

# ENHANCEMENT OF THE M.S. AND PH.D. DEGREE PROGRAMS IN URBAN FORESTRY AT SOUTHERN UNIVERSITY THROUGH PLANT BIOSECURITY TRAINING

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## ABSTRACT

There is a need to provide more post baccalaureate training and experiential learning in plant health management at U.S. land grant universities to counter the bio-terrorism threat to our nation's agriculture. Also, of equal importance is unintentional introduction of exotic plant pathogens whether human-mediated or not is a serious threat to our agriculture and natural resources. To address this need the urban forestry program at Southern University, Baton Rouge, LA is incorporating plant biosecurity training into the urban forestry graduate curriculum. The program has partnered with various federal and state agencies and university collaborators to provide students with experiential learning opportunities in plant disease surveillance, rapid identification and detection, and disease management of pathogens that pose a threat to our nation's agricultural security. This poster presents some of the plant biosecurity training activities initiated by the program such as oral forums, field trips, laboratory exercises, oral presentations, and research internships.

## COLLABORATORS

### FEDERAL

- USDA /APHIS, Plant Protection and Quarantine
- USDA/ARS Foreign Disease-Weed Science Research Unit
- US Forest Service Forest Health Protection
- US Customs and Border Protection, Department of Homeland Security

### STATE

- Louisiana Department of Agriculture and Forestry

### UNIVERSITIES

- Pennsylvania State University, Department of Plant Pathology
- Louisiana State University, Plant Pathology and Crop Physiology Department
- Southern Plant Diagnostic Network/ University of Florida

## PLANT BIOSECURITY FORUM AT SOUTHERN UNIVERSITY



Participants at Plant Biosecurity Forum.



Daniel Collins, project director speaking at forum

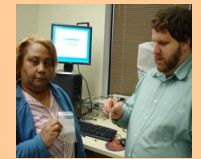


Student participants



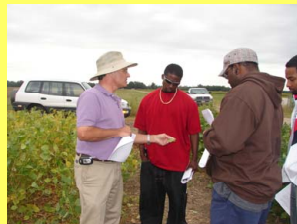
Tad Hardy, LA Dept. of Agriculture, and William Spitzer, USDA/APHIS (left) discussing surveillance techniques for plant pests with students

## LABORATORY AND CLASS ACTIVITIES IN PLANT BIOSECURITY



Laboratory Exercises Using QickStix™ Kit For Soybean Rust (*Phakopsora pachyrhizi*) Identification

## SOYBEAN RUST FIELD TRIP AT LSU



Raymond Schneider discussing soybean rust fungicide trial



Graduate Student Wayne McCray examining soybean rust lesions



Soybean rust on soybean leaf



Daniel Collins (left) and Raymond Schneider (right) in soybean rust disease nursery with SU students.



Graduate Student Kathy Johnson making presentation on Plum Pox virus

## FUTURE PLANT BIOSECURITY ACTIVITIES

### Field Trips

- Penn State University and USDA/ARS Ft. Detrick, MD
- US Customs and Border Patrol Port of New Orleans, LA
- Southern Plant Diagnostic Lab/Univ. of FL, Gainesville

### SYMPOSIUM

- Frontline Plant Biosecurity Symposium Southern University- Baton Rouge, LA

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