INSTRUCTIONAL STAFF

Course instructors are drawn from representative sectors of the agricultural and environmental biotechnology community, including research scientists from various MSU departments, other universities, private companies, regulatory officials from state and federal agencies, specialists in information resources, and individuals experienced in biosafety implementation from international perspective.

Organized by

WorldTAP

Michigan State University World Technology Access Program (WorldTAP) in Collaboration with the Plant Breeding, Genetics and Biotechnology Program

http://worldtap.msu.edu/

For Registration, Please Contact:

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Application Deadline:
July 1, 2012

Course Fee per Participant:

- Registration Fee: $ 250 (non-Refundable)
- Course Fee: $ 3,250

Course fee includes instruction fee, information packages, local transportation, meals, lodging, and emergency health insurance.

Please make check payable to:
Michigan State University

MICHIGAN STATE UNIVERSITY

Biosafety

An International Short Course in Environmental Aspects of Agricultural Biotechnology

August 5 – 10, 2012

COURSE RATIONALE

The new and emerging tools of biotechnology offer significant opportunities to enhance agricultural productivity, food and nutritional security, and environmental quality worldwide. Some countries have already developed and commercialized genetically engineered transgenic crops. Many developing countries have initiated biotechnology research and development programs to benefit from the new tools of biotechnology. Several developing countries are also importing products of biotechnology.

The use, deployment and importation of biotechnology products, however, have raised worldwide a number of regulatory issues related to risk/benefit analysis associated with biodiversity, the environment, and human health. The issue of environmental and food safety risk-assessment and management becomes increasingly critical as we move along the development continuum from laboratory research to research field trials and large-scale commercial releases of biotechnology products.

To ensure that benefits are maximized and risks are minimized, nations at all levels of development are addressing the environmental and health aspects by implementing biosafety guidelines for the safe use of genetic engineering and its products. In addition, research partnerships between developed and developing nations are stimulating considerations and development of biosafety guidelines/laws that fit with international biosafety treaties and agreements.

In countries where new transgenic crops are ready to be tested in the environment, national and institutional biosafety committees must first conduct a biosafety review of the planned release. It is imperative that scientists, regulators and decision makers have the science-based information, skills, and resources required to appropriately evaluate the biosafety issues inherent in the release of a particular genetically modified organism to the environment. To address these needs, Michigan State University will conduct a one- week short course in the Environmental Biosafety aspects of Agricultural Biotechnology. This course is intended to complement the one week short course in food safety.

COURSE DESCRIPTION

The Biosafety short course is designed to give participants a thorough grounding in all aspects of biosafety for environmental release and commercialization of genetically engineered organisms. It will cover the theory and practice of environmental risk assessment and management, and commercialization of genetically engineered organisms.

It will cover the theory and practice of environmental risk assessment and management, and communication of benefits and risks of agricultural biotechnology applications. A major component of the program will provide practical experience in biosafety evaluation through the real world case studies covering a diverse group of crops, genes, and potential environmental concerns.

A comprehensive information packet and course materials will be provided to the participants. This will include copies of lecture notes, key papers and background materials on environmental aspects of biotechnology, biosafety guidelines, biosafety related websites, and a CD containing power point presentations.

The knowledge, information, and experience gained through this course will help participants contribute towards the development of environmentally sound and safe use of agricultural biotechnology. Using a participatory approach, the course will foster linkages and provide opportunities for networking among participants to exchange their experiences and establish regional collaborations.

COURSE COMPONENTS

- Overview of Biotechnology and Biosafety Issues/Concerns Worldwide
- Principles of risk assessment, risk management and risk communication
- International Treaties/Agreements in Biosafety
- Factors Affecting Biodiversity, Invasiveness, and Gene Flow
- Possible Influences of Transgenic Crops on Non-target Organisms
- Pest Resistance Management
- Transgenic Safety Protocols and Field Testing Procedures.
- Key Elements and Components of Biosafety Systems
- Analysis and Building of Biosafety Regulatory Framework
- Economics of Biosafety - costs to develop and implement a biosafety program and regulatory costs for GMO product approval and commercialization
- Visit to Transgenic Field Trials and Farmers growing GMOs
- Public perception, Communication and Outreach in Biosafety
- Capacity Building and Information Resources in Biosafety