APAARI-ICRISAT
Training Program on Analytical Techniques in Nutrition, Food Safety and Biosafety

ICRISAT, Telangana, India

(1- 14 September 2014)

Introduction

Food safety is defined by the FAO/WHO as the assurance that food will not cause harm to the consumers when it is prepared and/or eaten according to its intended use. Assuring safety of food starting from post-harvest handling through storage, processing, distribution and consumption are important to prevent contamination and outbreak of food borne diseases. Such diseases are being routinely reported particularly from developing countries of Asia and the Pacific resulting in loss of life, poor health and market opportunities. During recent times, use of additives, pesticides, animal antibiotics, growth promoting hormones, organic agriculture, genetic modification and nanotechnology in agriculture have further increased the need for assuring food safety through appropriate policies and their implementation. Development of adequate human resources to effectively address food safety issues through latest tools and techniques is an urgent need.

International Crops Research Institute for Semi-Arid Tropics (ICRISAT), through its Agribusiness and Innovation Platform (AIP) and Platform for Translational Research on Transgenic Crops (PTTC) proposes to conduct a training program in collaboration with Asia Pacific Association for Agricultural Research Institutions (APAARI), titled **"Training program on Analytical Techniques in Nutrition, Food Safety and Biosafety"** at its headquarters in Patancheru, Telangana, India during 1 - 14 September 2014.

Aim of the training program

The proposed training program aims to enhance knowledge and skills on food safety, biosafety and related technologies of the participants from national agricultural research systems and other relevant public and private institutions of Asia-Pacific and sub-Saharan Africa.

Course content

Food Safety and Nutrition

Food safety and Nutrition is a multifaceted area and requires coordination amongst various sections of an organization. Depending on the type of organization, it could involve implementation of one or more of the following standards – HACCP, ISO 22000, and ISO 17025. This training program focuses on providing general principles of food safety in a wide variety of food industries and its benefits. One of the key components of food safety is testing food or food products using established protocols to check for compliance against product requirements. The training program gives an opportunity to the participants to expose themselves to the latest state-of-the-art instrumentation used

in food analysis. They will be provided actual samples for testing various parameters such as proximate analysis, contaminants, additives, nutritional composition parameters, genetically modified organisms and food spoilage microorganisms using instruments such as LC-MS/MS, GC-MS/MS, ICP, HPLC, RT-PCR and other classical techniques.

Biosafety

This section of the training program focuses on food safety issues related to genetic modification technology, development, qualitative and quantitative determination of GMOs using RT-PCR, toxicity and allergenicity testing, and post-release monitoring of GMOs.

Program

- Ten training modules comprising classroom and hands-on-laboratory to be training conducted for 14 days. (Liquid and gas chromatography – LCMS/MS, GCMSMS and HPLC – in food analysis; Spectroscopy – ICP-OES and AAS in food analysis; Microbiological techniques; Accreditation requirements of food testing laboratories; Biosafety, risk analysis for GMOs; Problem formulation for food safety assessment; Allergenicity and toxicity assessment in GM crops; Team building exercise).
- Visits, hands-on-training sessions and interaction with a reputed food testing laboratory (ISO 17025:2005 accredited).
- Hands-on-exposure to state-of-the art food testing equipment and techniques.
- Visit to a ISO 22000:2005 certified food processing plant in India.

Who can participate?

Senior and middle level technical staff and management personnel involved in agriculture and food research/food processing/food biotechnology from government departments, ministries, food processing industries, and entrepreneurs in the food processing sector.

Course fee: US $ 1,500 which includes bench fee, and boarding and lodging.

Venue

ICRISAT campus, Patancheru, Andhra Pradesh, India and also at a reputed ISO/IEC 17025:2005 accredited Food Testing Laboratory in Hyderabad.

Interested candidates should email or fax their CV to Dr. J. L. Karihaloo, Coordinator, APCoAB (j.karihaloo@cgiar.org fax: +91-11-25841294) by 1 August 2014.
