



# The 1<sup>st</sup> YAU-JICA TCP Special Lecture



## Two Lectures by Professors from Kyushu University

**Date & Time:** 10:00 am, Thursday, March 3, 2016

**Venue:** Auditorium, YAU

### Agricultural Research and Diffusion of Innovation

**Speaker: Kazuo Ogata**

(Senior Vice President, and Professor, Institute of Tropical Agriculture, Kyushu University)

#### **Abstract**

Research is the systematic investigation into and study of materials and sources in order to establish facts and reach new conclusions. The lecture gives an outline and characteristics of the research structure in university. In addition, a diffusion model of innovation produced by research is introduced.

### Use of DNA Markers for Rice Genetics and Breeding

**Speaker: Atsushi Yoshimura**

(Professor, Faculty of Agriculture, Kyushu University)

#### **Abstract**

Almost thirty years have passed since we initiated to apply DNA markers for rice genetics and breeding in Plant Breeding Laboratory, Faculty of Agriculture, Kyushu University. In this occasion, YAU-JICA TCP Special Lecture, I am happy to talk about my experience of the use of DNA markers.

The first DNA markers appeared for us was RFLP (Restriction Fragment Length Polymorphisms) markers. Here, I introduce several kinds of DNA markers from RFLPs to SNPs. At present, QTL (Quantitative trait loci) analysis becomes very popular in the field of plant genetics and breeding. I like to briefly explain the concept of QTL analysis. Using DNA markers, we have developed many rice genetic stocks for experimental purpose, and we used the genetic stocks for our scientific studies related to rice genetics and breeding. Let me introduce some of our studies on development and utilization of rice genetic stocks. In the process of development of rice genetic stocks, we established rapid and accurate breeding system of backcrossing and marker assisted selection. This system has been applied in the practical breeding program of Vietnam for 15 years. Finally, I briefly introduce our activities.