Celebrating the Diversity of Bananas

To celebrate its 20th anniversary, INIBAP, in collaboration with an international agricultural research centre (CIRAD), a Belgian university (K.U.Leuven), and a ground-breaking British educational charity focusing on plants and people (Eden Project), have produced the exhibition “No End to the Banana,” inaugurated in Leuven, Belgium, in 2005.

“No End to the Banana” is a traveling exhibition that uses the banana as a vehicle to talk about genetic diversity, and how research and development can use existing diversity to produce better and healthier bananas for consumers everywhere and, at the same time, help improve the livelihoods of banana farmers.

For more information about the exhibit visit www.inibap.org/exhibit/exhibit_en.htm.

Public Policy Update
Permits and Movement of Plant Pathogens

J. R. Steadman, University of Nebraska, jsteadman1@unl.edu

A special session on “Permitting and the Global Movement of Plant Pathogens” was held at the 2005 APS Annual Meeting in Austin, TX. This session was a follow-up to last year’s discussion on U.S. permitting issues and expanded the discussion to North America and Europe. Perspectives on global movement of plant pathogens were presented by representatives of the European Plant Protection Organization, Canadian Food Inspection Agency, USDA-APHIS-PPQ, National Plant Diagnostic Network, and industry.

Mike Firko, director Permits, Registrations & Imports (PRI), USDA-APHIS, reviewed 17 types of permits issued by PRI and laws and regulations for possession, use, and transfer of plant pathogens. Plant pest permits are required for all import and interstate movement of any plant pest or disease, plant material, and specimens being moved for the purpose of pest or disease diagnosis, as well as intrastate movement of plant pests if moved originally into the state under permit. A permit is also required for viable lyophilized tissue, extracted DNA/RNA if it remains infective after extraction, and laminated disease samples if the material is viable and accessible. Inviable and noninfective tissue, extracted DNA/RNA, and inaccessible laminate disease samples do not require a permit. In an effort to improve efficiency and response time, PRI is creating a new permitting process for widely prevalent pathogens (WPP). This expedited permit is only for interstate movement of domestic plant pathogen isolates and is not applicable for field studies, but it would save time by having state preconcurrence on movement into the state. In agreement with APS, lists of bacteria and viruses that will be expedited in 31 states are posted on APHIS web pages. Concerns such as pathogen synonyms, life stage, and host specificity have delayed implementing the WPP list for fungi.

The Plant Protection Act allows anyone to petition the Secretary of Agriculture to remove the requirement for a plant pest permit for specific taxa. Petitioners can facilitate consideration of their petition by submitting specific scientific information to APHIS (the list of information is available from either APS or APHIS). APHIS PPQ is planning to publish a proposed rule within the next few years to initiate permit user fees. These fees will be based on regulatory effort, i.e., cost recovery, and may range from $100 to $1,000. To simplify the process and decrease permit issuance time, an electronic permit issuance system (ePermits) is scheduled to be available for application, issuance, and signing of permits and conditions during January 2006. Electronic state review is scheduled to be available later in 2006. The Select Agent Program presently has eight plant pathogens listed on the PPQ Permits web pages. Firko listed the activities one might be involved in and whether a permit and/or registration would be needed. You would only need to register under the Select Agent Regulations if you send or receive known select agents (as opposed to diagnostic samples) or if you maintain viable cultures or spores of the select agent for diagnostic or research activities. The need for an interstate or intrastate permit depends on activity. A copy of the regulatory requirements can be obtained from the APHIS website (www.aphis.usda.gov/ppq/permits).

Jim Stack, regional director of the National Plant Diagnostic Network (NPDN), Kansas State University, discussed permitting, biosecurity, and NPDN. Biosecurity is a state of preparedness that in the case of plants ensures sustained productivity of plant resources and in the case of agriculture ensures a safe and constant supply of food, feed, and fiber. In a disease outbreak, rapid and accurate detection and diagnosis are needed to reduce impact. Individual diagnostic laboratories in the NPDN often need to send samples to other labs for confirmation or diagnostic assistance. It is difficult to predict the impact of new introductions of high consequence pathogens; however, continued introductions of high-consequence pathogens and pests are a certainty. In 2004 Customs & Border Protection intercepted 69,000 pathogens and pests.

There is no set of defining characteristics for pathogens, and thus, the ability to predict which species will be involved, the timing of an introduction, or the impact is limited. Agricultural biosecurity is an international issue, and international diagnostic and research networks are being developed. A process to facilitate research and education without compromising security and trade is needed. One model to consider is accreditation and certification. In this model, APHIS and USDA-CSREES would cooperatively establish an accreditation program for diagnostic laboratories. The permitting process would use the WPP list and assigned pathogen risk categories to grant laboratories broad permits to work with widely prevalent, low-risk pathogens. Imported and high-risk pathogens require laboratory inspections.