Opening Address

Dr. Mutsuo Iwamoto*

It is my great pleasure to open today the "International Symposium in Ishigaki – to form a new network for agricultural research among tropical and subtropical islands" at the Yaeyama Branch Office of the Okinawa Prefectural Government. This symposium is organized by Japan International Research Center for Agricultural Sciences (JIRCAS) in cooperation with the Seikai National Fisheries Research Institute of the Fisheries Research Agency, the Okinawa Prefectural Agricultural Experiment Station, and the Research Institute for Subtropics. On behalf of the organizers of this symposium, I would like to express my sincere thanks and greetings to all those attending this symposium.

Japan International Research Center for Agricultural Sciences (JIRCAS), Ministry of Agriculture, Forestry and Fisheries, was established in October 1993, by reorganizing Tropical Agricultural Research Center (TARC), Ministry of Agriculture and Forestry, which was established in June 1970. JIRCAS became the incorporated administrative agency in April 2001 according to the reform of National Research Organizations of Japan.

We need to look more seriously than before at maintaining stable food supply of the world, considering the increase in world population, global-scale environmental problems, and the devastation of arable lands. It is particularly important to promote sustainable agriculture, forestry and fisheries in harmony with natural ecosystems. Food demand has been rising in many of the developing countries due to increased population and improvements in eating habits, but their food supply is unstable due to low agricultural productivity, leaving the acute problems of hunger and poverty unaddressed. JIRCAS is promoting research on agriculture, forestry and fisheries to help stabilize the world's food supply and demand, and to harmonize with the environment; is conducting interdisciplinary studies of natural science and social science concerned with these industries; and carrying out collaborative research projects with the developing countries and international research institutions. Thus, JIRCAS is actively contributing to the development of agriculture, the stabilization of the food supply, and the solution of environmental problems both in the developing countries and the rest of the world.

Our Okinawa Subtropical Station was set up in the premises of the Yaeyama Branch of the Okinawa Prefectural Agricultural Experiment Station, Ishigaki City, Okinawa Prefecture, simultaneously with the establishment of TARC. In 1972, the Station moved to Maesato Kawarabaru in the same city where it is now and was previously a Japanese navy airfield. The Okinawa Subtropical Station is the only research institute of Japan located in a subtropical climate. Taking advantages of the natural geographical conditions unique to the subtropics, it has been engaged in research on the management of the agricultural environment in the tropical and subtropical regions, the improvement and cultivation of crops and tropical fruits, and the plant protection against major tropical and subtropical diseases and pests such as melon flies. Thus we are aiming to make our research results contribute to the development of technologies for sustainable agricultural production in the developing countries in the tropical and subtropical regions.

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The Okinawa Subtropical Station has been studying the development of agricultural technologies for the subtropics, as planned when TARC was set up, as well as the introduction and acclimation of tropical, subtropical and temperate crops. At the same time, it has been carrying out research intended to help promote agriculture in Okinawa. A technology for mass production of melon flies has been developed to exterminate these harmful insects by releasing sterile insects to mate with their wild counterparts. We have also selected a kidney bean variety, "Haibushi", and a winged bean variety, "Urizun", that are heat-tolerant and can be grown even in hot summers. A technology for mass production of papaya seedlings by shoot apex culture that we developed recently in collaboration with horticultural farmers of Ishigaki City led to the acquisition by Ishigaki City of a patent on papaya cultivation last year.

We understand that JIRCAS needs to step up research collaboration on agriculture and environments in the tropical and subtropical regions as well as in other developing areas. Our Okinawa Subtropical Station, which is located on a subtropical *island* at Japan's extreme southern end, is ideally placed to take advantage of its subtropical and small-*island* character, enabling us to specialize in studies targeted at overseas regions with the same climatic and geographical conditions. As a first step in this direction, starting from the fiscal year of 2006, we plan to launch an international collaborative study on agriculture and environments common to a number of tropical and subtropical small *islands* scattered around the Pacific Rim, including other Southeast Asian countries.

In today's symposium, researchers from the Pacific Rim countries of the Philippines, Fiji, New Caledonia and Okinawa are going to report on agriculture in their own countries. We would like to clarify the effects of climate, soil and water on agriculture being common throughout the islands and to discuss future research directions. We also intend to form a network where research institutes, both at home and abroad, can share the new findings among each other through mutual cooperation.

The Okinawa Subtropical Station of JIRCAS is committed to playing the key roles of realizing safer and more sustainable agriculture on the *islands*, clearly explaining every possibility of reaching that goal, and tackling research work aiming at linking all such agriculture on individual *islands*. We welcome your positive comments on these matters to help us steer our future research activities. Your assistance will be greatly appreciated.

(Presently, President of Society for Techno-innovation of Agriculture, Forestry and Fisheries (STAFF))