

Role of Postharvest Technology Research for Sustainable Food Supply

Keiji Kainuma*

Under the eponym of "Green Revolution", agricultural research contributed to the increase of the yield of crops to support the increase of the global population during the past decades. Recently, a new concept "Doubly Green Revolution" with equal importance given to productivity and natural resource management has emerged.

Postharvest technology to prevent the loss of crops during storage and transportation, and to add value to the agricultural products is as much important as increasing the yield of crops for sustainable food supply.

The speaker will review the importance of postharvest technology research from the viewpoints of (1) Preservation of foods through the prevention of biological damage during storage and transportation, (2) Enhancement of stabilization of commodity values through the conversion of products into processed foods, (3) Production of processed foods with high quality and added value and (4) Utilization of undeveloped or neglected new food resources.

Examples of the development of postharvest technology research will cover carbohydrates and plant protein resources.

The utilization of starch resources from tropical and subtropical crops such as sweet potato, cassava and sago will be discussed in relation to microbial and enzymic biotechnology. Soybean is also an important crop for the supply of high quality plant protein. Soybean utilization is one of the most advanced areas in plant protein utilization in the field of food technology with the use of advanced machinery and biotechnology. Recognizing the importance of soybean and tropical starch-producing plants, Japan will host the 3rd International Soybean Processing and Utilization Conference in 2000 and The International Sago Symposium (Sago 2001) in 2001.

Research policy and strategy relating to postharvest technology adopted by the Consultative Group on International Agricultural Research (CGIAR) System will also be introduced.

* Bio-Oriented Technology Research Advancement Institution (BRAIN) Tokyo , Japan. Member of Technical Advisory Committee, Consultative Group on International Agricultural Research (CGIAR)