The delegation of Brazil was of the opinion that both an occupational health hazard and a consumer hazard were associated with the use of the di-(methylsulphate) salt.

119. The Committee noted that the ADI referred to the dichloride salt of paraquat, which was the salt which had been used in animal experiments. It was agreed that this fact should be made clear in Codex publications. It was pointed out that, following application in agriculture and passage through animal organisms, the methyl sulphate moiety would be replaced by the anions present in excess in such environments. The delegation of Australia was of the opinion that any difference in the toxicology of paraquat di-(methylsulphate) and paraquat dichloride would be due to the impurities which were present in the former compound arising from the manufacturing process used to produce paraquat di-(methylsulphate).

120. The Committee decided that reference to the di-(methylsulphate) salt should be deleted in the footnote under item 57 in the Guide (see para. 53) and that it should be indicated that the Codex recommendations refer to paraquat cation following the use of paraquat dichloride.

PARATHION-METHYL (No. 59)

Other vegetables

121. The Committee concluded in its last session that the proposal of 1 mg/kg seemed rather high. Some questions relating to the toxicological evaluations needed clarification. As this subject was on the agenda of the 1978 JMPR, the proposal was returned to step 6.

Hops (dry cones)

122. The delegation of the Federal Republic of Germany remarked that the MLR of 0.05 mg/kg was not always sufficient. However, they had no statistically significant data to support a proposal for a higher figure. The proposal was advanced to step 5.

Tea - Tomato - and Sugar Beets

123. Consideration was given to a proposal to omit steps 6 and 7 for these items. The delegation of Canada however could not agree to this, pending the availability of toxicological information and specific residue information.

PHOSALONE (No. 60)

Fat of sheep - Meat of sheep

124. The Committee unanimously recommended that steps 6 and 7 be omitted, in view of the importance of these items in international trade.

QUINTOZENE (No. 64)

125. The Committee was informed that the 1977 JMPR had proposed that MRLs should only include residues of the metabolites pentachloroaniline and methylpentachlorophenyl sulphide and not of the impurities hexachlorobenzene and pentachlorobenzene, in accordance with the request of the Committee at its last session. It was noted that the JMPR had proposed to establish PRLs for these impurities. In response to a question from the delegation of the Federal Republic of Germany, it was explained that the ADI established for technical quintozene was based on a material containing 2.7% hexachlorobenzene and pentachlorobenzene as impurities. The delegation of the Federal Republic of Germany reserved its position, as considerable amounts of the metabolites pentachloroaniline and methylchlorophenyl sulphide were found on plant material and as it was not clear whether the ADI took this fact sufficiently into account. The representative of WHO stated that it was clear what the ADI applied to, and that there were no toxicological questions in abeyance.

126. The delegation of Belgium expressed concern at the absence of a toxicological evaluation of the important plant metabolites pentachloroaniline and methylpentachlorophenyl sulphide. It was decided to draw the attention of the JMPR to this aspect.

Lettuce

127. Although the delegation of Sweden thought that a MRL of 3 mg/kg was too high, the proposal was advanced to step 8.

Peanuts (whole product)

128. At the request of the delegation of Israel, it was explained that peanut hay, which was used as forage, was not included in this item. As there was unanimity to the proposal, it was advised that steps 6 and 7 be omitted.

THIABENDAZOLE (No. 65)

129. The new definition of the residue: "Animal products - Thiabendazole and 5-hydroxy-thiabendazole expressed as thiabendazole; and Plant products-Thiabendazole", as indicated in document CAC/PR 1-1978 (extract) was accepted by the Committee.

Potatoes (unwashed) - Potatoes (washed)

130. The 1977 JMPR had changed these proposals to a single proposal for potatoes (washed before analysis) with a MRL of 5 mg/kg. As there had not been a possibility for governments to comment on the proposal, it was returned to step 3.

Milk, Carcase Meat and Meat Products of Cattle, Goats, Horses, Pigs and Sheep

131. There was general agreement to the proposals. It was unanimously proposed that steps 6 and 7 be omitted, in view of the importance of these items in international trade.

TRICHLORFON (No. 66)

Tomato

132. As the ADI is to be re-evaluated by the 1978 JMPR the proposal was returned to step 6.

Lettuce, Spinach, Raw cereals (including maize)

133. There were some discrepancies for these items between the documents CL 1977/16 and CAC/PR 1-1978. Pending re-evaluation of the compound by the 1978 JMPR, the Committee decided to return them to step 3 (NB. document CAC/PR 1-1978 has been corrected).

CYHEXATIN (No. 67)

Bell Peppers

134. As in international trade the origin of a food commodity was of no importance, it was agreed to delete the addition "Glass House Only" in the description of the commodity.

BROMOPROPYLATE (No. 70)

135. The delegation of Canada informed the Committee that a toxicological evaluation of bromopropylate was being conducted in Canada and consequently they were not in a position to form an opinion on the proposed MRLs.

Apples, Pears

136. The delegation of the Netherlands was of the opinion that the MRL of 5 mg/kg was too high, as residues higher than 3 mg/kg were never found in experiments carried out in that country. The Committee decided not to change the proposed MRL of 5 mg/kg.

Strawberries, Grapes

137. A number of delegations were of the opinion that the residue data on these crops given in the 1973 Evaluations was not sufficient to substantiate an MRL of 5 mg/kg, particularly in the light of the waiting period considered by the JMPR. The Committee requested the JMPR to reconsider these two MRLs. The delegate from Israel undertook to supply data on strawberries to substantiate a MRL of 5 mg/kg. The MRLs for strawberries and grapes were returned to step 6 of the Procedure.

Tea

138. It was noted that the commodity concerned was "tea, dried, manufactured".

Milk, meat

139. On the suggestion of the delegation of the Netherlands the Committee requested the JMPR to propose MRLs for meat and milk on the basis of residue data to be supplied by governments.

DEMETON-S-METHYL (No. 73)

Various food commodities

140. The Committee agreed to regroup black and red currants under one item and also to include white currants. The delegations of Sweden and Switzerland reserved their position on all maximum residue levels above 0.5 mg/kg. The delegation of the Netherlands reserved its position on all limits proposed for the different food items pending further evaluation of the compound in its country.

Animal feeds

141. The Committee discussed in detail the question of setting MRLs for animal feeds. Several delegations expressed the view that the levels elaborated should be guidelines and not MRLs. It was further suggested that the term "animal feed" should be defined in order to avoid confusion when alternative uses of a commodity was possible, e.g. cereals as a food or a feed. It was pointed out that the setting of MRLs for feeds was not a task specifically assigned to the Committee and that such limits did not form part of food legislation proper. The Committee noted, however, that in relation to MRLs for certain products of animal origin the existence of limits for animal feeds was of practical importance. Provided the levels did not go beyond those indicated, the MRLs for certain animal products should not be exceeded.

142. The Committee agreed to reconsider the matter at its next session in the light of a paper to be prepared by the Secretariat and which would cover the various implications of setting MRLs or guideline levels for animal feeds. In particular the paper would deal with questions of classification, method of listing and procedure of acceptance. In view of the above the Committee decided to return the limits for animal feeds to step 6 of the Procedure.

DISULFOTON (No. 74)

Potatoes

143. The delegations of the Federal Republic of Germany, the Netherlands and Switzerland stated that, in their opinion, the MRL for potatoes should be reduced from 0.5 to 0.2 mg/kg. It was pointed out that during cooking the compound was destroyed. The Committee returned this item to step 6 of the Procedure. The delegations mentioned agreed to send data to JMPR to substantiate their proposal.

144. In line with its earlier decision regarding animal feeds the Committee decided to return the MRL for forage crops (green) to step 6 and the MRLs for alfalfa (hay), clover (hay) and peanut shells to step 3.

PROPOXUR (No. 75)

145. The Committee noted that it had sought clarification on the components included in the residues of propoxur. It was informed that the 1977 JMPR had confirmed that the MRLs referred to the sum of propoxur and its main metabolites, ie. 2-hydroxyphenyl methylcarbamate and 2-isopropylphenyl hydroxymethylcarbamate, expressed as propoxur. The delegation of Canada informed the Committee that the compound was presently being reviewed in its country and entered a general reservation.

Cocoa beans

146. Following a request by the delegation of Ghana, which was of the opinion that the residue level for cocoa beans may be too low, the Committee agreed to return this item to step 6. The delegation of Ghana undertook to provide JMPR with residue data.

THIOMETON (No. 76)

Beets (Fodder)

147. The Committee agreed to be more specific regarding animal feeds and to list as separate items: fodder beets, fodder beet tops and sugar beet tops. The Committee set the MRL for these items at 0.05 mg/kg.

THIOPHANATE-METHYL (No. 77)

148. The Committee noted the close relationship between the present compound, benomyl (69) and carbendazim (72). It considered that, for a particular commodity, the MRLs for all three compounds should be the same as the residues were all measured as carbendazim.

149. The Committee considered proposals to lower the MRLs for Citrus fruit from 10 to 5 mg/kg and for strawberries and lettuce from 5 to 2 mg/kg. In the light of the desirability of a co-ordinated approach to all three compounds the Committee decided not to make any change at this stage. It was decided to advance the proposal to step 8. The delegation of Belgium agreed to provide data on residues of the three compounds in lettuce and, in due course, in strawberries. The delegation of the Netherlands indicated that it would submit new residue data relating to the post-harvest use of carbendazim precursors on potatoes.

150. As decided for other animal feeds, the MRL for sugar beet tops was returned to step 6.

151. It was pointed out that the MRLs set for chicken meat and chicken fat at 0.02 mg/kg were below the limit of determination. The Committee requested the Working Group on Analysis to consider this matter.

CHINOMETHIONAT (No. 80)

Apples

152. The Committee noted that the 1977 JMPR had reduced the limit from 0.5 to 0.2 mg/kg and agreed to the proposal. The item as amended was returned to step 6 for a further round of government comments.

CHLOROTHALONIL (No. 81)

153. The Committee was informed of several actions taken by the 1977 JMPR: (i) the reduction of the limit for peaches from 30 to 25 mg/kg; (ii) the substitution of "orange" by "Citrus fruit"; and (iii) the recommendation for an additional temporary limit for bananas. The Committee returned the MRLs for peaches and Citrus fruit to step 6 of the Procedure. The delegation of the Federal Republic of Germany stated its intention to submit data on additional food items.

DICHOFLUANID (No. 82)

Currants (Red, Black, White), Grapes and Raspberries

154. The delegation of the Netherlands supported by the delegation of Switzerland, expressed the view that the data presented for the 1974 Evaluations supported a MRL of 10 mg/kg on the basis of a pre-harvest interval of 15 to 21 days. The Committee decided however to advance the proposals to step 8.

Beans (Green in Pod)

155. The suggestion was made that the data in the 1974 Evaluations supported a MRL of 0.5 mg/kg. It was decided to refer the proposal to the JMPR to see whether a reduction of the figure to 0.5 mg/kg was realistic. Meanwhile the proposal was returned to step 6.

DICLORAN (No. 83)

156. The Committee was informed that the 1977 JMPR had changed the temporary ADI to an ADI.

Apricots, Nectarines

157. It was noted that the 1977 JMPR had retained the MRLs of 10 mg/kg for apricots and had proposed a MRL of 10 mg/kg for nectarines. The Committee advanced the proposals to step 8.

Cherries, Peaches

158. The delegations of France and of the Federal Republic of Germany stated that, for toxicological reasons, a MRL of not more than 10 mg/kg was preferred. The delegation of Australia said that for post-harvest uses a MRL of 15 mg/kg was required. Several delegations expressed doubts as to whether importing countries could accept such residue limits. The proposals were advanced to step 8.

Lettuce

159. The delegations of France, the Federal Republic of Germany and the Netherlands considered the proposal to be rather high. The delegation of the Netherlands preferred a limit of 3 mg/kg, which was stated to be realistic on the basis of a longer pre-harvest interval. The delegation of Australia and the United Kingdom expressed the view that the proposal was rather low for some circumstances. The proposal was advanced to step 8.

Onions, Chicory

160. The Committee was informed that the 1977 JMPR had proposed a MRL of 20 mg/kg for onions and a MRL of 1 mg/kg for chicory.

DODINE (No. 84)

Apples and Pears

161. The Committee, at its last session, following requests from the delegation of Canada and the USA, had increased these limits to 5 mg/kg. Data in the Evaluations however only supported a limit of 2 mg/kg. The delegation of Canada said that with a normal pre-harvest interval of 7 days the figure of 5 mg/kg was needed in their country. Confirmatory data had been sent to the JMPR. It was decided to advance the proposals to step 8.

FENAMIFOS (No. 85)

Citrus fruit, Tomatoes

162. The Committee was informed that the 1977 JMPR had proposed a separate MRL for oranges and that the MRL for Citrus fruit should now read: "Citrus fruit, except oranges". Moreover, it was explained that the proposed MRLs for Citrus fruit and tomatoes were stated to be temporary by the JMPR, as they were based on insufficient residue data.

Carrots

163. The delegation of Australia indicated that they had submitted residue data, which supported a higher MRL. As these data apparently had not reached the JMPR, it was decided to return the proposal to step 6 requesting the JMPR to reconsider the matter.

Potatoes

164. The delegations of the Netherlands and of Norway expressed reservations on this proposal, which in their opinion was rather high in relation to the ADI, and considering that potatoes were a basic food commodity. It was stated that the extent of use of this compound was rather limited. Disappearance data were however incomplete. The proposal was advanced to step 8.

PIRIMIPHOS-METHYL (No. 86)

Wheat bran up to and including Bread - Plums and Pears

165. The Committee was informed that the 1977 JMPR had replaced the proposals for various cereal commodities with a single proposal for raw cereals at 10 mg/kg. It was decided to return these proposals to step 6 to give an opportunity to governments to comment on this new proposal and the related proposals for wheat products. The delegation of the Netherlands, supported by the delegation of the Federal Republic of Germany, expressed concern at the fact that relatively high residues were found in bread derived from pirimiphos-methyl treated cereals. It was noted that the 1976 JMPR had recommended an MRL of 2 mg/kg for plums and pears. These MRLs had been inadvertently omitted from the 1976 Report but had been correctly reported in the 1976 Evaluations.

Beans (with pod), Cheese, Citrus fruit, Dates

166. The attention of the Committee was drawn to a printing error in document CAC/PR 1-1978 (extract) where the MRL for these commodities was erroneously given as 0.05 mg/kg instead of 0.5 mg/kg.

LEPTOPHOS (No. 88)

167. The delegate from Egypt recalled his statement in the last session of the Committee, indicating unfortunate experiences arising from the use of this compound. He hoped that leptophos could be deleted from the Codex lists. The Committee was informed that the original producer in the USA had discontinued production of the product. Information on manufacture in other countries and on current uses were lacking. It was reaffirmed that this Committee was not directly concerned with application risks. The attention of the appropriate bodies within WHO was drawn to this matter (see also para 45). There was, however, still some uncertainty with respect to the toxicology of the compound and reservations were expressed concerning the proposed residue levels. It was decided to return the proposals to step 3, pending re-evaluation of the compound by the 1978 JMPR.

SEC-BUTYLAMINE (No. 89)

168. The delegation of Canada drew attention to their written comment, where mention was made of a chronic toxicological study from which a no-effect level could not be derived. They, therefore, felt unable to accept any MRL at this stage. The delegations of the USA and of the Netherlands mentioned that the compound was being re-evaluated in their country. As the compound was scheduled for review by the 1978 JMPR it was decided to return the proposals to step 3.

169. The delegation of the Federal Republic of Germany drew the attention to the fact that all the proposed MRLs related to processed foods. It was agreed to defer the discussion on this point to agenda item 13 (paras 214-219).

CHLORPYRIFOS-METHYL (No. 90)

Bran up to and including Wholemeal bread

170. The delegations of the Federal Republic of Germany, Denmark and the Netherlands raised objections to the proposals for these commodities, as they considered them to be high in relation to the ADI for the compound. It was stressed by other delegations that data from actual residue intake studies were necessary for an assessment of the acceptability of the proposals.

171. The Australian delegation pointed out that actual intake studies cannot be conducted until the product is used commercially and commercial use as a grain protectant insecticide cannot commence until international MRLs are developed. The proposals had, however, been developed on the basis of data from extensive trials carried out under commercial conditions. The intake must be judged from the amount of residue remaining in foods prepared from milled cereal products e.g. bread, not from the MRLs for raw grain. The JMPR had calculated that the theoretical potential intake from such sources would be less than the ADI. The representative of WHO stated that the ADI for this compound was not considered to be very low. It was decided to return all proposals to step 3 to enable governments to reconsider the proposals on the light of the JMPR monographs and published scientific literature.

CYANOFENPHOS (No. 91)

Rice (hulled)

172. In the 1975 Evaluations the description "rough rice" was used. It was agreed that the correct description for this commodity was: Rice (Hulled).

DEMETON (No. 92)

173. The proposed MRLs for the residues of this pesticide were acceptable. The Committee decided unanimously to advance them to step 5 of the Procedure and recommended that steps 6 and 7 be omitted.

ACEPHATE (No. 95)

Sheep fat, Sheep meat

174. These items were deleted as they had been erroneously listed in the 1976 Report.

Brussels Sprouts, Cabbage, Cauliflower, Lettuce

175. The Committee returned these items to step 3 of the Procedure noting that, in the view of a number of delegations, the information available to the JMPR had been inadequate. Governments were requested to send residue data to the JMPR.

Definition of Residue

176. It was noted that residues of acephate included a metabolite which was a pesticide in its own right (methamidophos). The Committee was informed that methamidophos and acephate had been allocated separate ADIs by the JMPR and that the ADI for methamidophos was lower than that for acephate. In view of these considerations the JMPR had decided to recommend separate MRLs for both pesticides.

CARBOFURAN (No. 96)

Other animal feeds not listed

177. The Committee requested the JMPR to indicate which animal feeds were included in this general MRL.

Tobacco (flue cured)

178. The question was raised as to whether the Committee should recommend MRLs for a product which was not a food. The representative of FAO pointed out that MRLs for tobacco were proposed by the JMPR for the guidance of governments, since tobacco was a commodity moving in international trade. The MRL did not imply anything other than the maximum residue level which was consistent with Good Agricultural Practice. The WHO representative confirmed that the recommendations of the JMPR represented the conclusions of independent experts. The WHO representative also remarked that the stated policy of the World Health Organization regarding the hazards of smoking was to discourage smoking itself, not to establish maximum limits for pesticide residues in tobacco.

179. A number of delegations were of the opinion that information on the uses of pesticides on commodities other than foods was useful in estimating the total consumer exposure to a pesticide residue. Attention was drawn to the fact that the residue levels in tobacco did not reflect the levels in inhaled smoke.

180. The Committee decided to delete the item on tobacco and agreed that this matter should be brought to the attention of the Commission.

CARTAP (No. 97)

181. The Committee noted that some of the MRLs were erroneously recorded in the 1976 Evaluations and should read: cabbage: 0.2 mg/kg; chestnuts (seed including pericarp); ginger, potatoes, rice (hulled), sweet corn: 0.1 mg/kg.

DIALIFOS (No. 98)

Apples, Pears, Grapes

182. As the MRLs of 2 mg/kg for these commodities were questioned in the light of the limited residue data available to the JMPR, it was decided to return these items to step 3 of the Procedure. Governments were asked to submit data to the JMPR.

183. The delegation of the Federal Republic of Germany considered that the limit of 1 mg/kg for grapes was too high and undertook to provide residue data for the JMPR. The Committee advanced the MRL of 1 mg/kg for grapes to step 5 of the Procedure.

184. It was noted that the report of the 1976 JMPR had erroneously reported the MRLs for carcass meat of cattle and sheep and for milk, the correct figure being 0.2 mg/kg on a carcass fat and on a fat basis respectively.

METHAMIDOPHOS (No. 100)

Hops

185. It was noted that the commodity concerned was dried hops. As several comments had been received proposing changes in the MRLs recommended by the JMPR, the Committee decided to return all the MRLs to step 3 of the Procedure.

PIRIMICARB (No. 101)

186. Comments had been received proposing changes in the MRLs recommended by the JMPR. Accordingly the Committee decided to return all the MRLs to step 3 of the Procedure.

REVIEW OF THE WORK OF THE CODEX COMMITTEE ON PESTICIDE RESIDUES

187. The Committee had before it document CX/PR 78/5, entitled Review of the Work of the Codex Committee on Pesticide Residues. This document had been prepared by the delegation of the Netherlands, in collaboration with FAO, and at the request of the Committee during its last session (see para 7 and 196-199 of ALINORM 78/24). Dr. van Tiel, Head of the delegation of the Netherlands, introduced the document which contained a review of the achievements of the Committee and an appraisal of the general state of progress of the work of the Committee. It also contained an inventory of the difficulties encountered in elaborating recommended Codex MRLs and in their acceptance by governments. Proposals for the solution of some of these problems were presented.

188. The Committee congratulated the Netherlands delegation and FAO on producing a document which provided a concise but wide ranging account of the aims, history and work of the Committee. It shared the view expressed in the paper that considerable progress had been made over the years. Many delegations expressed a large measure of support for the contents of the document. During the discussion of this review document the many problems restricting the more rapid advancement of the work of the Committee received special attention. It was agreed that a resolution, indicating clearly the action that should be taken to further improve the work of the Committee be adopted, being the best means of giving expression to the conclusions of the session.

189. After a full discussion, the following resolution was agreed to:

RESOLUTION

The Codex Committee on Pesticide Residues

Having examined the attached document entitled "Review of the Work of the Codex Committee on Pesticide Residues" (CX/PR 78/5, March 1978);

Recognizing that since its first session in 1966 considerable progress has been made towards mutual understanding between member countries on the principles for establishing maximum residue limits for pesticides in food and feed;

Recognizing that many countries are adopting or otherwise seriously taking into account proposals for maximum residue limits emerging from the Codex Committee on Pesticide Residues;

Recognizing that this development is an important contribution to the harmonization of maximum residue limits in food and feed on an international scale, thus ensuring the safety of the health of the consumer, the maintenance of adequate pest control measures according to Good Agricultural Practice, and the facilitation of international trade;

Pointing out that the present working arrangement between the Joint FAO/WHO Meeting on Pesticide Residues, an independent scientific body, and the Codex Committee on Pesticide Residues, an intergovernmental body, should be maintained, as should the Codex step-wise procedure in dealing with proposed maximum residue limits;

Being aware of the fact that a number of constraints have become apparent during recent years, partly as a result of the rapidly increasing workload without a corresponding adjustment of available resources, and partly due to external factors which have added to the complexity of the problems involved;

Draws attention to the fact that the Codex Committee on Pesticide Residues has reappraised the modus operandi of the Codex Committee on Pesticide Residues and the Joint FAO/WHO Meeting on Pesticide Residues with a view to coping with new obligations and expediting the work; bearing in mind the allocation of priorities to important commodities in international trade;

Emphasizes that Member Countries should be aware of the fact that their participation in the Codex Committee on Pesticide Residues expresses their adherence to Codex principles and a willingness to work towards harmonization of maximum residue limits in one of the ways laid down in the Codex acceptance procedure;

Further emphasizes that national authorities should undertake appropriate action of a legal, administrative or organizational nature within their country in order to enable the free distribution of commodities complying with internationally acceptable Codex maximum residue limits;

Recognizing that Joint FAO/WHO Meeting on Pesticide Residues, as a scientific advisory body can only arrive at recommendations on the basis of scientific and technical information supplied by industry and member countries, and that at present this information is often inadequate from the point of view of worldwide coverage, particularly with respect to the needs and problems confronting the developing countries;

Recommends that member countries should increase substantially the flow of information to the Joint FAO/WHO Meeting on Pesticide Residues in order to enhance the quality and acceptability of Joint FAO/WHO Meeting on Pesticide Residues recommendations;

Draws attention to pertinent proposals to that effect, which were included in paragraph 214 of the report of the 8th session of the Codex Committee on Pesticide Residues, which read as follows;

- (i) Establishment of a contact point specifically for pesticide matters who would correspond directly with the secretaries of the Joint FAO/WHO Meeting on Pesticide Residues; and
- (ii) Establishment, within the government, of a group of pesticide experts charged with the task; utilization of national and international trade or scientific organizations as a source of information from manufacturers, formulators, etc., and continuity of representation at the Codex Committee on Pesticide Residues;

and which have as yet not been implemented;

Considering the fact that with the increased workload in the field of pesticide residue matters FAO and WHO are facing a situation of continuous shortage in staffing and funding to the detriment of both the quality and the efficiency of the work of the Codex Committee on Pesticide Residues;

Recommends that FAO and WHO should increase the expert participation at the Joint FAO/WHO Meeting on Pesticide Residues and that additional staff and funds should be made available at FAO and WHO Headquarters for Joint FAO/WHO Meeting on Pesticide Residues and Codex Committee on Pesticide Residues activities;

Urges that at the same time FAO should explore the feasibility and desirability of any organizational measure to ensure and improve concerted action of the two secretariats of Joint FAO/WHO Meeting on Pesticide Residues and Codex Committee on Pesticide Residues.

190. As the forthcoming session of the Commission would take place after the next session of the Committee, it was decided that the Committee would re-examine this resolution during its next session.

191. The delegation of the USA, supported by several other delegations, strongly urged that delegations to this meeting inform their national representatives to the Governing Bodies of FAO and WHO of the Resolution and of the Background to the adoption.

192. It was considered, that the review document was of interest not only to the Commission but also to governments and International Organizations. It was, therefore, decided to include the document as Appendix II to this report.

193. The GIFAP representative expressed his organization's willingness to ask industry to make information available to the JMPR and wished to be given guidance on the way in which information input might be improved. The Chairman thanked the GIFAP representative and requested the Secretariat to advise that organization accordingly.

194. The representative of WHO drew the attention of the Committee to the different lists of internationally recommended maximum residue limits, and considered that harmonization between these international lists was very important.

195. The delegate of the Netherlands indicated that it was necessary to re-examine the Codex procedure with a special emphasis on proposals for pesticide residues. The rather long procedure involved should be shortened through the omission of steps, as had been advised on several occasions. In practice, the Committee and the Commission accepted proposals to omit steps in only a few cases. In the context of the patent life of pesticides it should be realized that most proposals might reach step 9 only shortly before expiration of the patent period. He invited the Committee to place this problem on the agenda of one of its next sessions.

196. During the discussion of the review of the work of the Committee, the delegate of the Federal Republic of Germany invited the WHO representative to comment on World Health Assembly Resolution 30.47 dealing with the evaluation of the effects of chemicals on health. It was pointed out that this Resolution, adopted by the World Health Assembly in May 1977, expressed concern regarding the toxic effects **which** might result from exposure to chemicals in the environment and requested the Director-General of WHO to study the problem with a view to accelerating and making more effective the evaluation of health risks. As a first step, a consultative meeting of experts was convened in Geneva in September 1977 to advise on methods and procedures of the study and on the possible tasks and options for an international collaborative programme. As a further step a group of WHO temporary advisors and representatives of international organizations met in Geneva in May 1978. This group made specific proposals regarding the implementation of the programme. These proposals were reflected in a World Health Assembly Resolution approved at the May 1978 meeting which requested the Director-General to strengthen the implementation of the programme through the establishment of a central unit at WHO Headquarters to plan and coordinate the programme and through the establishment of a network of national institutions that would be assigned specific tasks. In answer to a specific question regarding the effect, if any, which this proposed programme might have on the work of the JMPR and of the Committee it was indicated that it was premature to speculate on this matter.

METHODS OF ANALYSIS FOR PESTICIDE RESIDUES

(a) Report of the ad hoc Working Group

197. The Committee had before it the report of the ad hoc Working Group on Methods of Analysis (see Appendix III of this report). The Chairman of the Working Group, Dr. P.A. Greve, in introducing the report, drew attention to the main items discussed by the Group.

Numerical expression for MRLs

198. The Committee concurred with the conclusions of the Working Group relating to the expression of Maximum Residue Limits for the interval 1 - 10 mg/kg, that, in general, only the digits 1, 2, 5 and 10 should be used. It was noted that, where circumstances so required, other whole numbers in the interval could be used. The JMPR was requested to continue applying this approach in future recommendations.

Expression of MRLs for fat soluble pesticides

199. The Committee accepted the recommendation of the Working Group that MRLs of fat soluble pesticides be expressed on a product basis when the fat content of the commodity is below 8%. It was further noted that this proposal required re-calculation of present step 9 MRLs for milk, but that the amendments were not of a substantive nature. The delegation of the Fed. Rep. of Germany reserved its position especially concerning the procedure of recalculation. The Committee requested the Secretariat to prepare a list of revised MRLs for milk for the next session. The revised MRLs would then be submitted to the 13th session of the Commission for adoption.

200. On the question of MRLs for milk and meat products the Secretariat was requested to bring the matter to the attention of the Joint FAO/WHO Committee of Government Experts on the Code of Principles concerning Milk and Milk Products and to the Joint IDF/ISO/AOAC Working Group on Methods of Analysis and the Codex Committee on Processed Meat Products as appropriate. It was considered that the opinions of these bodies would be valuable to the JMPR in proposing MRLs for fat soluble pesticides in processed milk and meat products.

201. The JMPR was requested to follow the approach outlined in the report of the ad hoc Working Group when setting future MRLs for fat soluble pesticides in milk, meat and their products.

Recommendations for Methods of Analysis

202. The Committee noted that the ad hoc Working Group had made recommendations for methods of analysis for the compound/commodity combinations at steps 8 or 9 of the Codex Procedure (see Appendix III). It was agreed that, as these recommendations would be of practical utility to those engaged in the control of pesticide residues in food they should be given widest possible circulation, e.g. by inclusion in the Guide (see para. 53).

Good Analytical Practice in Pesticide Residue Analysis

203. The Committee noted that guidelines for good analytical practice would be finalized at the next session.

Definition of Residues

204. The Committee noted that the ad hoc Working Group had developed a standard format for expressing the residue levels of many pesticides taking into account current analytical practice. As the new presentation did not represent a substantive change the Secretariat was requested to make the necessary changes in future Codex publications. The Committee agreed to reconsider the basis for expressing pyrethrin residues at its next session in the light of comments received.

Limit of Determination of Chlorpyrifos

205. On the advice of the Working Group the Committee agreed that the MRL of 0.01 mg/kg for milk, cauliflower, red cabbage and potatoes should be changed to 0.05 mg/kg as this latter MRL corresponded, in fact, to the limit of determination. As the limits of 0.01 mg/kg were already at step 9 of the Procedure it was decided that they should be submitted to the Commission as non-substantive amendments.

(b) Collaborative studies on Pesticide Residue Analyses

206. The delegation of Australia informed the Committee that it was preparing a new collaborative study on the analytical method for inorganic bromide residues in cereals. It had sent out invitations to all Codex Member Countries to participate in the study. The results of this collaborative undertaking would, if possible, be presented to the 11th session of the Committee. The delegation of Australia also indicated that it was prepared to extend the collaborative study to other pesticide residues in plant products.

(c) Establishment of ad hoc Working Group on Methods of Analysis

207. The Committee thanked the Chairman, Dr. P.A. Greve and expressed its appreciation for the valuable work done by the ad hoc Working Group on Methods of Analysis. As it was considered necessary to continue on work in this field the Committee established a new ad hoc Working Group under the chairmanship of Dr. Greve. The membership of the Working Group is shown in Appendix III of this Report. Comments from member countries and other interested parties should be sent to Dr. P.A. Greve before 1 May 1979.

SAMPLING FOODS FOR THE DETERMINATION OF PESTICIDE RESIDUES FOR REGULATORY PURPOSES

208. The Committee considered the report of the ad hoc Working Group on Sampling (see Appendix IV to this Report). The Chairman of the Working Group Mr. J.A.R. Bates in introducing the report referred to a few minor amendments made to the sampling method arising from the comments received from countries. After its initial favourable reception it has been reported to the Working Group that several countries had already successfully used the recommended sampling method. The Committee expressed the hope that other countries would also try the method and report on its usefulness and on any problems encountered. The Committee supported the recommendation of the Working Group that the method, together with an appropriate introduction and explanatory notes should be made widely available as soon as possible. It was agreed that publication as an advisory procedure in the Guide to Maximum Limits for Pesticide Residues would achieve this objective.

209. The Committee agreed that Codex MRLs applied to the average pesticide residue content of the lot. This meant that, in practice, Codex MRLs should be compared with the pesticide residue content of the final sample. The Committee requested the Secretariat to insert the following explanatory note in step 9 publications containing recommended MRLs: "Codex Maximum Residue Limits apply to the residue content of the final sample representative of the lot".

Portion of Sampled Commodity to be Analyzed

210. The Report of the 9th session (ALINORM 78/24) refers to work started by the Working Group on Sampling on the elaboration of recommendations for the preparation of samples for analysis making use of the document "Definition and Classification of Food and Food Groups for the Purpose of Codex Tolerances for Pesticide Residues" (CX/PR 77/2). The Committee noted that lack of guidance on this subject had hampered progress in recommending Maximum Residue Limits and welcomed the Working Group's recommendations (Annex 2 of Appendix IV to this report).

211. The recommendations developed by the ad hoc Working Group specify the portion of the sample to be used for analysis for these commodities under consideration by the Committee and listed according to food group. The Chairman of the Working Group drew attention to the fact that Maximum Residue Limits apply to the whole commodity as it moves in commerce and that, in general the whole commodity should be analyzed unless otherwise indicated in Appendix IV. The Committee appreciated the urgent need for guidance on this subject and agreed that the proposals should be submitted to governments for their comments. Residue data on edible parts of commodities are valuable in some cases for risk assessments, e.g. the determination of residue intake.

Clarification of Commodity Descriptions

212. The Committee was informed that the ad hoc Working Group on Sampling had started work on the clarification of commodity descriptions. It noted that in a number of cases two or more descriptions of the same commodity had been used and in others it was not clear whether the Maximum Residue Limit applied to the whole commodity or the edible part. The Committee agreed that some clarification was necessary and welcomed the Working Group's intention to present recommendations at the next meeting. The Committee also noted that the Working Group had discussed the recommendation in Resolution IV of the ad hoc Government Consultation on International Standardization of Pesticide Registration Requirements that the Codex Committee on Pesticide Residues be invited to elaborate guidelines on residue trials methodology (CX/PR 78/3). The Committee agreed with the Working Group's view that such guidelines could form an important part of the Codex Committee on Pesticide Residues' effort to improve the quality of data submitted to the Joint Meeting on Pesticide Residues for assessment and welcomed the Group's intention to begin work on such guidelines.

213. The Committee thanked the Working Group for the work it had done and appointed a new ad hoc Working Group to continue the proposed work until the end of the next session. Delegations of the following countries expressed their wish to serve in the Working Group: Canada, Denmark, Federal Republic of Germany, Hungary, Ireland, the Netherlands, Spain, the United Kingdom and the USA. The Secretariat of the JMPR was also invited to attend. The Committee confirmed Mr. J.A.R. Bates (UK) as chairman of the ad hoc Working Group.

CODEX MAXIMUM LIMITS FOR PESTICIDE RESIDUES IN PROCESSED FOODS

214. The Committee considered a paper prepared by the Secretariat on the question of how pesticide residues in processed foods could be controlled (CX/PR 78/13). In introducing the paper the Secretariat expressed the opinion that a distinction should be made between single-component and multi-component processed foods and between the residues of pre- and post-harvest pesticides. For example the application of a pest control agent during processing of fruits and vegetables presented a different problem to that arising from the pre-harvest use of pesticides in multicomponent manufactured foods. Indeed some countries considered certain post-harvest pesticides used on fruits as "food additives" in their legislation and this approach gave rise to additional problems.

215. The paper prepared by the Secretariat also drew attention to the conclusions of the 1976 and 1977 JMPR and to previous conclusions of the Committee. After full discussion the Committee adopted, in principle, the recommendations that:

- (a) The task of setting international maximum residue limits for all possible "processed foods" would be formidable and would involve a product by product and chemical by chemical approach. The general application of existing maximum residue limits established for "raw agricultural commodities" to all the possible single and multi-ingredient "processed foods" appears to be fraught with difficulties;
- (b) Notwithstanding the statements under (a) above, it would seem to be necessary to recommend specific maximum residue limits for some "processed foods", due attention being paid to the significance of the food (e.g. daily per caput consumption, international trade), to residues resulting from good manufacturing practices, and other relevant aspects;
- (c) It appears that the application of maximum residue limits established for the raw agricultural commodities to processed foods requires judgement on a pesticide by pesticide and food by food basis, but that it is feasible in a number of cases. It would seem profitable to examine the various ways such maximum residue limits could be applied to processed foods.

216. It was agreed that governments should be invited to comment on the paper prepared by the Secretariat. In particular governments were invited to indicate:

- (a) existing national MRLs for processed foods in their country;
- (b) processed foods and pesticide residues which represented particular problems in their international trade;
- (c) existing practices or suggestions for the application of MRLs established for raw agricultural commodities to the various categories of processed foods.

217. It was pointed out that, generally, processing led to a significant decrease of residues in the treated food and that, with the exception of some staple foods such as milled cereal products, specific MRLs for processed foods were not considered necessary in many countries. Processed foods could be covered by a general requirement that the residues in such foods should not be greater than the MRL established for the raw agricultural commodity.

218. With regard to the question of quick frozen foods, referred to the Committee by the Joint ECE/Codex Group, it was considered that, in all probability the application of MRLs established for the raw agricultural commodity to these products would be feasible on the basis of the proportion of the raw agricultural product in the quick frozen food.

219. It was agreed that the whole question of MRLs for processed foods, including quick frozen foods, should be reconsidered at the next session. The Secretariat agreed to prepare a paper on the subject for that session.

ESTABLISHMENT OF PRIORITY LISTS

220. The Committee had before it the report of the ad hoc Working Group on Priority Lists (see Appendix V of this Report). The Report was introduced by Mr. E.R. Houghton, Chairman of the Group.

221. Mr. Houghton pointed out that the criteria for assigning priorities for evaluation of compounds by JMPR had been reviewed. They had been found to be adequate but it was thought useful to expand and re-express them.

220. The number of priority lists had been reduced from four to two. A third list that included compounds drawn from several sources and judged by the Group to be likely candidates for future consideration was also prepared. This slightly different approach for the presentation of priorities was thought to be an improvement. The three lists are as follows:

- (1) compounds as notified by the secretariat of JMPR to be evaluated in the current year (1978),

- (2) compounds scheduled for consideration in 1979 or as soon as possible thereafter,
- (3) compounds which meet the selection criteria.

Applications were invited from governments and manufacturers to propose pesticides for consideration by the ad hoc Working Group on Priorities. Replies should be sent to Mr. Houghton (Canada) not later than 28 February 1979.

223. The Committee noted that the Working Group had recommended that the 1975 Questionnaire and Good Agricultural Practice in the Use of Pesticides be re-distributed to participating countries immediately, and that it include two additional questions relating to residue problems in international trade and to human health problems. The replies would enable the Committee to observe the trends in pesticide use from the previous reports and to determine which products warranted consideration by the CCPR. The Committee gratefully accepted an offer of the delegation of Canada to undertake the distribution of the questionnaire and to compile the answers for consideration by the 1979 CCPR session.

224. The Committee agreed that the provisional agenda of the 1978 JMPR be distributed to Codex Contact Points and interested International Organizations by means of a circular letter as in the past. Governments and industry were urged to send data relating to the pesticides to be evaluated in 1978 to the secretariat of the JMPR. The Chairman of the Committee requested the secretariats of both the JMPR and the CCPR to keep manufacturers and governments informed of the compounds scheduled for evaluation by the 1978 and future sessions of the JMPR.

225. The Committee requested the JMPR Secretariat to consider the feasibility of periodically reviewing compounds for which ADIs and MRLs had been established. The JMPR secretary undertook to investigate this matter.

Setting up a new ad hoc Working Group

226. The Committee thanked the Working Group on Priorities for the work it had done and appointed a new ad hoc Working Group until the end of the next session. The new ad hoc Working Group consists of representatives of the same countries as the existing group as listed in the appended report (Appendix V). Dr. E.R. Houghton (Canada) was appointed Chairman and Dr. A.F.H. Besemer (the Netherlands) Vice-Chairman. Delegates of Brazil and Argentina indicated their wish to join the Priority Group as member and observer respectively.

SURVEY OF GOOD AGRICULTURAL PRACTICE IN THE USE OF PESTICIDES

227. The Committee had before it a document prepared by Canada (CX/PR 78/2), which was introduced by Mr. Houghton of the delegation of Canada. The document was an updated version of their summary document CX/PR 72/7 of 1972 which had been previously revised for the 1974 session of the Committee. As the document had been available for only a limited period, no comments had been received until now. Mr. Houghton indicated that further information, comments or suggestions would be most welcome and would be of great assistance in the preparation of the next edition of the document.

228. The Committee was most appreciative of the document which would be of great assistance to the work of the Committee, since the concept of Good Agricultural Practice was an important basis for recommending MRLs. The document would also serve to give a useful indication of those pesticides which were widely used. It would be helpful in assessing the kind of residues that could be expected in international trade. The delegation of Canada was thanked by the Committee for their valuable contribution.

229. The delegate of Canada explained that there were now basically two Good Agricultural Practice Reports, each last issued as CX/PR 78/2 and CX/PR 75/10. Each report treats a different crop grouping and is updated every three years. Thus the same questionnaire from which CX/PR 75/10 was derived will be distributed this year in order to compile the GAP report for the next meeting of CCPR. At the moment there is no questionnaire on a crop grouping for distribution in 1979 since 1979 will be the third year of the two report system now in effect. The Canadian delegation offered to entertain the possibility of producing a third report if a useful crop of food commodity grouping could be recommended at the next meeting of CCPR. The Secretariats of the CCPR and JMPR were invited to make suggestions along these lines for consideration by the ad hoc Working Group on Priorities at the next session.

230. The Chairman informed the Committee that, just prior to the meeting, he had received an advance copy of a synthesis of returns on the second questionnaire from EPPO. This questionnaire dealt with Good Agricultural Practice on the uses of some selected pesticides in EPPO countries in relation to a list of pesticides selected on the basis of problems existing in these countries concerning pesticide residues.

OTHER BUSINESS

231. The delegation of Brazil made the following statement: "The CCPR gives a great deal of attention to questions of relevance to public health and agriculture. Developing nations, such as Brazil, are heavily dependant on modern agricultural production. Modern because they must use the best and the most up-to-date technology in producing food and fibers economically both for domestic consumption and for the export trade. Economical production and high yields are achieved only through optimizing inputs such as: selected seeds, fertilizers, pesticides, soil conservation and good agricultural practice and management. All this leads to consideration of economic factors. Brazil wishes to support strongly the decision of the Commission to amend the Codex Procedure making it possible for governments to look more closely at economic impact when considering proposed MRLs. Brazil wishes to emphasize that in the 1975 ad hoc Consultation on Pesticides in Agriculture in Rome, the Brazilian delegation presented a motion - which was approved - stressing explicitly the relationship between residues, the establishment of Maximum Residue Limits, and international trade in food. This question was and still is of vital importance to food exporting countries, but of course within the limitations imposed by safety to public health. Brazil today is the second largest food producer and exported in the world. Last year Brazil exported over 6 billion dollars of agricultural products which amounted to 70% of total Brazilian exports. Codex figures and recommendations have been very useful in a trade context in Brazil. As a general policy they are taken as guidelines and directives to our studies and decisions."

232. The delegation of Argentina, on behalf of the Spanish speaking countries, thanked the government of the Netherlands and the Secretariat for providing a Spanish translation service during the session.

233. The delegation of India, referring to the resolution adopted (see para 189), requested that special attention be given to the needs of developing countries in the field of pesticide residues. The delegation asked that, on request, international bodies, such as Codex and IUPAC should assist them in the setting up of laboratory facilities and in the training of staff. The representative of FAO pointed out, that FAO had developed a programme to give support to developing countries which would assist in improving analytical and organizational facilities in this field. The Secretariat pointed to a similar programme of assistance within the framework of Codex. The representative of WHO emphasized the importance that his organization attached to this kind of work, remembering that WHO in December 1977 had convened a Consultation of Food Control Strategy in Developing Countries. The representative of IUPAC stressed that his organization was always prepared to give assistance on analytical and other matters. Concerning residue chemistry he asked that requests take the form of concrete questions.

234. Answering a query raised by the delegation of India, the representative of FAO re-emphasized the priority that was given to the problem of fumigants (see also paras 43-44). It would, however, probably not be possible to deal with this question at the 1978 JMPR, as a thorough preparation of the subject was necessary.

235. The delegation of Australia, recognizing the difficulties that developing countries would have in supplying full data to the JMPR, made a strong request that these countries at least supply data on current use patterns and rates of use in their countries, as these were of a very great assistance for the work of the JMPR and the Committee. The delegation of India undertook to supply these data whenever they could do so.

Date and Place of Next Session

236. The Chairman of the Committee indicated that the next (11th) session of the CCPR would take place from June 1979 in the Hague.

LIST OF PARTICIPANTS
LISTE DES PARTICIPANTS
LISTA DE PARTICIPANTES

Chairman of the Session
Président de la session
Presidente de la reunión

Ir.A.J.Pieters
Directorate of Public Health
Foodstuffs Division
Dokter Reijersstraat 10
Leidschendam
Netherlands

REPRESENTATIVES OF MEMBER COUNTRIES

ARGENTINA
ARGENTINE

Roberto J.Frasisti
Economic and Commercial Counsellor
Embassy of Argentina
Javastraat 20
The Hague
Netherlands

Emilio Astolfi
Toxicology Professor
Faculty of Medicine of the University
Ayacucho 1337
Buenos Aires (1111)

Osvaldo Marsico
Jefe Departamento Evaluacion de Terapicos /
Secretaria de Agricultura
Av. Las Heras 4025
1425 Buenos Aires

AUSTRALIA
AUSTRALIE

J.T.Snelson
Pesticides Coordinator
Dept.of Primary Industry
Canberra A.C.T. 2600

J.C.Benstead
Agricultural & Veterinary Chemicals
Association
c/o Shell Chemical (Aust.) Pty.Ltd.
155 William St.,
Melbourne 3000

AUSTRIA
AUTRICHE

E.Kahl
Director of the Federal Institute for
Plant Protection
Trunnerstrasse 5
A-1020 Vienna

E.Plattner
Bundesanstalt für Lebensmitteluntersuchung
und -forschung
Kinderspitalgasse 15
A-1090 Vienna

BELGIUM
BELGIQUE
BELGICA

E.M.Tilemans
43 rue Ernest Salu
1020 Bruxelles

W.DeJonckheere
Lab.voor Fytofarmacie
Fac. van de Landbouwwetenschappen
Rijksuniversiteit Gent
Coupure 533
B 9000 Gent

R.van Havere
Inspecteur des Denrées Alimentaires
Ministère de la Santé publique
Cité administrative de l'Etat
Quartier Vésale 4
B 1010 Bruxelles

M.Michel Galoux
Ministère de l'Agriculture
Chaussée d'Ixelles 29-31
1050 Bruxelles

BRAZIL
BRESIL
BRASIL

Marie Elisa Wholers de Almeida
Director of Food Services
Institute Adolfo Lutz
Department of Health of State of
Sao Paulo
Sao Paulo
Lysis Sadurny Aloé
Agronomist
Executive-Director of National
Association of Agricultural Defensives
Rua General Mena Barreto 663
Jardim Paulista
Sao Paulo

Waldemar Ferreira de Almeida
Director of Division of Animal Biology
Biological Institute
Department of Agriculture of the
State of Sao Paulo
Sao Paulo

CANADA

H.V.Morley
Director London research Institute
Research Branch
Agriculture Canada
University Sub post Office
London / Ontario

E.R.Houghton
Chief, Control Products Section
Plant Products Division
Food Production and Marketing Branch
Agriculture Canada
Sir John Carling Building
Ottawa, Ontario, K1A 0C5

B.Huston
Agricultural Chemicals Section
Additives and Pesticides Division
Health Protection Branch
Health and Welfare Canada
Tunney's Pasture, Health Protection
Building,
Ottawa, Ontario, K1A 0L2

COLUMBIA
COLOMBIE
COLOMBIA

F.Moncayo
Embassy of Columbia
Wassenaarseweg 17
The Hague (Netherlands)

CUBA

Ing.Nilo Ramirez Ortega
Dpto de Control de la Calidad
Ministerio de la Agricultura
Calle 1^{ra} y 16
Miramar - Ciudad de la Habana

CZECHOSLOVAKIA
TCHECOSLOVAQUIE
CHECOSLOVAQUIA

L.Rosival
Ass.Prof.
Director of the Research Institute
of Hygiene
Ul.Cs Armády 10
Bratislava

V.Benes
Institute of Hygiene and Epidemiology
10042 Prague 10

DENMARK
DANEMARK
DINAMARCA

Knud Voldum-Clausen
Head of the Pesticide Section
National Food Institute
Mørkhøj Bygade 19
DK 2860 Søborg

I.O'Reilly
Toxicological Board
Agency of Environmental Protection
Mørkhøj Bygade 19
DK 2860 Søborg

ECUADOR
L'EQUATEUR

Ing.Mercedes Bolanos de Moreno
Jefe del Laboratorio de Toxicologia
Ministerio de Agricultura
Casilla H 063 - Riobamba

EGYPT, Arab Rep.of
EGYPTE, Rép.arabe d'
EGIPTO, Rep.arabe de

Dr.Abdel-Moneim Makky
Environmental Health Director
Ministry of Health
P.O.Box 85
Maadi, Cairo,

FINLAND
FINLANDE
FINLANDIA

Aimo Kastinen
Chief Inspector
National Board of Trade and
Consumer Interests
Box 9
SF 00531 Helsinki 53

Aarre Ylimäki
Deputy Director
Pesticide Regulation Unit
Agricultural Research Centre
Box 18
SF 01301 Vantaa 30

Hans Blomqvist
Bureau Chief
Pesticide Regulation Unit
Agricultural Research Centre
Box 18
SF 01301 Vantaa 30

Heikki Pyysalo
Research Officer at Food Research Lab.
Technical Research Centre of Finland
SF 02150 Espoo 15

Arto Kiviranta
Research Officer
Customs Laboratory
Box 512
SF 00101 Helsinki 10

FRANCE
FRANCIA

E.de Laveur
Ministère de l'Agriculture
Laboratoire de Phytopharmacie
INRA - CNRA
Route de St Cyr
78000 Versailles

R.Mestres
Ministère de l'Agriculture
Laboratoire Interrégional de la
Répression des Fraudes
2 rue St.Pierre
34000 Montpellier

M.Richou Bac
Ministère de l'Agriculture
Laboratoire Central d'Hygiène Alimentaire
43 rue de Dantzig
75015 Paris

M.Jurien de la Gravière
Chambre syndicale de la phytopharmacie
2 rue Denfert-Rochereau
92100 Boulogne Billancourt

M.l'Hotellier
Chambre syndicale de la phytopharmacie
2 rue Denfert-Rochereau
92100 Boulogne Billancourt

GERMANY, Fed.Rep.of
ALLEMAGNE, Rép.féd.d'
ALEMANIA, rep.fed.de

H.P.Mollenhauer
Ministerialrat
Bundesministerium für Jugend, Familie und
Gesundheit
Deutschherrenstrasse 87
D 5300 Bonn 2

G.Bressau
Direktor und Professor
im Bundesgesundheits
Postfach
D 1000 Berlin 33

G.Becker
Oberregierungschemierat
Chemisches Untersuchungsamt für das Saarland
Charlottenstrasse 7
D 6600 Saarbrücken

M.Soltau
Bund für Lebensmittelrecht und Lebensmittel-
kunde
c/o Unilever-Forschungsgesellschaft
Behringstrasse 156
D 2000 Hamburg 50

K.Kossmann
Industrieverband Pflanzenschutz
c/o Schering AG
Chem.Pflanzenschutzforschung
Muellerstrasse 170/172
D 1000 Berlin 65

G.Leber
Industrieverband Pflanzenschutz
c/o Celamerck Gmbh und Co KG
Postfach 200
D 6507 Ingelheim

GHANA

H.A.Mould
Ghana Cocoa Marketing Board
P.O.Box 933
Accra

GHANA (cont.)

E.W.Kisiedu
Ghana Cocoa Marketing Board
P.O.Box 933
Accra

E.Owusu-Manu
Cocoa Research Institute
P.O.Box 8
New Tafo

GREECE
GRECE
GRECIA

E.Mastrandreu
Chief of the Section for the Control
and Registration of Pesticides
Direction of Plant Protection
Ippokratous 3-5, Athens

HUNGARY
HONGRIE
HUNGRIA

A.Ambrus
Department Head
Plant Protection and Agrochemistry Centre
Ministry of Agriculture and Food
1502 Budapest
P.O.Box 127

V.Cieleszky, Ass.Prof.
Head of the Dept.of Toxicological
Chemistry, Deputy Director
Institute of Nutrition
Gyali - ut 3/a
Budapest IX

INDIA
INDE

G.K.Girish
Govt of India
Ministry of Agriculture and Irrigation
Dept.of Food
Krishi Bhawan
New Dehli

K.N.Mehrotra
Head Division of Entomology
Indian Agricultural Research Institute
for Participation
New Delhi

IRELAND
IRLANDE
IRLANDA

M.Lynch
Pesticide Specialist
Department of Agriculture
Dublin 2

Adviser:

J.F.Eades
The Agricultural Institute
Oak Park
Carlow

ISRAEL

P.M.Vermes
Head of Pesticides Division
Department of Plant Protection
Ministry of Agriculture
P.O.B. 15030
Jaffa

Z.Gollop
Manager, Marketing and Development
Agricultural Chemicals
Bromine Compounds Ltd.
P.O.B. 180
Beer Sheba

MEXICO

Ing.Marco Antonio Martinez Munoz
Jefe del Departamento de Plaguicidas
de la Dirección General de Sanidad
Vegetal de la Secretaria de
Agricultura y Recursos Hidráulicos
G.Perez Valenzuela 121
Mexico City 20

NETHERLANDS
PAYS-BAS
PAISES BAJOS

N.van Tiel
Director
Plant Protection Service
Geertjesweg 15
Wageningen

A.F.H.Besemer
Head
Pesticides Division
Plant Protection Service
Geertjesweg 15
Wageningen

P.A.Greve
Residue Laboratory
National Institute of Public Health
Postbus 1
Bilthoven

F.W.van der Kreek
Directorate of Public Health
Foodstuffs Division
Dokter Reijersstraat 10
Leidschendam

APPENDIX I

NETHERLANDS (cont.)

A.G.de Moor
Directorate of Public Health
Bezuidenhoutseweg 73
The Hague

M.J.M.Osse
Ministry of Agriculture & Fisheries
Dept. of Agricultural Industries
and International Trade
Bezuidenhoutseweg 73
The Hague

E.M.den Tonkelaar)
Laboratory of General Toxicology
National Institute of Public Health
Postbus 1
Bilthoven

H.W.Brinkman
Netherlands Commission of the Food
and Agricultural Industries
p.a.Unilever Research Laboratory Duiven
Postbus 7
Zevenaar

J.van der Harst
Netherlands Association of Pesticide
Manufacturers
Shell Intern.Research CY
P.O.Box 162
The Hague

O.C.Knotterus
General Commodity Board on Arable
Products
Stadhoudersplantsoen 12
The Hague

P.Korver
Netherlands Association of Pesticide
Manufacturers
Philips Duphar B.V.
Weesp

O.R.Offringa
Netherlands Association of Pesticide
Manufacturers
Philips Duphar B.V.
Weesp

H.G.S.van Raalte
Netherlands Association of Pesticide
Manufacturers
Shell Intern.Research CY
P.O.Box 162
The Hague

H.G.Verschuuren
Netherlands Association of Pesticide
Manufacturers
Dow Chemical Europe
P.O.Box 1310
Rotterdam

NEW ZEALAND
NOUVELLE-ZELANDE
NUEVA ZELANDIA

B.B.Watts
Superintendent
Agricultural Chemicals
Ministry of Agriculture and Fisheries
P.O.Box 2298
Wellington

NORWAY
NORVEGE
NORUEGA

J.A.Race
Norwegian Codex Alimentarius Committee
Box 8139 Dep.
Oslo 1

T.H.Smith
National Institute of Public Health
Postuttak
Oslo 1

J.Paulsen
Pesticides Board of the Ministry of
Agriculture
P.O.Box 70
1432 AS-NLH

PORTUGAL

Eng.Assunção Vaz
Ministerio da Agricultura e Pescas
Direcção Geral da Protecção da Produção
Agrícola
Quinta do Marquês
Oeiras

ROMANIA
ROUMANIE
RUMANIA

Denes Steliana-Valentina
Research Institute for Marketing
of fruits and vegetables
rue Linăriei 93-95
Bucarest

SPAIN
ESPAGNE
ESPANA

E.Celma
Jefe del Departamento de Residuos
de Plaguicidas
Laboratorio Agrario Regional Central
Avenida Puerta de Hierro S/N
Madrid 3

SWEDEN
SUEDE
SUECIA

S.Renvall
Deputy Head of Food Standards
Division
The National Food Administration
Box 622
S-751 26 Uppsala

D.Johansson
Chemical Department
Svenska Lantmännens Riksförbund
Box 122 38
S-102 26 Stockholm

SWITZERLAND
SUISSE
SUIZA

B.Marek
Chef de Section
Service fédéral de l'hygiène publique
Haslerstrasse 16
CH - 3008 Berne

T.Avigdor
Société d'Assistance Technique pour
Produits Nestlé (NESTEC)
Case Postale 88
CH - 1814 La Tour-de-Peilz

G.Dupuis
Ciba Geigy AG
CH-4002 Basel

T.Stijve
Société d'Assistance Technique pour
Produits Nestlé (NESTEC)
Case Postale 88
CH - 1814 La Tour-de-Peilz

THAILAND
THAILANDE
TAILANDIA

Chalerm Sri Vajragupta
Director Agricultural Chemistry Division
Department of Agriculture
Ministry of Agriculture and Cooperative
Bangkok 9

THAILAND (cont.)

Amara Vongbuddhapitak
Food Analyst, Division of Food Analysis
Department of Medical Science
Ministry of Public Health
Yodse, Bangkok 1

TUNISIA
TUNISIE
TUNEZ

M.Malek Bensalah
Ministère de l'Agriculture
30 Rue Alain Savary
Tunis

UNITED KINGDOM
ROYAUME-UNI
REINO UNIDO

J.M.Lynes
Ministry of Agriculture, Fisheries
and Food
Environmental Pollution
Pesticides and Infestation Control Division
Great Westminster House
Horseferry Road
London SW 1

J.A.R.Bates
Ministry of Agriculture, Fisheries
and Food
Plant Pathology Laboratory
Hatching Green, Harpenden
Hertfordshire

D.C.Abbott
Laboratory of The Govt.Chemist
Department of Industry
Cornwall House
Stamford Street
London SE 1 9NQ

Dr.E.M.B.Smith
Dept.of Health and Social Security
Hannibal House
Elephant and Castle
London SE 1

A.F.Machin
Ministry of Agriculture, Fisheries
and Food
Central Veterinary Laboratory
New Haw
Weybridge
Surrey

D.S.Papworth
Ministry of Agriculture, Fisheries
and Food
Pest Infestation Control Laboratory
London Road
Slough, Berkshire

UNITED KINGDOM (cont.)

G.Pickering
Ministry of Overseas Development
Tropical Products Institute
56-62 Grays Inn Road
London WC1X 8LU

Advisers:

G.H.Telling
Food Manufacturers' Federation
1-2 Castle Lane
London SW 1

Dr.R.C.Tincknell
British Agrochemicals Association
Alembic House
Albert Embankment
London SE 1

UNITED STATES OF AMERICA
ETATS-UNIS D'AMERIQUE
ESTADOS UNIDOS DE AMERICA

Lowell Miller
U.S. Representative
Director, International
Affairs Staff
Office of Toxic Substances
U.S.Environmental Protection Agency
Washington, D.C. 20460

Ralph T.Ross
Alternate U.S.Representative
Assistant to Deputy Director
Science and Education Administration
Federal Research
U.S.Department of Agriculture
Washington D.C. 20250

John R.Wessel
Alternate U.S.Representative
Scientific Coordinator
Office of Associate Commissioner for
Compliance Food and Drug Administration
Department of Health, Education and
Welfare
Rockville, Maryland 20857

Lyle Sebranek
Assistant Agricultural Attache
U.S.Mission of the European Communities
Foreign Agricultural Service
U.S.Department of Agriculture
23 Av.des Arts
Brussels 1, Belgium

John Frawley
Director of Toxicology
Medical Department
Hercules Incorporated
910 Market Street
Wilmington, Delaware 19899

D.D.McCollister
Manager, Government Registration
Health and Environmental Research
The Dow Chemical Company
P.O.Box 1706
Midland, Michigan 48640

Glenn E.Carman
President California Citrus Quality Council
953 West Foothill Boulevard
Claremont, California 91711

Ralph W.Lichty
Executive Secretary,
California Citrus Quality Council
953 West Foothill Boulevard
Claremont, California 91711

Bruce E.McEvoy
European Representative
California - Arizona Citrus Industry
24 old Burlington Street
London W 1

Joseph Cummings
Office of Pesticide Programs
U.S.Environmental Protection Agency
Washington D.C. 20460

OBSERVER COUNTRIES
PAYS OBSERVATEURS
PAISES OBSERVADORES

SOUTH AFRICA, Rep.of
AFRIQUE DU SUD, Rép. d'
SUDAFRICA, Rep. de

J.Bot
Plant Protection Research Institute
Private Bag X134
Pretoria

INTERNATIONAL ORGANIZATIONS
ORGANISATIONS INTERNATIONALES
ORGANIZACIONES INTERNACIONALES

COUNCIL OF EUROPE

Ruy Pinto
Administrative Officer
Partial Agreement Division
F 67 006 Strasbourg (France)

EUROPEAN ECONOMIC COMMUNITY

G.Hudson
Administrateur principal à la
Direction Générale de l'Agriculture
"Harmonisation des dispositions
législatives, réglementaires et
administratives dans le domaine
des produits végétaux"
rue de la Loi 200
B 1040 Brussels (Belgium)

INTERNATIONAL FEDERATION OF NATIONAL
ASSOCIATIONS OF PESTICIDE MANUFACTURERS
(GIFAP)

Y.Demaret
Technical Director Gifap
12 avenue Hamoir
1180 Bruxelles (Belgium)

Nobuo Sato
Nippon Soda Co.Ltd.,
New Ohtemachi Building,
1-2-2 Ohtemachi, Chiyoda-ku
Tokyo (100) (Japan)

Saburo Takei
Takeda Chemical Industries Co.Ltd.,
10-12-2 Nihonbashi, Chuo-ku,
Tokyo (103) (Japan)

Setsuo Yamane
Sumitomo Chemical Co.Ltd.,
15-5 Kitahama, Higashi-ku
Osaka (541) (Japan)

G.Willis
ICI Plant Protection Division
Fernihurst
Haslemere
Surrey GU27 3JE (England)

Jan de Bruin
Van Nijenrodeweg 881
1081 Amsterdam (Netherlands)

Milton Eisler
Senior Scientific Advisor
Life Sciences,
Agricultural Chemicals Division
Diamond Shamrock Corporation
1100 Superior Avenue
Cleveland, Ohio 44114 (USA)

Peter Vanderlaan
Manager International Product Development
Agricultural Chemicals Division
Diamond Shamrock Corporation
1100 Superior Avenue
Cleveland, Ohio 44114 (USA)

André Thizy
Rhône-Poulenc Phytosanitaire
Centre de Recherches de la Dargoire
B.P. 9163
F - Lyon 09-69263 Lyon Cedex 1 (France)

A.Calderbank
ICI - Plant Protection Division
Jealott's Hill Research Station
Bracknell
Berkshire RG 12 6EY (England)

G.J.Nohynek
Registration Manager
Stauffer Chemical S.A.
25 rue des Caroubiers
1227 Carouge-Geneva (Switzerland)

R.Kolbinger
BASF A.G.,
Land.Versuchsstation
6703 Limburgerhof (Fed.Rep.of Germany)

René Lacoste
Regional Regulatory Manager
Rohm & Haas
Independence Mall West
Philadelphia, Pennsylvania 19105 (USA)

H.C.C.Wagner
Merck Sharp and Dohme
Waarderweg 39
P.O. 581
Haarlem (Netherlands)

INTERNATIONAL ORGANIZATION FOR
STANDARDIZATION (ISO)

L.G.H.Th.Tuinstra
Rijkszuivelstation (Govt.Dairy Station)
Vreewijkstraat 12b
Leiden (Netherlands)

INTERNATIONAL UNION OF PURE AND
APPLIED CHEMISTRY (IUPAC)

H.Frehse
Bayer A.G.
Pflanzenschutz Anwendungstechnik
Biologische Forschung
D-5090 Leverkusen-Bayerwerk (Fed.Rep.of
Germany)

FAO PERSONNEL
PERSONNEL DE LA FAO
PERSONAL DE LA FAO

L.G.Ladomery
Joint FAO/WHO Food Standards
Programme
FAO, 00100 Rome (Italy)

APPENDIX I

FAO PERSONNEL (cont.)

W.L.de Haas
Joint FAO/WHO Food Standards
Programme
FAO, 00100 Rome (Italy)

E.E.Turtle
Plant Protection Service
FAO, 00100 Rome (Italy)

L.Brader
Chief Plant Protection
Service
FAO, 00100 Rome (Italy)

R.E. Duggan
FAO Consultant
Duggan & Associates
RTE 1, Box 260H
Montross, Va. 22520 (USA)

WHO PERSONNEL
PERSONNEL DE L'OMS
PERSONAL DE LA OMS

G.Vettorazzi
Scientist
Food Safety Programme
World Health Organization
CH1211 Geneva (Switzerland)

D.G.Chapman
Scientist
Food Safety Programme
World Health Organization
CH 1211 Geneva (Switzerland)

SECRETARIAT

L.J.Schuddeboom
Directorate of Public Health
Foodstuffs Division
Dokter Reijersstraat 10
Leidschendam (Netherlands)

J.van der Kolk
Directorate of Public Health
Foodstuffs Division
Dokter Reijersstraat 10
Leidschendam (Netherlands)

M.van Diepen
Directorate of Public Health
Foodstuffs Division
Dokter Reijersstraat 10
Leidschendam (Netherlands)

ORGANIZATIONAL SECRETARIAT

I.A. Alkema
Directorate of Public Health
Foodstuffs Division
Dokter Reijersstraat 10
Leidschendam (Netherlands)

ALINORM 79/24
APPENDIX II

(CX/PR 78/5
March 1978)

JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX COMMITTEE ON PESTICIDE RESIDUES
Tenth Session
The Hague, 29 May - 5 June 1978

REVIEW OF THE WORK OF THE CODEX COMMITTEE ON PESTICIDE RESIDUES

(paper prepared by the Delegation of the Netherlands in
Collaboration with FAO)

Introduction

1. At its 9th session, February 1977, the Codex Committee on Pesticide Residues decided, upon the suggestion of the delegation of Israel, to review its activities and to assess the degree of progress of its work. These matters would be discussed at the 10th session of the Committee (see paras 7, 196-199 of ALINORM 78/24).
2. In order to fulfill the Committee's request, it is considered that an appraisal of the state of progress should go beyond a simple statement of the numbers of maximum residue limits moving from one Step to the next in the CCPR procedures, or having been adopted at Step 9 by member countries. An attempt should be made to identify obstacles - organizational, technical, legislative or otherwise - which retard agreement on maximum residue limits acceptable to member countries and which inhibit their adoption on a broad international basis.

Historical Background

Operational Procedures

3. The difficulties which have been encountered should be viewed against the background of the positive developments which have been achieved since the CCPR commenced operation.
4. The CCPR held its first meeting in 1966. It operates as one of several committees under the aegis of the Codex Alimentarius Commission. The prime objective is to secure agreement on internationally acceptable maximum limits for pesticide residues in food commodities moving in international trade. The limits should be such that due consideration is given to three main aspects, viz. toxicological acceptability from the point of view of consumer safety, consistency with adequate pest control and economic production of food under practical conditions, and facilitation of international trade.
5. The initial proposals for limits are not made by the CCPR, but by the FAO/WHO Joint Meeting on Pesticide Residues (JMPR). The step-wise procedure followed by the CCPR, in accordance with the Procedural Manual of the Codex Alimentarius Commission, affords member countries ample opportunity to make official comments on the proposals. Members of the JMPR are appointed by FAO and WHO and they serve in their individual capacities. The JMPR proposals refer to the establishment of Acceptable Daily Intake (ADI) figures for individual pesticides, to maximum limits for residues of these pesticides in or on food commodities, and to methods for the determination of these residues. The CCPR establishes the priority lists of pesticides for evaluation by the JMPR, and refers these matters back to the JMPR where it finds that it cannot agree with the proposals in question or where additional information is required before proceeding with the proposals.

6. The terms of reference of the CCPR has been widened in the course of time. Its first approach was largely commodity oriented, and the first session was devoted to one group of commodities (cereals and cereal products) and the relevant pesticides. It soon became apparent that a pesticide oriented approach, covering all relevant commodities, would be more realistic, and the subsequent programme was, therefore, based on lists of pesticides, selected according to agreed priorities.

7. Moreover, in accordance with recommendations of the JMPR, increased attention was paid to the relation of unintentional residues in food of animal origin with the use of pesticides on crops destined for animal feed. Thus, the possible need to consider establishing maximum residue limits for animal feed was recognized, although until now the establishment of such limits has been necessary only occasionally.

8. With respect to pesticides for which no ADI had been established, the concept of provisional tolerance was a matter of discussion on various occasions, without any final conclusion being reached. The related concept of "guideline levels" (i.e. a maximum limit for residues where no ADI has been established) was, however, recently introduced by the JMPR. Whilst a cautious approach was preferred on this issue, the CCPR is at present considering proposals of this type by seeking government comments outside the Codex Procedure.

9. Whilst the main part of the CCPR activities was concerned with the development of maximum residue limits, it was fully appreciated from the onset that these matters could not be seen in isolation from problems related to the use of pesticides in general. The development of basic principles for the use of residue data based on good agricultural practice by the JMPR and the CCPR, in establishing international maximum limits, should be stressed in this context.

10. Furthermore, an amendment of the Procedural Manual of the Codex Alimentarius Commission made allowance for provisions of an advisory nature in the form of codes of practice, guidelines and other recommended measures. This widened the terms of reference of the CCPR, and consequently the preparation of guidelines for the use of pesticides could be incorporated in its programme of activities.

11. Having briefly outlined the modus operandi and terms of reference of the CCPR, and the relation of the JMPR to the CCPR, it can be said in retrospect that initially the complexity of the work of the CCPR may not have been fully appreciated nor could some of the problems involved even have been anticipated at that time.

12. When it became apparent that some basic problems were hampering progress in the CCPR small ad hoc meetings with a limited number of participants were held to permit in-depth discussion and study of specific aspects. Two meetings of this kind were held in Ottawa (1969) and Copenhagen (1971). The Ottawa meeting dealt specifically with problems related to the so-called "low tolerance" and "high tolerance" concepts, the differences in interpretation of the word "tolerance", and the possibility of developing guidelines or codes of practice in the use of pesticides. The Copenhagen meeting concentrated on sampling and enforcement problems, and on defining more precisely the concepts of "good agricultural practice" and "maximum residue limit" (replacing the word "tolerance"). There is no doubt that both meetings and the subsequent CCPR meetings have contributed greatly to mutual understanding.

Good Agricultural Practice

13. In this connection reference must be made to the important report "Summary of replies to the questionnaire on good agricultural practice in the use of pesticides for some important selected foods", which was prepared by the Department of Agriculture, Canada and submitted to the CCPR. This report indicated the great variety in requirements for pesticides in pest control practice, pertaining to specific conditions in more than thirty countries, including many developing countries. This Canadian work will be continued and up-dated.

14. Following the Copenhagen meeting a revised definition was made of the concept of Good Agricultural Practice (GAP), which takes into account the variations in requirements between regions of the world. This definition was adopted by the CCPR.

15. In pursuance of the Ottawa meeting and in accordance with the extended scope of the Codex Alimentarius Commission, the CCPR decided to draw up codes of practice of an advisory nature. So far this resulted in the document "Guidelines for good agricultural practice in the use of pesticides", which is particularly intended for use by administrators, specialists and advisory agencies. This document was subsequently adopted by the CCPR and circulated to Member governments.

Sampling and Analysis

16. The problems related to sampling procedures as part of the regulatory enforcement of maximum residue limits in food were already recognized in an early stage of the CCPR work. It was not until the Copenhagen meeting that a thorough study was made to analyse these problems and to try and arrive at a uniform approach. During the subsequent CCPR sessions this work was considered of sufficient importance to merit further collaborative efforts, and an ad hoc Working Group on Sampling was set up to undertake this work. Substantial progress has been made by this Working Group, which regularly reports to the CCPR. Two important conclusions may be mentioned in this connection, namely that the Codex maximum residue limit should apply to the final sample (as defined), and that for the purpose of enforcement the average pesticide residue content of the lot (i.e. an identifiable part of the consignment), determined on the final sample, should be compared with the Codex maximum residue limit. The work of the Group will be continued.

17. Similarly, an ad hoc Working Group on Methods of Analysis was set up in order to arrive at a common approach in the recommendation of analytical methods for regulatory purposes. This work is done in close collaboration with the International Union of Pure and Applied Chemistry (IUPAC). The work is extended to cover not only residues of the parent compounds but also the residues of other compounds derived from the pesticides applied. In addition, attention is paid to the way in which maximum residue limits are to be expressed for Codex purposes. Proposals have been made by the Working Group with respect to a system which would avoid numerical differentiations of no analytical or toxicological relevance. This work will also be continued.

18. In this connection mention must be made of the extensive collaborative study on analysis of pesticide residues, initiated by the Department of Primary Industry, Australia, in order to determine the variation in results obtained with identical samples analysed in different laboratories. The study will be continued, but the results so far obtained already indicate the necessity for a practical and realistic approach in the establishment of maximum residue limits as well as in the interpretation of analytical results by regulatory agencies.

Food Classes and Pesticide Intake

19. Other important contributions to the work of the CCPR have been made with a view to clarifying certain matters in which difficulties were encountered. One of the difficulties was related to the diversity of terminology used in indicating food commodities for which maximum residue limits were proposed. The need for a systematic and uniform approach prompted work in this field, and an extensive and thorough FAO/WHO report on "Definition and classification of food and food groups for the purpose of Codex tolerances for pesticide residues" was prepared. This report is now under consideration by Member countries.

20. Furthermore, WHO has developed a programme on the "theoretical potential pesticide residue intake" as calculated by computer, based on the food consumption patterns in a limited number of countries (5) from different regions of the world and on the proposed Codex maximum residue limits. The estimated theoretical potential intake was then compared with the Acceptable Daily Intake (ADI) figure for the pesticide in question, and thus the theoretical possibility of either exceeding or not exceeding the ADI in one or more countries could be indicated. These studies were introduced with a view to providing guidance concerning the acceptability of the proposed maximum residue limits in the absence of results from measurements of actual intakes in Member countries. They are regularly discussed at JMPR meetings and reported to the CCPR. The work is being continued with a view to increasing its relevance to situations actually occurring under practical conditions. Alternatives to the WHO programme, or at least the possibility of widening the base to more than five countries, need to be examined. Recent developments may permit this.

Priority Lists

21. An important task of the CCPR is to establish priority lists of pesticides to be recommended to FAO and WHO for evaluation by the JMPR. Initially the CCPR's selection of pesticides for this purpose was not systematic. The need to establish criteria for selection was soon recognized. It was agreed that priority lists should contain pesticides which are widely used and/or are likely to result in residue problems of public health or in international trade of important food commodities. The need was also felt to establish a special ad hoc Working Group on Priority Lists to channel the various requests on this matter and to finalize the priority lists for submission to the CCPR. If deemed necessary, the Working Group would also review the criteria and make pertinent proposals to the CCPR. Representatives of international organizations such as FAO, WHO, EPPO and GIFAP participate in the activities of the Working Group.

Acceptance Procedure

22. The legal implications of the early acceptance procedures for Member countries, which included the obligation to incorporate in national legislation any standard when accepted, inhibited progress in the acceptance of maximum residue limits for pesticides. Acceptance with minor or specified deviations, as provided for in the Codex Procedural Manual, was not meaningful for maximum residue limits. At the Ottawa and Copenhagen meetings and subsequent CCPR sessions it became increasingly clear that pesticide residues presented special difficulties, and would require a special acceptance procedure. It was recognized that the requirements for maximum residue limits were greatly dependent on regional climatic and/or pest control conditions, and that it was hardly possible to cover all requirements in one single figure applicable world-wide, coupled with an obligation to adopt this figure in national legislation of individual countries.

23. It was a major and fundamental step forward when the CCPR, in collaboration with the Codex Committee on General Principles, agreed on a modified acceptance procedure, designed specifically to meet the problems of the CCPR. The Procedures now provide, among other things, for a "limited acceptance". This implies that a country will not hinder the importation of food complying with the Codex maximum residue limit, and that it will not impose a Codex maximum residue limit which would be more stringent than is applied domestically. It is hoped that this form of acceptance will enable the CCPR to expedite its work and enable Member countries to accept CCPR proposals more readily, particularly as such proposals must, of necessity, take into account widely varying pest control conditions.

24. Varying pest control conditions may require certain countries to use a particular pesticide on crops, destined for export to other countries which have no need to use the pesticide in question or have even withdrawn its registration. This means that such importing countries should consider providing in their legislation for maximum residue limits of pesticides in imported foods even though these pesticides are not being used domestically. Recognition of good agricultural practice in accordance with the conditions in the exporting country and safety for the consumer have to be taken into account. Several countries already have made or have indicated their willingness to make provisions of this kind.

Summary of Developments

25. It can be said that in the course of a relatively few years considerable international understanding, together with a greater awareness of the problems and of their complexity has developed. This is unlikely to have happened if the CCPR had not existed or succeeded in establishing broader terms of reference than when it started its activities in 1966. The CCPR has now developed procedures for gathering information, for seeking comments from Member countries on proposals for maximum residue limits, and for establishing contacts with other organizations. Whilst these call for more expansion and improvement, the procedures are working with the result that an increasing number of recommendations are agreed upon at each session. An increasing number of international maximum residue limits for pesticides in food are being published in the FAO/WHO reports "Recommended international maximum limits for pesticide residues". The 5th Series has recently been issued, and is with Member governments for acceptance.

Impact of CCPR

Achievements

26. Having outlined a number of concrete and positive developments, the fundamental question should be asked to what extent the work of the CCPR has had an impact on participating countries and whether its activities have generated increasing interest among other countries, particularly in the developing world.

27. The last question is largely answered by the attendance figures (see Annex 1). The First Session of the CCPR was attended by 16 Member countries, predominantly from the industrially and agriculturally developed world, with only one from a developing country. In each successive year the attendance increased, and at the 9th session in 1977, 43 Member countries participated, 15 of which were developing countries. This increase may already in itself be considered an indication of the importance which is attached world-wide to the work of the CCPR.

28. It is also necessary, however, to consider the impact of CCPR standards on the approach to pesticide residue questions in various countries including countries that have not participated in sessions of the CCPR. Several examples could be quoted to illustrate that this impact should not be underestimated. This was particularly noticeable at the ad hoc Government Consultation on International Standardization of Pesticide Registration Requirements (Rome, October 1977) where it became evident that several countries, which have not yet developed national pesticide residue legislation or which are in the process of establishing legal maximum limits, are seriously taking into account or sometimes adopting the proposals emerging from the CCPR. In addition, some countries participating in the CCPR, although not able to fully adopt the recommendations, have expressed their willingness to follow proposed CCPR standards as much as possible. It should also be mentioned that the EEC-directive on maximum residue limits involves an optional harmonization, by which Member countries have agreed that if maximum limits are incorporated in national legislation, such limits should not be lower than indicated in the EEC directive, nor higher than the proposed CCPR standards.

Need for Improvements

29. Although the findings of interest and participation are encouraging, the fact that several Member countries have difficulties in accepting a number of proposed CCPR standards should not be ignored. There is, therefore, every reason to examine these difficulties carefully and, where necessary, to seek ways and means to improve the rationale underlying the proposals, to increase the availability of information or otherwise to change procedures so as to increase the acceptability of the CCPR recommendations amongst Member governments.

Difficulties which Inhibit Progress, with Suggestions for Improvement

Introduction

30. There are many reasons why individual countries cannot accept particular CCPR recommendations for maximum residue limits for inclusion in their legislations. These include variations in legal systems, the existence of maximum limits within the current regulations of individual countries with associated policy or procedural difficulties in effecting changes. There also may be a lack of confidence in the basic data or the procedures by which the recommended figures had been reached or in their suitability for the circumstances encountered in the particular country. Additionally, individual countries may have no interest in particular commodities or pesticides; or they may prefer to delay the introduction of MRLs pending the development of adequate capabilities for their determination and administration. Indeed, it is seldom possible to consider acceptability by governments of Codex MRLs other than on a country by country and individual MRL basis.

Procedural Aspects

31. The procedure according to which the CCPR develops its proposals has been laid down in the Procedural Manual of the CAC, Chapter on the "Procedure for the Elaboration of Codex Standards, etc.", Part 3. It begins with the distribution by the Codex

secretariat of recommendations for MRLs when available in published form from the Joint FAO Panel of Experts and WHO Expert Committee on Pesticide Residues (JMPR). At the same time the Codex secretariat asks governments and international organizations for comments. The recommendations for MRLs and the comments are subsequently discussed in the CCPR in accordance with the procedure laid down.

32. The CCPR has gone on record repeatedly that it considers the JMPR as its main source of scientific information, including proposals for MRLs, and in general it would not seem that representatives of Member countries consider that this aspect of the procedures requires to be changed. It, therefore, seems relevant to consider in rather more detail, what appear to be the two main factors that inhibit acceptances, namely, the legal and policy questions peculiar to individual countries and deficiencies in confidence in the recommendations received from the JMPR.

Legal and Policy Aspects

General Points

33. In considering these aspects it must be borne in mind that, because the JMPR must give priority to problem situations that have already arisen, most of the recommendations received from that body relate to pesticides which have already been registered and for which residue limits have already been established in various countries which participate in the CCPR. In several of these countries, furthermore, the national legislation or existing procedures have presented obstacles for establishing MRLs at levels other than those resulting from "good agricultural practice" within the country in question. Also there might be quite general political or psychological reasons which inhibit the adoption of a limit higher than one already established.

34. In certain instances national legislations hitherto did not allow for the acceptance of residues on food commodities which were not treated with the pesticide in the particular country; but consequent to discussions on specific items at sessions of the CCPR, these obligations have now been largely overcome by adjustments in individual legislations or procedures.

35. Under this general heading reference should also be made to the fact that legal, organizational or similar reasons have sometimes prevented Member governments from making data available to the JMPR. In turn this has been reflected in a lack of confidence by Member governments in the recommendations from that body.

Comparison of Codex Recommendations with Existing MRLs: Summary of Situations

36. When considering the acceptance of CCPR recommendations, countries with existing MRLs have met with the following situations:

(a) The recommended Codex MRL is lower than a national MRL, and

(i) the pesticide is registered for use on the crop concerned. In this case the Codex MRL may not accommodate the local GAP in which case it would not be in the interest of local food production to accept the Codex MRL.

If the food in question is important enough in international trade, a request for a revision of the Codex MRL on the basis of data supplied by the country concerned would seem the appropriate solution - or

(ii) the pesticide is not used on the crop concerned or is not registered or is banned in the country concerned. As local agricultural practice is not involved, reluctance by governments to change the national MRL to fall in line with the Codex MRL may be due to national data from monitoring or food control, divergence of interpretation of the data used by the JMPR, or to toxicological, administrative or other reasons. Full grounds for their reluctance should be provided so that these matters can be discussed at further sessions of the CCPR or referred to the JMPR, as may be appropriate.

- (b) The recommended Codex MRL is higher than a national MRL, and
(i) the pesticide is registered for use on the crop concerned. In this case the acceptance of the Codex MRL would neither interfere with local GAP nor with export/import trade.

If, as stated above, the country finds it difficult to justify raising the MRL when in its own agriculture there is no actual need for doing so (on the basis of residue data from within the country) or if it is considered that there is also the possibility that the Codex MRL covers very rare situations leading to high residues in food which the country does not see the need to cover by adjusting its legislation, these points should be fully reported to the CCPR.

- (ii) the pesticide is not used on the crop concerned or is not registered or is banned in the country concerned. The same situation exists as under (a)(ii) above. This action should also apply if non-acceptance is simply due to the negative psychological effect of changing a legal limit in the upward direction.

Work of JMPR on Behalf of CCPR

General Points

37. Joint Meetings of FAO and WHO appointed experts were held prior to the formation of the CCPR. The terms of reference of the respective groups of experts in FAO and WHO are more general than the provision of advice to the CCPR. During recent years, however, the work of the JMPR has been increasingly directed to meeting CCPR requirements. In particular, the pesticides evaluated are almost exclusively those listed for priority by the CCPR. Consequent to the consideration of earlier JMPR recommendations at sessions of the CCPR the number of requests for clarification or re-evaluation of data relating to previously considered compounds has constantly increased.

38. At its formation, the CCPR decided in principle that the initial proposals for consideration by Member governments according to the Step procedure should be derived by the evaluation of data by qualified experts operating in their professional capacities and independent of governmental or other structures. This principle has been maintained by FAO and WHO in steering the activities of the JMPR, the membership of which has been made up of persons from academic or governmental organizations. Members do not receive fees for work done at sessions of the JMPR, only payment of travel and per diem. Although the membership of the CCPR has continuously increased since the 1966 session (16 member countries in 1966 and 43 in 1977), as also the number of requests for re-evaluation, the attendance of experts at each JMPR session has been maintained at about 12 and there has been no increase in the strength of the secretariats of either the JMPR or the CCPR.

39. Although the individual members of the JMPR are expected to undertake their own researches of relevant literature in conducting their evaluations, Joint Meetings have to rely to a great extent on information assembled and made available by industry and governments. Requests for such information are distributed widely through the procedures of the CCPR, the Industry Association GIFAP, and other means. This is done by the distribution of standard circulars and the secretariat of the JMPR has little or no capability to communicate and solicit information from specific sources.

40. The recommendations coming from meetings can only reflect the situation as available in the documents presented and in the present knowledge of the attendees themselves. As proposals for MRLs have to be prepared at sessions, it is not possible to wait for details of other information that may be known to exist. Nor is it always possible to provide a very firm judgement as to whether a particular use represents "good agricultural practice" or whether a certain residue level affects international trade so as to create commercial problems. Indeed, the discussion of such matters at the CCPR quite frequently reveals that information on such matters were not made available to the JMPR. The number of such cases should decrease if the capability of the secretariat to solicit or otherwise collect information were supplemented. But it is not envisaged that the JMPR can pass final judgements on such matters. Consequently, there will continue to be a need for adjustments to be made by the CCPR or for requests for re-evaluation to be sent back to the JMPR based on the availability of new information.

Types of Information Provided by the JMPR

41. In reviewing the types of information requested by the CCPR, it is relevant to comment on the following items:

- (a) Evaluation of pesticides and their residues from a toxicological point of view and evaluation of particular toxicological problems. The JMPR is providing valuable evaluations in these subject areas. Country delegates rarely find cause to disagree with ADIs established by the JMPR. However, there are problems in the JMPR due to lack of data on important issues and due to the withholding of data by governments and/or by companies because of confidentiality questions.
- (b) Full residue data reflecting GAP in supervised trials from a representative number of different regions. As pointed out above, the JMPR can only examine such data as it receives. There are insufficient resources at FAO to search for data in open literature or from individual sources in order to ensure that all available data have been evaluated. Additionally, it must be recognized that residue data do not exist for many, particularly developing, countries where pesticides are used.
- (c) Residue data from monitoring and food control activities to test the validity of recommended MRLs in the light of the actual residue situation. Data of this kind are rarely used by the JMPR, because they are usually of very little value in assessing levels likely to result from the application of "good agricultural practices" in the use of particular pesticides. For that purpose it is necessary to have exact and reliable knowledge of the method and rates of application, dosages applied and similar factors: this is assured by considering residues following supervised trials. On the other hand, the results of food control and monitoring activities are particularly valuable for measuring actual occurrences of residues on particular marketed foods or for assessing intakes by given populations. They also provide some indications of the adherence by users to good agricultural practices. It should be pointed out that a consideration of both data from supervised trials and residues found in food following actual application in good agricultural practice in the various parts of the world is necessary in reaching agreement on international MRLs.
- (d) Information on methods of analysis and sampling, including results of collaborative studies. It is only possible in the time at their disposal, for the JMPR to provide general advice on the availability and types of methods for the determination of the MRLs proposed. The analytical sub-group of the CCPR has largely taken over the function of evaluating the suitability of methodologies for official regulatory purposes; which arrangement appears to be operating fairly satisfactorily.
- (e) Information on full use pattern of the pesticide in the various parts of the world. The JMPR only receives limited information on this aspect. Experience in FAO has shown that this is an area in which it is difficult to obtain quantitative information. However, the expertise and geographical spread of the individual members of the JMPR permits some conclusions to be reached concerning the extent to which the use pattern of the pesticide in the various regions of the world has been covered. An increase in the FAO appointed membership of JMPR, for which funds would be needed, should increase this coverage.
- (f) Indication of the economic importance in international trade of the food for which MRL is recommended by the JMPR. With certain important exceptions (e.g. cereals, citrus) this information has not generally been forthcoming from the JMPR and it might be argued that it is not the task of the JMPR to provide such information. The Codex food classification developed by the FAO Consultant could possibly be further developed to take more account of this factor.
- (g) Definition of the individual group of foods for which the JMPR recommends MRLs. As with other aspects of its work, the description of foods included in the recommendations of the JMPR have usually had to be those included in the data received for consideration. The Codex food classification system attempts to define the foods and food groups for which the JMPR has, or hopefully in future should, set MRLs. Organizations submitting data for consideration by the JMPR are to be encouraged to consult and use the definitions in their submissions. It would also be desirable to make specific provisions to cover this subject at future sessions of the JMPR.

(h) Approach used in choosing residue data on the basis of which MRLs are established. The reasoning on the basis of which the JMPR selects a particular numerical value as a recommended MRL is not always included fully in the "Evaluations" of the JMPR. As Codex MRLs are administrative levels which are based on a knowledge of residues left in food by GAP and on other considerations, it follows that the CCPR should be better informed and, where appropriate, play a more significant role than hitherto in the actual selection of the numerical value of MRLs.

(i) Estimates of the intake of pesticide residues. Information on this has been supplied by the JMPR only in the form of highly theoretical estimates based on the MRLs, and food consumption data from four or five countries (see also para 19). These theoretical estimates include a number of assumptions and their value to the CCPR has been limited to indicating those pesticides which were extremely unlikely to result in residues in food which would exceed the ADI. As mentioned under (c) above, estimates of actual intakes based on monitoring activities, which include the measurement of residues in food as available to the consumer and as near to the moment of consumption as is practical, are to be preferred. Indeed, it can be said that the estimation of the total load of pesticide residues to which humans are exposed is possible only at the national level. It would be useful, nonetheless, if the results of national monitoring studies of the latter kind were made available by governments to the JMPR and the CCPR.

Organizational Relationship between JMPR and CCPR (timing of sessions, receipt of publications, etc.)

42. Although there has been no disagreement with the principle of regarding the JMPR as the main technical advisory source to the CCPR, difficulties have arisen due to the fact that the work and activities of the JMPR have not been able to respond to increases in the interests and activities of the CCPR. In particular, there have been long delays in the issuance of JMPR documents, there has been great difficulty in maintaining JMPR meetings on an annual basis and it has not proved possible for the JMPR secretariat to seek out or to assemble data systematically or to arrange for its ready retrieval.

43. Not only is a strong secretariat needed to pursue these tasks, but also to activate CCPR Member countries to supply data that provide the basis of proposals from the JMPR. On various occasions the CCPR has made requests for measures to be taken which would enable the JMPR to function more efficiently. Reference is made, for example, to the recommendations by the 8th session of the CCPR (ALINORM 76/24, para 214)(Annex 2). Although these recommendations have been supported by the 11th session of the CAC and have been adopted also by the ad hoc Government Consultation on Pesticides in Agriculture and Public Health via Resolution X (see Annex 3), and by the FAO Committee of Experts in the Control of Pests, the situation has hardly changed. Once again, therefore, it is recommended that the CAC, together with relevant authorities in FAO and WHO, thoroughly reconsider the staffing, funding and arrangement of the secretariat of the FAO/WHO Joint Meeting of Experts on Pesticide Residues and that of the CCPR with a view to providing adequate support for these activities.

44. Bearing in mind that the constituent groups in FAO and WHO, which make up the JMPR, are statutory bodies within their respective agencies and that they were formed prior to and are constituted independently from the CCPR, it is noted with appreciation that no major difficulties have arisen in arranging the timing of the respective sessions of the JMPR and the CCPR and in aligning the priorities to meet the requirements of the latter. At the same time it must be recognized that because of differences in priorities, including differences in priorities in the use of the funds and available work force in the organizational units in the respective agencies, it has sometimes not proved possible to meet CCPR needs (e.g. in the provisions of publications for specified CCPR sessions). It is, therefore, suggested that the above recommended re-examination of the secretarial arrangements and particularly of the arrangements within FAO, should include an examination of the desirability or otherwise of bringing the responsibilities for the CCPR and of the FAO component of the JMPR together into one main organizational and budgetary unit.

CCPR as a Forum for Discussion and Adjustment of Proposals

45. Although great efforts are made to provide the JMPR with data on which to base its recommendations, it often does not have information concerning uses and the occurrence of residues in Member countries; nor is it in a position to provide final judgement on factors on which the CCPR administrators and experts may be more knowledgeable. This could, for example, relate to acceptance of standards of good agricultural practice in different parts of the world or to the importance of particular food items in international trade. As a consequence, where it appears difficult to reach agreement on proposals, the CCPR should investigate whether the good agricultural practice used by the JMPR is still valid as a basis for proposals for international Codex standards. This approach requires the CCPR to adjust proposals in order to reach agreement. It is, therefore, proposed that the CCPR, in contrast to its customary attitude, should be more ready to adjust the MRL proposals of the JMPR, if and when necessary, to reach agreement. In this context, the suggestions mentioned under paragraph 40 are also relevant.

46. Review of MRLs should be carried out by the CCPR and the JMPR in cooperation with each other and on the basis of new findings. Such findings may relate to the replies from governments at Step 9 of the Codex Procedure or at lower Steps or may take the form of additional residue data or other relevant information. In changing a Codex MRL the acceptability by governments of the amendment should be given prime consideration. ADIs should be reviewed by the JMPR wherever new data or new concepts so require.

Responsibilities of CCPR Delegations

47. Delegates should be aware of the fact that their participation in the CCPR expresses a willingness in principle to accept the recommended MRLs in one of the ways laid down by the Codex Acceptance Procedure. This means in the first place that they should feel responsible to make all data available that can contribute to the quality of the proposals of the JMPR. Secondly, delegates have to consider every proposal from the JMPR or the CCPR submitted to them at Step 3, concerning its acceptability.

48. This implies, among other things, that their legislation or other administrative provision, has to make allowance for MRLs on the basis of "good agricultural practice" not only nationally, but also taking into account the needs in other CCPR Member countries. It is the task of the JMPR to base their proposals for MRLs on "good agricultural practice", and to supply in the "Evaluations" the necessary information underlying each individual proposal. On this basis, CCPR members should explore all possibilities and find justification for proposed MRLs in their legislation, or seek other administrative measures to allow the importation of commodities complying with Codex standards. In all cases, where this information seems insufficient, the CCPR is the forum for discussion and, if the suggestion mentioned in paragraph 40 is acceptable, for the necessary adjustment of the proposal. In cases where a country has not objected to a proposal during the procedure in the CCPR, legal or other administrative accommodation of this proposal would be expected. It is, therefore, strongly suggested that all delegates take upon themselves the task to promote the initiation of developments leading to legal and organizational provisions, which enable acceptance of Codex MRLs in their countries.

Principal Findings and Recommendations

49. Following a period during which much time was spent in building up operational procedures and during which governments have been able to consider principles and adjust attitudes, an increasing number of MRLs are now being recommended and accepted by Member governments.

50. Not only has the number of participating governments continuously increased, but there is an increasing influence on developing and other countries with interests in the use of pesticides and their effective control.

51. It must be recognized that there are many reasons which do not enable individual countries to accept particular recommendations for MRLs at any one time. Many of these are based on previously existing legal or policy positions and some from purely technical grounds relating to the figures proposed. Because of the very nature of the operation, a total concurrence should not always be expected. The procedures so far adopted do provide a sound means for arriving at a consensus of the participating countries although improvements are desirable on particular aspects.

52. There seems to be no reason to alter the arrangements whereby the JMPR accepts nominations of compounds for priority consideration and provides the initial MRL proposals for consideration by the CCPR via the established Step procedure.

53. It should be recognized that the JMPR relies to a great extent on information supplied by Member countries, particularly on information concerning accepted uses and in the occurrence of residues following field trials and that such information is needed prior to and not after evaluations are conducted.

54. Recognizing that the JMPR only acts in a scientific advisory capacity, that it can only advise on the data at its disposal and that it cannot provide final judgments on various matters, the CCPR should feel more ready, on evidence provided at its sessions, to adjust MRL proposals if this is needed to reach a greater consensus of agreement.

55. With a view to strengthening the services of the JMPR, for which no adjustments have been made in order to cover the increase in the activities of the CCPR since its formation, the Codex Alimentarius Commission, together with FAO and WHO, should jointly and thoroughly review the arrangements for supporting and supplementing the secretariats of the JMPR and the CCPR. This review should include a consideration of the desirability of merging the FAO secretariats of the JMPR and of the CCPR into a single division as is already the case in WHO and also in both FAO and WHO where food additives are concerned (Codex Committee on Food Additives (CCFA) and Joint FAO/WHO Expert Committee on Food Additives (JECFA)).

SURVEY OF ATTENDANCE OF CCPR SESSIONS

SESSION	1 1966 17-21/1	2 1967 18-22/9	3 1968 30/9-4/10	4 1969 6-14/10	5 1970 28/9-6/10	6 1972 16-23/10	7 1974 4-9/2	8 1975 3-8/3	9 1977 14-21/2
COUNTRY									
Algeria									+
Argentina		+	+	+	+	+	+	+	+
Australia	+	+	+	+	+	+	+	+	+
Austria		+	+	+	+	+	+	+	+
Belgium	+	+	+	+	+	+	+	+	+
Brazil		+	+	+	+	+	+	+	+
Bulgaria					+				
Burundi							+		
Canada	+	+	+	+	+	+	+	+	+
Chile									+
Columbia								+	
Cuba									
Czechoslovakia			+	(+)	(+)	+	+	+	+
Denmark	+	+	+	+	+	+	+	+	+
Egypt									+
Finland				+	+	+	+	+	+
France	+	+	+	+	+	+	+	+	+
Gabon						(+)			
Fed. Rep. Germany	+	+	+	+	+	+	+	+	+
Ghana				+					+
Greece			+						
Guatemala						+			+
Hungary			+	+		+		+	+
Iceland							+		
India									+
Iran			+						+
Ireland	+	+	+	+	+	+	+	+	+
Israel	+	+	+	+	+	+	+	+	+
Italy		+				+			+
Japan		+		+	+			+	+
Jordan									+
Dem. Peopl. Rep. Korea									(+)
Rep. Korea									+
Libyan Arab. Rep.								+	
The Netherlands	+	+	+	+	+	+	+	+	+
New Zealand	+	+	+	+	+	+	+	+	+
Nigeria									+
Norway		+	+	+	+	+	+	+	+
Philippines						+		+	+
Poland	+	+	+	+	+	+	+	+	+
Portugal				+	+	+	+	+	+
Rumania							+		+
Senegal								+	+
South Africa				(+)	(+)	(+)	(+)	(+)	(+)
Spain						+		+	+
Swaziland							(+)		+
Sweden	+		+	+	+	+	+	+	+
Switzerland	+	+	+	+	+	+	+	+	+
Thailand	+	+	+	+		+	+	+	+
Togo					+	+			+
Tunisia									+
Turkey		+	+		+		+	+	+
UK	+	+	+	+	+	+	+	+	+
USA	+	+	+	+	+	+	+	+	+
Upper Volta				+					+
Venezuela					+				+
TOTAL	16	23	24	27	30	31	33	34	43
INTERNATIONAL ORGANIZATIONS									
Council of Europe			+	+	+	+	+	+	+
EEC	+	+	+	+	+	+	+	+	+
EPPD		+				+	+	+	+
FRUCOM			+					+	+
GIFAP	1)	+	+	+	+	+	+	+	+
ISO									+
/TC34	+	+	+	+	+	+	+	+	+
/SC 5									+
IUPAC	+	+				+	+	+	+

1) GEFAB
() Observers

RELATIONSHIP BETWEEN THE CODEX COMMITTEE ON PESTICIDE RESIDUES AND THE JOINT FAO/WHO MEETING ON PESTICIDE RESIDUES

214. The Committee had before it a report of the Ad Hoc Working Group (see Appendix VI) which had met prior to the Eighth session to consider the results of a survey of the relationship between the FAO/WHO Joint Meeting on Pesticide Residues and the Codex Committee on Pesticide Residues. The Committee, in the main, agreed with the views of the Ad Hoc Working Group and adopted the following recommendations based on the Report of the Working Group:

(1) Fundamental changes need not be made in the structure of the relationship between the Joint Meeting on Pesticide Residues and the Codex Committee on Pesticide Residues.

(2) There is need for Member governments to contribute speedily much more information for the use both of the Joint Meeting and the Codex Committee on Pesticide Residues (see Point 4). It is suggested that through the existing Codex Contact Points this could be established within a participating government by the following:

- i. Establishment of a contact point specifically for pesticide matters who would correspond directly with the secretaries of the Joint Meeting; and
- ii. Establishment, within the government, of a group of pesticide experts charged with the task; utilization of national and international trade or scientific organizations as a source of information from manufacturers, formulators, etc., and continuity of representation at the Codex Committee on Pesticide Residues.

(3) The Directors-General of FAO and WHO be urged to give every possible consideration to the strengthening of the personnel, facilities and financial resources available to the Joint Expert Meeting on Pesticide Residues. They should also give consideration to the consequent strengthening of the Codex Secretariat.

(4) Revised guidelines should be immediately prepared and widely distributed clearly indicating the nature of the information which must be submitted to the Joint Meeting to enable it to carry out its responsibility properly.

(5) A Joint FAO/WHO Conference on Pesticides, as recommended by the Seventh Session of the Codex Committee on Pesticide Residues and the Third Joint FAO/WHO Conference on Food Additives and Contaminants, should be held as soon as possible. Pending the convening of this Conference, the recommendations above and below should be brought to the attention of the Ad Hoc Governmental Consultation on Pesticides in Agriculture and Public Health, to be held in Rome in April 1975.

(6) The FAO Committee of Experts on Pesticides in Agriculture should be convened regularly at intervals of no more than two years. The operations and needs of the Joint Meeting in relation to the work of the Codex Committee on Pesticide Residues should be considered as a matter of special concern and priority by the Joint FAO/WHO Conference on Pesticides and by the FAO Committee of Experts on Pesticides in Agriculture

(7) Consideration be given by FAO and WHO under rules established by FAO and WHO, to the utilization of experts, selected by the Organizations, but furnished by Member governments, to assist in the activities of the Joint Meeting on Pesticide Residues. If necessary this question should be put to the Governing Bodies of FAO and WHO.

(8) The Directors-General of FAO and WHO take note of the continuing delays being encountered in the timely receipt of the reports and Evaluations emanating from the Joint FAO/WHO Meeting of Experts on Pesticide Residues. They should review procedures for the publication of reports and Evaluations with a view to decreasing the length of time between meetings and the issuance of these publications. The monographs on individual compounds should be sufficiently extensive to support all recommendations. Amended procedures may require reference to the Governing Bodies.

ANNEX 3

From the Report of the Ad Hoc Government Consultation on Pesticides in Agriculture and Public Health (7-11 April 1975) (AGP:1975/M/3)

Sub-committee C1 : Evaluation of Pesticide Residues in Food

60. The sub-committee supported in general the recommendations of the Committee of Experts and the Codex Committee on Pesticide Residues but considered that certain amendments should be made to emphasise the views of delegates and the strong feeling that additional support was urgently required within the FAO Secretariat to enable the Joint FAO/WHO Meeting of Experts on Pesticide Residues and the Codex Committee on Pesticide Residues to carry out their work. The work of these bodies was judged to be of considerable importance to both developing and industrial countries and especially to international trade in food.

61. One important matter that was not resolved was the ways and means of generating and collecting information on older pesticides and commodity chemicals used as pesticides required for the establishment of tolerances. Representatives of GIFAP indicated their organisation's willingness to discuss the needs with the JMPR and to endeavour to work out an acceptable arrangement once it had been clearly established exactly what information was required.

62. The sub-committee's recommendations are given in the following Resolution X.

RESOLUTION X

THE AD HOC GOVERNMENT CONSULTATION :

Recognizing the importance of international standards for pesticide residues to facilitate food production and international trade in foodstuffs and for the protection of public health ; and that in order to increase the production of needed foods the use of pesticides in many countries is increasing,

Also recognizing that the Codex Committee on Pesticide Residues is working towards the development of maximum residue limits on a common international basis, that the FAO/WHO Joint Meeting of Experts on Pesticide Residues is the main source of scientific information for the Codex Committee on Pesticide Residues, and that the FAO/WHO Joint Meeting of Experts on Pesticide Residues should be able to take account of the needs of all member countries.

Considering that fundamental changes need not be made in the structure of the relationship between the Joint Meeting on Pesticide Residues and the Codex Committee on Pesticide Residues,

1. Draws attention to the importance of ensuring that the necessary information be available for consideration by the Joint FAO/WHO Meeting of Experts on Pesticide Residues ; and

2. Emphasises that there is need for Member governments or inter-governmental organisations to contribute speedily much more information for the use both of the JMPR and CCPR and suggests that, through the existing Codex contact points, this could be established within a participating government by the following :

(a) Establishing a contact point specifically for pesticide matters who would correspond directly with the secretaries of the Joint Meeting, and

(b) Establishing, by the government or inter-governmental organisation, of a group of pesticide experts charged with the task ; utilization of national and international trade or scientific organizations, manufacturers, formulators, etc., as a source of information, and continuity of representation at the Codex Committee on Pesticide Residues ;

3. Stresses the need for continuity of representation at the CCPR ;
4. Requests the Directors-General of the Food and Agriculture Organisation and the World Health Organisation to give every possible consideration to strengthening the personnel facilities and financial resources available for soliciting and collating information on pesticide use patterns, residues and analysis existing in archives of governments, industry and other institutions and to provide the support which is essential to the full evaluation of the data by the Joint Meeting of Experts on Pesticide Residues and ;
5. Stresses that revised guidelines should be immediately prepared and widely distributed by the Secretariat to clearly indicate the nature of the information which must be submitted to the Joint Meeting to enable it to carry out its responsibility properly ;
6. Recommends that the FAO Committee of Experts on Pesticides in Agriculture be convened regularly at intervals of no more than two years ; that needs and operations of the Joint Meeting in relation to those of CCPR should be considered as a matter of special concern and priority by the Committee of Experts ;
7. Recommends that in view of the need to have a sufficient number of experts to attend to the priorities and to deal with the backlog before the JMPR that an adequate allocation should be made in budgets to bring the required experts to meetings ;
8. Requests the Directors-General of the World Health Organisation and the Food and Agricultural Organization to take note of the continuing delays being encountered in the timely receipt of the Report and Evaluation emanating from the Joint FAO/WHO Meeting of Experts on Pesticide Residues. They should review procedures for the publication of Reports and Evaluations with a view to decreasing the length of time between meeting and the issuance of these publications. The Evaluations should be sufficiently extensive to support all recommendations.
9. Recommends that increased support be given for technical development projects to enable developing countries to carry out the necessary investigations, to determine and control residues in agricultural produce, especially that destined for export, by the creation of residue laboratories at the regional and national level.

REPORT OF THE AD HOC WORKING GROUP ON METHODS OF ANALYSIS

The following persons took part in the discussions of the ad hoc Working Group on Methods of Analysis:

D.C. Abbott	- United Kingdom
A. Ambrus	- Hungary
J.A.R. Bates	- United Kingdom
G. Becker	- Federal Republic of Germany
H.W. Brinkman	- The Netherlands
E. Celma	- Spain
W. Dejonckheere	- Belgium
J.F. Eades	- Ireland
H. Frehse	- International Union of Pure and Applied Chemistry
P.A. Greve (chairman)	- The Netherlands
G.B. Pickering	- United Kingdom
H. Pyysalo	- Finland
M. Soltau	- Federal Republic of Germany
T. Stijve	- Switzerland
G.M. Telling	- United Kingdom
K. Voldum-Clausen	- Denmark
A. Vongbuddhapitak	- Thailand
J. Wessel	- United States of America

1. Introduction

The Working Group discussed the following points:

- systems for the numerical expression of MRLs between 1 and 10 mg/kg (cf ALINORM 78/24, para 181 and App. V, para 3);
- expression of MRLs for fat-soluble pesticides (cf ALINORM 78/24, para 182 and App. V, para 4);
- recommendations for methods of analysis for pesticide-commodity combinations at step 8 or 9 of the Procedure (cf ALINORM 78/24, App. V, para 2);
- classification of food-stuffs;
- elaboration of the concept of good analytical practice in pesticide residue analysis (cf ALINORM 78/24, App. V, para 5).

2. Systems for the numerical expression of MRLs between 1 and 10 mg/kg

The Working Group examined the comments of Member countries and other interested parties on paragraph 181 of document ALINORM 78/24.

As a result of this examination the Working Group proposed that MRLs from 1 to 10 mg/kg be based on the numbers 1, 2, 5 or 10, with only occasional use of the other whole numbers where available data so demand.

3. Expression of MRLs for fat-soluble pesticides

The Working Group examined the comments of Member countries and other interested parties on paragraph 182 and the scheme given in paragraph 4 of App. V of document ALINORM 78/24 concerning the expression of MRLs for fat-soluble pesticide in milk, meat, poultry and their products.

As a result of this examination, the Working Group concluded that determinations of residues in products of low fat content were liable to be inaccurate if expressed on a fat-basis and proposed that MRLs of fat-soluble pesticides be expressed on a product- basis when the fat content of the commodity involved is below 5%.

Adoption of this proposal would require that MRLs for milk be expressed on a product-basis, so that present MRLs for milk must be reconverted to product-basis using a conversion factor based on milk containing 4% fat.

4. Recommendations for methods of analysis

The Working Group undertook the up-dating and reviewing of the recommendations given in the previous report (apara 2.2 of App.V), covering 446 pesticide-commodity combinations, and the recommendation of methods for the 425 combinations which were brought to step 8 of the Procedure at the 9th Session.

In selecting the methods, the Working Group followed the approach used in previous reports, viz. that particular emphasis was given to multi-residue methods, gas-liquid chromatographic methods and methods which had been subjected to collaborative studies. Other methods, which were known to have been validated by more than one laboratory, were chosen when useful additional information was given. For convenience, the collaboratively studied or otherwise assessed methods are listed below (see table I) separately from the other analytical methods. In a third column, some confirmatory tests are listed.

TABLE I

(This list supersedes previous lists)

<u>nr.</u>	<u>compound</u>		<u>references</u>	
	<u>name</u>	<u>collaboratively checked, or otherwise assessed methods</u>	<u>other analytical methods</u>	<u>confirmatory tests</u>
1	aldrin/dieldrin	1a, 2a, 3a, 4a, 5, 10, 11, 12	13, 14, 42, 48	2d, 3b, 61, 97, 100
2	azinphos-methyl	2b, 3a, 4a, 21	4b, 14, 23, 67	2d, 97
3	binapacryl	3a	4b, 13	15
4	bromophos	2a, 4a, 21	4b, 14, 67	97
5	bromophos-ethyl	2a, 3a, 21	4b, 67	97
6	captafol	none	2a, 2c, 14, 16, 62, 96	63
7	captan	3a, 4a	2a, 2c, 4b, 14, 16, 17, 96	3b, 63
8	carbaryl	1c, 3a	1b, 4b, 18, 19, 64, 65, 66	2d
12	chlordane	2a, 3a	14, 20, 48	2d, 3b, 25, 97
13	chlordimeform	2c	9, 84, 85	none
14	chlorfenvinphos	2c, 4a, 21	4b, 67	2d, 97
16	chlorobenzilate	2a, 3a	2c	97
17	chlorpyrifos	2a, 2b, 3a, 21	14, 23, 67	2d, 86, 97
18	coumaphos	2a, 2b, 3a, 21	2c, 22, 23, 67	2d
19	crufomate	none	2c, 23, 24	2d, 68, 69
21	DDT	1a, 2a, 3a, 4, 5a, 10, 11, 12, 13	14, 42, 48	2d, 3b, 25, 61, 97
22	diazinon	1a, 2a, 2b, 3a, 4a, 21, 67	4b, 14, 23, 26	2d, 27, 97
25	dichlorvos	2b, 4a, 6, 21, 67	4b	2d, 97
26	dicofol	2a, 3a, 13	14, 87	2d
27	dimethoate	2b, 3a, 4a, 21, 67	4b, 14, 32, 33	2d, 97
28	dioxathion	2b, 3a, 4a, 21	28, 29, 30, 31, 67	70
29	diphenyl	1h, 98	34, 35, 36, 37, 71	none
31	diquat	none	4b, 38	none
32	endosulfan	1a, 2a, 3a, 4a, 13	4b, 14, 42, 71	2d, 3b, 56, 57, 73, 74, 97
33	endrin	1a, 2a, 3a, 4a, 5, 11, 12, 13	14, 48	2d, 3b, 58, 59, 61, 74, 97
34	ethion	1a, 2b, 3a, 4a, 21, 67	1d, 14, 23, 39	2d, 70, 75, 97
35	ethoxyquin	1e	2c, 41	40
36	fenchlorfos	1a, 2a, 2b, 3a, 4a, 21	14	2d, 27, 97
37	fenitrothion	2a, 2b, 3a, 4a, 21, 67	4b, 14, 76	2d, 27, 69, 70, 77, 97
38	fensulfothion	2b, 3a	88, 89	none

(cont.)

Table I (cont.)

40	fentin	none	2c, 4b	2c
41	folpet	3a, 4a	2c, 4b, 14, 16, 96	none
42	formothion	4a, 21	none	97
43	heptachlor	1a, 2a, 3a, 4a, 5, 10, 11, 12 [*] , 13	14, 42, 48	2d, 3b, 25, 59, 74, 78, 97
44	hexachlorobenzene	1a, 2a, 3a, 4a, 7, 10, 11, 12	48, 79	2d, 43, 80, 97
45	hydrogen cyanide	1f	2c, 4b, 44	none
46	hydrogen phosphide	none	4b, 45, 46	none
47	inorganic bromide	8, 104	47	none
48	lindane	1a, 2a, 3a, 4a, 5, 10, 11, 12, 13	14, 42, 48	60, 61, 97
49	malathion	1a, 2a, 2b, 3a, 4a, 6, 21, 67	14, 23	2d, 27, 97
51	methidathion	2b, 3a, 4a	2a, 4b, 14, 67, 90, 91	97
53	mevinphos	2b, 4a, 21	4b, 14, 67, 101	2d, 97
54	monocrotophos	2b	14, 67	2d, 97, 102
55	omethoate	2b, 21, 67	14, 32, 33	97
56	ortho-phenylphenol	99	2c, 34, 35, 36, 37, 71	81
57	paraquat	none	2c, 92, 93	none
58	parathion	1a, 1d, 2a, 2b, 3a, 4a, 21, 67	4b, 14, 23	2d, 27, 69, 70, 78, 97, 103
59	parathion-methyl	1a, 2a, 2b, 3a, 4a, 21	4b, 14, 23, 67	2d, 27, 69, 77, 81, 97, 103
60	phosalone	2a, 2b, 3a, 21	9, 14, 94	97
61	phosphamidon	2b, 3a, 4a, 21	14, 49	97
62	piperonyl butoxide	1g	2c, 50	none
63	pyrethrins	none	2c	none
64	quintozene	2a, 3a, 4a	14, 51	2d, 97
65	thiabendazole	none	52, 53, 54, 55, 71, 83	none
66	trichlorfon	4a, 21	4b, 14	2d, 97
67	cyhexatin	none	9, 95	none

^{*}for heptachlorepo~~xide~~ only

NB: The references given above do not explicitly cover all commodities for which MRLs are proposed. Due checking and, possibly, adaptation is necessary when a given method is applied to a commodity outside the scope of the original method. Special attention has to be paid to fatty food-stuffs (see para. 5 and table II below) and to certain vegetables containing substances which may interfere in the analysis, such as onions, leeks, carrots, cabbage and parsley.

- (1) Official Methods of Analysis of the Association of Official Analytical Chemists, 12th edit. (1975) and subsequent Changes in Methods: JAOAC, 58, 397-399 (1975), JAOAC, 59, 471-473 (1976) and JAOAC, 60, 471-473 (1977)
 - (a) 29.001 - 29.018
 - (b) 29.077 - 29.081
 - (c) 29.A01 - 29.A06, in: JAOAC, 58, 397-399 (1975)
 - (d) 29.033 - 29.037, for supplement to 29.034 see JAOAC, 58, 397 (1975)
 - (e) 41.024 - 41.028
 - (f) 26.115 (NB: not suitable at the Codex MRL for flour)
 - (g) 29.151 - 29.154
 - (h) 29.059

- (2) Pesticide Analytical Manual, U.S. Food and Drug Administration, Washington D.C., U.S.A. (1977)
Contact person: J.Wessel, Food and Drug Administration, 5600 Fishers Lane, Rockville, Md, 20852, U.S.A.
 - (a) Vol.I, tables 201-A and 201-G, and sections 211, 212, 231, 232.1 and 252
 - (b) Vol.I, table 201-H and section 232.3
 - (c) Vol.II, see under compound name
 - (d) VolI, table 651-A and sections 650 and 651 (confirmatory tests by chemical derivatization)

- (3) Canadian Manual on Analytical Methods for Pesticide Residues in Foods, Information Canada, Ottawa, Canada, Cat. no. H 44-2869-REV (1973). Contact person: W.R. Ritcey, Food Research Laboratory, Health Protection Branch, Dept. of National Health and Welfare, Ottawa, Canada
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5. Classification of food-stuffs

The Working Group considered it necessary for analytical purposes to make a distinction between fatty and non-fatty foods as these two categories of foods generally require different extraction and clean-up procedures. In making this distinction the Group followed the document CX/PR 77/2 "Definition and classification of food and food groups for the purpose of Codex tolerances for pesticide residues", prepared by R.E. Duggan, also taking into account the list of fat contents given in the FDA Pesticide Analytical Manual, Vol. I, section 202.11-202.25.

In table II the classification is given; examples of fatty food-stuffs under consideration by CCPR are given in parentheses.

TABLE II

Class A: Plant products

- 01 root and tuber vegetables: non-fatty
- 02 bulb vegetables: non-fatty
- 03 leafy vegetables: non-fatty
- 04 brassica leafy vegetables: non-fatty
- 05 stem vegetables: non-fatty
- 06 legume vegetables: non-fatty (except dry soya bean)
- 07 fruity vegetables (edible peel): non-fatty
- 08 fruity vegetables (inedible peel): non-fatty
- 09 citrus fruit: non-fatty
- 10 pome fruit: non-fatty
- 11 stone fruit: non-fatty
- 12 small fruit and berries: non-fatty
- 13 assorted fruit (edible peel): non-fatty
- 14 assorted fruit (inedible peel): non-fatty (except avocado)
- 15 cereal grains: non-fatty (see Remark 1)
- 16 stalk and stem products: non-fatty (see Remark 1)
- 17 legume oil seed: fatty (peanut)
- 18 legume animal feeds: non-fatty (see Remark 1)
- 19 tree nuts: fatty (almond, chestnut, filbert, macadamia nut, pecan, walnut) (see Remark 1)
- 20 oil seed: fatty (cottonseed, rapeseed, linseed, sunflowerseed, safflowerseed, poppyseed, sesameseed and oils derived from them)
- 21 tropical seed: fatty (coffee bean, cacao bean)

(cont.)

Table II (cont.)

- 22 herbs: non fatty
- 23 spices: non-fatty
- 24 teas: non-fatty

Class B: Animal products (see Remark 2)

- 25 meats: fatty (meat or carcass meat of cattle, sheep, goat, pig, horse)
- 26 fats: fatty (fat of cattle, sheep, goat, pig, horse)
- 27 meat byproducts: fatty (meat products and edible offal of cattle, sheep, goat, pig, horse)
- 28 milks: fatty (milk, whole milk)
- 29 milk fats: fatty (milk products)
- 30 poultry meats: fatty
- 31 poultry fats: fatty
- 32 poultry byproducts: fatty
- 33 eggs: fatty (see Remark 4)

Remarks:

- (1) Products with low nominal fat content and low water content, such as cereal grains (group 15), animal fodders and fresh chestnuts can under some circumstances be analysed more satisfactorily by procedures designed for fatty products.
- (2) Also products of animal origin with low fat content, such as skimmed milk and cottage cheese can mostly better be analysed by procedures designed for fatty products.
- (3) Olives, not yet classified, are to be considered as fatty.
- (4) According to several procedures, eggs can be analysed as a non-fatty product.

6. Good analytical practice in pesticide residue analysis

The Working Group had before it a discussion paper prepared by G.M. Telling on Good Analytical Practice in Pesticide Residue Analysis.

The Group agreed that the working paper provided an excellent basis for a document to be published in future as a complement to the references to suitable analytical methods given above. An amended document is expected to be finalized at the next Session of CCPR for presentation at the Plenary Meeting.

7. General remarks

(1) The Working Group restated its opinion that the expression of some residues should be reworded in order better to describe the actual analytical practice. The pesticides to which this statement applies and the preferred expression of the residue are given below:

nr. 1 aldrin/dieldrin	sum of HHDN and HEOD
12 chlordane	sum of <u>cis-</u> and <u>trans-</u> chlordane, or, in the case of animal products, sum of <u>cis-</u> and <u>trans-</u> chlordane and oxychlordane
14 chlorfenvinphos	sum of <u>alpha-</u> and <u>beta-</u> chlorfenvinphos
18 coumaphos	sum of coumaphos and its oxygen analogue
21 DDT	sum of p.p'-DDT, o.p'-DDT, p.p'-DDE and p.p'- TDE (DDD)
27 dimethoate	sum of dimethoate and omethoate
28 dioxathion	sum of <u>cis-</u> and <u>trans-</u> dioxathion
32 endosulfan	sum of <u>alpha-</u> and <u>beta-</u> endosulfan and endosulfan-sulphate
33 endrin	sum of endrin and <u>delta-keto-</u> endrin
34 ethion	sum of ethion and its oxygen analogue
36 fenchlorfos	sum of fenchlorfos and its oxygen analogue
37 fenitrothion	sum of fenitrothion and its oxygen analogue
38 fensulfothion	sum of fensulfothion, its oxygen analogue and their sulphones.
40 fentin	fentin-hydroxide, excluding inorganic tin and <u>di-</u> and <u>mono-</u> phenyltin
43 heptachlor	sum of heptachlor and heptachlor-epoxide
48 lindane	gamma-HCH
49 malathion	sum of malathion and its oxygen analogue
53 mevinphos	sum of <u>cis-</u> and <u>trans-</u> mevinphos
58 parathion	sum of parathion and its oxygen analogue

61 phosphamidon	sum of <u>cis-</u> and <u>trans-</u> phosphamidon and N-desethyl-phosphamidon
64 quintozone	sum of quintozone, penta-chloroaniline, and methyl-pentachlorophenyl-sulfide
65 thiabendazole	thiabendazole, or, in the case of animal products, sum of thiabendazole and 5-hydroxy-thiabendazole

The Working Group also restated its view that the expression of the residue under Pyrethrins (Codex number 63) is not in accordance with current analytical practice.

(2) The Working Group expressed the desirability that suppliers of data to the Joint Meeting be encouraged to provide information concerning a method likely to be suitable for regulatory purposes. Information with regard to the applicability of one or more internationally used multi-residue methods to the pesticide is also desirable.

(3) The Working Group noted that the current analytical methods will not be able to detect chlorpyrifos (Codex number 17) at the 0.01 mg/kg level, as proposed for commodity 17.22-26. A detection limit of 0.05 mg/kg is considered realistic.

(4) The Working Group will extend its activities in the coming year to the compound-commodity combinations on step 5, 6 and 7 of the procedure, in order to be able to give recommendations on analytical matters in an earlier stage than thusfar.

(5) The Working Group considered it essential that the recommendations on analytical matters given by it be published in an easily accessible form to possible users by whatever suitable means available to achieve the objective.

REPORT OF THE AD HOC WORKING GROUP ON SAMPLING

The following persons took part in the discussion of the ad hoc Working Group on Sampling:

J.A.R. Bates	United Kingdom (Chairman)
A. Ambrus	Hungary
G. Becker	Federal Republic of Germany
H.W. Brinkman	the Netherlands
E. Celma	Spain
J. Cummings	United States of America
W. Dejonckheere	Belgium
R.E. Duggan	Food and Agriculture Organization of the United Nations
J.F. Eades	Ireland
P.A. Greve	the Netherlands
G. Pickering	United Kingdom
H. Pyysalo	Finland
M. Soltau	Federal Republic of Germany
T. Stijve	Switzerland
G.M. Telling	United Kingdom
K. Voldum-Clausen	Denmark
A. Vongbuddhapitak	Thailand
J. Wessel	United States of America
H. Frehse	International Union of Pure and Applied Chemistry

METHOD OF SAMPLING

Since the 9th session of the Codex Committee on Pesticide Residues the Working Group has considered comments from a number of member countries on the proposed draft method of sampling described in Alinorm 78/24, Appendix III. The Working Group has made a small number of clarifications based on these comments and its recommendations are set out below (Annex 1).

The Working Group again made a strong recommendation that the proposed sampling method should be made widely available together with appropriate introduction and explanatory notes. The Group has already prepared and agreed such explanatory notes and recommends that publication should be considered as a matter of urgency so that member countries may have the advantage of this advisory document as soon as possible.

PORTION OF SAMPLED COMMODITY TO BE ANALYSED

The question of the analytical definition of foods (e.g. with or without outer leaves; stalks removed; deboned; shell-free, etc.) has continually hampered progress in the elaboration of Codex Maximum Residue Limits.

The report of the 9th session, Alinorm 78/24, states that the Working Group had started work on the elaboration of recommendations on the portion of the sampled commodity to be analyzed. Since the 9th session the group has considered draft proposals based on the document "Definition and classification of Food and Food Groups CX/PR 77/2 and submits its recommendations on this subject.

The recommendations specify the portion of sample to be used for analysis for commodities under consideration by the Codex Committee on Pesticide Residues. The recommendations are listed according to food group and follow the general principle that the MRLs should apply to the whole commodity as it moves in commerce. Some exceptions to this principle are specified.

It should be noted that samples analyzed in the production of data for submission to the Joint Meeting may not always conform with the recommendation in this report.

Supplementary information of value in risk assessments may require the analysis of parts of a commodity other than the whole commodity. Data on residues in edible parts are sometimes needed in addition to or instead of data on the whole commodity.

In view of the urgent need for such guidance on this subject the group recommends that these proposals be circulated to member countries for comments and published as an advisory document. The recommendations of the Group are set out below Annex 2.

RECOMMENDED METHOD OF SAMPLING FOR THE DETERMINATION OF PESTICIDE RESIDUES 1/

1. OBJECTIVE

For the examination of a lot to discover whether it complies with Codex Maximum Limits for Pesticide Residues it is necessary to provide a representative sample for analysis. The objective of the sampling procedure is to obtain a Final Sample representative of the lot in order to determine its average pesticide residue content. The Final Sample is considered representative of the lot when the procedure outlined below has been followed.

The Codex limit applies to the final sample.

2. DEFINITIONS

2.1 Lot

An identifiable quantity of goods delivered at one time, having or presumed by the sampling officer to have common properties or uniform characteristics such as the same origin, the same variety, the same consignor, the same packer, the same type of packing or the same mark. Several lots may make up a consignment.

2.2 Consignment

A quantity of material covered by a particular consignment note or shipping document. Lots in the same consignment may be delivered at different times and may have different amounts of pesticide residues.

2.3 Primary Sample

A quantity of material taken from a single place in the lot.

2.4 Bulk Sample

Combined total of all the Primary Samples taken from the same lot.

2.5 Final Sample

Bulk sample or representative part of the Bulk Sample to be used for control purposes.

2.6 Laboratory Sample

Sample intended for the laboratory. The Final Sample may be used as a whole or subdivided into representative portions (Laboratory Sample) if required by national legislation.

3. EMPLOYMENT OF AUTHORISED SAMPLING OFFICERS

The samples must be taken by officers authorised for the purpose by the appropriate authorities.

4. SAMPLING PROCEDURE

4.1 Material to be sampled

Each lot which is to be examined must be sampled separately.

4.2 Precautions to be taken

In the course of taking the Primary Samples and in all subsequent procedures precautions must be taken to avoid contamination of the samples or any other changes which would adversely affect the amount of residues or the analytical determinations or make the Laboratory Sample not representative of Bulk Sample.

1/ This Method of Sampling will also be published separately together with an introduction prepared by the U.K. (see para. 208, ALINORM 79/24).

4.3 Primary Samples

As far as possible these should be taken throughout the lot. Departures from this requirement must be recorded (see para 7). As far as possible the Primary Samples should be of similar size and the combined total of all the Primary Samples (Bulk Sample) must not be less than that required for the Final Sample bearing in mind the possible requirement of further subdivision and the provision of adequate Laboratory Samples. The minimum number of Primary Samples to be taken is given in the table below.

Weight of lot in kilograms	Minimum number of Primary Samples to be taken
< 50	3
51 - 500	5
501 - 2000	10
> 2000 (1)	15

(1) For whole cereals and other materials shipped in bulk well established alternative sampling procedures are available and may be used providing these are recorded (see para 7) and the minimum requirements in 4.6.4. are met

For processed products in cans, bottles, packages or other small containers, especially when the sampling officer does not know the weight of the lot, the following sampling plan may be followed.

Number of cans, packages or con- tainers in the lot	Minimum number of Primary Samples to be taken
1 - 25	1
26 - 100	5
101 - 250	10
> 250	15

For homogeneous lots a sample fully representative of the whole is obtained by withdrawing any single sample.

4.4 Preparation of Bulk Sample

The Bulk Sample is made by uniting and mixing the Primary Samples.

4.5 Preparation of Final Sample

4.5.1 The Bulk Sample should, if possible, constitute the Final Sample.

4.5.2 If the Bulk Sample is too large the Final Sample may be prepared from it by a suitable method of reduction. In this process however individual fruits and vegetables must not be cut or divided.

4.6 Preparation of the Laboratory Sample

4.6.1 The Final Sample should if possible be submitted to the laboratory for analysis.

4.6.2 If the Final Sample is too large to be submitted to the laboratory a representative subsample must be prepared.

4.6.3 National legislative needs may require that the Final Sample be subdivided into two or more portions for separate analyses. Each portion must be representative of the Final Sample. The precautions in para 4.2 should be observed.

4.6.4 The minimum amount of material to be submitted to the laboratory, ie the size of the laboratory sample is as follows:

Commodity	Examples	Minimum requirements
small or light products unit weight up to about 25 g	berries peas olives parsley	1 kg
medium sized products unit weight usually between 25 and 250 g	apples oranges carrots potatoes	1 kg (at least 10 units)
large sized products unit weight over 250 g	cabbage melons cucumbers	2 kg (at least 5 units)
dairy products	whole milk cheese butter cream	0.5 kg
eggs		0.5 kg (10 units if whole)
meat, poultry, fat, fish and other fish and animal products		1 kg
oils and fats	cotton seed oil margarine	0.5 kg
cereals and cereal products		1 kg

5. PACKAGING AND TRANSMISSION OF LABORATORY SAMPLES

The Laboratory Sample must be placed in a clean inert container offering adequate protection from external contamination and protection against damage to the sample in transit. The container must then be sealed in such a manner that unauthorised opening is detectable, and sent to the laboratory as soon as possible taking any necessary precautions against leakage or spoilage eg frozen foods should be kept frozen, perishable samples should be kept cooled or frozen.

6. RECORDS

Each Laboratory Sample must be correctly identified and should be accompanied by a note giving the nature and origin of the sample and the date and place of sampling, together with any additional information likely to be of assistance to the analyst.

7. DEPARTURES FROM RECOMMENDED SAMPLING PROCEDURE

If, for any reason, there has had to be a departure from the recommended procedures, especially paragraph 4, full details of the procedure actually followed must be recorded in the accompanying note (see para 6).

APPENDIX IV ANNEX II

RECOMMENDED PORTION OF SAMPLE TO BE PREPARED FOR THE

DETERMINATION OF PESTICIDE RESIDUES

INTRODUCTION

Codex maximum residue limits are in most cases stated in terms of a specific whole raw agricultural commodity as marketed in 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, beans without pods. In other instances, such qualifications are not provided. Therefore, unless otherwise specified in the Codex Recommended International Maximum Limits for Pesticide Residues, the portion of the raw agricultural commodity to be prepared as the Analytical Sample for the determination of pesticide residues is as described in the following table.

CLASSIFICATION

EXAMPLES OF COMMODITIES
UNDER CONSIDERATION BY
CODEX

PORTION OF SAMPLE TO BE
PREPARED FOR ANALYSIS

GROUP 1 ROOT AND TUBER VEGETABLES

Group 1 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 root or tuber after removing tops
Remove adhering soil by rinsing lightly
in running water or by gentle brushing
of the dry commodity.

GROUP 2 BULB VEGETABLES

Group 2 bulb vegetables are pungent flavorful 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.

LEEKS
ONIONS
GARLIC

Bulb/dry onions and garlic.
Whole bulb 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)

Group 3 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 vegetable after removal of
obviously decomposed or withered leaves.

GROUP 4 BRASSICA (COLE) LEAFY VEGETABLES

Group 4 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
BRUSSEL SPROUTS
CABBAGE
CABBAGE, CHINESE
CABBAGE, RED
CABBAGE, SAVOY
CAULIFLOWER
COLLARDS
KALES
KOHLRABI
MUSTARD GREENS

Whole vegetable after removal of obviously decomposed or withered leaves. For cauliflower, analyse curd only; for brussels sprouts analyse "buttons" only.

GROUP 5 STEM VEGETABLES

Group 5 stem vegetables are foods derived from the edible stems or shoots, from a variety of plants.

ARTICHOKE
ASPARAGUS
CELERY
RHUBARB

Whole vegetable after removal of obviously decomposed or withered leaves. Rhubarb-stems only.

GROUP 6 LEGUME VEGETABLES

Group 6 legume vegetables are derived from the dried or succulent seeds and immature pods of 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 BEAN
DWARF BEANS
FRENCH BEANS
GREEN BEANS
KIDNEY BEANS
LIMA BEANS
NAVY BEANS
RUNNER BEANS
SNAPBEANS
SOYBEANS
PEAS
COW PEAS
SUGAR PEAS

Whole commodity unless specified e.g. broad beans (without pod) Succulent peas and beans should be analyzed whole if eaten as such.

GROUP 7 FRUITING VEGETABLES - EDIBLE PEEL

Group 7 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 vegetable after removal of stems.

GROUP 8 FRUITING VEGETABLES - INEDIBLE PEEL

Group 8 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
without stem.

GROUP 9 CITRUS FRUITS

Fruits are derived from many different kinds of plants, usually cultivated. They consist of the ripe, mostly sweet, succulent or pulpy developed plant ovary and its accessory parts commonly and traditionally known as fruit. Fruits may be consumed in whole or in part and in the form of fresh, dried or processed products.

CITRUS FRUITS

Whole fruit unless specified e.g.
dried citrus pulp.

GROUP 10 POME FRUITS

Group 10 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 fruit after removal of stems.

GROUP 11 STONE FRUITS

Group 11 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 fruit after removal of stems and stones but calculated on the whole fruit without stem.

GROUP 12 SMALL FRUITS AND BERRIES

Group 12 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 fruit after removal of caps and stems. Very small fruit e.g. currants may be dealt with as whole fruit with stems.

GROUP 13 ASSORTED FRUITS - EDIBLE PEEL

Group 13 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
MANGOS
GUAVAS

Whole fruit after removal of stones but calculated on the whole fruit.
Figs - whole fruit.

GROUP 14 ASSORTED FRUITS - INEDIBLE PEEL

Group 14 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

Avocado - whole fruit after removal of stone but calculated on whole fruit.

Whole fruit unless qualified e.g. bananas (in the pulp).

GROUP 15	CEREAL GRAINS	Group 15 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 POPCORN RICE RYE SORGHUM WHEAT	Whole commodity as specified e.g. <u>rice in the husk.</u>
GROUP 16	STALK AND STEM CROPS	Group 16 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 AND STRAW GRASSES, FODDER MAIZE FODDER SORGHUM FODDER	Whole commodity
GROUP 17	LEGUME OILSEED	Group 17 legume oilseed are mature seed from legumes cultivated for processing into edible vegetable oil or for direct use as human food.	PEANUTS	Whole kernel unless specified... <u>e.g. peanuts (whole in the shell).</u>
GROUP 18	LEGUME ANIMAL FEEDS	Group 18 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

Group 19 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 nut meat, shell free unless specified.
Chestnuts - whole in skin,

GROUP 20 OILSEED

Group 20 oilseed consists of the seed from a variety of plants used in the production of edible vegetable oils. Some important vegetable oilseed are by products of fiber or fruit crops.

COTTONSEED
RAPESEED
LINSEED
SUNFLOWERSEED

Whole commodity

GROUP 21 TROPICAL SEED

Group 21 tropical seed consist of the seed from several tropical and semi-tropical trees and shrubs mostly used in the production of beverages and confections. Tropical seed are consumed after processing.

CACAO BEANS
COFFEE BEANS

Whole commodity

GROUP 22 HERBS

Group 22 herbs consist of leaves, stems and roots from a variety of herbaceous plants used in relatively small amounts to flavor other foods. They are consumed in succulent and dried forms as components of other foods.

HERBS

Whole commodity.

GROUP 23 SPICES

Group 23 spices consist of aromatic seed, roots, fruits and berries from a variety of plants used in relatively small amounts to flavor other foods. They are consumed primarily in the dried form as components of other foods.

SPICES

Whole commodity.

GROUP 24 TEAS

Group 24 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

Group 25 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 OF CATTLE
CARCASE MEAT OF GOATS
CARCASE MEAT OF HORSES
CARCASE MEAT OF PIGS
CARCASE MEAT OF SHEEP

Whole _____ commodity except for fat soluble pesticides when carcass fat is examined.

GROUP 26 ANIMAL FATS

Group 26 animal fats are the rendered or extracted fat from the fatty tissue of animals. The entire product may be consumed.

ANIMAL FATS
CATTLE FAT
GOAT FAT
HORSE FAT
PIG FAT
SHEEP FAT

Whole commodity _____

GROUP 27 MEAT BYPRODUCTS

Group 27 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
CATTLE MEAT BYPRODUCTS
GOAT MEAT BYPRODUCTS
HORSE MEAT BYPRODUCTS
PIG MEAT BYPRODUCTS
SHEEP MEAT BYPRODUCTS

Whole commodity _____

GROUP 28	MILKS		
	Group 28 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		
	Group 29 milk fats are the rendered or extracted fats from milk.	MILK FATS	Whole commodity.
GROUP 30	POULTRY MEATS		
	Group 30 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	Whole commodity except for fat soluble pesticides when carcass fat is examined.
GROUP 31	POULTRY FATS		
	Group 31 poultry fats are the rendered or extracted fats from fatty tissues of poultry. The entire product may be consumed.	POULTRY FATS	Whole commodity.
GROUP 32	POULTRY BYPRODUCTS		
	Group 32 poultry byproducts are edible tissue and organs, other than poultry meat and poultry fat from slaughtered poultry.	POULTRY BYPRODUCTS	Whole commodity
GROUP 33	EGGS		
	Group 33 eggs are the fresh edible portion of the reproductive body several domesticated 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:

W. Almeida	Brazil (observer)
A.F.H. Besemer	the Netherlands
G. Bressau	Federal Republic of Germany
A. Calderbank	G.I.F.A.P.
G. Dupuis	Switzerland
E.R. Houghton	Canada (Chairman)
A.A. Martinez	Mexico (observer)
M. Osvaldo	Argentina (observer)
D.S. Papworth	United Kingdom
R.T. Ross	United States of America
J.T. Snelson	Australia
E.E. Turtle	FAO
G. Vettorazzi	WHO
B.B. Watts	New Zealand
G. Willis	G.I.F.A.P. (observer)
E.M. Smith	U.K.

1. The Working Group addressed itself to the selection of compounds for priority consideration from various sources noted as follows.

a) Priority Lists from Appendix IV of the Report of the 9th session (Alinorm 78/24 page 61).

b) Future work proposals that are before the JMPR for review in 1978. ^{1/}

c) Submissions from various countries and manufacturers for compounds thought to meet the criteria for selection.

d) Good Agricultural Practice Report 1978 CX/PR 78/2.

2. In the light of comments recorded and otherwise expressed by a number of countries that the selection criteria are not sufficiently strict, the group again reviewed the criteria. The group concluded that while the criteria do have some failings, they nevertheless serve the purpose and that their application can be such as to limit the workloads on the JMPR so as to fit the available resources.

^{1/} See Circular CL 1978/30 for the Agenda of the 1978 JMPR.

A more justifiable criticism might be that the criteria may not have been properly applied in all cases. It must be recognized that the final selection must be made by the JMPR Secretariat on the basis of available information, the lack of which may cause some rearrangement of intended priority. Taking into account paragraph 3 of the Report of Group in Appendix IV of the 9th session of CCPR (Alinorm 78/24) and the conclusions of the group, the criteria are reaffirmed as follows.

When used in accordance with good agricultural practice the candidate compound must:

- a) result in residues on the food commodity
- b) be a matter of public health concern
- c) affect international trade to a significant degree
- d) be creating or have a potential to create commercial problems and
- e) be not already under review at some stage in the Codex procedure and
- f) be available for use as a commercial product.

3. The manner of expressing the priority to be assigned to compounds in this report has been somewhat amended from previous reports. This has been done since the selection of compounds by JMPR for review is dependant upon a number of factors not fully known by the Group at the time of selection. Further, the several previous Priority Lists were resulting in confusion.

In this Appendix List I includes those compounds that can be added to those under review by the JMPR in the current year (1978), taking the place of compounds that for various reasons cannot be reviewed as originally planned.

List II includes those compounds that are proposed for review by JMPR in 1979, or as soon as possible thereafter dependant in most cases upon the availability of essential information.

List III includes those compounds proposed from various sources or drawn from the Good Agricultural Practice Report that have been considered by the group and listed as having met the selection criteria. It should be noted by countries and manufacturers that List III is in no way limiting and other compounds not listed therein may be proposed for consideration in accordance with para 5 of this Appendix.

4. The Group received submissions from Australia (phenothrin, guazatine), Germany (triforine), Japan (benzoximate), Netherlands (diflubenzuron and triadimefon), New Zealand (fenvalerate and permethrin), Switzerland (methacrifos), Thailand (phenazin-5-oxide), USSR (crotoxyphos). It was agreed that the following compounds proposed from these sources meet the qualifying criteria for inclusion in the Priority Lists.

diflubenzuron	phenazin-5-oxide
fenvalerate	phenothrin
guazatine	triadimefon
methacrifos	triforine *
permethrin	

5. The Group reviewed the Good Agricultural Practice Report 1978, CX/PR 78/2 and considered 122 compounds of which 18 were selected in the light of the qualifying criteria. Manufacturers and governments interested in these compounds listed in this paragraph are asked to advise the Chairman of the Ad Hoc Working Group on Priorities (E.R. Houghton - Canada) with copies of the advice to G. Vettorazzi - WHO and E.E. Turtle - FAO (addresses - see list of participants of this report).

The advice on the compounds should include a summary that identifies the available scientific information that will enable the recommendation of maximum residue limits, together with current and proposed uses that will meet the selection criteria already noted.

aldicarb	naled
chlorthal-dimethyl	oxamyl
demephion	pentachlorophenol
ditalimfos	phoxim
ethoprophos	propryzamide
famphur	pyrazophos
glyphosate	quinalphos
isoprocarb	streptomycin
metaldehyde	triazophos

The information provided with an application for consideration by the next meeting of the Working Group will be distributed to those members, appointed by the Chairman of the CCPR.

* already approved for review in 1978

Applicants should note that detailed and comprehensive information should not be included with the application to the Priorities Group and that summaries only are required.

6. List I - This list consists of compounds judged to meet the selection criteria that can be considered for review in the current year (1978) by the JMPR.

guazatine

7. List II - This list consists of compounds judged to meet the selection criteria that may be considered for review in the succeeding year (1979) by the JMPR depending upon the availability of adequate scientific and technical data on the individual compounds. Current expectations are that the information will be available for many of the compounds, however some others may be deferred to subsequent years.

methacrifos (1980)	phenotrin
triadimefon	permethrin
diflubenzuron	phenazin-5-oxide
fenvalerate	tetrachlorvinphos
azocyclotin	

8. List III - This list consists of compounds identified from various sources that have been tentatively judged to meet the selection criteria, and are drawn to the attention of countries and manufacturers. Countries or manufacturers having an interest in compounds on this list should follow procedures outlined in paragraph 5 of this report.

aldicarb	naled
bupirimate	oxamyl
chlorthal-dimethyl	pentachlorophenol
demephion	phoxim
ditalimphos	propyzamide
ethoprophos	pyrazophos
famphur	quinalphos
glyphosate	streptomycin
isoprocarb	triazophos
metaldehyde	

9. Although benzoximate had been previously included as a candidate for consideration by the JMPR it has been withdrawn from the priority list in view of the relatively small use that appears to be further declining.

10. The Group discussed the advisability of again distributing the Questionnaire on Good Agricultural Practice in the Use of Pesticides relative to maize, oleaginous crops, potatoes and pulses. The responses to the previously distributed questionnaire on these crops were reported to the CCPR in 1975, CX/PR 75/10. The Group recommended that Canada, again, distribute the questionnaire to countries in anticipation of preparing Good Agricultural Practice Report for the 1979 meeting of CCPR.

It was suggested that in addition to the standard questions countries be requested to indicate in respect to each crop/pesticide combination whether or not problems are being encountered in respect to residues that impede international trade or in respect to human health. The Group concluded that a simple yes or no answer to such questions would be useful to the CCPR and to WHO and FAO. Canada undertook to consider the possibility of expanding the questionnaire in this regard.

The JMPR Secretariat suggested that the information gathered from the responses to the questionnaire might be manipulated so as to provide listings of pesticides used on selected crops. This possibility will be explored by the Canadian delegation at least in respect to those pesticides now under review by JMPR where such information will have immediate value.