



United States
Department of
Agriculture

National Institute
of Food
and Agriculture



BIOENERGY, CLIMATE,
AND ENVIRONMENT



FOOD PRODUCTION
AND SUSTAINABILITY



YOUTH, FAMILY,
AND COMMUNITY



FOOD SAFETY
AND NUTRITION



INTERNATIONAL
PROGRAMS



USDA NIFA

NATIONAL INSTITUTE OF FOOD AND AGRICULTURE

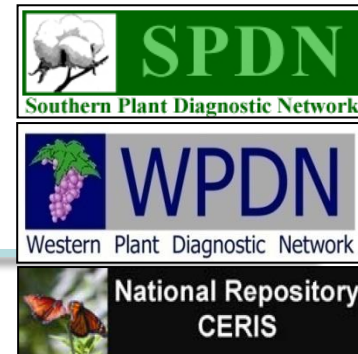
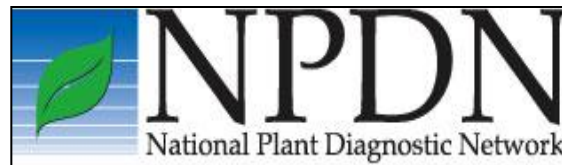


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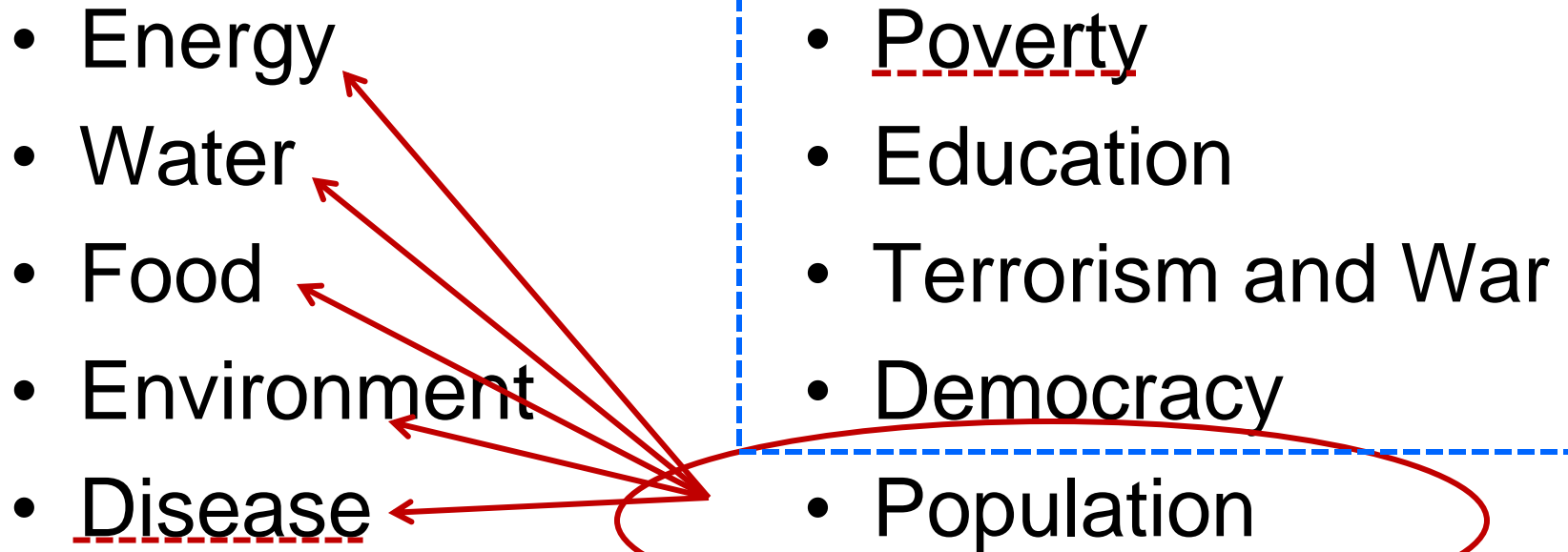
National Plant Diagnostic Network (NPDN): Outcomes and Challenges

National Plant Disease Recovery System (NPDRS) Meeting
Washington, DC – April 15-16, 2013



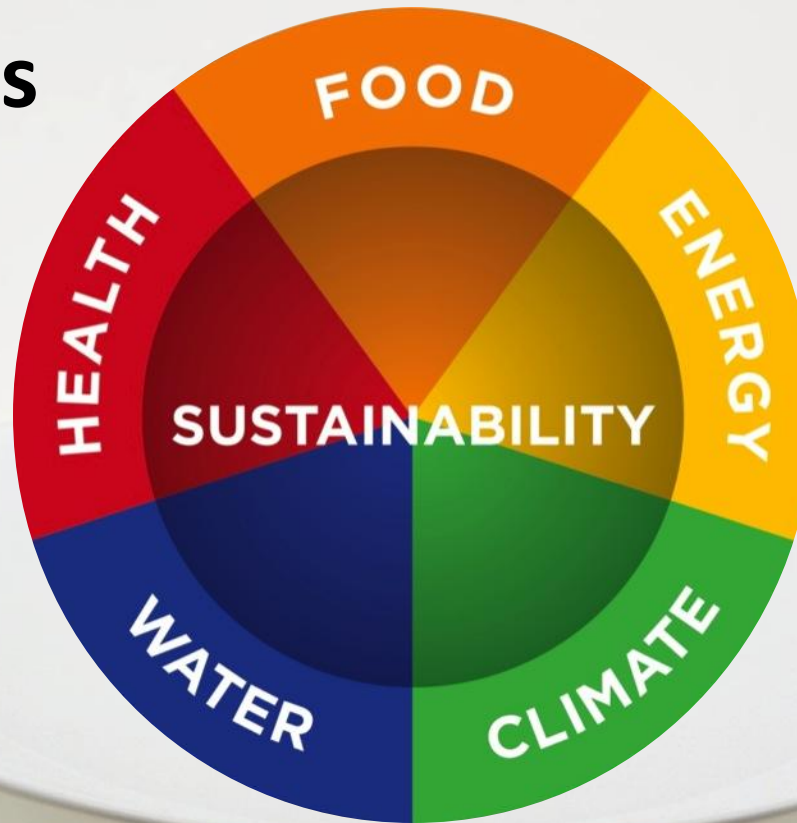
Martin Draper
National Program Leader
Plant Pathology and IPM

The Grand Societal Challenges

- 
- Energy
 - Water
 - Food
 - Environment
 - Disease
- Poverty
 - Education
 - Terrorism and War
 - Democracy
 - Population

The Grand Societal Challenges

- **The Nexus**



Ramaswamy, 2013

History

- **NPDN created in 2002**
- **Hub and spoke system**
 - **Integrates all states through LGUs**
 - **Five regional hubs**
 - **One national data center**

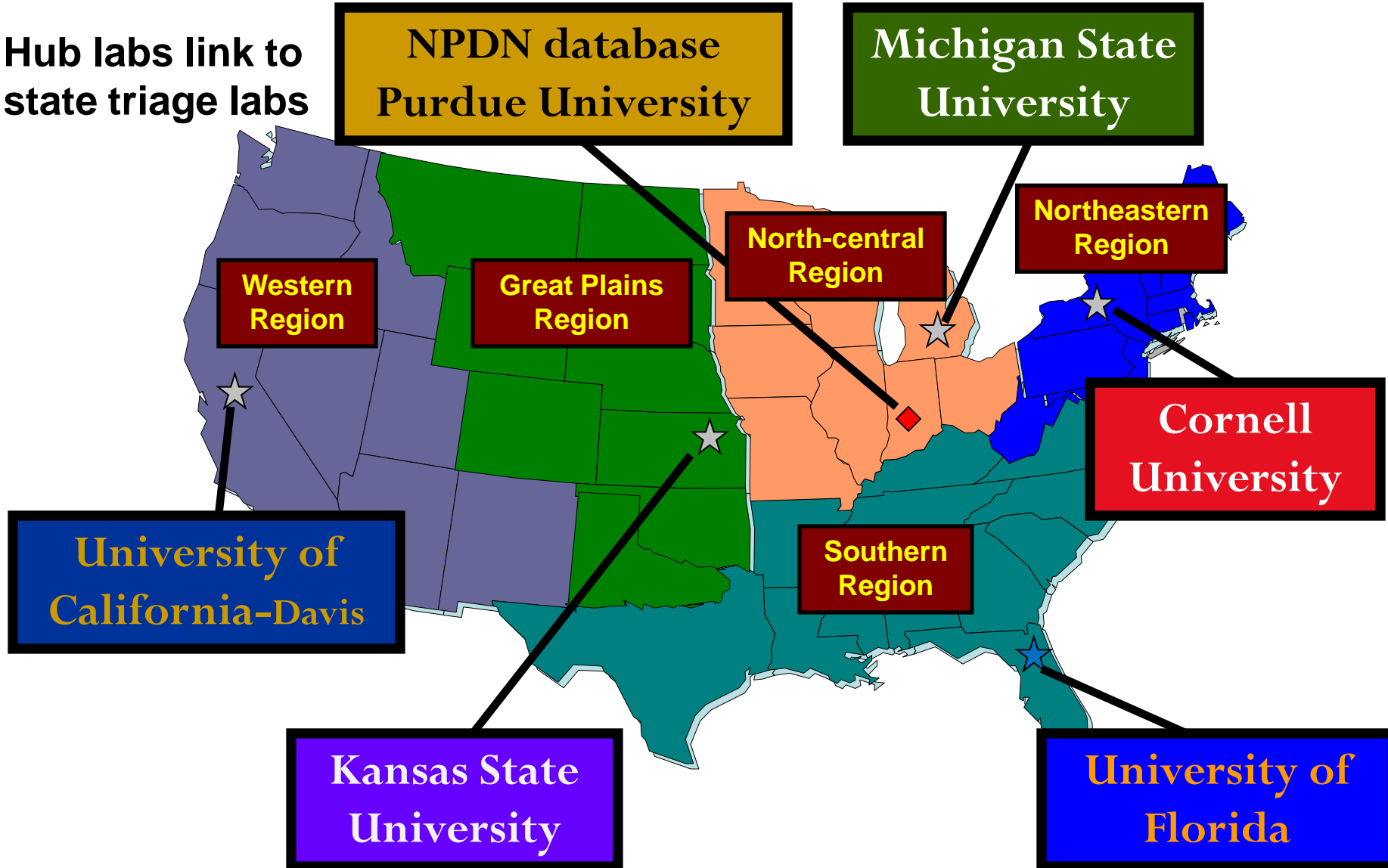
History

The mission of the NPDN is to protect US agricultural and natural plant systems by:

- Facilitating **early detection** of pests and pathogens through outreach and education,
- Performing rapid and accurate **diagnoses**,
- Ensuring timely **reporting**, and
- Supporting response through partnerships and coordinated **surge capacity**.



Hub labs link to state triage labs





Mission

- **Critical activities**
 - **Establish Communications System**
 - **Coordinate First Detector Training**
 - **Standardize and Certify Diagnostics**
 - **Provide Administrative Management**

History

- **Built and leveraged:**
 - **Capacity**
 - **Expertise**
 - **Quality**
- **Improved capability and capacity**
- **Upgraded assays**
- **Designed to meet regulatory needs**
- **Established Certification and Accreditation**

Accomplishments

- **Public Education - First Detectors**
- **SBR**
- **Ralstonia**
- **PPV**
- **SOD**
- **Wheat Stem Rust - Ug99**
- **What next?**

Challenges

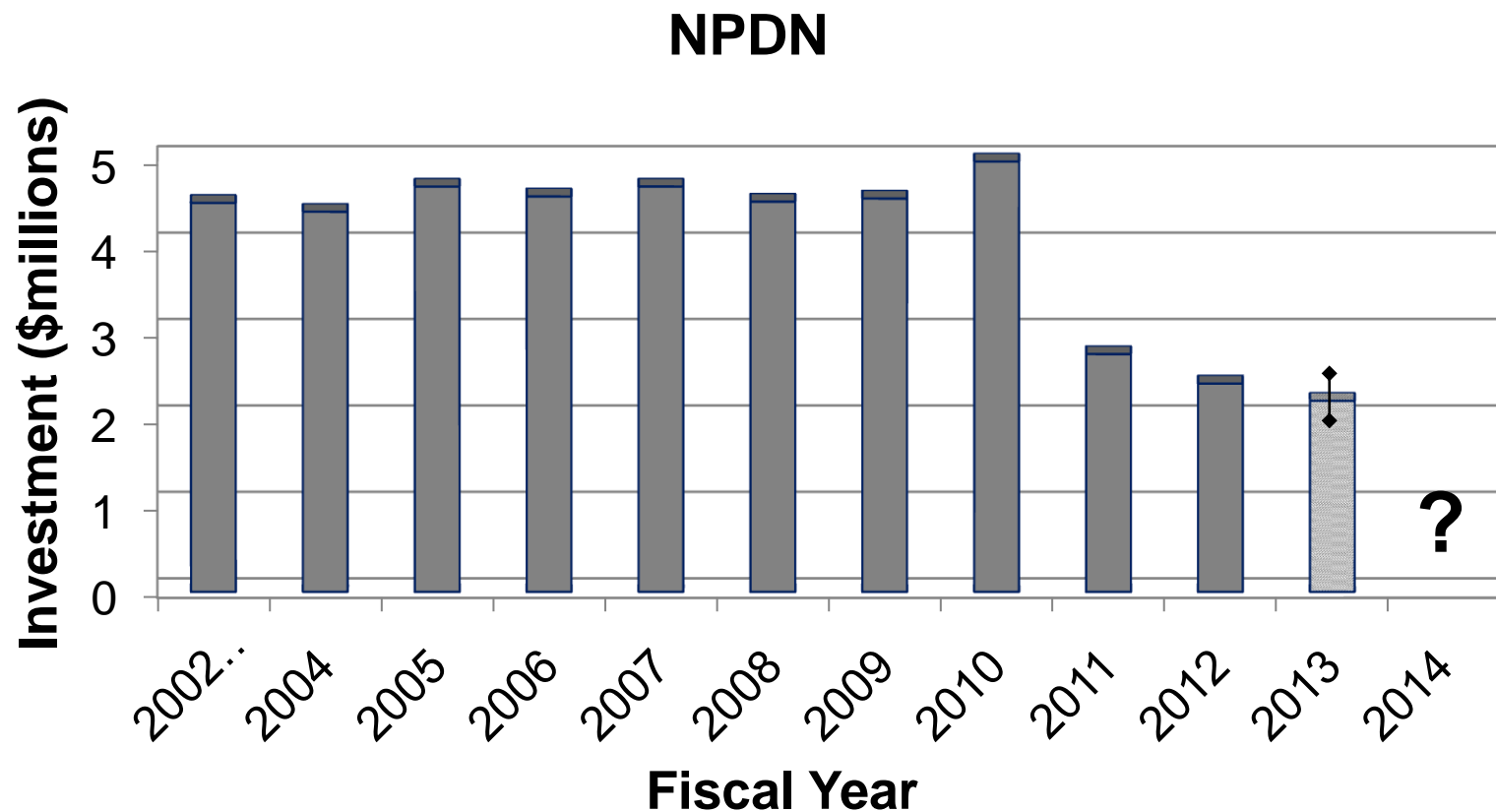
- **Declining Federal commitment**
- **Loss of continuity**
- **Loss of expertise**
- **State partner issues**
 - **Budgetary**
 - **Commitment to partnering**

Challenges

- **Resource limitations**
 - **52% decline in Federal funding since 2009**
 - **State cuts**
 - **Diagnosticians are largely non-tenured**
 - **External funds**
 - **Backfilled for First Detector training**
 - **Significant to STAR-D**



FADI/NPDN Funding Challenges



ipmPIPE

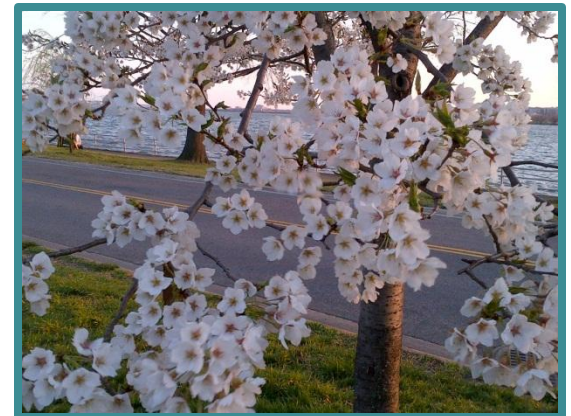
- Tracking of high consequence pests
- Limited support for existing platforms
 - ZedX – SBR-PIPE
 - NCSU – CDM-PIPE
 - TAMU – Pecan ipmPIPE
- Sustainability questions
- Controversial in certain commodities



ipmPIPE
PEST INFORMATION PLATFORM
FOR EXTENSION & EDUCATION

Questions for Consideration?

- What are the best next steps?
- How do we assure the sustainability of our function in a shifting landscape?
- What is the right shape of NPDN?
- Is NPDN still needed?





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