## **Closing Remarks**

M. OJIMA Chief of the First Crop Division National Agriculture Research Center

Ladies and Gentlemen, Distinguished Guests and Participants,

At the end of the International Symposium on Soybean, I would like to express my deep gratitude to all the participants for contributing so significantly to the success of the symposium, in particular to those who came from overseas.

Indeed only the close cooperation between AVRDC and TARC along with the assistance extended by the Agriculture, Forestry and Fisheries Research Council as well as by various research organizations made it possible for such a large number of researchers from all over the world to gather here in Tsukuba to present the latest information on various aspects of soybean production. I would like to take this opportunity for thanking all of those who were so helpful in the organization of the symposium.

During the symposium, the delegates of several countries presented a report outlining the situation of soybean production and research in their respective countries. I believe that we were extremely fortunate to have among us the delegate from China where soybean cultivation actually originated. The valuable experience acquired in the cultivation of soybeans in the southern part of China, in particular in the Chang-Jiang Valley, as well as the attempt to introduce soybeans in the subtropical and tropical zone of Brazil is certainly highly relevant to other countries located in the tropics and subtropics. In addition the delegates from all the countries, without exception, outlined the numerous technical and socio-economic constraints that still hamper the increase in soybean production which is of paramount importance for these countries. They also indicated the measures that are being taken to promote research and improve extension services so as to overcome these difficulties.

On the other hand, due to the remarkable changes in the meteorological conditions which are being recorded worldwide, the information on the trend of soybean production in the USA and Brazil, the leading soybean-producing countries, should be highly appreciated by the delegates of the countries that import soybeans or are concerned about the increase in the production of this commodity. In this regard, the emphasis placed by the USA on the need for establishing a close cooperation among the groups involved in soybean research, production and commercialization so as to increase production, along with the reports from Taiwan and Japan on the long history of soybean processing to a variety of food products should give valuable suggestions for further expanding soybean production in many countries.

Also, we all know that it is essential to stabilize food production to keep pace with the increase in the world population, particularly in the tropical and sub-tropical countries. To achieve this objective, the establishment of cropping systems that include soybeans, a short-duration crop, should be promoted since soybeans represent an important source of protein and edible oil and exert a beneficial effect on the other crops in the rotation, with respect to nitrogen supply. In this regard, the diversity of the cropping systems outlined in the reports presented at the symposium reflected well the weather conditions peculiar to each country, including the temperature and amount of precipitation and solar radiation as well as the spectrum of diseases and pests, the soil conditions and the socio-economic characteristics prevailing in the respective countries. Moreover the concept underlying the breeding strategies and the methods for the application of fertilizers, for enhancing nitrogen fixation through *Rhizobium* association and controlling pests and diseases in soybeans along with data on basic research were presented during the symposium.

In addition, the difficulty to reconcile recommendations based on experimental results with farmers' practices, which is shared by most of the soybean-growing countries was discussed. The need for overcoming these constraints in order to consolidate and increase soybean production was stressed, in taking into account the various technical, social, economic and psychological factors involved.

I am convinced that the symposium was successful although it is obvious that a great deal of problems still remain to be solved in future.

As you may already know, tomorrow you will have the opportunity of visiting the National Agriculture Research Center, including the experimental soybean fields. Meanwhile, l do hope that you will enjoy your stay in Japan.

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

Thank you.