

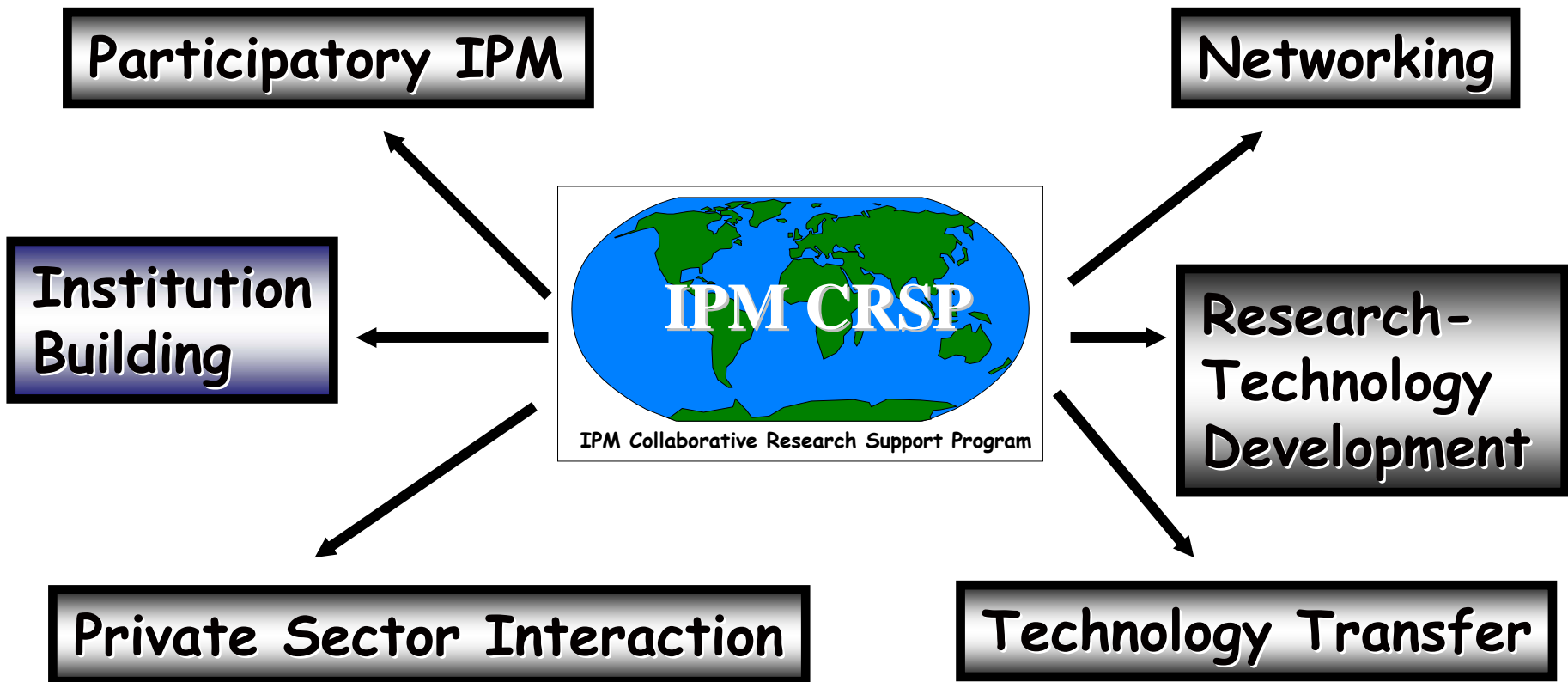
# IPM CRSP and the International Plant Diagnostic Network

A Multinational Collaboration

Sally Miller

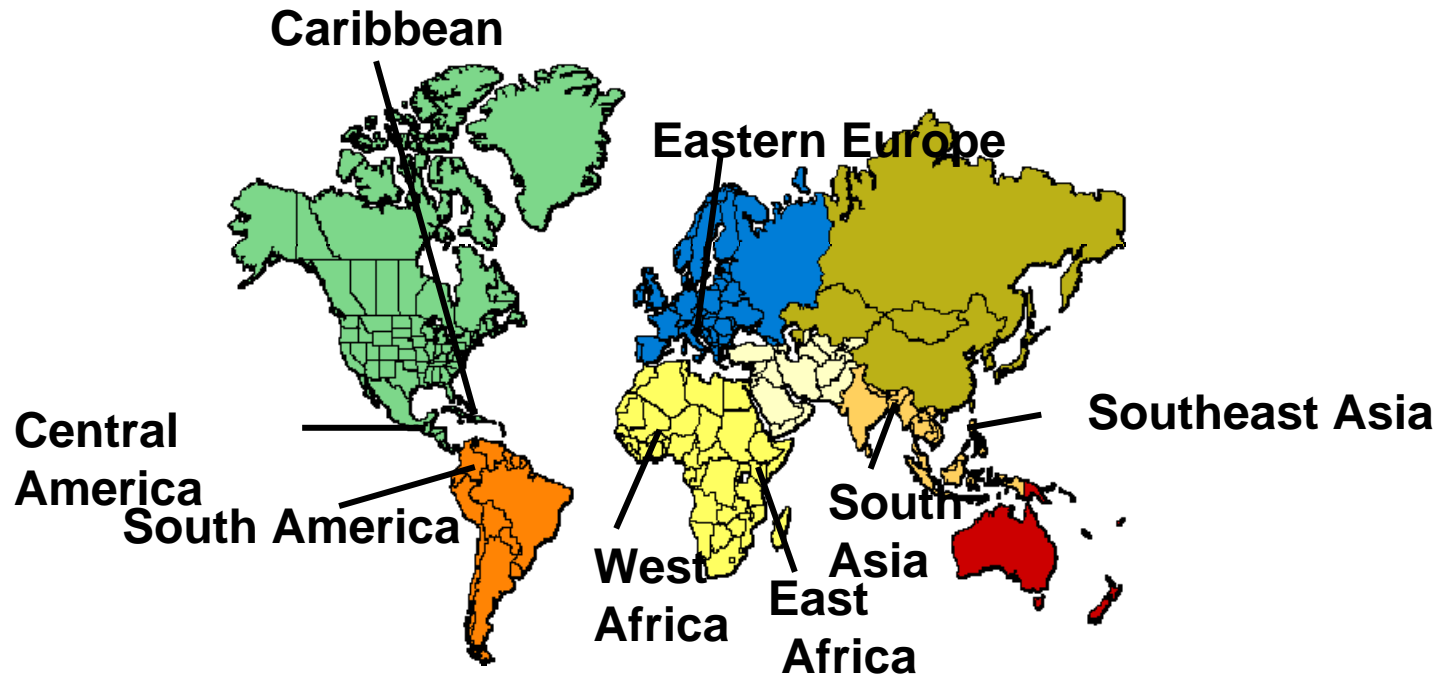


# IPM CRSP ACTIVITIES



# Regional sites in the IPM-CRSP

1993-2004





# The New IPM-CRSP

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- Awarded to Virginia Tech, 2005
  - Leader with associates
- Total \$12 M U.S. for 5 years
  - US AID Missions can support if interested
- Years 2-5 awarded competitively to proposals for Regional Centers and Global Themes



# IPM-CRSP Objectives

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1. Advance IPM science, and develop IPM technologies, information, and systems for sound land resource management
2. Improve IPM communication and education, and the ability of practitioners to manage knowledge, resulting in widespread adaptation, adoption, and impact of ecologically-based IPM technologies, practices and systems.



# The New IPM-CRSP

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3. Provide information and capacity building to reform and strengthen policies and local/national institutions that influence pest management
4. Develop and integrate sustainable resource-based, local enterprises into national regional and global markets
5. Address biodiversity (meeting in Punta Cana, May 30-July 2, 2006)

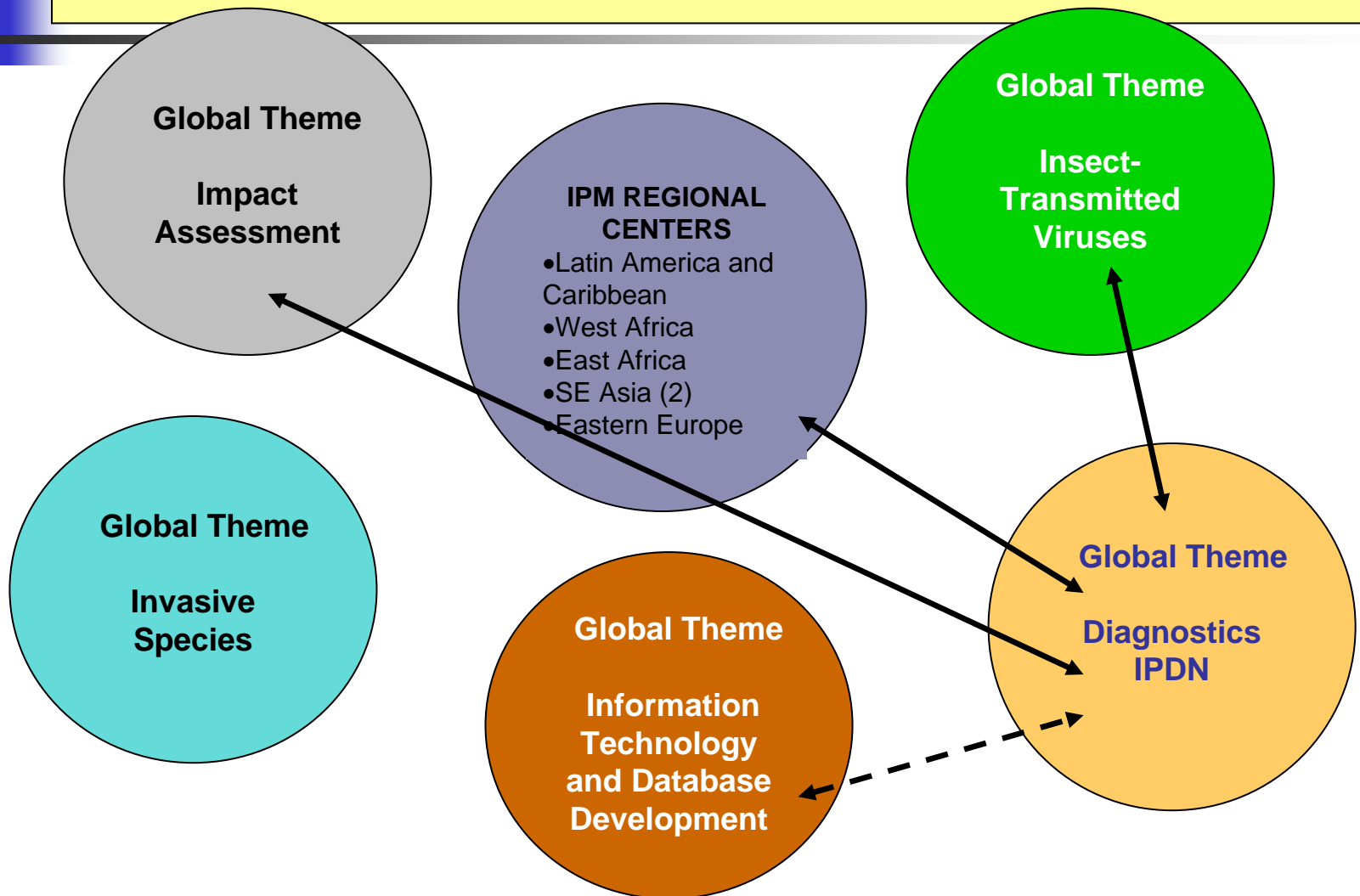


# Program Considerations

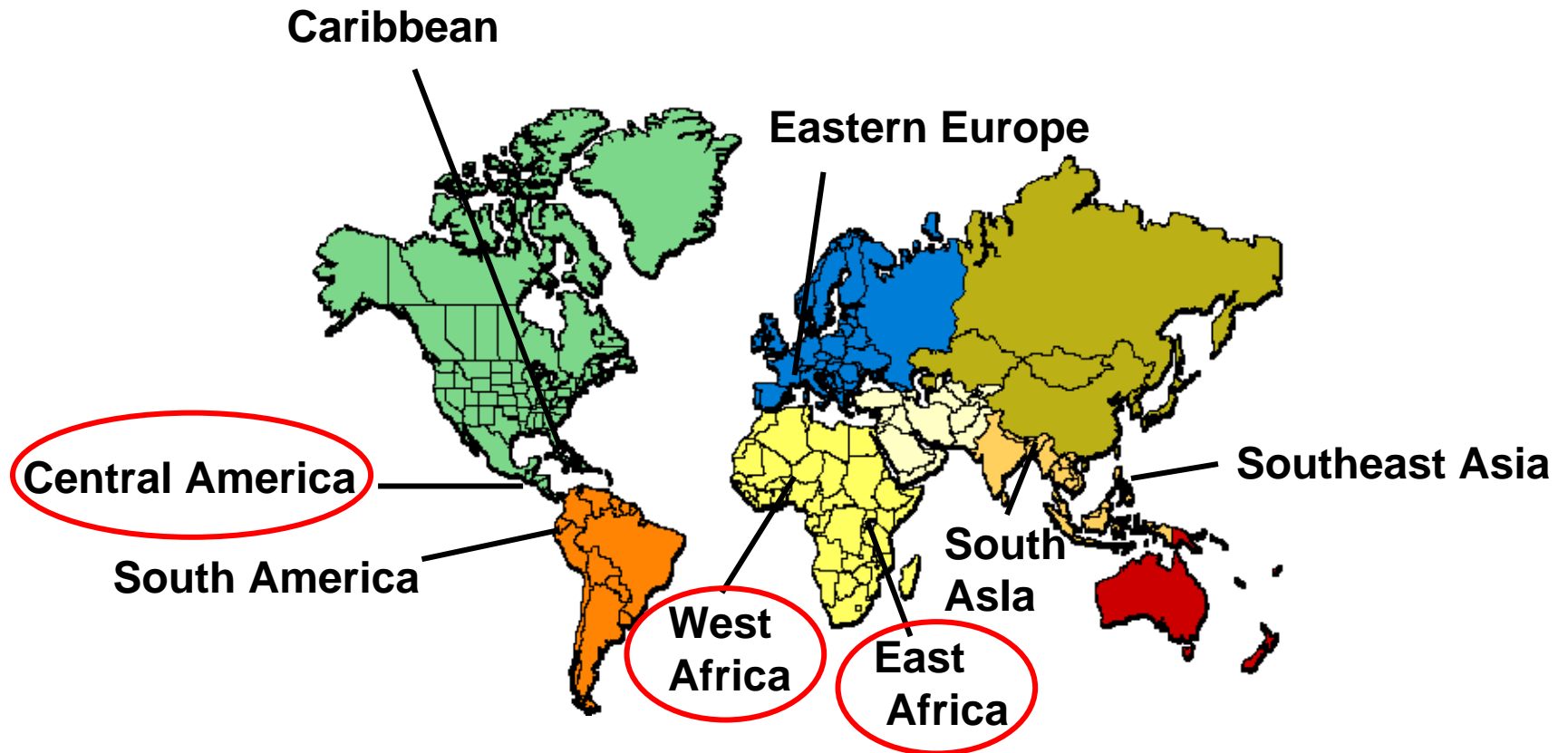
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- Multi-institutional approach to IPM research, training and outreach – one U.S. university is the lead, other universities, IARCS, NGOs, NARS in host countries
- Participatory approach, involving farmers in problem definition, and consider sources of pest problems and solutions
- Address IPM problems with potential of significant impact

# Structure and Strategy for Fulfilling the Objectives of the IPM CRSP



# Regional Sites with Diagnostic Centers





# International Plant Diagnostic Network (IPDN)

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- Established October 2005
  - IPM CRSP Global Theme
    - “Regional Diagnostic Laboratories”
- Modeled after U.S. National Plant Diagnostic Network
  - “Hub and spoke” system

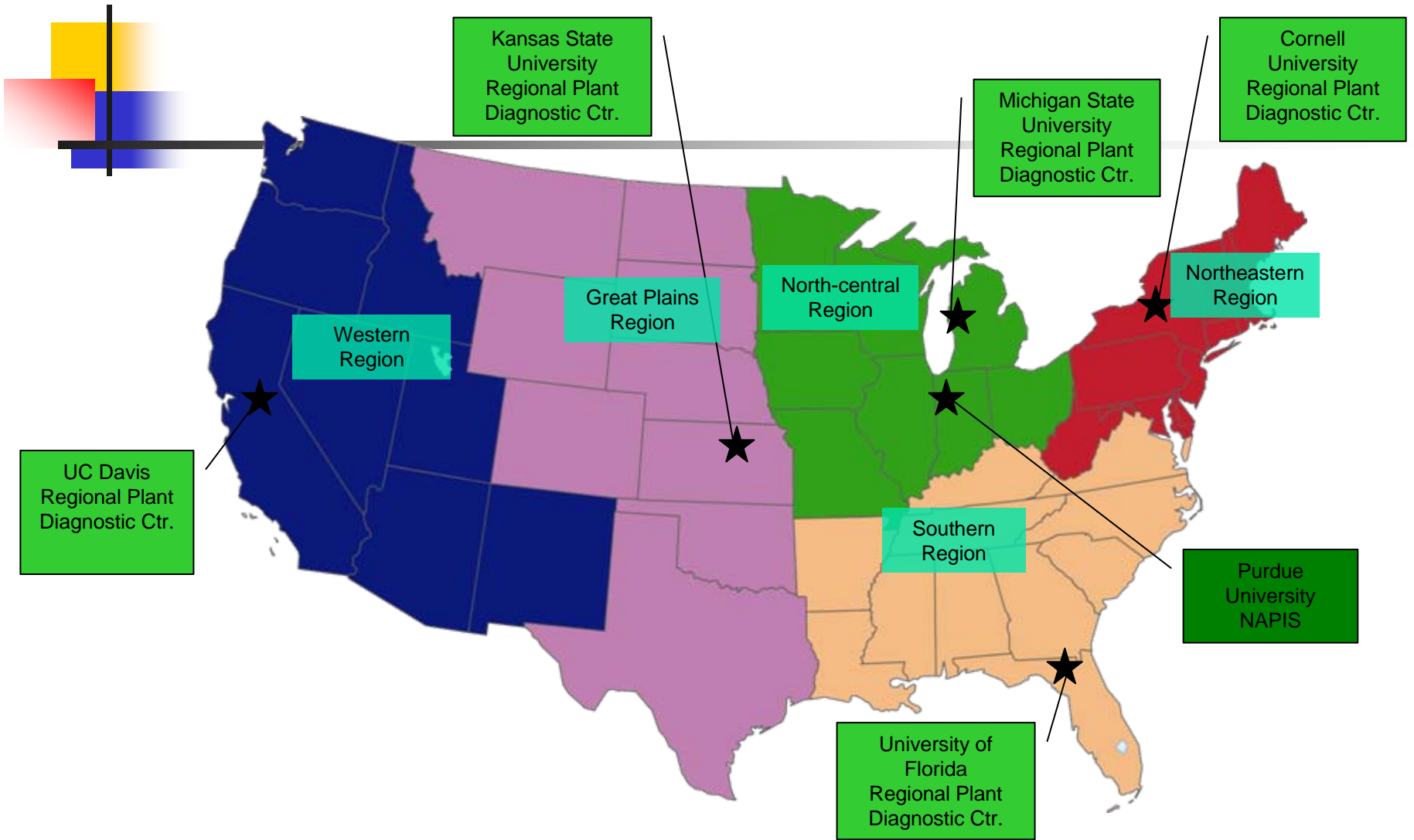


# National Plant Diagnostic Network

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- Mission: Enhance national agricultural security by quickly detecting introduced pests and pathogens
- Effective communications network
- Harmonized reporting protocols
- National database of pest and disease occurrence

# National Plant Disease and Pest Diagnostic Network



# IPDN Regions and Hub Labs

West Africa - IITA Benin  
East Africa - AVRDC Tanzania  
Central America  
AgroExpertos Guatemala



★ = “hub” laboratories

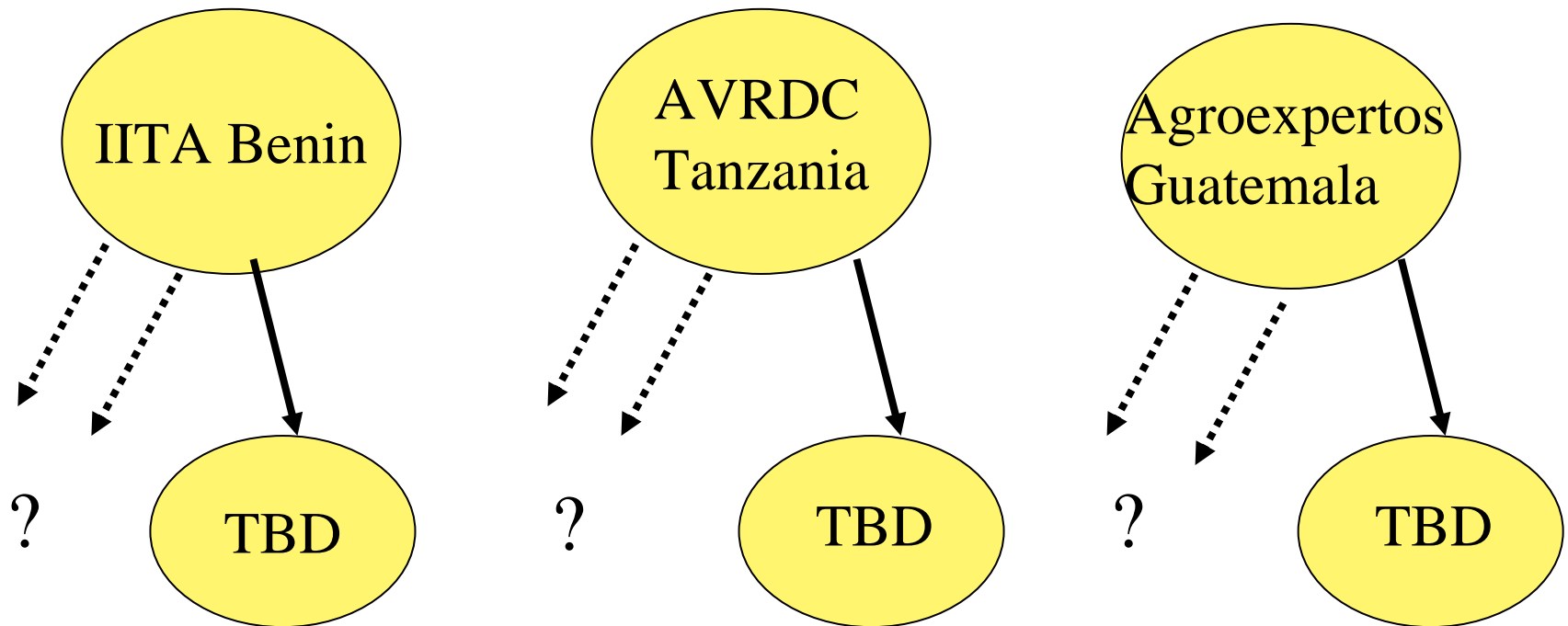


# IPDN Collaborating Institutions

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- Ohio State
- Va Tech
- Univ. Florida
- Univ. Wisconsin
- Univ. California - Davis
- USDA APHIS
- USDA CSREES/NPDPN
- IITA, AVRDC -Regional Center for Africa, Agroexpertos
- IPM CRSP programs
  - W. Africa, E. Africa, Central America/Caribbean regions
  - Insect Transmitted Viruses, Impact Assessment, IT Global Themes

# IPDN Hub and Spoke System



TBD = To Be Determined

# Objective 1

- **Create systems with the technical capacity to diagnose plant diseases in three participating regions**
  - Small equipment upgrades
  - Supplies
  - Reference material
  - Technical support





## Objective 2

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- **Develop a communication and data networking system** that details pathogen distribution, diagnosis and IPM options and links target countries to each other and to experts in the U.S. and elsewhere.
  - Polycom communications system
  - Website
  - LIMS - University of Florida DDIS
    - Data sharing possible but limited according to country requirements



# Objective 3

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- Develop and carry out comprehensive training programs to increase diagnostic capacity within host country institutions for phytosanitary and IPM applications
  - Training 1/ stakeholder meeting - 2006
    - Guatemala/C.A. - June
    - Tanzania/East Africa - September
    - Benin/West Africa - September
  - Training 2 - 2007
    - Advanced diagnostic training - USA
  - Training 3 - 2008
    - Follow-up training in-region

# Objective 4



Banana xanthomonas wilt

- Develop/adapt biotechnology-based diagnostic tests and protocols to meet the needs of regional IPM CRSP programs, USAID Missions and/or other donors.
  - BXW
  - Whitefly/aphid transmitted viruses
  - Diseases of African indigenous crops