

## Closing Remarks

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Ladies and Gentlemen, Distinguished Guests and Participants,

At the end of the symposium on "Production of Vegetables in the Tropics and Sub-Tropics" I would like to express my gratitude to all the participants, in particular to those who came from overseas, for contributing so significantly to the success of the symposium.

Vegetable production and its transportation including export have recently expanded along with the increasing demand of the urban populations in the tropical and sub-tropical countries. Since the term "vegetables" includes various kinds of crops, in the dietary life of those countries, some are used as important sources of vitamins or minerals and others are used as a source of requisite calories. Therefore the present symposium also covered a large spectrum of crops and topics. But the technical problems relating to the production and transportation of vegetables seem to be common, and they fall broadly into four categories as follows.

1. Lack of cultivars adapted to the tropical and sub-tropical environment, in particular the constraints on the self-sufficiency in temperate vegetable seeds is a serious problem.
2. Cultivation methods and production systems are insufficiently developed for numerous vegetables.
3. There is a frequent incidence of pests and diseases, for which methods of control have not been fully developed.
4. Handling and transportation of vegetable products are inadequate.

Thus in those countries, although there is an increase in the demand for vegetables, serious technical problems limit the supply of vegetables. Therefore it may be said that the present symposium was particularly timely and significant.

During the symposium 33 papers were presented, among which there were 10 country reports dealing with the present situation of vegetable production and research in the respective countries, and one covering the situation in the Asia-Pacific region. Several reports referred to national development programs also. The effort made in the development of an appropriate technology suited to the needs of each country was definitely impressive. Furthermore, numerous constraints on vegetable production in the respective countries were also identified. Many of these constraints are rather common to every country, and the main technical problems mentioned previously included these constraints.

The twenty-two technical papers presented may be classified into the following five main subjects. Breeding and seed production of temperate vegetables aim at improving the characteristics or techniques to adapt them to the tropical or sub-tropical environment. The physiological characteristics of various vegetables were analysed. Emphasis was placed on cultivation methods especially those involving the use of plastic materials which are being promoted to alleviate the adverse climatic conditions prevailing in these regions. The incidence of pests and diseases, the occurrence of physiological disorders as well as methods of control were discussed. Recent progress in post-harvest technology and

strawberry production in Japan was presented. Finally, the activities of four international agricultural research centers as well as the Regional Office for Asia and the Pacific of FAO and Asian Vegetable Research and Development Center were introduced. I would like to express my gratitude to the members of these organizations for their participation and interesting reports. To some extent, all the technical reports offered some solution to the four main technical problems. Those efforts are very important and should be continued more actively.

During the discussions, the promotion of international collaborative research on an interdisciplinary basis involving all experts related to vegetable production was strongly advocated since the constraints on vegetable production are common to every country, and various research fields should be closely interrelated for the progress of technology.

In this regard, the information and the results of the investigations carried out in each country and organization which were reported in this symposium should contribute significantly to the promotion of more efficient production and transportation systems for vegetables in the respective countries.

I am convinced that this symposium will be the starting point of fruitful exchanges of research information and of collaborative research for vegetable production in the tropical and sub-tropical countries.

Once again, I should like to thank all the participants for their presentations and for their active role in the discussions which took place during the symposium.

Thank you