NPDN

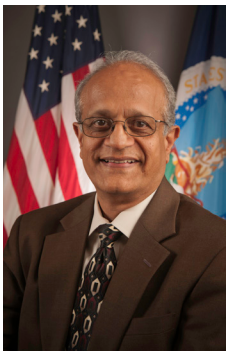
National Plant Diagnostic Network

4th National Meeting | March 8-12, 2016 | Washington, DC

PRESS PACKET

Advancing Diagnostics to Meet Plant Health Needs

FEATURED PRESENTERS



Dr. Sonny Ramaswamy

Wednesday March 9th, 8:15am

Dr. Sonny Ramaswamy was appointed by President Barack Obama to serve as ***Director of the National Institute of Food and Agriculture (NIFA)***. NIFA provides funding to catalyze transformative discoveries, education, and engagement to solve societal challenges. Sonny has been a successful scientist, educator, and administrator. His research in the area of integrative reproductive biology of insects has resulted in over 150 journal articles, book chapters, and a book. Sonny has had excellent success in capital campaigns and fund-raising to create endowments for faculty professorships; student scholarships and fellowships; infrastructure improvements; and support for research, education, and outreach, including the construction of new facilities for the Kansas State University Insect Zoo.

Osama El-Lissy

Wednesday March 9th, 8:45am

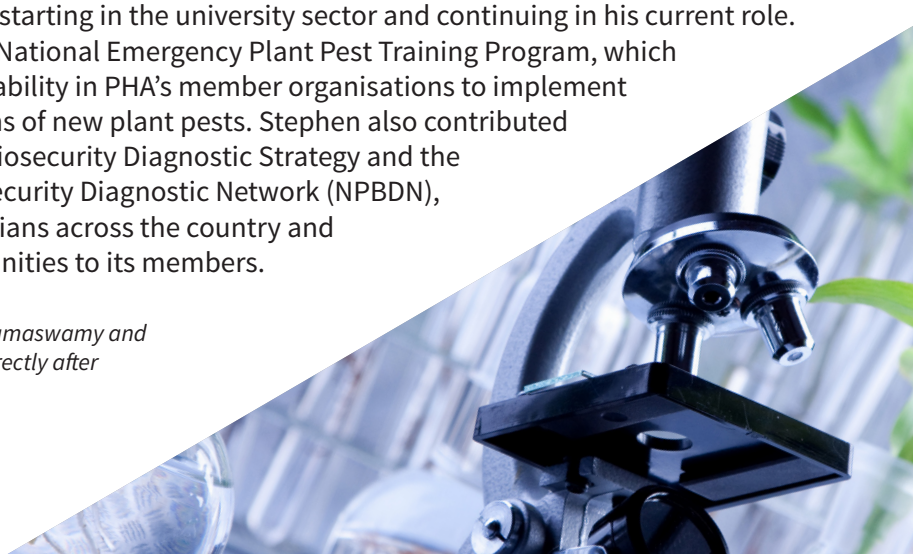
Osama El-Lissy is the ***Deputy Administrator for the Animal and Plant Health Inspection Services' Plant Protection and Quarantine (PPQ)***. In this position, he leads and directs a nationally dispersed staff that safeguards U.S. animal and plant resources from destructive pests and diseases. Before becoming PPQ's Deputy Administrator, Osama worked within PPQ in emergency management, policy and financial management. Osama's previous experience includes more than twelve years in the private sector managing large scale pest control and eradication programs. As the director of the Texas boll weevil eradication program from1994 through 2000, Osama led one of the largest pest eradication programs inthe world, affecting approximately four million acres of cotton and providing services to several thousand cotton producers and landowners.

Dr. Stephen Dibley

Thursday, March 10th, 8am

Dr. Stephen Dibley is the ***Program Manager for Training and Biosecurity Preparedness with Plant Health Australia (PHA)***, a not for profit company delivering biosecurity outcomes through collaborative working approaches with government agencies and peak agricultural and horticultural industry bodies. Stephen has maintained a passion for sharing knowledge throughout his career, starting in the university sector and continuing in his current role. Stephen manages the National Emergency Plant Pest Training Program, which delivers improved capability in PHA's member organisations to implement effective emergency responses to detections of new plant pests. Stephen also contributed to the development of the National Plant Biosecurity Diagnostic Strategy and the implementation of the National Plant Biosecurity Diagnostic Network (NPBDN), which connects the plant health diagnosticians across the country and delivers professional development opportunities to its members.

Members of the press are invited to interview Sonny Ramaswamy and Osama El Lissy in the Crystal Ballroom Media Room directly after their talks, Wednesday, March 9th at 9:30am.



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IMPACTS

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The plant systems that provide the food, feed, fiber, and fuel that directly and indirectly contribute to public health and economic well-being are under increased pressures from a long list of biological and climactic stressors, including global trade and travel, population increase, and extreme weather events. Recently, incursions of plant pathogens and pests have increased dramatically in the U.S. and in many of the nations with which we trade. The National Plant Diagnostic Network (NPDN) works to improve prevention, detection, rapid diagnosis, containment, mitigation, and recovery from new, foreign, or emerging pests and diseases of crops which could cause major national social, economic, food security, and public health impacts.

Across the country, NPDN diagnosticians are watching out for our plants. When plants are not performing well, you can send them to a plant lab for diagnosis and get a prescription to manage the disease. NPDN labs have diagnosed more than 2.2 million of these plant samples over the past seven years. Meanwhile, your friendly neighborhood diagnostician, ever-vigilant, watches for new invasive species. Over the past seven years, NPDN laboratory technicians have detected more than 1,200 new pests or pathogens in their states. Early detection is the cornerstone of effective management, the first line of defense in our fight against invasive species.

MAKING A DIFFERENCE

NPDN resources were augmented by state funds to develop and test detection of zebra chip in potatoes in 2015 at the UF-IFAS Plant Diagnostic Center (PDC). Zebra chip disease has the potential to devastate Florida potato producers, as the disease renders the tubers unfit for frying, and most of our potatoes are grown for chipping. As of early 2016, the disease has not been detected in Florida, though it is found regularly west of the Mississippi River. In Spring 2016, the development of these detection methods paid off when UF/IFAS Extension pathologist Nick Dufault and one of his Extension clients sought NPDN's help after noticing troubling symptoms in potato plants. The UF/IFAS PDC received potato samples with aerial tubers, purpling and distorted leaves—all symptoms of zebra chip. Center scientists tested the samples and, within 24 hours, were able to report they were negative for *Ca. Liberibacter solanacearum*, the agent that causes zebra chip disease in potato. Potato producers didn't even get a chance to panic. Additionally, the lab identified the cause of the symptoms within four days of receiving the samples. This kind of capacity is only possible through the partnership that is the USDA-NIFA – Land Grant university system, via the National Plant Diagnostic Network and University of Florida IFAS Extension.

FACT SHEET

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Program and Mission

- The NPDN focuses on the early detection, accurate diagnosis, and rapid communications needed to help mitigate the impact of endemic, emerging, and exotic pathogens and pests that attack agricultural, forest, and landscape plants in the U.S.
- The NPDN's mission is accomplished through a coordinated network of diagnostic laboratories and experts at land grant universities, state departments of agriculture, and industry developing and deploying regionally and nationally coordinated programs in diagnostics, training and education, and response.

Record of Achievement

Prior to the NPDN:

- Information on new pests and diseases was not easily accessible.
- Communications on new outbreaks were poorly coordinated and inadequate.
- Funding and infrastructure supporting plant diagnostics in the country had degraded to a point that many state and university laboratories were understaffed, ill-equipped and, in some cases, threatened with closure.

NPDN Accomplishments:

- National Repository established for records of endemic and emerging pests and diseases.
- Secure communications protocols established among NPDN labs and regulatory agencies.
- Diagnostic infrastructure supporting plant diagnostics in the U.S. greatly enhanced for both capability and capacity. Diagnosticians are well trained in modern diagnostics technologies and molecular protocols.
- NPDN labs routinely support national, state, and local response to disease and pest outbreaks, providing surge capacity for over 1,000,000 high consequence samples.
- The NPDN has trained and registered 11,480 First Detectors nationwide.
- NPDN has protected jobs in agriculture by verifying that traded ag products are free of quarantine pests and diseases, thus ensuring that export and domestic markets remain open.
- Agriculture exports support 1 million jobs, 75 % of these exports are plant-based.
- NPDN serves as a model for efficiency, communication and integration across jurisdictions. In 2010, the NPDN was acknowledged with the USDA NIFA Partnership Award for Innovative Program Models.

Consequences of the loss of the NPDN:

- Fewer diagnosticians trained, reduced capacity to address disease and pest outbreaks, and closure of plant diagnostic clinics.
- Loss of highly trained staff with specialized expertise.
- Dramatic reduction in state-to-state communications regarding introductions of new and emerging pests and diseases.
- More invasive pests and pathogens will go undetected until it is too late to remediate the problem, with a greater potential for catastrophic losses to the agricultural economy.
- Fewer jobs and less economic stability due to reduced export of plant-based products. Less foreign and domestic investment in U.S. agriculture products due to restrictions on trade from quarantined regions.