Inauguration Address

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Distinguished Guests, Fellow Scientists, Ladies and Gentlemen,

On behalf of the Joint FAO/IAEA Division of Atomic Energy in Food and Agriculture, I wish to welcome all of you to this meeting which is being held jointly as a Symposium by the Tropical Agriculture Research Center and the Joint FAO/IAEA Division's Coordination Programme of Research Contractors on Rice Insects. Further, I wish to thank the Ministry of Agriculture and Forestry for making it possible to hold this Meeting in Tokyo. A special thank you should be made to the members of the Organizing Committee for the arrangements that have been made to ensure that this Joint Meeting is successful.

The Joint FAO/IAEA Division has actively supported the use of atomic energy in agriculture since its inception. Among the different areas of research, one of the most prominent is the use of the sterile male technique to control insect pests. With this method the target species must usually be reared in mass numbers, they must be sterilized at the appropriate age, and subsequently released into the natural population. If vigorous sterile insects are released in large enough numbers so that there are many times more sterile insects than wild ones, most of the matings will be between sterile and normal insects, instead of matings between normal ones. No progeny would be produced from matings between sterile and normal insects, therefore, a population decline will follow. The effectiveness of this method to control pests has been demonstrated with several species of insects. Although application of the method sounds simple, much work in the areas of ecology, population dynamics, natural mortality factors, insect mass rearing, and insect behaviour studies must first be conducted. The sterile male technique can effectively control most insect pest species; however, it will not always be practical or feasible.

With the growing awareness of the problems of polution and the problems of insect resistance to insecticides, alternate methods of insect control should be made available to producers of food and fibre. We must not overlook the potential role of the sterile male technique as one of these alternate methods.

The basic information which must first be obtained to determine if the technique would be practical such as insect ecology, insect rearing, behaviour etc., is the same type of basic information one requires to effectively develop any conventional method of insect control. Therefore, all of us here have a common interest.

The Joint FAO/IAEA Division initiated a Coordination Programme to determine if the sterile male technique would be practical against the rice stem borers. Several research contracts were granted and the first Coordination Meeting of Research Contractors was held in Bangkok, Thailand, in 1969. The contractors reported on research conducted the previous year on rice stem borer sterilization, ecology, nutrition, and rearing. Although much emphasis was placed on *Chilo suppressalis*, reports were presented on the research results of other species such as *Sesamia inferens, Chilotrae polychrysa* and *Tryporyza incertulas*.

This is the Second Coordination Meeting and we hope that it will be as fruitful as the first.

In closing I want to again welcome all of you and thank the people responsible for this Joint Symposium and Coordination Meeting of research contractors. I am sure that we will all benefit from the presentations and discussions of the next few days.