



Special project

Strengthening the agricultural biotechnology capacity of Southeast Asian countries

BIOTECHNOLOGY HELPED REVOLUTIONIZE AGRICULTURE in the 20th century in many parts of the world. Traversing into the 21st century, however, a lingering question remains: how can advances in biotechnology benefit majority of the people worldwide, particularly those in the developing countries?

The current use of modern biotechnology in Southeast Asia is replete with many challenges, one of which is the lack of a strong manpower capacity particularly in agricultural biotechnology in the developing countries. On this aspect, the research and development advances made by Taiwan in agricultural biotechnology and its subsequent agro-industry applications provide a fertile ground for learning for countries in Southeast Asia.

Under this premise, FFTC in partnership with the College of Bioresources and Agriculture of the National Taiwan University (NTU), the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) based in the Philippines, and the Council of Agriculture (COA), Taiwan ROC organized the *Agricultural Biotechnology Training Workshop for Southeast Asian Countries* held on September 01-10, 2008 at the Center for Biotechnology, NTU, Taipei, Taiwan ROC. This training workshop is a follow-up activity of a training course held in 2007, intended as a continuing effort in uplifting the current thrust toward biotechnology application and promotion in the Asian region.



(From top left, clockwise) **Lecture session at the Center for Advanced Biotechnology, NTU; Field study tour at the Taoyuan District Agricultural Research and Extension Station; Laboratory exercises at NTU.**

A total of 21 participants from seven countries (Cambodia, Indonesia, Lao PDR, Malaysia, Philippines, Thailand, Vietnam) participated in the 2008 training workshop, primarily aimed to strengthen the agricultural biotechnology capacity of countries within the region, envisioned to pave the way for the enhancement of their respective biotechnology industry. The activity was also expected to open doors for future cooperation and partnerships in the development of agricultural biotechnology industry in Asia.

The module was developed by NTU, and all the lectures were conducted by professors of the university. Topics covered include: a) recombinant DNA techniques-cloning tools, transformation and identification of transformants and protein expression systems; b) methods for identification of GM products; c) molecular detection of plant pathogens; d) genetic transformation in plants; e) application of molecular profiling in crop quality management and improvement; f) development of pharmaceutical proteins produced by transgenic animals; and g) realities of developing and bringing a transgenic crop to market. The laboratory exercises provided the participants with hands-on exposure to core biotechnology techniques.

As a leading university in the development of biotechnology in Asia, NTU offers various integrated training programs on biotechnology to academic and industry sectors every year. It has committed itself to sharing its experiences in scientific development with neighboring countries in the Asian region.

Agricultural Biotechnology Training Workshop for Southeast Asian Countries

Held at the Center for Biotechnology, NTU, Taipei, Taiwan ROC, September 01-10, 2008

No. of participating countries: 7 (Cambodia, Indonesia, Lao PDR, Malaysia, Philippines, Thailand, Vietnam)

No. of participants: 21

Co-organizers: Center for Biotechnology, College of Bioresources and Agriculture, National Taiwan University (NTU); Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA)

Sponsors: National Science Council (NSC), Taiwan ROC; Council of Agriculture (COA), Taiwan ROC; and American Institute in Taiwan (AIT)

For further information, contact:

Dr. Te-Yeh Ku, FFTC Technical Consultant