

REPORT

**San Salvador,
El Salvador,
11-15 May
1992**

Fourth technical consultation among regional plant protection organizations



**Food and Agriculture Organization
of the United Nations**

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**REPORT OF THE FOURTH TECHNICAL CONSULTATION AMONG
REGIONAL PLANT PROTECTION ORGANIZATIONS**

San Salvador, El Salvador : 11-15 May 1992

**FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
Rome, 1992**

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1. OPENING OF SESSION

After initial addresses by Ing. Rafael Mata (Director of OIRSA), the Honourable Antonio Cabrales (Minister of Agriculture of El Salvador), Mr. J. Tubino (FAO Representative in El Salvador) and Dr. N.A. Van der Graaff (Chief of the Plant Protection Service, FAO, Rome), the meeting was officially opened by the Minister of Agriculture of El Salvador.

Dr. George Berg from OIRSA was elected Chairman. It was agreed that the Drafting Committee would be composed of one representative from each Regional Plant Protection Organization.

The meeting wished to express its appreciation to Mr. Réal Roy who had chaired the three preceding meetings and was unable to attend his meeting due to health reasons.

The Agenda was adopted after amendment and is attached. (Appendix I)

2. CURRENT STATUS OF THE GATT NEGOTIATIONS

Dr. Van der Graaff indicated that there had been no new developments in the GATT Uruguay Round since the last meeting. The draft decision on Sanitary and Phytosanitary measures is fully negotiated and it is unlikely that the GATT contracting parties will consider any further changes. The representative of the European and Mediterranean Plant Protection Organization (EPPO) proposed that the Consultation expresses its agreement to the draft. The Consultation concurred with this proposal.

3. REPORTS BY REGIONAL PLANT PROTECTION ORGANIZATIONS

See Annexes I to VIII

4. IMPLEMENTATION OF THE RECOMMENDATIONS OF THE THIRD TECHNICAL CONSULTATION

Dr. E. Feliu, Plant Quarantine Officer, FAO, presented a summary of the follow-up to the recommendations of the Third Technical Consultation.

Concern was expressed by some participants over the implementation by FAO of some of these recommendations, in particular, the status of the IPPC Secretariat and the proposal for the establishment of an International Committee for Phytosanitary Measures (ICPM). The meeting was advised that the IPPC Secretariat was established equivalent in status to that of the Secretariat of the Codex Alimentarius Commission.

Concerning the ICPM and the associated approval mechanism, the consensus of FAO member countries would be essential to adopt an approval mechanism of guidelines, recommendations and standards. A paper prepared by the FAO Legal Office offering various alternatives, including the International Committee for Phytosanitary Measures, was discussed during the Expert Consultation on Harmonization in Plant Quarantine (27-30 April 1992) and would be discussed during this meeting.

5. CURRENT WORK PROGRAMME

a. Harmonization of Principles in Plant Quarantine

The document "Principles of Quarantine as Related to International Trade" had been submitted to both Regional Plant Protection Organizations (RPPOs) and individual governments.

The above document had been reviewed by the Expert Consultation on Harmonization in Plant Quarantine to take account of the comments made by governments and RPPOs. Most comments concerned editorial changes, and the Consultation recommended other minor modifications. The Technical Consultation considered the "Principles" document and adopted it according to the text (Annex IX). French and Spanish translations are also provided.

Since the "Principles" document was adopted by the meeting, the IPPC Secretariat submitted the document for acceptance by member Governments.

b. Harmonization of Pest Risk Analysis (PRA)

The North American Plant Protection Organization (NAPPO) had prepared a document on Pest Risk Analysis (Annex X) and had submitted it to the FAO Secretariat for further consideration. The document had been considered by the Second FAO Expert Consultation on Harmonization in Plant Quarantine in April 1992 and the document and comments of the Expert Consultation were submitted to the meeting.

The FAO Expert Consultation had prepared a flowchart of the PRA procedures (Annex XI). This flowchart was based on the NAPPO documentation, illustrating the three different stages of the PRA process. The Comité Regional de Sanidad Vegetal para el Cono Sur (COSAVE) expressed some concern on the definition of Quarantine Pest, by NAPPO, in the document. If the term 'area' was used without specifically mentioning that the term was to be interpreted in the ecological sense, countries could apply it to "economic" or

geographical areas, causing confusion. In addition, it did not find the term 'Economic Importance' clear. When discussing the document on PRA, the expert Consultation on Harmonization in Plant Quarantine considered that the NAPPO definition as an interpretation of the IPPC definition.

Concern was expressed by some participants that the recommendations of the NAPPO PRA Workshop, held in October 1991, were not fully reflected in the document and that the report of the Workshop was not available to this meeting.

The representative of NAPPO indicated that the quantification of Risk of entry, establishment and spread should be separated from Stage 3 which only addresses management options. It was agreed that the above quantification should be a separate stage of the PRA process.

There was broad agreement on the flow charts as a basic framework to PRA but throughout the discussions it was evident that an explanatory text, based on the NAPPO document, was required to ensure full understanding of all the steps involved in the process.

The meeting expressed its appreciation of the work performed by NAPPO on the development of the PRA document and the work of the Expert Consultation in preparing the flow charts.

c. Harmonization of Quarantine Procedures

- Working Group on Fruit Flies

Dr. Felipe Canale, President of COSAVE, informed the meeting that progress by the Working Group had been substantially delayed due to the heavy work load in the Region concerning trade agreements and interregional coordination problems. However, he said that replies to a questionnaire will be consolidated and discussed during a meeting to be held at the end of May 1992 and he expected that a circular will be sent out by July 1992 to RPPOs, requesting comments. A full report will be produced by November 1992. He requested the assistance of other RPPOs in this task.

- Working Group on Quarantine Procedures for Potatoes

Dr. I.M. Smith, Director-General of EPPO, referred to the meeting held in February 1992 to discuss specific quarantine procedures for potatoes. The Working Group considered that the quarantine procedure for *Clavibacter michiganensis* ssp. *sepedonicus* (inspection and test methods) published in Bulletin OEPP/EPPO, Bulletin 20, 235-

254 could be proposed as an international recommendation. It examined soil-testing procedures for potato cyst nematodes and concluded that there was a basis for future agreement on an international recommendation, but that further detailed work was needed to achieve this. The Working Group considered that additional work needs to be undertaken in connection with other diseases and pests of potatoes. It had, therefore, looked towards possible assistance from other organizations. It recommended that other RPPOs also be invited to develop quarantine procedures for potatoes. The summary of the report of the Working Group is attached as Annex XII.

OIRSA volunteered assistance on golden nematode of potatoes. Some members of the Consultation expressed their disappointment that few RPPOs had been involved in the activities of the Working Group. The Working Groups should, in future, be organized in a more centralized manner, possibly by the Secretariat of the IPPC, while funding of participation of other RPPOs should be considered.

6. FUTURE WORK PROGRAMME

a. The IPPC Secretariat and its anticipated programme of work in coordination with RPPOs.

Dr. Van der Graaff introduced the subject and provided information on the scope of work of the IPPC Secretariat. He indicated that the programme will consist of four major components:

1. Activities mandated under the IPPC: Information Exchange
2. Those arising from the GATT Uruguay Round: Harmonization of Plant Quarantine Principles, Guidelines and Procedures.
3. Strengthening of international cooperation, in particular to increase adherence to the IPPC and support to RPPOs.
4. Assisting member governments in establishing and strengthening national plant quarantine capabilities.

Information exchange would mainly concern the publication of the FAO Plant Protection Bulletin, the production of Digests of Plant Quarantine Regulations, collation of Plant Quarantine Procedures and Treatments, Directory of Plant Quarantine Services and Regional organizations, Inventories of Pest Data Sheets on Quarantine Pests, collection, distribution and verification of data on distribution of quarantine pests through further development of the FAO Data Base on quarantine pests.

Harmonization would be a major activity which would be executed in a joint work programme with the RPPOs. This would include a long-term programme to harmonize quarantine procedures using working groups and expert panels, all in close cooperation with RPPOs. Extra-budgetary resources would be very useful to initiate the programme on harmonization and would make it possible to address many procedures at an early stage. It was, however, recognized that such resources may be difficult to obtain.

A five point proposal was introduced by NAPPO (Annex XIII) which mainly concerned additional activities for the IPPC Secretariat in the field of information exchange. The Consultation agreed that international cooperation on these issues would be very helpful to the implementation of plant quarantine. However, it also recognized that priorities had to be established and the mandate given to the IPPC Secretariat by the FAO Conference was very specifically addressed to harmonization. Therefore, it was felt that the primary objective of the strengthened Secretariat should be the harmonization of procedures.

The relation between the proposed ICPM and the IPPC Secretariat was discussed. It was noted that the ICPM could prepare recommendations to governments, RPPOs and FAO (the IPPC Secretariat). Both RPPOs and the IPPC Secretariat would be ultimately responsible to their respective governing bodies.

b. Ratification and international acceptance of the document on principles and other harmonized measures, including the legal aspects/proposed International Committee for Phytosanitary Measures (ICPM)

Dr. Van der Graaff referred to the recommendations of the Third Technical Consultation on an approval mechanism. He introduced the paper prepared by the FAO Legal Office, which provided a background on the status of the various RPPOs and their mandates. He explained that the structures of the various RPPOs were not homogeneous, some were established as FAO Commissions, while others were established outside FAO as independent organizations. The nature of the IPPC was that of a static agreement which contained no mechanism to set norms, except possibly under supplementary agreements. There were two major options considered under this paper:

- The International Committee for Phytosanitary Measures, which would be composed of RPPO representatives and the IPPC Secretariat, would have the advantage of providing technical expertise and being relatively quick and inexpensive. However, its disadvantages would be that the ICPM would not be an

intergovernmental body and, would not offer direct representation of governments. The legal status of RPPOs varied considerably and most RPPOs lacked a mandate to work on harmonization and to represent their governments. Finally, the capabilities of RPPOs differed considerably and some parties to the IPPC were not members of an RPPO, while others were members of several RPPOs.

- The establishment of a Global Plant Protection Commission would provide a representation to all governments but a Commission would take a long time to establish and its operation would be costly. It would also not take advantage of the technical expertise available in the RPPOs. The existence of a Global Commission may weaken RPPOs as they could only attend meetings of the Commission as Observers. If such a Commission would be required in the long term, it would be necessary to provide for interim measures, like the ICPM which could later become the technical advisory group for the Commission.

Possibly the best solution would be the implementation, as an interim measure, of the ICPM alternative functioning with respect to FAO, as a Technical Advisory Committee while, in the longer term, other possibilities would be considered, if necessary. Any mechanism would have to be endorsed by the FAO Conference.

In the longer term, the IPPC would have to be amended or the new arrangements could be accommodated by drafting new responsibilities under supplementary agreements (Article III).

Mr. R. Ivess (APPPC) referred to a paper prepared by New Zealand on the development of a Commission on Phytosanitary measures. He expressed concern at the magnitude of the work involved in the harmonization of inspection, treatment, surveillance and other procedures. He recognized the urgency in establishing interim measures such as the creation of a Committee while a Commission is established as the permanent body.

A long discussion followed concerning the levels of approval of guidelines and standards and it was stressed by the Secretariat that consensus by Governments was required to ensure that norms and standards are not challengeable in disputes. It was considered that recommendations may be useful only if they had gone through some governmental consultation process, as with the Codex Alimentarius Commission. However, it was noted that some RPPOs can obtain and pass on consensus view of their member governments, at least on recommendations.

The Inter African Phytosanitary Council (IAPSC) felt that assistance would be needed to enable it to strengthen its technical capabilities, including those national quarantine services south of the Sahara, in order to enable countries to meet the requirements for effective harmonization. It was agreed that a recommendation to this effect would be made by the meeting.

The FAO Secretariat stressed the need to clarify the role of RPPOs in the harmonization process and the matter of representation of member countries. It was evident that some RPPOs lack a mandate to represent their member countries and it was therefore noted by the FAO Secretariat that, in order to secure appropriate international consensus, recommendations, guidelines and standards, developed by the Committee, must be submitted to the FAO Conference for acceptance by FAO Member Governments.

The Consultation strongly favoured the establishment of an ICPM and prepared a recommendation to reconfirm its earlier recommendations accordingly. It was recommended that a proposal for an approval mechanism would be prepared for consideration by the FAO Conference. The Secretariat stated that the proposal should give options and should explain how the Committee would conduct its work.

c. Procedures for other Commodities

The FAO Secretariat enquired whether current work on procedures on fruit flies and potatoes would be continued and what work on other procedures would be addressed during the next three years.

It was agreed that the current work on fruit flies and potatoes would be continued, where possible with the financial assistance of FAO and RPPOs. It was suggested that a Working Group could manage the Quarantine Procedures Programme, according to defined priorities predicated on the importance of international trade and the resolution of disputes. It was agreed that the drafting Committee would prepare a recommendation to this effect.

d. Irradiation as a quarantine procedure

The use of irradiation as a quarantine procedure was discussed and the Consultation noted the considerable scientific evidence that supports this technology as an alternative to chemical treatments, particularly in view of the growing restrictions on the use of chemical pesticides. Specific schedules have been developed against fruit flies and mango seed weevil and it was agreed to recommend their

inclusion in the proposed FAO Certification Procedures manual. In addition, irradiation was recommended for inclusion in the future programme of the ICPM on procedures.

7. INFORMATION EXCHANGE

Dr. Feliu provided a summary of the FAO activities in this respect. This included the FAO Plant Protection Bulletin, the Plant Quarantine Database, Directory of National and Regional Plant Protection Organizations, FAO/IBPGR Guidelines for the Safe Exchange of Germplasm, Inventory of Pest Data Sheets and the Glossary. The latter publication was the subject of more detailed discussions within the context of the future work programme.

8. PRE-CLEARANCE: Its importance and future

The OIRSA representative presented a description of the pre-clearance programmes which have gained considerable interest in their region in recent years. The system involved the posting of officers from the importing country to the exporting country to work with the latter country's quarantine officers in the inspection of plants and plant products at origin. Reference was made to already existing agreements between OIRSA and USDA-PPQ-APHIS in connection with the establishment of pre-clearance programmes. The advantages of this system were mentioned, while its high cost was named as the major disadvantage.

The NAPPO representative provided an account of the pre-clearance activity within the Region, highlighting its advantages of enhancing skills of national quarantine staff in the country of export and facilitating trade through the expedition of the clearance of large consignments of regulated plant products. In addition, he stressed the desirability to keep pests at origin.

Mr. Pemberton (EPPO) strongly opposed pre-clearance as a long term procedure. He agreed that pre-clearance may be a technique to develop technical abilities in a country or a region and may be part of a trade development plan. He did not, however, agree that pre-clearance should be a long term policy and indicated that such a programme could become a non-tariff trade barrier. He felt that pre-clearance was against the basic principles of the IPPC but indicated that it should be accepted on a short term basis until reliability is established. Afterwards monitoring from time to time to ensure compliance would be all that would be required.

Some participants agreed with the EPPO statement while others saw advantages in the pre-clearance procedure for a number of products as it would keep the problem off-shore.

The representatives of NAPPO strongly defended the pre-clearance system as they saw this as a cost-effective methodology which did away with much of the

inspection requirements of the port of entry. The method was particularly effective and it provided for bulk inspection instead of inspection of small quantities at the port of entry.

It was agreed that the subject would be further discussed during the Fifth Technical Consultation.

9. UPDATE ON THE BACTROCERA spp SITUATION IN SURINAME

The representatives of OIRSA and IICA provided an overview of the present distribution of the Carambola Fruitfly and efforts to control and eradicate this pest. They termed the threat posed by the pest as an emergency to the Americas and the Caribbean, and referred to the application of the principle of emergency action, as the countries concerned are not taking immediate action, but the entire Region is threatened. It was noted that the Carambola Fruitfly had been in Suriname since 1975 but only became a cause of concern since 1986. Another infestation is in French Guiana, while recently the pest was also found near the Guyana border. Pilot efforts have been made which show that the pest could be eradicated and efforts have been made to establish a project for the eradication of the pest.

The FAO Secretariat noted that, although a formal PRA had not been conducted for the pest, all countries and organizations in the region had advocated eradication. There had been recent contacts with Suriname and France on the subject. France had shown "a certain degree" of interest in eradication, while Suriname had, informally, indicated it would submit a project document for the implementation of an eradication campaign to FAO for funding. It was also noted that the USDA had offered the services of a junior professional officer to FAO but this offer could only be accepted if further funding was available.

10. PLANT QUARANTINE TRAINING: An update on needs at National and Regional Levels

The representative of OIRSA presented a paper on training requirements. He referred to the need for structuring international quarantine training programmes. This was necessary in view of the current requirements of harmonization in relation to international trade. He suggested the possibility of organizing a workshop to structure quarantine training on a global basis for use in any country or region.

The Consultation was also informed of new training facilities in Mexico which would be available for plant quarantine training, not only for the OIRSA and NAPPO region, but also for countries outside this region. A first training course would be held with support from NAPPO and OIRSA. The Consultation fully supported these activities and drew a parallel to ASEAN PLANTI which provided regional training for the ASEAN countries.

11. CODE OF CONDUCT FOR THE IMPORT AND RELEASE OF BIOLOGICAL CONTROL AGENTS

Dr. Feliu, FAO, introduced this topic, referring to the Report of the Expert Consultation on Guidelines for the introduction of Biological Control Agents, held in Rome from 17 to 19 September 1991. The Expert Consultation specifically requested this Fourth Technical Consultation to discuss a Draft Code of Conduct which had been produced by the meeting and, based on these discussions, to provide guidance on its technical content, applicability and possible adoption by RPPO member countries.

It was noted that appropriate consultation with member countries was needed and, to that effect, RPPOs were requested to consult individual member countries to obtain the requested input. In order to expedite responses, it was agreed that the document would be translated into French, Spanish and, possibly, Arabic.

12. OTHER BUSINESS

The possible ban of Methyl bromide as a quarantine treatment

Mr. Scot Campbell (NAPPO) briefly introduced the subject, explaining that the US Environmental Protection Agency (EPA) had included methyl bromide as an ozone-depleting chemical to be eventually phased out. Because there is insufficient data to demonstrate that the amounts used in quarantine treatments would significantly cause an adverse impact on the ozone layer, it was proposed that the United States and other members of the Open-Ended Working Group of the parties to the Montreal Protocol should encourage an international review of scientific data, the economic impact on agriculture worldwide and the identification of alternatives. It was also proposed that any action by pesticides regulatory agencies to ban methyl bromide should be withheld until this assessment is completed. The Consultation recommended that RPPO member countries be consulted on this matter.

13. DISCUSSION OF THE DRAFT RECOMMENDATIONS OF THE CONSULTATION

Particular reference was made to the recommendation on the establishment of an International Committee for Phytosanitary Measures (ICPM). Dr. Canale, Chairman of the Drafting Committee, explained the two basic components of the proposal which comprised recommendations for the immediate future (ICPM) and possible long-term (Commission) actions. It was noted that it was essential that the proposal include a statement on its internal operation and that this could comprise the formation of a FAO Panel of Experts to support and interact with the Committee.

The need for direct consultation of Governments was identified as not being adequately addressed in the recommendations.

It was noted that the Committee's Working Procedures would need to be defined and that this could be done by consultation with representatives from RPPOs and the IPPC Secretariat. The Consultation proposed that this be done within the next four months, possibly prior to an EPPO Colloquium with EC Commission on Phytosanitary Impact of the Single Market in mid-September 1992 in Brussels, where at least three RPPOs would be represented. The report of the meeting would be sent to all RPPOs for information and guidance.

14. RECOMMENDATIONS OF THE CONSULTATION

Recommendations on the development of International Standards, Guidelines and Recommendations for Phytosanitary measures

1. Establishment of an International Committee for Phytosanitary Measures (ICPM)

The Consultation, recalling the recommendation made at the Third Technical Consultation concerning the establishment of an International Committee for Phytosanitary Measures (ICPM), restates the considerations which made this recommendation necessary and appropriate, as follows:

- a. There is increasing international trade in plants and plant products with a consequent need for internationally agreed phytosanitary measures to prevent the spread of quarantine pests, while allowing trade to develop.
- b. The draft GATT decision on the application of sanitary and phytosanitary (SPS) measures, from the Uruguay Round of multilateral trade negotiations, focuses attention on the need for international standards, guidelines and recommendations for phytosanitary measures.
- c. The International Plant Protection Convention (IPPC), of which about 100 countries are contracting parties, provides an international legal basis for national phytosanitary measures. It does not, however, provide a legal base or a mechanism for the setting of international standards, guidelines and recommendations.
- d. In reply to the perceived need for harmonization the FAO Conference has established a Secretariat of the IPPC.
- e. Regional Plant Protection Organizations, whose membership includes more than 125 countries, already exist and, with varying levels of proficiency and success, are harmonizing phytosanitary standards, guidelines and recommendations within their regions.

- f. The draft GATT SPS decision proposes that international phytosanitary standards, guidelines and recommendations should be defined as those developed under the auspices of the Secretariat of the IPPC in cooperation with Regional Organizations operating within the framework of the IPPC.
- g. As a consequence, there is an immediate need for the creation of a recognized international system operating under the framework of the IPPC to develop international standards, guidelines and recommendations for phytosanitary measures.

The Consultation, in order to meet this immediate need, accordingly reiterates its proposal on the establishment of an ICPM, recommending that:

A committee composed jointly of the duly nominated representatives of Regional Plant Protection Organizations (including those bodies created under Article VI of the FAO Constitution) and those of the IPPC Secretariat, to be known as the International Committee for Phytosanitary Measures (ICPM) be constituted. The ICPM shall develop international recommendations on phytosanitary measures which may become international guidelines and standards endorsed by the FAO Conference.

The Consultation further recommends that:

This proposal for constitution of the ICPM be submitted to the FAO Committee on Agriculture, to the FAO Council for endorsement and to the FAO Conference for adoption.

2. Establishment of an approval process for international phytosanitary recommendations, guidelines and standards.

The Consultation, recalling the recommendation made at the Third Technical Consultation concerning an approval process for international phytosanitary recommendations, guidelines and standards, and recognizing the need for adequate consultation of countries, now recommends the following approval process to be introduced when the ICPM has been constituted:

- a. recommendations are produced by the ICPM following appropriate consultations of Member Countries within the individual Regional Plant Protection Organizations;
- b. these recommendations may be immediately forwarded to individual countries by the IPPC Secretariat, for their appraisal and concurrence;
- c. these recommendations are then subjected by the IPPC Secretariat to appropriate review and consultation of countries with the view to their

adoption as international guidelines or standards by the FAO Conference.

3. Internal Operation of the ICPM

The Consultation, considering that the ICPM will require rules of procedure and that its work programme will require the establishment of specialized working bodies, and recognizing the need for adequate representation of different regions on these bodies, recommends that:

- a. representatives of RPPOs and the IPPC Secretariat meet within the next four months to prepare a detailed proposal on the internal operation of the ICPM, and
- b. the IPPC Secretariat be invited to provide the Secretariat of the ICPM.

4. Evaluation of Long-term Requirements

The Consultation, considering that, in the long term, another structure may be needed to complement or replace the ICPM whose establishment satisfies the immediate need, recommends that:

- a. the IPPC Secretariat review options relating to such a structure, in consultation with the RPPOs and including the possibility of the establishment of a Commission for Phytosanitary Measures, and prepare a comprehensive discussion paper for the Fifth Technical Consultation, and,
- b. the IPPC Secretariat examine the possible need for amendment to the IPPC in this context, or for the establishment of a supplementary agreement under Article III of the IPPC.

5. Plant Quarantine Principles as related to International Trade

The Consultation, recalling that the Third Technical Consultation agreed draft Plant Quarantine Principles as related to international trade, noting that these had been examined by the RPPOs and countries and that comments from these had been submitted to FAO, having received from the Expert Consultation on Harmonization in Plant Quarantine held in Rome from 27 to 30 April 1992, its report on the review of the draft and the comments made on it, and having made final modifications to the draft, agreed the Principles presented in Annex 1 and recommends:

that these Principles be submitted to the FAO Committee on Agriculture, to the FAO Council for endorsement and to the FAO Conference for adoption.

6. International Plant Protection Convention (IPPC)

The Consultation, welcoming the establishment of the Secretariat of IPPC and the announcement of the impending appointment of the IPPC Coordinator, and taking note of the advanced state of establishment of the Near East Plant Protection Organization, recommends that:

FAO maintain its efforts to increase membership of the IPPC and the Regional Plant Protection Organizations (RPPOs).

7. Reorganization and strengthening of the Inter-African Phytosanitary Council (IAPSC)

The Consultation, noting the general weakness of plant protection and quarantine structures and infrastructures in Africa, and the insufficient scientific, technical and financial resources of the IAPSC, stressing the importance of plant protection and quarantine problems in Africa, and the need for an operational and effective Plant Protection Organization, recommends:

that FAO and the OAU undertake a joint review of the IAPSC with a view to reorganizing and strengthening it in such a way that it can operate in a manner similar to that of the other existing RPPOs, and report to the Fifth Technical Consultation the outcome of this review and progress in its implementation.

8. Irradiation as a Quarantine Procedure

The Consultation, considering various aspects of the use of irradiation technology as a quarantine treatment, noting that sufficient scientific evidence is available to support consideration of this technology as an alternative to chemical treatments, and considering the growing restriction on the use of chemicals, recommends that:

irradiation, should be included in the future programme of the ICPM on plant quarantine procedures for use as a quarantine measure and that FAO should include this method in its quarantine treatment procedures manual.

In addition, the Consultation, recognizing that the main limitation for the use of this technology is consumer reluctance to accept irradiated products, recommends:

that the FAO/IAEA continue and strengthen its educational campaign to influence consumer attitudes.

9. Methyl bromide

The Consultation noting the concern expressed by NAPPO that methyl bromide, widely used by plant protection services as a quarantine treatment, is currently under investigation as being a major ozone depletor.

considered that the loss of the use of this product for commodity disinfection will have an adverse impact on the trade of plants and plant products, resulting in increased economic disadvantages in those countries that rely upon the exportation of agricultural products for a significant portion of their foreign exchange, and in addition, will increase the risk of introduction of new pests of quarantine significance into importing countries;

considering that the use of methyl bromide as a quarantine treatment represents only small part of the total use of methyl bromide by man;

considering that there is a body of information which does not support the suggestion that the use of methyl bromide by man has any significant influence on the stability of the ozone layer, and that this data suggests that 95% of the methyl bromide in the atmosphere emanates from life in the world's oceans, the Consultation recommends that:

RPPOs should promptly inform their Member countries of this position, encouraging them to consider: 1) the consequences of withdrawal of methyl bromide as a quarantine treatment, and 2) the need for sufficient scientific evidence to be developed to substantiate the claim that methyl bromide is a major ozone depletor and, 3) the need for suitable alternative quarantine treatments to be developed.

10. Work Programme

The Consultation, wishing its work programme on PRA, Quarantine procedures and the FAO Glossary to be sustained, recommends that:

- a. the Technical Consultation meet again in May, 1993;
- b. the meeting between RPPOs representatives and the IPPC Secretariat mentioned under Recommendation 3 establish a detailed work programme for the period before the next Technical Consultation;

- c. the IPPC Secretariat coordinate joint work with the RPPOs on this work programme

15. VENUE AND DATE OF THE FIFTH TECHNICAL CONSULTATION

The Consultation recommended that the next meeting be held in May 1993 in Rome. EPPO volunteered to host the Sixth Technical Consultation in 1994.

16. APPRECIATION

The Consultation expressed its appreciation to OIRSA for hosting the meeting and for the excellent organization of the local arrangements. It also appreciated the assistance provided to the participants and the warm hospitality provided throughout the meeting.

ASIA AND PACIFIC PLANT PROTECTION COMMISSION

Summary Report

On behalf of the Asia and Pacific Plant Protection Commission (APPPC), the Chairman of the Commission, Dato' Abu Bakar Mahmud (Malaysia) presented a General Report to the meeting. He first extended his appreciation to FAO, OIRSA and the Host Government for organizing such an important meeting in San Salvador. Then he introduced other seven delegates from the Asia and Pacific Plant Protection Commission.

The 17th Session of the APPPC was held in Kuala Lumpur, Malaysia in October 1991. Fifty participants and observers from member countries and other regional organizations attended the meeting. The main agenda focused on the development of Integrated Pest Management Programmes and the Harmonization of Plant Quarantine in the Region. The Session also constituted the 29th Executive Committee for 1992-93.

UPDATING OF APPENDIX A (Revised List A₁ and A₂) OF THE PLANT PROTECTION AGREEMENT FOR THE ASIA AND PACIFIC REGION

The Working Group on A₁ and A₂ of the Commission decided that the existing A₁ and A₂ lists, as compiled by ASEAN-PLANTI, SPC and the Commission should be reviewed and incorporated as one combined A₁ and A₂ list with validity for the entire Region. Due to the enlargement of the geographical area under the Commission's Competence to East Asia, countries affected by temperate zone pests, it was agreed that the latter should also be covered in the A₁ and A₂ lists. The lists should be kept under continuous review and updated in terms of scientific name and distribution of pests.

Harmonization of Phytosanitary Principles in the Region. The 17th Session of the Commission generally agreed with the phytosanitary principles as proposed by the FAO Expert Consultation on Plant Quarantine Principles and endorsed by the Third Technical Consultation among RPPOs, held in 1991. Harmonization of Plant Quarantine procedures - the Working Group on PQ procedures reviewed quarantine procedures in the region and collected the information in PQ inspection and treatment from member countries. The 17th Session and 29th Executive Committee meeting recommended that a high priority should be given to the plant quarantine inspection and treatment procedures. The FAO/APPPC Workshop on PQ Procedures will be organized in late October 1992 in Bangkok, Thailand, for consideration and harmonization of PQ on inspections and treatments for the Commission.

Development of Pest Risk Assessment (PRA) programme in the Commission. Working Group PRA distributed the model of PRA for the reference of member countries, priority pest on PRA had identified and recirculated, more countries such as China, Indonesia, Thailand, etc. developed their national PRA programme, an evident progress has been taken on harmonization on PRA programmes in the Commission.

Development of Integrated Pest Management (IPM) Programmes in the Commission. The Commission, assisted by the FAO IPM Rice Project, has kept transferring very successful experiences on strategy, implementation, extension and training of IPM-Rice to many member countries. The Commission had invited the FAO Project to generalize the "New concepts of an IPM training programme in Indonesia" to the member countries. After implementation of the IPM Programme in the Region, many member countries adopted IPM as a national policy for wide agricultural production in Indonesia, Philippines and China, and others.

The Working Group on IPM - Vegetables had reviewed the status of vegetable pests and their control in the Region, established contact points among participating countries, and collected information on effective biological control agents and resistant cultivars. After a series of efforts by FAO, eight member countries may join the new FAO Regional Project on IPM on Vegetables in south and southeast Asia of the region in the near future. The present situation and problems on IPM on Cotton had been reviewed. The recommendations from the FAO Regional Workshop on IPM on Cotton had been considered by the Commission.

The 17th Session also approved that a new Working Group on IPM on Cotton be established under the standing Commission on IPM in the Commission for carrying on the IPM on Cotton programme in the Asia Region.

The 18th Session of APPPC may be held in Beijing, China, if China would like to host the next Session of the Commission.

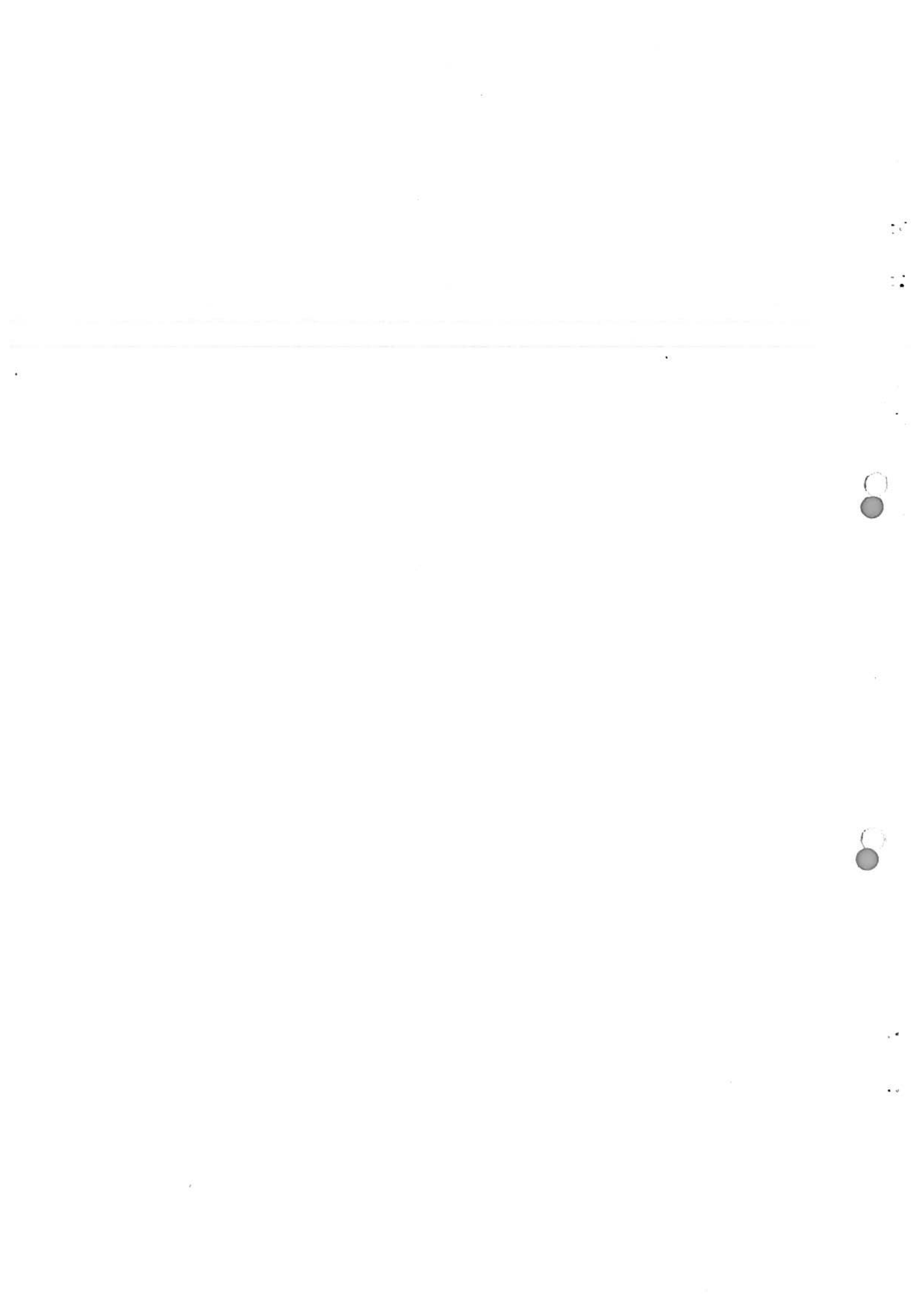
**COMITE REGIONAL DE SANIDAD VEGETAL PARA
EL CONO SUR (COSAVE)**

The representative of COSAVE reported that the organization has two major bodies: The Council of Ministers and the Directory Committee. These are permanent working groups on plant quarantine procedures, pesticides and forestry. The technical secretariat is shared between FAO and the Instituto Inter-Americano de Cooperación para la Agricultura (IICA).

The organization has the legal capability to enter into technical cooperation agreements and to sell its services to raise resources. The Organization's legal basis is based on an agreement by the Governments which has been ratified by the appropriate parliaments and the United Nations.

He referred to the Work Strategy of the Organization which included:

1. Implementation of the plant health principles in the South Cone.
2. Adoption of certain resolutions which included: COSAVE-IICA agreement on plant protection; working group on plant quarantine; germplasm exchange; the IPPC Secretariat; Paraguay's ratification of amendments to the IPPC; plant quarantine database on pests; pest risk analysis concept by NAPPO and the designation of pest-free areas; harmonization in plant quarantine and the establishment of a permanent working group on pesticides.



EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION

Summary Report

The European and Mediterranean Plant Protection Organization (EPPO) celebrated its 40th Anniversary in 1991, with a special Council Colloquium on "A phytosanitary strategy for the future", the proceedings of which will shortly be published as an EPPO Technical Document.

The year was marked by approach of the single market of the European Community. The intensive harmonization of phytosanitary regulations by the 12 EC Member States has called for a massive effort by their Plant Protection Services; it represents one of the most far reaching achievements in international harmonization. Discussions have been opened with the Commission of the EC on the possibility of EPPO Membership for the EC on the 12 + 1 system by which the Commission has an independent voice, while the Member States retain theirs. 1991 has also seen the appearance of newly independent states in Central and Eastern Europe. The Baltic states have already been invited to become EPPO members, while Slovenia has expressed interest. EPPO can certainly expect several new members in the next few years.

On the technical side, EPPO has delayed its further internal work on PRA to concentrate on the development of global PRA process. It participated in the working group called under NAPPO leadership, and has provided detailed remarks on the NAPPO draft on PRA. In cooperation with CAB International and with EC funding, EPPO is revising its "Data sheets on quarantine pests" many of which are now up to 15 years old. The revised version will appear in the form of a book "Quarantine Pests for Europe" to be published by CAB International. Another joint project concerns maps of the geographical distribution of these quarantine pests; CAB International is developing a mapping system, while EPPO is conducting a detailed validation of the distribution data. Countries and organizations around the world will be invited to validate these data.

EPPO took part in an International Seminar on Harmonization of Phytosanitary Regulations in the Arab Maghreb Union, destined to become another common market with harmonized regulations.

Finally, EPPO has been working actively on certification schemes for pathogen free planting material. This has assumed particular importance since the EC has introduced a new Directive on the marketing of planting material of certain crops (fruit trees, ornamentals), which with compulsion have to satisfy certain quality and plant health standards. These will also apply to imported planting material, and thus set a further constraint, possibly more demanding than phytosanitary regulations, and also of interest to GATT as a barrier to trade. However, the full implementation of these compulsory certification schemes is likely to take several years, so their impact will be progressive.

INTER AFRICAN PHYTOSANITARY COUNCIL

Summary Report

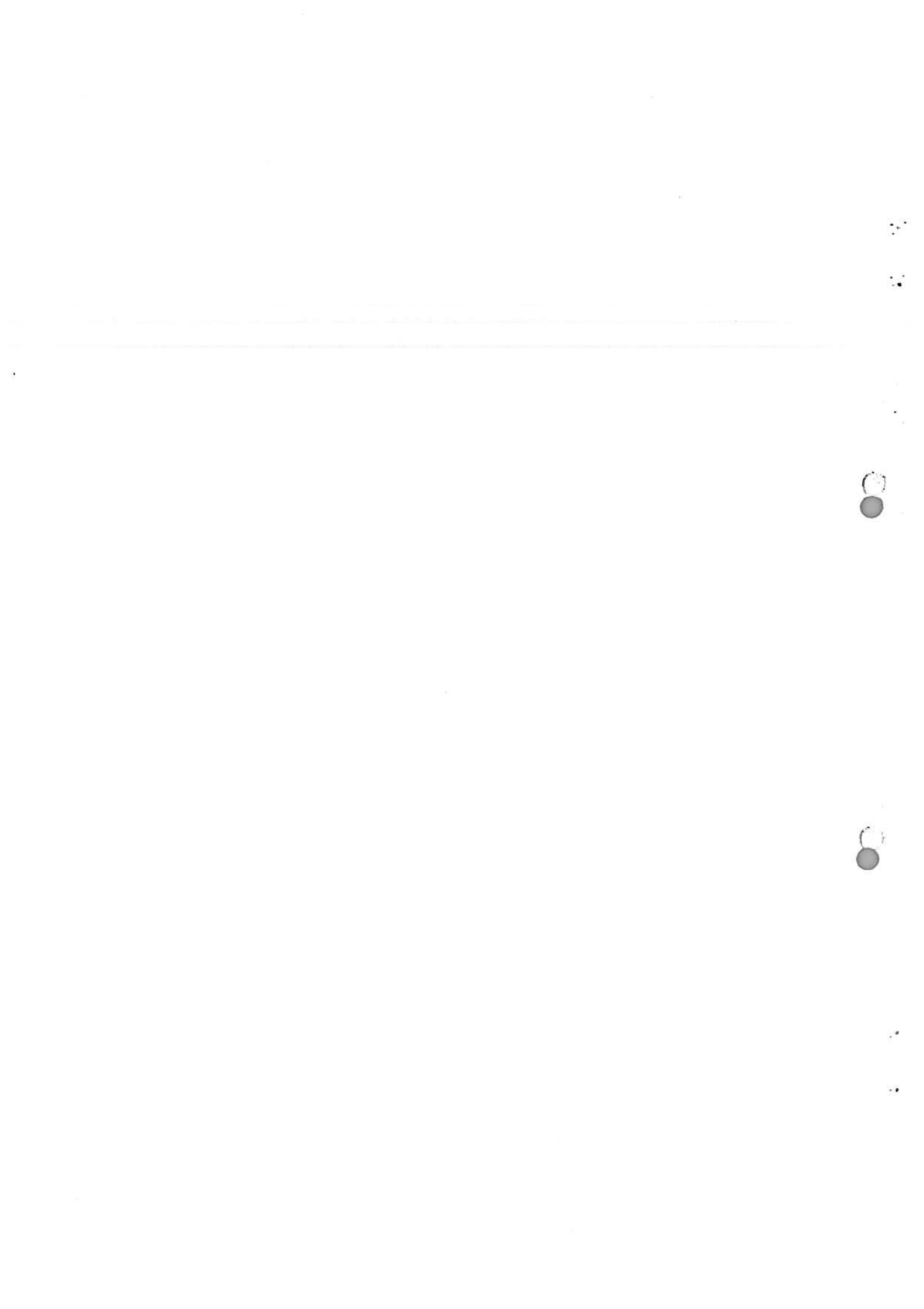
FAO has, as a result of the recognition of the failure of present PQ systems and procedures in Africa, initiated a programme to develop new approaches for improving PQ preventive capabilities in Africa. Over the past twenty years, PQ services have progressively declined in strength and capability and despite every-increasing common dangers from exotic pests, they have become parochial, isolated and ineffective.

The programme started with basic surveys in three sub-regions: east, western and southern Africa, to identify common PQ problems and procedures, determine the constraints and propose possible new initiatives. The conclusion of the studies point to deficiencies of an isolated and parochial approach to Plant Quarantine by countries that share common problems. The studies recommended the need to adopt and apply sub-regional approaches.

FAO will, before the end of the year, organize two sub-regional PQ meetings in East and Southern Africa to address possible mechanism for ensuring workable PQ systems through cooperation, information exchange and harmonization of regulations and procedures.

Countries are regularly kept informed of the outcome of major activities at international level such as the recommendations of the Technical Consultations among RPPOs and the FAO Expert Consultation on Harmonization of Plant Quarantine Principles.

Other major activities in Africa include: Vegetable IPM development and implementation, improved weed managements for the parasitic weed *Striga* control, and the implementation of the International Code of Conduct on the distribution and use of pesticides.



NORTH AMERICAN PLANT PROTECTION ORGANIZATION

Summary Report

The North American Plant Protection Organization (NAPPO) advised on the activities undertaken during the past year to promote support for the various programmes of the Technical Consultations. Primary emphasis had been given to Pest Risk Analysis, the programme area to which NAPPO had been given responsibility at the May, 1990 meeting. At its 1991 annual meeting, NAPPO endorsed the "Principles" document and has officially notified FAO of this action. NAPPO also contributed to what was considered to be a successful, first meeting the EPPO/FAO work group on potato procedures.

NAPPO's Cooperative Agreement has been modified by making provision for increased financial contribution and by slight adjustments to the text making it more compatible to the basic aims and objectives of the International Plant Protection Convention. A revised NAPPO glossary has been issued which expands the FAO glossary by the addition of those terms in NAPPO's earlier glossary. Regarding the North American Free Trade Agreement, NAPPO has expressed the opinion that the NAFTA document should clearly provide NAPPO with the authority for the technical development of phytosanitary measures for North America. A "multi-use" certificate is now in the final stage of development and will now be distributed within our Region for review and comment.

ORGANISMO INTERNACIONAL REGIONAL DE SANIDAD AGROPECUARIA**Summary Report**

Included in the technical assistance provided to the Organismo Internacional Regional de Sanidad Agropecuaria (OIRSA) member countries by its International Quarantine Treatment Service was the provision of plant quarantine treatments at 50 plant quarantine stations in OIRSA's seven member countries. A total of 270 trained employees were utilized to provide these treatments. Other activities of a technical nature included: (1) meetings in each OIRSA member country to coordinate activities and obtain cooperation with importers, exporters, airport and maritime port authorities, Ministry of Agriculture officials, customs and immigration officials and others involved in the international movement of commodities; (2) the provision of office and technical material and equipment to plant quarantine stations and personnel; (3) assistance to fruit fly trapping programmes in the region; and (4) advising OIRSA member countries as to the entry requirements for agricultural commodities.

Plant quarantine and plant protection training was one of OIRSA's most important activities during 1991. During this year OIRSA presented or assisted in the presentation of 70 training courses in which a total of 687 plant quarantine/protection personnel participated. Technical, informative publications were also prepared and distributed dealing with the quarantine treatment of airport garbage, analysis of quarantine systems, introduction to pest risk analysis and exotic pest survey and detection systems and the establishment of emergency eradication or containment programmes.

OIRSA's Plant Protection Division provided technical assistance to its member countries in the early detection of introduced, exotic pests, with special attention given to *Dacus dorsalis*, *D. cucurbitae*, *Anastrepha suspensa*, *Sternochetus mangiferae* and *Trogoderma granarium*. Pending the translation into Spanish of the Pest Risk Analysis Document, the concept of this analysis was put into use in various of the OIRSA member countries.

In connection with specific projects and programmes, OIRSA has cooperated and coordinated with the following:

1. Survey and control of the Central American Migratory Locust (*Schistocerca piceifrons piceifrons*) in Costa Rica, Nicaragua and Honduras.
2. Collection of citrus samples to determine the presence or absence of tristeza and its vector *Toxoptera citricidus* in the OIRSA Region. It was found that the vector does occur in Panama, Costa Rica and Nicaragua.

3. Control and containment of the witches' broom disease (*Crinipellis perniciosus*) in Panama under a FAO/TCP project. To date an extensive security zone has been established and containment achieved.

During early 1991 OIRSA published the revised, English version of "Plant Quarantine Theory and Practice". Since both English and spanish versions are now available, this publication can be used on a worldwide level.

INTER-AMERICAN INSTITUTE FOR COOPERATION IN AGRICULTURE

Summary Report

The delegate expressed thanks for being invited to the meeting and presented a review of the most recent activities of the Plant and Animal Health program carried out within the member countries through Technical Cooperation.

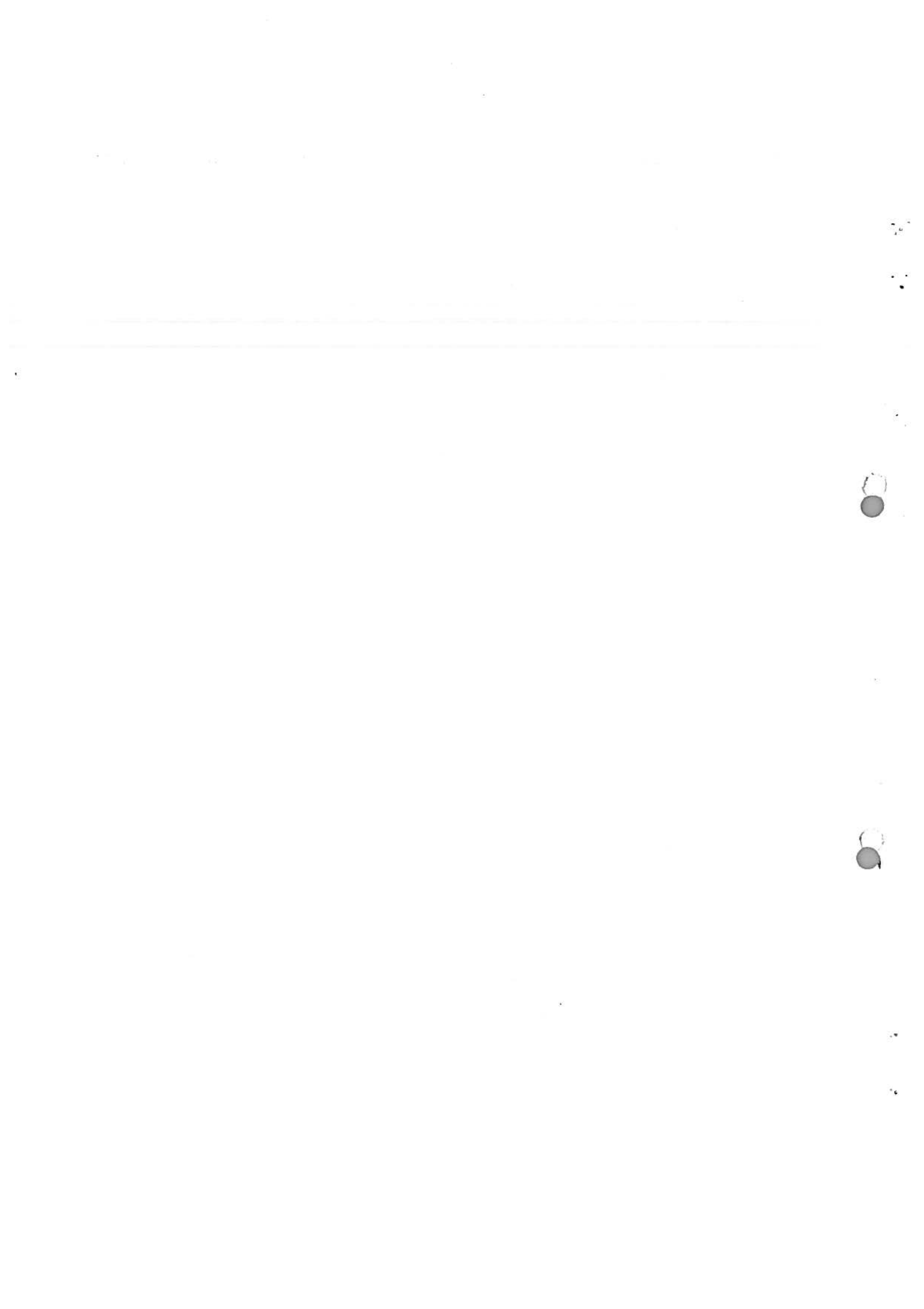
The Program collaborates with the national organizations (public and private) as well as international organizations to: (a) reduce the impact of the problems over productivity; (2) promote exports of agricultural and animal commodities in compliance with international trade requirements and for environmental quality control; and (3) it also collaborates with quarantine and emergency services in order to prevent the introduction and establishment of exotic plant and animal pests and diseases.

The action areas of the Program include: (1) the development of homogeneous and compatible information systems for plant and animal health; (2) a set of equivalent and compatible models of laws and regulations to facilitate international trade; and (3) promotion of appropriate practices for control of pests and diseases. The program is currently implementing an hemispheric project, six regional projects and national projects in several countries. Its staff is comprised of 17 specialists strategically stationed in different countries.

The most important and recent achievements of the Program at hemispheric, regional and national level were enhanced, especially those related with phytosanitary emergency actions carried out in various countries against exotic and endemic pests of national and regional economic significance.

Special mention should be made of: (1) the collaboration provided by IICA for the implementation of information exchange mechanisms for both plant and animal protection; (2) preparation of projects for institutional strengthening in twelve countries; (3) collaboration with OIRSA with whom was recently signed a Joint Cooperation Agreement and with whom was prepared a regional project for the strengthening of plant and animal health services; (4) the technical support provided for implementation of the Bilateral Program for Eradication of the Medfly with Chile and Peru; (5) training activities for the news media and rural teachers on pesticides, which were carried out through agreements with the Netherlands Radio and GIFAP, including preparation and edition of different informative materials and a didactical guide; and (6) training for Costa Rican plant and animal quarantine inspectors on Export Quarantine.

The IICA representative expressed his organization's thanks for having been provided with the opportunity of receiving joint collaboration in the past, and expressed IICA's desire to improve such collaboration in the future.



REGIONAL OFFICE FOR AFRICA (RAFR)

Summary Report

The regional representative reported on the activities undertaken in plant protection in close coordination with the FAO Plant Protection Service. These included:

Plant Quarantine

Further to the consultancies undertaken to study the feasibility of establishing technical cooperation networks in plant quarantine (TCNs), two workshops are planned for this year to develop a sub-regional approach in plant quarantine. This strategy would take into consideration the unique situation in Africa (lack of infrastructures, technical expertise and information on plant pests) and, in collaboration with the Inter-African Phytosanitary Council (IAPSC) of the Organization of African Unity, and the active participation of other key organizations in the region (PTA and SADCC) establish technical cooperation networks to enhance cooperation in plant quarantine in Africa.

Integrated Pest Management (IPM)

Surveys on pesticide use on vegetables have been conducted in 20 countries. A meeting will be held this year to develop a regional IPM programme for vegetables in Africa.

On the parasitic weed, *Striga*, which seriously affects cereal production in over 26 countries, a network has been established covering 18 countries to promote technical cooperation amongst the various national programmes and with International centres.

Pesticides

A series of sub-regional workshops have been organized on pesticide management to promote the International Code of Conduct on the Distribution and Use of Pesticides.

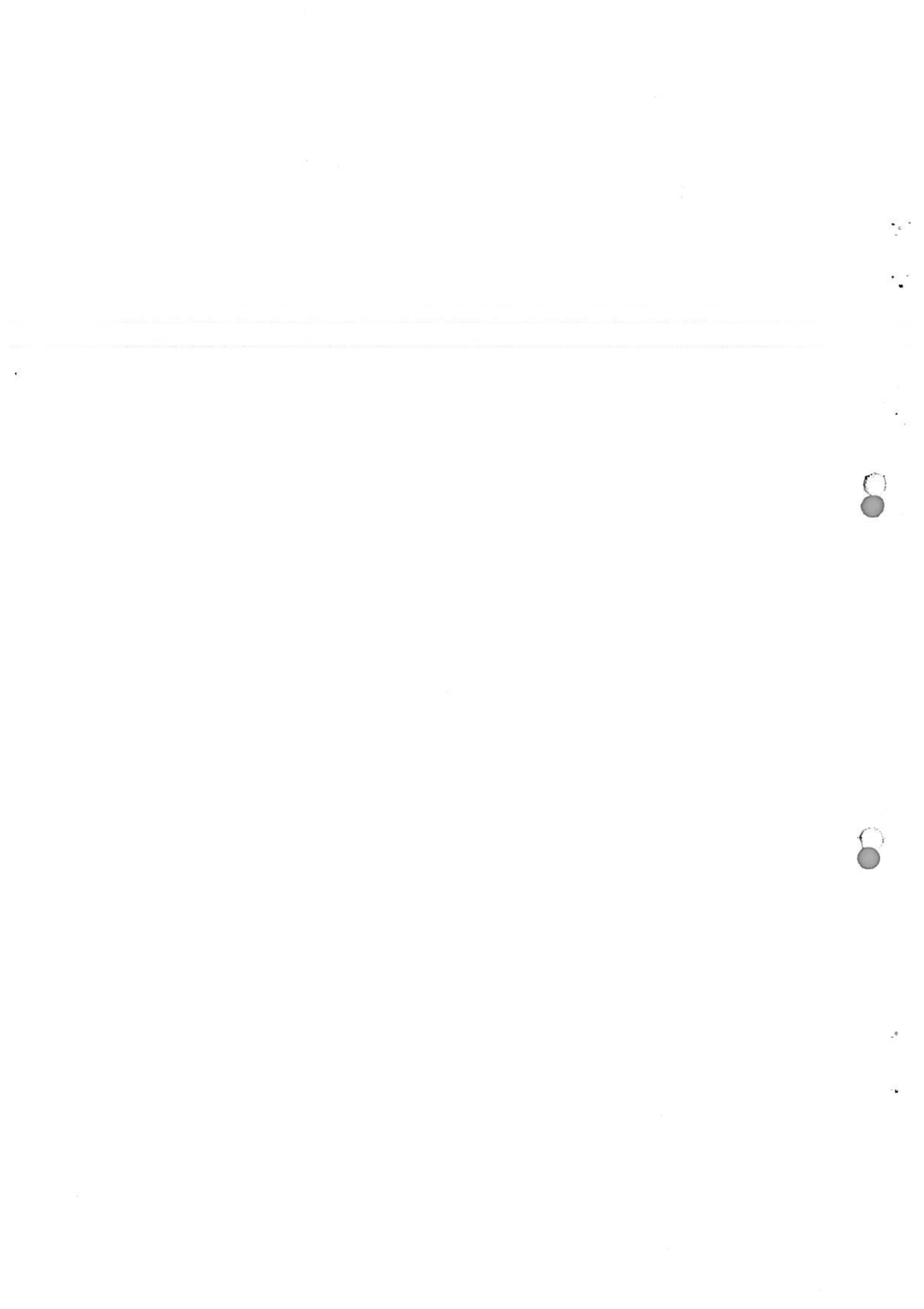
A network linking the authorities responsible for pesticide registration and control in the ECOWAS member countries has been established.

**PLANT QUARANTINE PRINCIPLES AS RELATED TO
INTERNATIONAL TRADE**

The primary aim in formulating the following principles is to facilitate the process of developing international standards for plant quarantine. It is envisaged that implementation of these principles by the relevant phytosanitary authorities, will result in the reduction or elimination of the use of unjustifiable phytosanitary measures as barriers to trade.

Furthermore, in addition to general principles, there are others specific to particular areas of quarantine activity. The general principles indicate the process of development of phytosanitary measures as applicable to in international commerce. These general principles should be read as a single entity and not interpreted individually. The specific principles either directly support the IPPC or are related to particular procedures within the plant quarantine system. This relationship is indicated in the tabulation.

It is expected that the principles will be subject to continuing review and should reflect changing quarantine concepts and technologies.



PRINCIPLES OF PLANT QUARANTINE AS RELATED TO INTERNATIONAL TRADE

GENERAL PRINCIPLES	RELEVANT IPPC ARTICLE(S) and SECTION(S)
1. Sovereignty With the aim of preventing the introduction of quarantine pests into their territories, it is recognized that countries may exercise the sovereign right to utilize phytosanitary measures to regulate the entry of plants and plant products and other materials capable of harbouring plant pests.	Article VI 1(a)-(e) Article II (for definitions)
2. Necessity Countries shall institute restrictive measures only where such measures are made necessary by phytosanitary considerations, to prevent the introduction of quarantine pests.	Article VI 1(a)-(d) Article VI 2(a)
3. Minimal impact Phytosanitary measures shall be consistent with the pest risk involved, and shall represent the least restrictive measures available which result in the minimum impediment to the international movement of people, commodities and conveyances.	Article VI 2, particularly (f)

4. Modification As conditions change, and as new facts become available, phytosanitary measures shall be modified promptly, either by inclusion of prohibitions, restrictions or requirements necessary for their success, or by removal of those found to be unnecessary.	Article VI 1 and 2
5. Transparency Countries shall publish and disseminate phytosanitary prohibitions restrictions and requirements and, on request, make available the rationale for such measures.	Article VI 1, 2 and 4
6. Harmonization Phytosanitary measures shall be based, whenever possible, on international standards, guidelines and recommendations, developed within the framework of the IPPC.	Article I
7. Equivalence Countries shall recognize as being equivalent those phytosanitary measures that are not identical but which have the same effect.	Not specifically covered in the IPPC

8. Dispute settlement It is preferable that any dispute between two countries regarding phytosanitary measures be resolved at a technical bilateral level. If such a solution cannot be achieved within a reasonable period of time, further action may be undertaken by means of a multilateral settlement system.	Article IX
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SPECIFIC PRINCIPLES	RELEVANT IPPC ARTICLE(S) AND SECTIONS(S)
9. Cooperation Countries shall cooperate to prevent the spread and introduction of quarantine pests, and to promote measures for their official control.	Preamble Article I Article IV (b) Articles VI to VIII
10. Technical authority Countries shall provide an official Plant Protection Organization.	Article IV Article V 1 (a)
11. Risk analysis To determine which pests are quarantine pests and the strength of the measures to be taken against them, countries shall use pest risk analysis methods based on biological and economic evidence and, wherever possible, follow procedures developed within the framework of the IPPC.	Not specifically covered by the IPPC, but the activity of producing lists of quarantine pests covered in Article VI 2 and VI 1e involves this activity.
12. Managed risk Because some risk of the introduction of a quarantine pest always exists, countries shall agree to a policy of risk management when formulating phytosanitary measures.	Not specifically covered in the IPPC

13. Pest-free areas Countries shall recognize the status of areas in which a specific pest does not occur. On request, the countries in whose territories the pest-free areas lie shall demonstrate this status based, where available, on procedures developed within the framework of the IPPC.	Article IV 1a (i) Article IV 1b
14. Emergency action Countries may, in the face of a new and/or unexpected phytosanitary situation, take immediate emergency measures on the basis of a preliminary pest risk analysis. Such emergency measures shall be temporary in their application, and their validity will be subjected to a detailed pest risk analysis as soon as possible.	Article VI 1 (a)-(e)
15. Notification of non-compliance Importing countries shall promptly inform exporting countries of any non-compliance with phytosanitary prohibitions, restrictions or requirements.	Article VI 2 (e)

16. Non-discrimination Phytosanitary measures shall be applied without discrimination between countries of the same phytosanitary status, if such countries can demonstrate that they apply identical or equivalent phytosanitary measures in pest management. In the case of a quarantine pest within a country, measures shall be applied without discrimination between domestic and imported consignments.	Not specifically covered in the IPPC
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**A PROCESS FOR ANALYZING THE RISK TO PLANTS AND PLANT PRODUCTS
POSED BY THE INTRODUCTION AND/OR SPREAD OF BIOTIC AGENTS**

A DISCUSSION PAPER

Prepared by

**The North American Plant Protection Organization
Pest Risk Analysis Panel**

November 22, 1991

INTRODUCTION

The purposes of this document are to:

- Outline the basic requirements for a plant pest risk analysis (PRA)
- Provide a guideline on the PRA process for the North American Plant Protection Organization (NAPPO)
- After review by other Regional Plant Protection Organizations (RPPOs) and the Food and Agriculture Organization of the United Nations (FAO), and appropriate modification, provide a globally harmonized guideline on the PRA process

The Food and Agriculture Organization of the United Nations (FAO) asked NAPPO to develop a PRA process according to the terms of reference set for its Working Group on Pest Risk Assessment by the Second FAO Technical Consultation between Regional Plant Protection Organizations, Rome, May 21-25, 1990.

The Third FAO Technical Consultation between Regional Plant Protection Organizations, Rome, May 13-17, 1991, adopted a set of 16 Plant Quarantine Principles as related to International Trade, among which the "Risk Analysis" principle states that "to determine which pests are quarantine pests and the strength of the measures to be taken against them, countries shall use pest risk analysis methods based on biological and economic evidence and, wherever possible, follow procedures developed within the framework of the International Plant Protection Convention (IPPC)." The proposed PRA process is compatible with this principle.

The proposed process for PRA will provide an internationally recognized guideline. The process is:

- Based on biologically sound principles
- Flexible to accommodate the diversity of day-to-day phytosanitary situations which call for a PRA
- Practical and applicable across the wide range of resources and expertise available to individual national plant protection organizations
- Flexible so that new ideas and novel techniques may be incorporated as the PRA process evolves.

Terminology in this document is defined in the NAPPO/FAO Glossary of Phytosanitary Terms In Attachment 1.

THE PEST RISK ANALYSIS PROCESS

Plant Pest Risk Analysis consists (Figure 1) of three stages: initiating the process for analyzing risk, assessing pest risk, and managing pest risk. Initiating the process involves identification of the biotic agents and pathways for which the PRA is needed. Assessing pest risk determines whether a biotic agent is a quarantine pest and characterizes the risk in terms of likelihood of entry, establishment and spread. Managing pest risk involves developing, evaluating, comparing, and selecting an option for dealing with the risk.

Stage 1 - Initiating the Process for Analyzing Risk

There are broadly two initiation points for a pest risk analysis. The first is the identification of a pathway that may allow the introduction and/or spread of quarantine pests. The second is the identification of a biotic agent that may qualify as a quarantine pest. Either can involve domestic pests of limited distribution as well as foreign pests, since both are covered by the quarantine pest definition.

Pathway

If the requirement for risk analysis originates with a specific pathway, generate a list of biotic agents which are likely to follow that pathway. The pathway will most frequently be importation of a specific commodity. The list could identify biotic agents in a specific country, a group of countries, or even worldwide. The list may be generated by any combination of databases, literature sources, or expert consultation. It may be short or long, and need not attempt to be comprehensive. Once the list of biotic agents is established, it should be prioritized subjectively for the next step, which is a PRA for each biotic agent in turn, following the specified pathway. According to the results obtained, it may or may not be necessary or opportune to go through the full list. Under certain circumstances, the process could terminate after a high risk biotic agent is found on the list.

PRA's originating from pathways are mostly required in the following situations:

- A policy decision is taken to establish or revise phytosanitary regulations or requirements.
- International trade is initiated in a new commodity (usually a plant or plant product). In countries which operate an import permit system, this will normally imply a request for such a permit from an exporter or importer, and may concern only one or a few exporting countries. In other countries, this will normally follow the import of significant numbers of duly certified consignments of a commodity, and may extend to all possible sources of that commodity. In either case, a PRA is performed to determine the plant biotic agents potentially carried by this commodity, the risk, and whether methods for reducing the risk to an acceptable level are available.

Figure 1. A process for analyzing the risk to plants and plant products posed by the introduction and/or spread of biotic agents.

Stage 1 - Initiating the Process for Analyzing Risk

- Identify a pathway which might allow the introduction and/or spread of quarantine pests
 - Identify a biotic agent which might qualify as a quarantine pest
 - Verify whether the pathway or biotic agent has already been subjected to the PRA process and whether the process needs to be repeated.
 - Generate a list of biotic agents potentially associated with the pathway
-

Stage 2 - Assessing Pest Risk

- Determine if the biotic agent is a quarantine pest
 - Characterize the risk of entry, establishment and spread
-

Stage 3 - Managing Pest Risk

- Generate, evaluate, and compare risk management options
 - Select, justify, and implement option
 - Monitor and evaluate effectiveness of option implemented
-
- An emergency arises on arrival of a consignment of a normally prohibited commodity or when a biotic agent which has not previously been subjected to PRA is found in a consignment which otherwise conforms with phytosanitary regulations.
 - A pathway other than commodity import is identified (natural spread, mail, garbage, passenger's baggage etc.).

Biotic Agent

If the requirement for risk analysis originates with a biotic agent, the PRA involves a consideration of all aspects of this single biotic agent and in particular its geographical distribution. Consider natural or man-made pathways by which the biotic agent can be introduced or spread, and in particular the commodities potentially involved. If appropriate, consider the implications if the biotic agent were to be moved as such in commerce and become established.

PRA's originating from biotic agents are mostly required in the following situations:

- A policy decision to establish or revise phytosanitary regulations or requirements concerning specific biotic agents.
- A proposal by an international organization (RPPO, FAO) that a stated biotic agent presents a risk for a country or group of countries.
- The identification of a new pest risk by scientific research.
- The introduction of a pest into a new area, other than the PRA area itself.
- The report that a pest is more damaging in a new area, other than the PRA area itself, than in its area of origin.
- The discovery of an infestation of an exotic pest
- The interception and identification of a new pest at a port of entry
- Audits reveal that a particular pest is repeatedly intercepted
- Requests by researchers, educators, lobbyists, businesses (pet store owners), the food industry (snails for consumption), and hobbyists (aquatic weeds for aquaria) to import foreign biotic agents

Thus, the initiation of the PRA process normally concerns either a single pathway which may carry a number of biotic agents, or a single biotic agent which may enter by a number of pathways. This evidently also covers the case, which may occasionally arise, of a PRA on a single biotic agent entering by a single pathway. It also extends if necessary to combinations of several biotic agents and pathways. Any combination of biotic agents and pathways can in principle be covered.

Review of Earlier PRAs

Verify whether the biotic agent or pathway concerned has been subjected to the PRA process before, nationally or internationally. If so, note the time interval since the previous assessment and consider whether changes in circumstances make the earlier PRA outdated. Consider whether a PRA from another source (national or international) may partly or entirely replace the need for a new PRA, or else whether an earlier PRA on a very similar biotic agent or pathway may do so. Proceed with the PRA only after checking all these points.

Stage 2 - Assessing Pest Risk

In characterizing the pest risk, the amount of information available will vary with each biotic agent and the sophistication of analyzing the information will vary with available tools. For example, one country may have elaborate pest databases and geographical information systems, another may depend on books, printed soil maps, and climate maps. In some cases, virtually no information may be available. All assessments will be limited by the amount of information available on the biology of a particular biotic agent. In principle, the IPPC secretariat within FAO and the secretariats of the RPPOs have the task of developing an adequate information data base in support of a national PRA.

Determine if the Biotic Agent is a Quarantine Pest

For each biotic agent subjected to the PRA process, consider the three key elements in the quarantine pest definition: geographical distribution, potential economic importance, official control.

1. Classify the biotic agent's geographical distribution. A pest category (A1, A2, or not a quarantine pest) is established based on the geographical distribution of the biotic agent:

- If a biotic agent is present and has reached the limits of its ecological range (widespread), then the biotic agent is not a quarantine pest
- If a biotic agent is present and has not reached the limits of its ecological range (limited), then the biotic agent category is A2 (or an equivalent designation).
- If a biotic agent is absent, then the biotic agent category is A1 (or an equivalent designation).

2. Determine if the biotic agent is of potential economic importance to the area concerned. The potential to cause damage, and therefore to be economically important, is affected by many factors, including the following:

- Industry benefits
- Loss of export markets

- Data on crop losses
- Control costs
- Environmental damage
- Perceived social costs such as unemployment

The basic data to make this assessment must come from the area where the biotic agent currently occurs. Cite the location(s) (countries, states, regions) where the biotic agent has been demonstrated to cause economic loss. Compare this distribution carefully with the total distribution, including areas if any where the biotic agent has been demonstrated not to cause economic loss, and relate if possible to climatic parameters. Note whether the pest causes minor damage or major damage. Note whether the pest causes damage frequently or infrequently. Cite sources of information, including professional journals, texts, non-published literature, and scientists who were consulted. A fuller checklist of points which can usefully be considered in assessing potential economic importance may be assembled.

3. Having verified whether the biotic agent is subject to official control in the PRA area, determine if the biotic agent is a quarantine pest. A quarantine pest is "a pest of potential economic importance to the area endangered thereby and not yet present there, or present but not widely distributed and being officially controlled."

Characterize the Risk of Entry, Establishment and Spread

Once a biotic agent has been found to be a quarantine pest, the risk it poses must be characterized in terms of the likelihood that it will enter, become established and spread. For a PRA concerning a single biotic agent, this characterization will normally cover all possible pathways. However, for a PRA concerning a pathway liable to carry several quarantine pests, only this pathway will be considered.

Entry Potential

Entry potential may be defined as the relative ability of a given pest to penetrate the borders of a given area, either by natural or man-made means, within a given time interval. Potential and documented pathways for pests to enter new areas should be noted.

The following is a partial checklist that may be used to predict the likelihood of entry:

- The frequency and quantity of pest movement by natural means
- The opportunity for contamination of a commodity, cargo, or means of conveyance by the pest
- Whether the pest can survive under the environmental conditions of shipment
- The number of pests associated with the means of conveyance
- The number and frequency of shipments of the commodity
- The ease or difficulty of detecting the pest at ports of entry

If the potential for entry by natural means is high, then phytosanitary measures may not be warranted.

Establishment Potential

Establishment potential may be defined as the relative ability of a pest to continue to survive and perpetuate itself indefinitely within an area. Entry followed by establishment is also known as introduction.

A few of the factors to consider are:

- The availability and distribution of susceptible hosts at the area of destination
- Environmental suitability at the area of destination
- The reproductive strategy of the pest
- The method of pest survival
- The intended use of the commodity

If a pest has low potential for establishment, then phytosanitary measures may not be warranted.

Spread Potential After Establishment

Spread potential may be defined as the relative ability of a pest to move from a geographical area by both natural means and by man's assistance. Spread potential pertains to spread after entry and establishment (introduction). In evaluating a pest's spread potential, consider the following factors:

- The movement of a commodity or any means of conveyance that might transport the pest
- The suitability of the environment for the pest at destination
- The intended use of the commodity

The information on spread potential is used in the risk management stage when considering the ease with which an introduced pest could be contained and eradicated. A fuller check list of points to be considered in characterizing the risk of entry, establishment and spread may be assembled.

Stage 3 - Managing the Risk

Risk management is the pragmatic decision-making process for dealing with the risk. In most respects, it can be based on the information already gathered from assessing the risk.

Assemble a List of Options

Assemble a list of options for reducing, abating, or mitigating the pest risk to an acceptable level. Whether the PRA process was initiated for a pathway or for a biotic agent, these options will concern pathways and in particular the conditions for permitting entry of commodities. Several options, although not comprehensive, follow:

- Inspect at entry
- Inspect before export (pre-clearance)
- Treat at port of entry or inspection station
- Define, in a regulation, requirements to be satisfied before export (e.g. treatment, origin from pest-free area, growing season inspection, certification scheme)
- Define, in an import permit or license, the restrictions to be applied to individual consignments from a given origin
- Detain in post-entry quarantine
- Prohibit entry

Evaluate the Efficacy of Options

Evaluate the efficacy of various options in terms of the following factors:

- Biological effectiveness
- Cost/benefit of implementation
- Impact on existing regulations
- Social impacts
- Policy considerations
- Time to implement a new regulation
- Effectiveness of the option on lessening the risk of all quarantine pests that may be associated with the importation of a commodity
- Effectiveness of the option in reducing risk to an acceptable level

Specify positive and negative aspects of the options. Then recommend an action based on all of the above factors. Communication with interested and affected groups may be advisable to determine which options may be acceptable to the public before any action is taken.

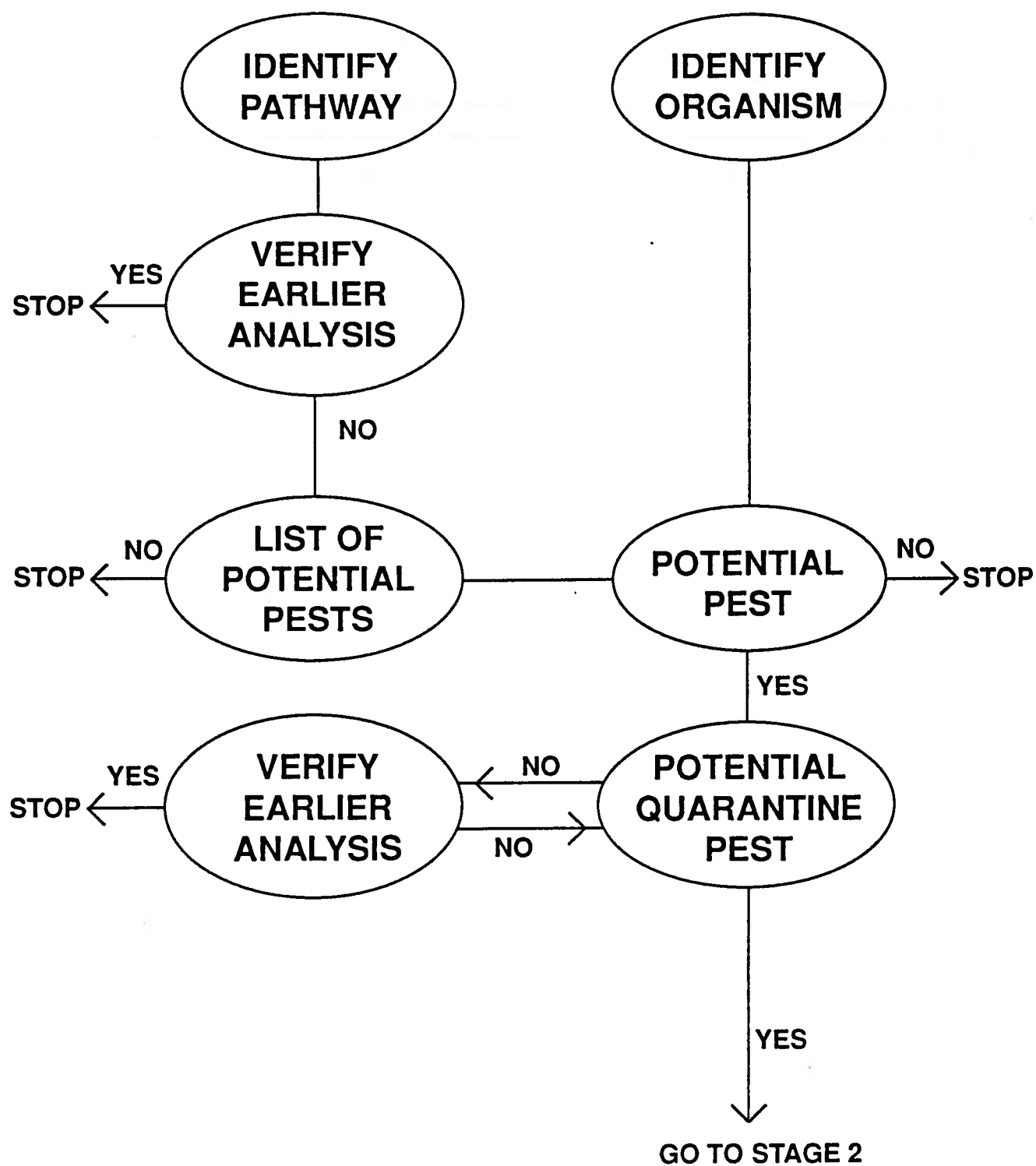
The national plant protection organization will select an appropriate action to reduce risk to an acceptable level based on the risk assessment and risk management documentation. If no management option can feasibly mitigate the risk, then no phytosanitary measures are warranted: the commodities concerned should not be subject to prohibition, restrictions or requirements, or the biotic agent concerned should not be placed on a quarantine pest list. On the other hand, the phytosanitary measures applied should also be commensurate with the risk, according to the "Minimal Impact" principle of the Plant Quarantine Principles as related to International Trade. Thus, an option which appears very effective to the national plant protection organization concerned may be considered unacceptable to other national plant protection organizations on the grounds that measures with less impact provide equivalent protection.

Documenting the PRA Process

A PRA should be sufficiently documented, so that when a review or a dispute arises, the PRA will clearly state the sources of information and the rationales used in reaching a management decision regarding pest risk. If a PRA process developed by a relevant International organization or an equivalent PRA process has been followed, this should be specified. If a PRA performed by another organization has been used in part or entirely as a basis for the decisions taken, then full documentation on this PRA should also be included.

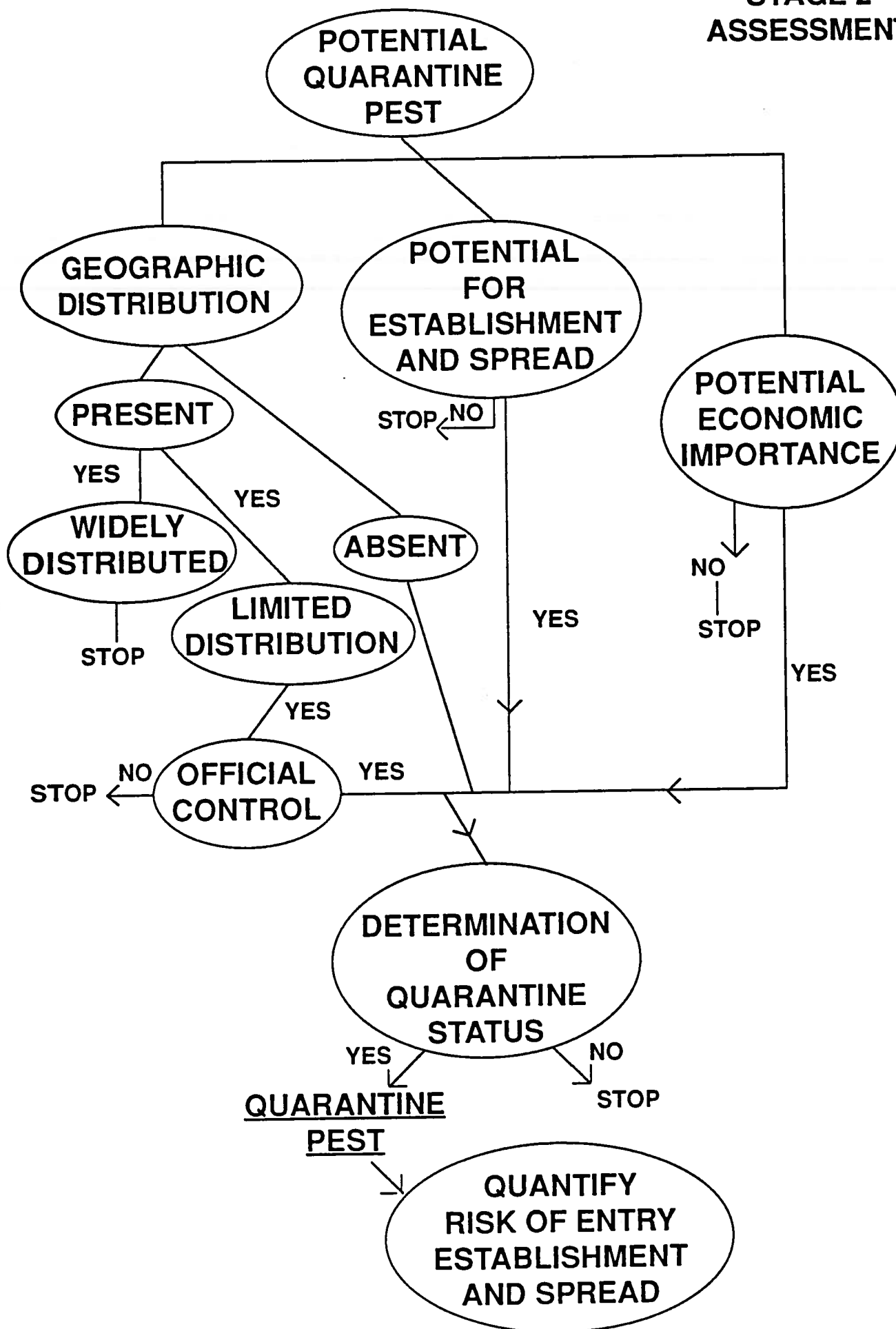
PEST RISK ANALYSIS

STAGE 1 INITIATION



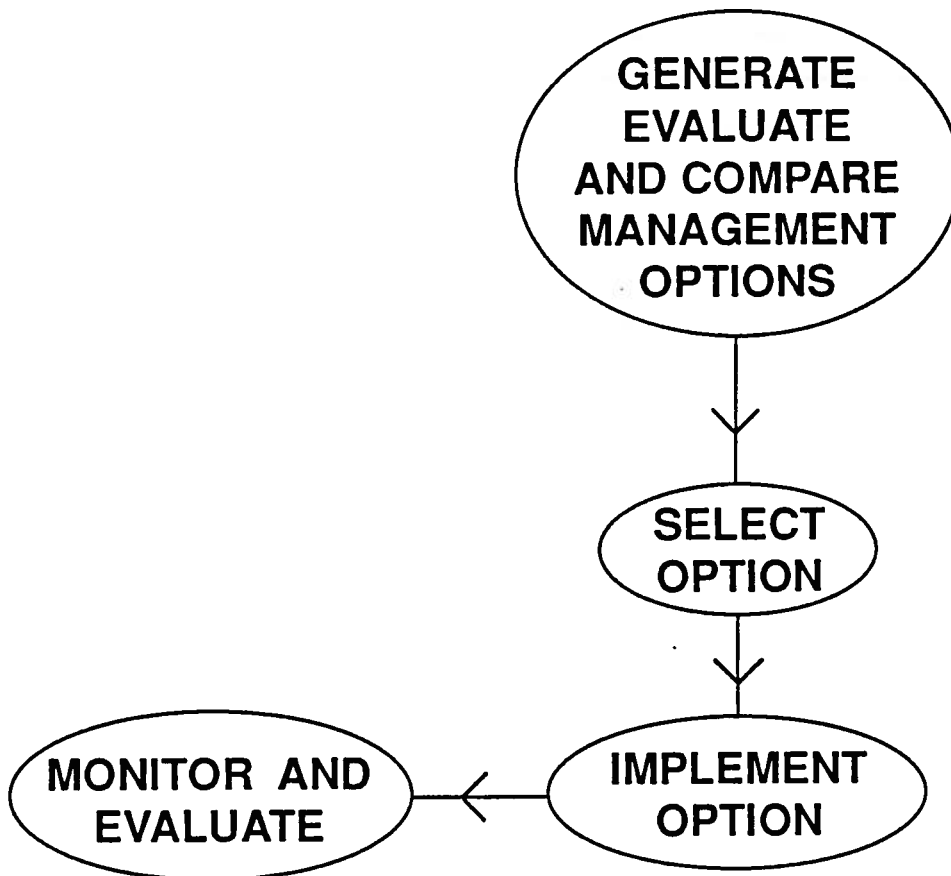
PEST RISK ANALYSIS

STAGE 2 ASSESSMENT



PEST RISK ANALYSIS

STAGE 3 MANAGEMENT



FAO Technical Consultation between RPPOs

Working Group on Quarantine Procedures
concerning International Trade in Potatoes
EPPO Headquarters, Paris, 1992-02-20/21

Participants

Chairman	SMITH, I.M.	Director-General of EPPO, 1 rue Le Nôtre, 75016 Paris
FAO	IKIN, B.	FAO, Via delle Terme di Caracalla, 00100 Rome, Italy
NAPPO	BORELL, B.	Agriculture Canada, K.W. Neatby Bd, Central Experimental farm, Ottawa, Ontario K1A 0C6, Canada
	HOPPER, B.E.	NAPPO, Plant Protection Division, Ottawa, Ontario K1A 0C6, Canada
EPPO	GUSSEKLOO, M.E.	Plantenziektenkundige Dienst, Postbus 9102, 6700 HC Wageningen, Netherlands
	HERVE, A.	DRAF-SRPV, Station de Quarantaine de pommes de terre, La Motte au Vicomte, 35650 Le Rheu, France
	LOURO, J.M.V.	CNPPA, Tapada de Ajuda, Lisboa, Portugal
	NOVAL, C.(Mrs)	Subdireccion General de Sanidad Vegetal, Juan Bravo, 3 B, 28027 Madrid, Spain
Secretariat	McNAMARA, D.G.	Assistant Director of EPPO, 1 rue Le Nôtre, 75016 Paris
	LOPIAN, R.	Information Officer, 1 rue Le Nôtre, 75016 Paris

1. Opening

Dr Smith (EPPO) welcomed the participants to this 1st Meeting of the Working Group on Quarantine Procedures (QPs) concerning International Trade in Potatoes, established by the 2nd Technical Consultations between RPPOs in May 1990, with EPPO in leadership role.

2. Review of the objectives of the Working Group

Dr Smith (EPPO) outlined the basic objectives and terms of reference of the Working Group as a pilot project for the Technical Consultation. Mr Borell (NAPPO) observed that only EPPO's Quarantine Pests were included, but this should not mean that they are automatically Quarantine Pests for other RPPOs. Besides, quarantine pests of other RPPOs should also be considered. He observed that the question what constitutes a quality and a quarantine pest is open to interpretation.

Dr Hopper (NAPPO) presented a paper to the Working Group in which a general process outline for FAO-IPPC Secretariat procedures work programme was described (Appendix I). This was accepted by the Working Group.

3. Review of available procedures for individual quarantine pests of potato, comparison and evaluation for specific purposes

3.1 Clavibacter michiganensis ssp. sepedonicus : EPPO QP no. 25 on inspection and test methods

Dr Smith (EPPO) presented EPPO's QP, which was mainly intended to be used in support of field surveys for ring rot, but could also be used to examine consignments of potatoes pre-export or post-import. Members of the Working Group reported on various improvements on the techniques in the QP, and new techniques, which it might be useful to introduce. Dr Hopper (NAPPO) remarked that it was not only important how to process samples, but also to define how to collect samples. In his opinion, a series of test methods could be listed with appropriate equivalences. The Working group concluded that, although various changes could be envisaged to the procedure, it was currently in

was not only important how to process samples, but also to define how to collect samples. In his opinion, a series of test methods could be listed with appropriate equivalences. The Working group concluded that, although various changes could be envisaged to the procedure, it was currently in international use and should therefore be agreed now for recommendation to the Technical Consultation.

3.2 Pseudomonas solanacearum : EPPO QP no. 26 on inspection and test methods

It was noted that several RPPOs other than EPPO (APPPC, COSAVE) may have an interest in QPs for *P. solanacearum*. The Working Group agreed to ask the Technical Consultation if it would be useful to develop, from the EPPO QP, an international QP for *P. solanacearum*.

3.3 Synchytrium endobioticum : Report from EPPO on progress in developing a procedure for declaring once-infested land free

Dr Smith (EPPO) presented a descheduling procedure for *Synchytricum endobioticum*, which had to be further studied within EPPO.

3.4 Potato spindle tuber viroid : Revision of EPPO's original procedure (no. 21) in the light of a new proposal from Agriculture Canada

Dr Smith (EPPO) explained that EPPO had published a QP for non-European potato viruses and PSTVd together (no. 21). With the development of new techniques, this was now being revised, and the decision was taken to cover PSTVd in a separate procedure. A draft for this new procedure had in fact been proposed by Agriculture Canada and would be submitted directly to the EPPO Working Party on Phytosanitary Regulations in order to get its approval as fast as possible. It then could be submitted to the Technical Consultation.

3.5 Globodera rostochiensis and G. pallida : EPPO QP no. 30 on soil sampling methods

Dr Smith (EPPO) presented the EPPO QP for soil sampling methods to detect *G. rostochiensis* and *G. pallida*, which also includes the technique used in New Zealand to detect PCN by examining growing potato plants.

Dr Hopper (NAPPO) asked about the sensitivity of the EPPO sampling technique and explained that experts in North America (see doc. 92/3341) had evaluated the sample size and intensity outlined in the EPPO QP, and concluded it did not give sufficient sensitivity for North American purposes. He thought that the EPPO QP would serve the purposes of trading potatoes within Europe, but not across the Atlantic. Mr Borell (NAPPO) agreed and stressed that the prohibition of soil was an essential part of North American requirements. Dr McNamara (EPPO) presented an analysis of the sampling sizes and intensity of the EPPO and North American methods, expressed in the same metric units. On this basis the detection sensitivity of the EPPO method fell within, and not outside the range, provided by the North American methods.

Dr Smith (EPPO) reminded the participants that the procedure is intended to ensure that potato consignments (not soil as such) are free from PCN. If the field soil test is complemented by a requirement that potato consignments should be practically free from soil, the degree of quarantine security is greatly increased. Such combinations of procedures, each providing a calculated degree of security, were the basis of a policy of 'Managed risk' as specified in the Plant Quarantine Principles. The Working Group concluded that further work was needed to reach agreement on a QP for PCN, taking account of sampling intensity.

3.6 Phthorimaea operculella and Leptinotarsa decemlineata : Draft fumigation standards to control adult Phthorimaea operculella and Leptinotarsa decemlineata in potatoes

Dr Smith (EPPO) reported on EPPO's draft fumigation standard for these pests. Dr Ikin (FAO) explained that a general fumigation treatment of potatoes which can handle several pests has been published by FAO. Mr Borell (NAPPO) stated that the FAO fumigation standard cannot necessarily be agreed by the

Working Group since it was never subject to international review. It was agreed to present this standard to the Technical Consultation to see if it fits the needs of other RPPOs..

4. Future Programme

Dr Hopper (NAPPO) presented a list of pests for which NAPPO would favour the existence of a QP. This list was agreed, with the following indications for RPPOs which could prepare drafts: *Ditylenchus destructor* (not decided), *Phoma exigua* var. *foveata* (EPPO), potato mop top furovirus (not decided) and *Erwinia chrysanthemi* (NAPPO).

The place and time of the next meeting would be decided by the Technical Consultation. Dr Ikin (FAO) pointed out that FAO could possibly provide funds for certain RPPOs for traveling purposes.

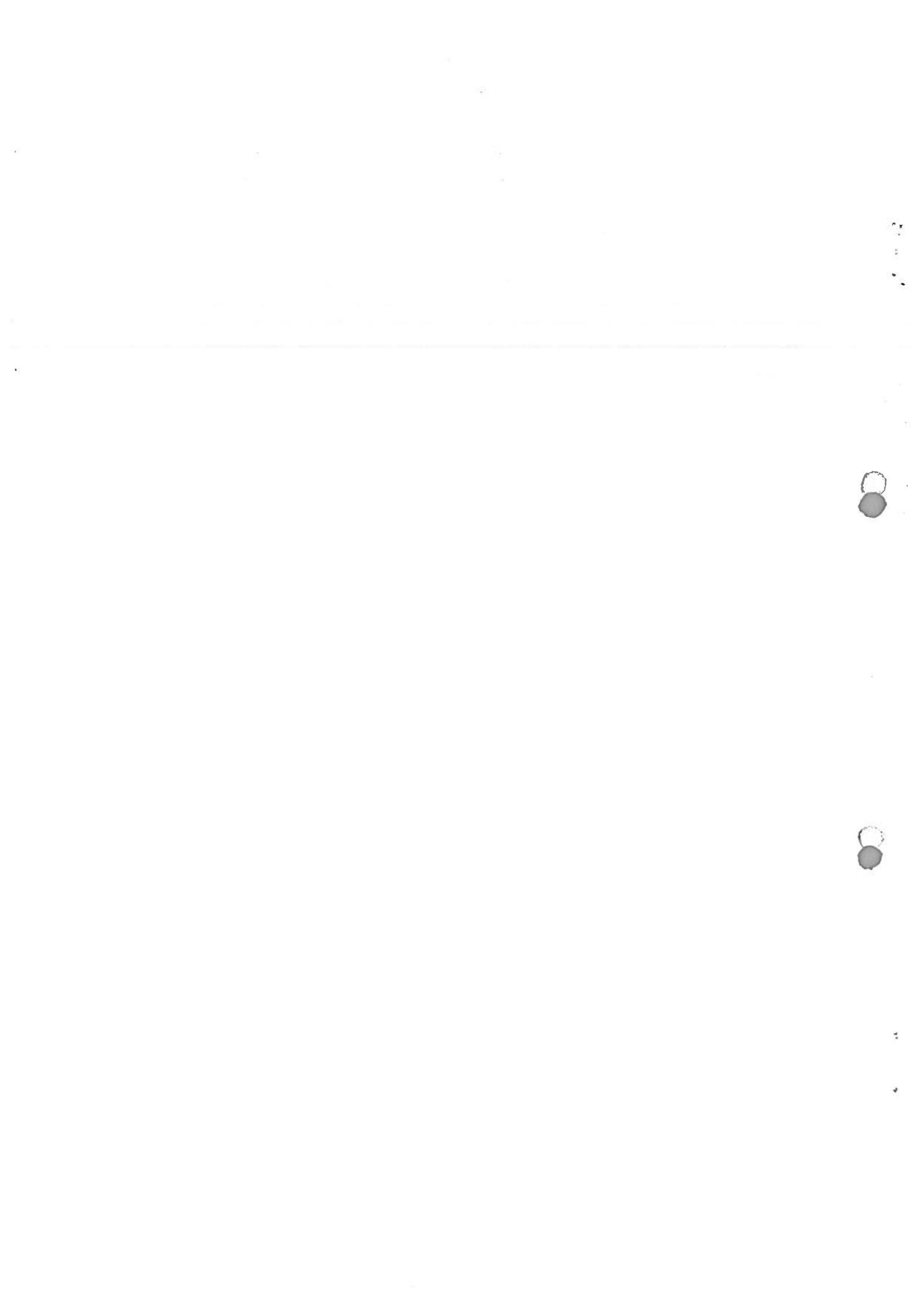
Mr Borell (NAPPO) asked in what form QPs adopted by the Technical Consultation would be published. Dr Ikin (FAO) declared that FAO would probably publish them in its own style.

Appendix I

General process outline for FAO-IPPC secretariat procedures work program

ACTION ITEMS .

1. Develop global list of target pests, i.e. a list of quarantine and non-quarantine pests of significance to quarantine and/or certification agencies.
2. Determine, and list, for each target pest, the range of procedures available, required and/or desired.
3. Describe each available and suitable procedure. Some existing procedures may enter the system at this point.
4. Assess the quarantine effectiveness of each available procedure.
5. Compare and assess the equivalency of different procedures that have the same objectives.
6. Submit proposal to International Committee for Phytosanitary Measures.



PROPOSAL
TO
FOURTH TECHNICAL CONSULTATION AMONG REGIONAL
PLANT PROTECTION ORGANIZATION

SAN SALVADOR, EL SALVADOR
MAY 11-16, 1992

RE: IPPC Secretariat

NAPPO strongly supports the creation of an IPPC Secretariat and considers that the Secretariat should have a primary function to coordinate the acquisition and distribution of intelligence and technology.

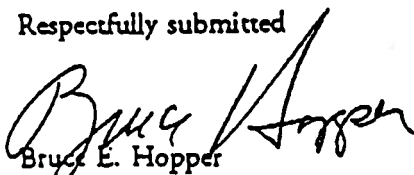
This is seen as an opportunity for the proposed IPPC Secretariat to make a meaningful contribution to the global community as well as to reduce the duplications of efforts being expended in various quarters.

Proposal

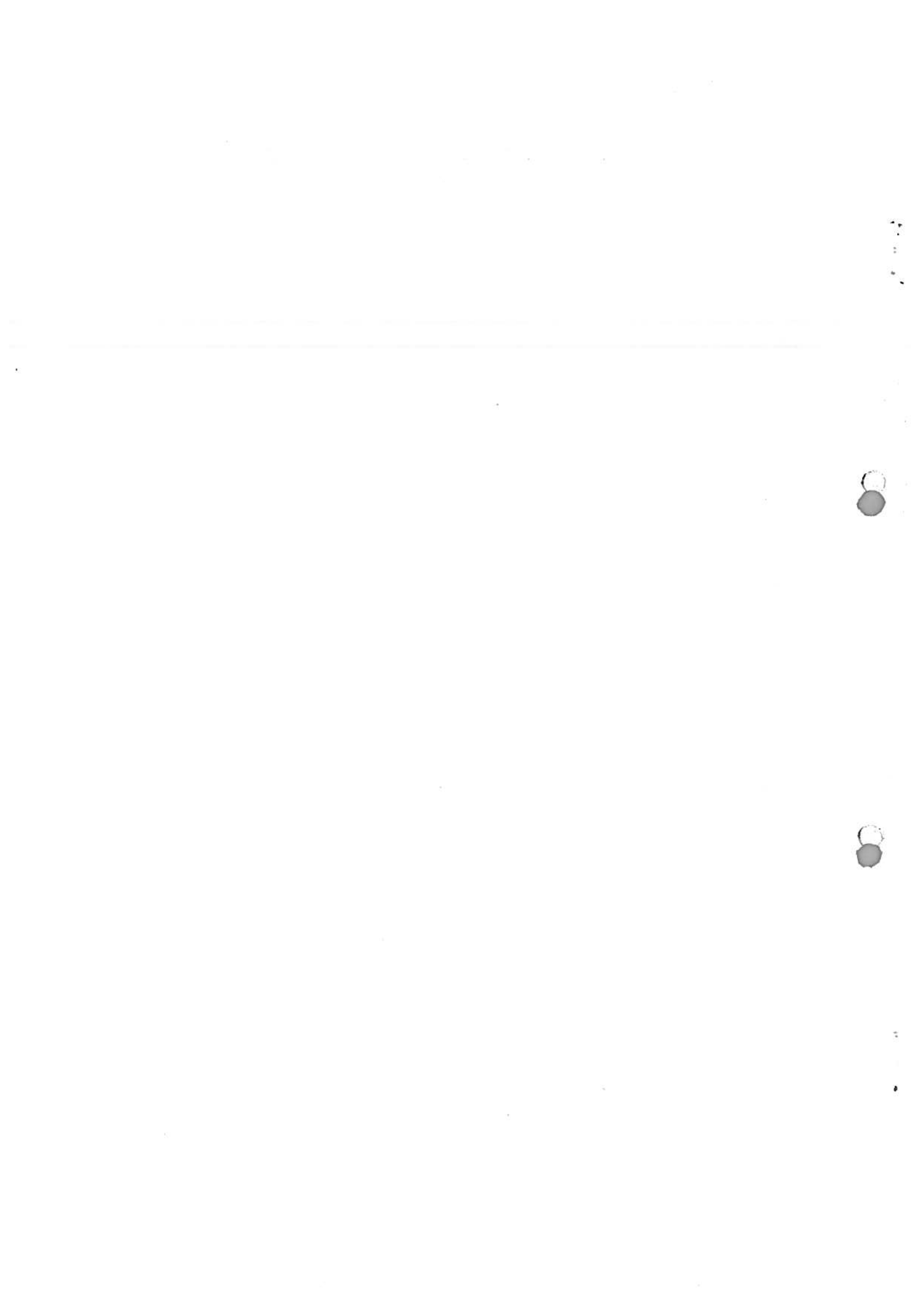
It is suggested that the following activities could be included within this basic function:

- development of a global computer network regarding country importation requirements
- pest distribution, including both absolute and economic distributions
- ecological areas, in support of Pest Risk Analysis
- phytosanitary certification procedures
- registry and monitoring of pest-free areas

Respectfully submitted


Bruce E. Hopper
Executive Secretary

A:RPPC/PPC



**FOURTH TECHNICAL CONSULTATION AMONG REGIONAL
PLANT PROTECTION ORGANIZATIONS
SAN SALVADOR, EL SALVADOR - 11-15 MAY 1992**

A G E N D A

1. Opening of the Consultation
2. Adoption of the Agenda
3. Reports from Regional Plant Protection Organizations (RPPOs)
4. Implementation of recommendations of Third Technical Consultation among Regional Plant Protection Organizations.
5. Current Work Programme
 - a) Harmonization of Principles of Plant quarantine - document on quarantine principles as related to trade.
 - b) Harmonization of procedures
 - Report by Working Group on Fruit Flies (COSAVE)
 - Report by Working Group on Potatoes (EPPO)
 - c) Report of the Expert Consultation, Rome 27-30 April 1992.
 - d) Harmonization of Pest Risk Assessment : Document prepared by the North American Plant Protection Organization (NAPPO).
6. Future Work Programme on Harmonization.
 - a) Ratification and international acceptance of the document on Principles and other harmonized measures including the legal aspects. Role of the Technical Consultation among RPPOs/proposed International Committee on Phytosanitary Measures (ICPM)

- b) Further work on harmonization of pest risk assessment (PRA)
- c) Future work on procedures
 - Existing Working Groups
 - New Working Groups
 - Irradiation as a Quarantine Treatment
 - ICGFI Task Force Meeting
 - FAO/IAEA CRP on Irradiation as a quarantine treatment against pests other than fruit flies
- d) Anticipated programme on work for the FAO Secretariat in coordination with RPPOs.
 - FAO Glossary of Phytosanitary Terms
 - Companion document to the IPPC
 - Plant Quarantine Training - an update on needs at national and international level
 - International trade and the need to strengthen national PQ services

7. Information exchange

- a) Glossary of Phytosanitary terms, Digests, Directory of National and Regional Plant Protection organizations
- b) Plant Quarantine Database, Quarantine Pest Lists
- c) International Plant Protection Convention, Inventory of the IPPC, IPPC information package
- d) Pest Data sheets.

8. International Cooperation

- Interamerican Coordinating Group on Plant Protection and the need to strengthen cooperation among RPPOs.

9. Pre-certification: its importance and future.

10. Update on the Bactrocera spp. situation in Suriname.
11. Code of Conduct for the import and release of Biological Control Agents.
12. Venue and date of the Fifth Technical Consultation
13. Other business
14. Closure.

**FOURTH TECHNICAL CONSULTATION AMONG REGIONAL PLANT
PROTECTION ORGANIZATIONS - SAN SALVADOR, May 1992**

List of Participants

ASIA AND PACIFIC PLANT PROTECTION COMMISSION (APPPC)

Yuan-bo DI

Technical Secretary
FAO Regional Office for Asia and the Pacific
Maliwan Mansion, Phra Atit Road
Bangkok 10200 Thailand

Chamlong Chettanachitara

Executive Member of APPPC
Plant Quarantine
Department of Agriculture
Ministry of Agriculture
Agricultural Regulatory Division
Bangkok 10900 Thailand

Suh Ki-ho

Director
National Plant Quarantine Service
MAFF
433-1 Anyang 6-Dong Anyang-si Gyeonggi-Do
Republic of Korea

Cho Il-ho

Assistant Director
National Plant Quarantine Service
MAFF
433-1 Anyang 6-Dong Anyang-si Gyeonggi-Do
Republic of Korea

Dato'Abu Baka Mahmud

Chairman, APPPC
Director General
Department of Agriculture
5th Floor, Wisma Tani, Jalan Sultan
Salahuddin
Kuala Lumpur 50632 Malaysia

APPPC (Cont)**KHAMSI AH H. Mahmud**Chief of Working Group on PQ Procedure
of APPPCAssistant Director of Agriculture
Crop Protection Division
Gallagher Road
Kuala Lumpur 50632

Malaysia

Richard J. IVESS

Chief Plants Officer

Ministry of Agriculture & Fisheries

P.O. Box 2526

Wellington

New Zealand

A. CATLEY

Senior Assistant Director

Plant Quarantine Inspection Branch

Australian Quarantine and Inspection Service

Department of Primary Industries and Energy

G.P.O. Box 858

Canberra A.C.T. 2600

Australia

COMITE REGIONAL DE SANIDAD VEGETAL PARA EL CONO SUR (COSAVE)**Felipe CANALE**

Presidente

COSAVE

Ministerio de Ganadería, Agricultura y Pesca

Dirección de Sanidad Vegetal

Avenida Millán 4703

Montevideo

Uruguay

EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION (EPPO)

Ian SMITH

Director-General

EPPO

1, rue Le Nôtre

75016 Paris

France

Alan W. PEMBERTON

Plant Health

Head of Overseas Technical Section

MAFF Central Science Laboratory

Hatching Green

Harpenden, Herts. AL5 2BD

United Kingdom

ISTITUTO INTERAMERICANO DE COOPERACION PARA LA AGRICULTURA (IICA)

Alberto PERDOMO

Regional Agricultural Health Specialist

IICA

Apdo. (01) 78

San Salvador

El Salvador

INTERAFRICAN PHYTOSANITARY COUNCIL OF OAU

Abel Lebrun MBIELE

Scientific Secretary

Interafrican Phytosanitary Council of OAU

P.O. Box 4170

Yaoundé

Cameroon

NORTH AMERICAN PLANT PROTECTION ORGANIZATION (NAPPO)

Bruce HOPPER

Executive Secretary

NAPPO

Plant Protection Division

Agriculture Canada

Ottawa, Ontario, K1A 0C6

Canada

NAPPO (Cont)**D. Scot CAMPBELL**

Executive Committee Member
 Director, Operation Support
 U.S. Department of Agriculture
 APHIS International Services
 657 Federal Building
 Hyattsville, MD 20782

U.S.A.

W.T. BRADNOCK

Director
 Plant Protection Division
 K.W. Neatby Building
 960 Carling Avenue
 Ottawa, Ontario

Canada

Gerardo ORTIZ MORENO

Dirección General de Sanidad Vegetal
 Deputy Director Medfly Commission
 6a Calle 1-36 Zona 10, Oficina 303
 Guatemala City

Guatemala

ORGANISMO INTERNACIONAL REGIONAL DE SANIDAD (OIRSA)**Rafael Ernesto MATA**

Executive Director
 Edif. Carbonell No. 2, Pje. Carbonell
 Col. Roma
 San Salvador

El Salvador

George BERG

Technical Adviser
 Edif. Carbonell No. 2, Pje. Carbonell
 Col. Roma
 San Salvador

El Salvador

Ing. Franz HENTZE

Chief, Plant Quarantine Services Division
 Edif. Carbonell No. 2, Pje. Carbonell
 Col. Roma
 San Salvador

El Salvador

OIRSA (Cont)**Ing. Norberto URBINA**

Chief, Plant Protection Division

Edif. Carbonell No. 2, Pje. Carbonell

Col. Roma

San Salvador

El Salvador

Ing. Guillermo OTERO

Plant Quarantine Specialist

Edif. Carbonell No. 2, Pje. Carbonell

Col. Roma

San Salvador

El Salvador

REGIONAL PLANT PROTECTION OFFICER**S.S. MBOOB**

Regional Plant Protection Officer for Africa

Regional Office for Africa

Accra

Ghana

JOINT FAO/IAEA DIVISION**Ahmed MAINUDDIN**

Technical Officer

International Atomic Emergency Agency

P.O. Box 100

A-1400 Vienna

Austria

FAO, EL SALVADOR**José TUBINO**

FAO Representative

Apto. Postal 2454

San Salvador

El Salvador

FAO HEADQUARTERS**Dr. N.A. VAN DER GRAAFF**

Chief, Plant Protection Service

Rome

Italy

Dr. Edwin FELIU

Plant Quarantine Officer, AGPP

