Extracts

Plant Diagnostic Network Targets Biosecurity

To help protect agriculture from terrorism, the University of Florida is one of five land-grant universities in the nation coordinating a new National Plant Diagnostic Network that will provide an early warning about pests and diseases.

"Agriculture is an inviting target for terrorists," said Gail Wisler, a professor and chair of the plant pathology department in UF's Institute of Food and Agricultural Sciences (IFAS). "It's also a 'soft' target because it covers an enormous amount of land under decentralized management and would have a significant economic impact."

She said few sights would be more demoralizing to people than crop fields ruined by disease or pestilence, or livestock herds led to mass slaughter. She said it's critical to have the ability to quickly detect, diagnose and respond to intentional and accidental introductions of plant pests and pathogens.

Wisler, who is coordinator of a regional network that serves 12 southern states and one U.S. territory, said a $900,000 homeland security grant from the U.S. Department of Agriculture (USDA) provides initial funding for the program. The Southern Plant Diagnostic Network, which is part of the national network, includes Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia and Puerto Rico.

The national network comprises four regional networks in addition to the southern network. Universities coordinating other regional networks include Cornell University for the Northeast, Michigan State University for the Midwest, Kansas State University for the Great Plains and University of California at Davis for the West.

"UF has a long and trusted relationship with those involved in food production, and our statewide research and extension programs interact closely and rapidly with growers," Wisler said. "It makes good sense to capitalize on our well-equipped plant pest and diagnostic labs and staff of plant scientists with vast experience in integrated pest management."

Wisler said the USDA-sponsored national network is developing a Web-based plant pest diagnostic and reporting system, that will help faculty and staff at UF and other land-grant institutions submit plant samples, digital images and detailed crop information for pest diagnosis.

She said the state and national networks also will establish a "first detector" system to help monitor the introduction of new plant pests or unusual pest outbreaks.

"First detectors are an integral part of the system and include growers, county extension faculty, state agriculture department personnel, crop consultants, pesticide applicators, and commercial chemical and seed representatives," Wisler said.

"Federal and state agencies monitor U.S. borders for plant pest introductions and watch for pest outbreaks throughout the nation. Still, new pests often are first detected by those involved in crop production and are identified by professionals at land-grant universities and state labs."

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Gail Wisler, professor and chair of UF's plant pathology department, is director of the Southern Plant Diagnostic Network, which includes 12 southern states and one U.S. territory, and is part of a national network that can quickly detect, diagnose and respond to intentional and accidental introductions of plant pests and pathogens.

Eric Zamora