

# International Symposium on Rice Insects

July 19 to 24, 1971 in Tokyo



In relation to the improvement of the productivity of the rice, pest control problems of the rice plant in the Asian region is still very important. In this connection, the 5th International Symposium of Tropical Agriculture Research Program took up "Rice Insects" to be discussed.

In view of the fact, this symposium was held during the period of July 19 to 24, 1971, in Tokyo, with joint FAO/IAEA Coordination Meeting of Research Contractors on Rice Insects. The symposium was sponsored by Tropical Agriculture Research Center, the Ministry of Agriculture and Forestry, Japan.

In the session of FAO/IAEA on July 19 and July 20, reports on the rice stem borer were presented by 5 FAO/IAEA contractors from Asian countries and 2 Japanese scientists. In the Symposium of Tropical Agriculture Research Center held from July 20 to July 22, country reports and other papers on rice insects were presented by 16 researchers including 7 Japanese entomologists. After the presentations and related discussions, the general discussion was held last of all.

On July 23 and 24, participants made a two-day field trip to visit the following institutions:

National Institute of Radiological Sciences  
Maruyama Manufactory Co. Ltd.  
Chiba Prefectural Agricultural Experiment Station  
National Institute of Animal Industry  
Institute for Plant Virus Research

The subjects of symposium and speakers were as follows:

- I. FAO/IAEA Co-ordination Meeting of Research Contractors on Rice Stem Borers:
- 1) Geographical distribution of physiologically varied populations in the rice stem borer, *Chilo suppressalis*, in Japan.  
Fukaya, M., T. Yushima and Z. Uchijima (Japan)
  - 2) Ecological studies on *Tryporyza incertulas* Walker in southern part of West Pakistan.  
Moiz, S. A. and N. A. Rizvi (West Pakistan)
  - 3) Ecological studies on the rice stem borer, *Chilo suppressalis* Walker, in Taiwan—Host plant survey.  
K. Kung (Taiwan)
  - 4) Mass rearing of rice stem borers  
Hormchong, T., S. Srithunya and P. Podhisritong (Thailand)
  - 5) Rearing studies on the rice stem borer, *Chilo suppressalis* Walker.  
Yen, D. F. (Taiwan)
  - 6) Effects of humidity, temperature and light on the growth and development of *Chiloptera polychrysa* Meyrick and *Tryporyza incertulas* Walker.  
Areekul, S., C. Bhonangpol and D. Ekapat (Thailand)
  - 7) Mass rearing of the rice stem borer, *Chilo suppressalis* Walker—Rearing on rice seedlings.  
Sato, Y. and M. Sakai (Japan)
  - 8) Studies on the mating ability and competitiveness of the sterile males of the rice stem borer, *Chilo suppressalis* Walker.  
Hyun, J. S. (Korea)
  - 9) Rearing, biology and sterilization of the pink rice borer, *Sesamia inferens* Walker.  
Qureshi, Z. A., M. Anwar, M. Ashraf, N. U. Chata and M. D. Arif (West Pakistan)
- II. TARC Symposium on Rice Insects:
- Session 1 Country reports
- 1) Recent progress in rice insect research in India  
Banerjee, S. N. (India)
  - 2) Recent progress in rice insect research in Indonesia  
Soehardjan, M. (Indonesia)
  - 3) Recent progress in rice insect research in Malaysia  
Singh, K. G. (Malaysia)
  - 4) Recent progress in rice insect research in Pakistan  
Alam, M. G. (Pakistan)
  - 5) Recent progress in rice insect research in Vietnam  
Ngoan, N. D. (Republic of Vietnam)
- Session 2 Borers
- 6) Taxonomy and distribution of stem borers  
Hattori, I. (Japan)
  - 7) Ecology of rice stem borers in Taiwan  
Chu, Y. I. (Republic of China)
  - 8) Ecology of stem borers and other insects  
Calora, F. B. (the Philippines)

- 9) Fluctuation in outbreak of stem borers  
Miyashita, K. (Japan)
- Session 3 Planthoppers and leafhoppers
- 10) Resistance to rice leafhoppers and planthoppers in rice varieties  
Pathak, M. D. (I.R.R.I.)
- 11) Biochemistry of varietal resistance to brown planthopper  
Sogawa, K. (Japan)
- 12) Long distance migration of planthoppers, *Sogatella furcifera* and *Nilaparvata lugens*  
Kishimoto, R. (Japan)
- Session 4 Bugs
- 13) Distribution and taxonomy of rice bugs in Southeast Asia  
Hasegawa, H. (Japan)
- 14) Distribution and abundance of southern green stink bug, *Nezara viridula*  
Kiritani, K. (Japan)
- Session 5 Flies
- 15) Varietal resistance to rice stem maggot  
Koyama, T. and Hirao, J. (Japan)
- 16) Study on ecology of rice gall midge in Thailand  
Tanongchit Wongsiri, Precha Vungsilabut (Thailand) and Hidaka, T. (Japan)
- 17) Ecological studies on the rice gall midge in Ceylon  
Fernando, H. E. (Ceylon)
- Concluding session  
General Discussion
- Closing session  
Closing Address  
Yamada, N., Director, Tropical Agriculture Research Center
- Note: 4) was presented by report only.

## Report of the Symposium

At the opening ceremony, Dr. S. Takaki, the Chairman of the organizing committee and Dr. M. T. Ouye, the representative of FAO/IAEA presented addresses.

Dr. Takaki touched on the environmental pollution problem in his speech and expressed his hope that the discussion in the Symposium would be contribute to establish an integrated control measure of the pest insect.

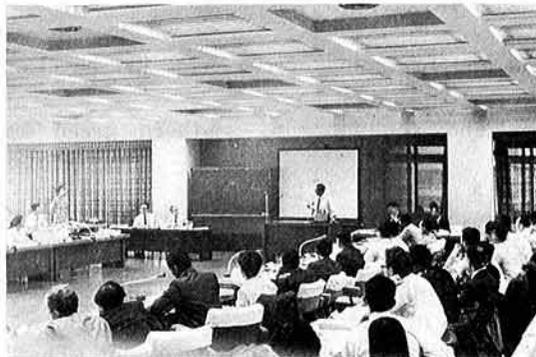
Welcome address of Dr. T. Ogura, Chairman of Agriculture, Forestry and Fisheries Research Council, was made after the speaking of the chairman.

The purpose of FAO/IAEA contractors is to establish the control measure of the pest insect releasing sterile males by means of the irradiation method. The contributed reports will be grouped into three categories, viz., ecological study of the destructive insect, mass production of the insect, and utilization of the irradiation method. Among the three categories mentioned above, emphasis was put on the mass production method of pest insect by simple feeding technique and almost half of the presented papers in this session was characterized by

such informations. The possibility of utilizing male sterile release program for practical control of the pest insect was still under studied.

Following the FAO/IAEA Session, TARC (Tropical Agriculture Research Center) Session was opened, and the presented papers were classified into six categories, viz., country report, borers, plant hoppers and leaf hoppers, bugs, flies, and final discussion.

Taxonomical problem of *Chilo*, *Leptocorisa* and *Nephotettix* was discussed and a new classification of these genera was introduced.



In the field of ecology, one of the highlighted topics of discussions was dynamics of population fluctuation of borers. Concerning plant hoppers and leaf hoppers, the problems of the outbreak of the damage caused by these insects which supposedly migrated from outside countries to Japan by means of typhoon, and varietal difference of resistance of rice against these insects were discussed. Gall-midge, one of the major destructive insect of rice in South East Asian countries, was also one of important topics of the discussions and its ecological observation, condition of damage and so on were shown by color slides, too. As basic problem of ecological study in general, completion of life table of the major pest insect in each locality was emphasized. Relation between agri-chemicals and natural enemies was also another big topic.

Finally, suggestions from foreign participants were made as follows:

1) Translation of literatures written in Japanese into English so as to be able to utilize in other countries.

2) Establishment of a center of classification and identification of insects in South East Asia Region. In this connection, the Institute of Agricultural Sciences, Japan, was mentioned as one of the possible institutions.