

International Symposium on Pesticide Use in Developing Countries—Present and Future

Co-sponsored by
Tropical Agriculture Research Center, Ministry of Agriculture, Forestry and Fisheries
and
Food and Fertilizer Technology Center for the Asian and Pacific Region
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The regular TARC international symposium which was held at Kyoto International Conference Hall as a satellite symposium of the Fifth International Congress of Pesticide Chemistry had the theme "Pesticide Use in Developing Countries—Present and Future."

The objective of the present symposium was to exchange the latest information on pesticide use in developed and developing countries in order to make the most of pesticides avoiding their drawbacks as much as possible.

Research scientists from Brazil, Indonesia, Korea, Malaysia, the Philippines, Taiwan and Thailand were invited to discuss the problems of pesticides in their respective countries.

The organizing committee of International Congress of Pesticide Chemistry adopted a policy to hold this satellite symposium because scientists in developing countries, especially those in southeast Asian countries, might find chances to attend the Congress which was held in Asian region for the first time. Besides scientists mentioned above,

more than hundred participants gathered from 33 countries and total attendants reached more than 250.

The program of the symposium and the name of the speakers are listed below.

Opening address:

Shoichiro Nakagawa

Director, Tropical Agriculture Research Center.

Welcome address:

Kunihei Kishi

Director-General, Secretariat of Agriculture, Forestry, and Fisheries Research Council.

T. C. Juang

Director, Food and Fertilizer Technology Center.

Izuru Yamamoto

Co-ordinator from the Organizing Committee of International Congress of Pesticide Chemistry, Professor of Tokyo University of Agriculture.

Presentations:

- Pesticides in Brazilian agriculture
Jose Tadashi Yorinori (Brazil)
- The present status of pesticide use in Indonesia
Mas Sundaru & Dandi Soekarna
- Problems associated with pesticide use in Malaysia
B. S. Lee & S. H. Ong
- Pesticide use in the Philippines
Belen Morallo-Rejesus
- Pesticide use in Taiwan—Present and future
Y. I. Chu & C. Y. Lin
- Pesticide use in Thailand
Boonchob Bhatraruji
- Vicissitude of pesticides in Japan
Chojiro Tomizawa
- Pesticide residue problems in Korea
Y. H. Jeong
- Residue and toxicity problems associated with pesticide use in Taiwan
G. C. Li
- Pesticide residue problems in Japan
Jun Kanazawa
- Fungicide resistance: Problems with modern fungicides in Japan
Yasuhiko Uesugi
- Chemical control of rice blast in Korea
S.C. Lee
- Control of Chinese cabbage downy mildew (*Pernospora parasitica*) by Ridomil and other fungicides
C.Y. Yang, R. L. F. Hu & U. Pupipat
- Chemical control of soybean insect pests in Brazil
Jose Tadashi Yorinori
- Evaluation of chemicals for rice insect pest control at IRRI
Osamu Mochida, S. C. Valencia & R. Bosilio
- Status of herbicide utilization and its economic assessment in the Philippines
S. R. Obien
- Historical aspects of herbicide utilization for rice and economic assessment
Hideo Chisaka

*General discussion**Concluding remarks:*

Toshihiko Tanaka

Chief, Division of Agricultural Chemicals,
National Institute of Agricultural Sciences.

Each session will be reviewed as follows.

Country reports

History and present situation of pesticide usage in each country were reported. The ratio of insecticides, fungicides and herbicides to total consumption of pesticides differs according to the patterns of agriculture and climate conditions in each nation. Although pesticides have been playing an important role in every country, they have given rise to problems such as higher production cost, pest resurgence, development of resistance among pests, outbreak of secondary pests, poisoning on non-target organisms and environmental pollution. Governmental and private institutes in each nation have been making an effort to minimize the negative effects of pesticides in order to make the most of them. Legislation for these purposes has been progressing. In some countries organochlorine insecticides which have been accused of their environmental pollution are still used for some purposes such as anti-malarial campaign. Country reports on pesticide usage from Italy and Egypt were voluntarily performed as poster display *ad hoc*.

Technical reports

Two or three reports were presented in four categories respectively: residue problems, fungicides, insecticides, and herbicides.

Residue problems:

Characteristics and qualities which should be checked before registration of chemicals as pesticides were discussed in order to minimize negative effects of pesticides. Monitoring methods of pesticide residues and procedures for establishment of tolerance limit were proposed. Pesticides which were once widely used and were later banned owing to their undesirable effects on non-target organisms

Fungicides:

Resistance development of rice blast fungi to fungicides was discussed intensively. Resistance development might be retardative by fungicide application with different mode of actions. Although pest control measures such as cultivation of resistant varieties to rice blast disease were reported to be effective for the prevention of resistance development to chemicals, resistant varieties might be overcome by the appearance of new races of the pathogenic fungi after some years. Among topics of fungicides, the results of field experiment for the control of Chinese cabbage downy mildew by several fungicides were demonstrated. Metalxyl was reported to be the most effective for this purpose.

Insecticides:

Two topics were discussed in this category; one was insecticides for soybean in Brazil and the other was insecticides for rice plants in the tropics. Occurrence of insect pests changes according to the cultivating regions. Discussions were concentrated on the difference of pest species, pest varieties, and the countermeasures to cope with them.

Herbicides:

Introduction of herbicides in agriculture has liberated farmers from labor of hand weeding. It is quite a matter of course that two papers on this section commented herbicide usage from economic standpoint. At the same time use of herbicides has brought about

rising cost of agricultural production. Difficulty in control of perennial weeds was thoroughly discussed.

General discussion

General discussion was co-presided by A. J. Pieters (Codex Committee on Pesticide Residues, FAO/WHO), C. Y. Yang (AVRDC), Osamu Mochida (IRRI) and Izuru Yamamoto (Tokyo University of Agriculture).

Role of international organizations on pesticide residue problem was briefly introduced and it was emphasized that much effort has been made for the international trade of agricultural commodities without troubles. Procedures for establishing tolerance limit of pesticide residues for good agricultural practices were demonstrated. In addition, how to apply contemporary pesticides for pest control in various crops in different regions was explained with examples. Demands for disclosure of every bit of scientific data on efficacy and toxicity of new pesticides because of insufficient capability on these studies in developing countries should be obediently accepted.

Although pesticides will occupy an important position in pest control in future not only in agriculture but also in hygienic fields, no one can deny that other pest controlling measures in consideration of integrated pest management should be adopted. Pesticides should be utilized properly upon the agreement of harmonious ideas on Pesticides—Environment—Human welfare.