



# FERN

Uniting Federal, State and Local Laboratories for Food Emergency Response

# Food Emergency Response Network (FERN) Overview

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# Mission of FERN

- Integrate the nation's multilevel food-testing laboratories to detect, identify, respond to and recover from a **bioterrorism** or public health **emergency/outbreaks** involving the food supply
  - HSPD-5: Management of Domestic Incidents
  - HSPD-7: Critical Infrastructure Identification, Prioritization, and Protection
  - HSPD-8: National Preparedness
  - HSPD-9: Defense of U.S. Food and Agriculture

# FERN Objectives

- **Detection** and identification of biological, chemical, and radiological threat agents
- **Prevention**: operate targeted federal/state surveillance sampling programs
- **Preparedness**: strengthen lab capacities and capabilities
- **Response**: surge capacity
- **Recovery**: assure consumer of safety via food testing

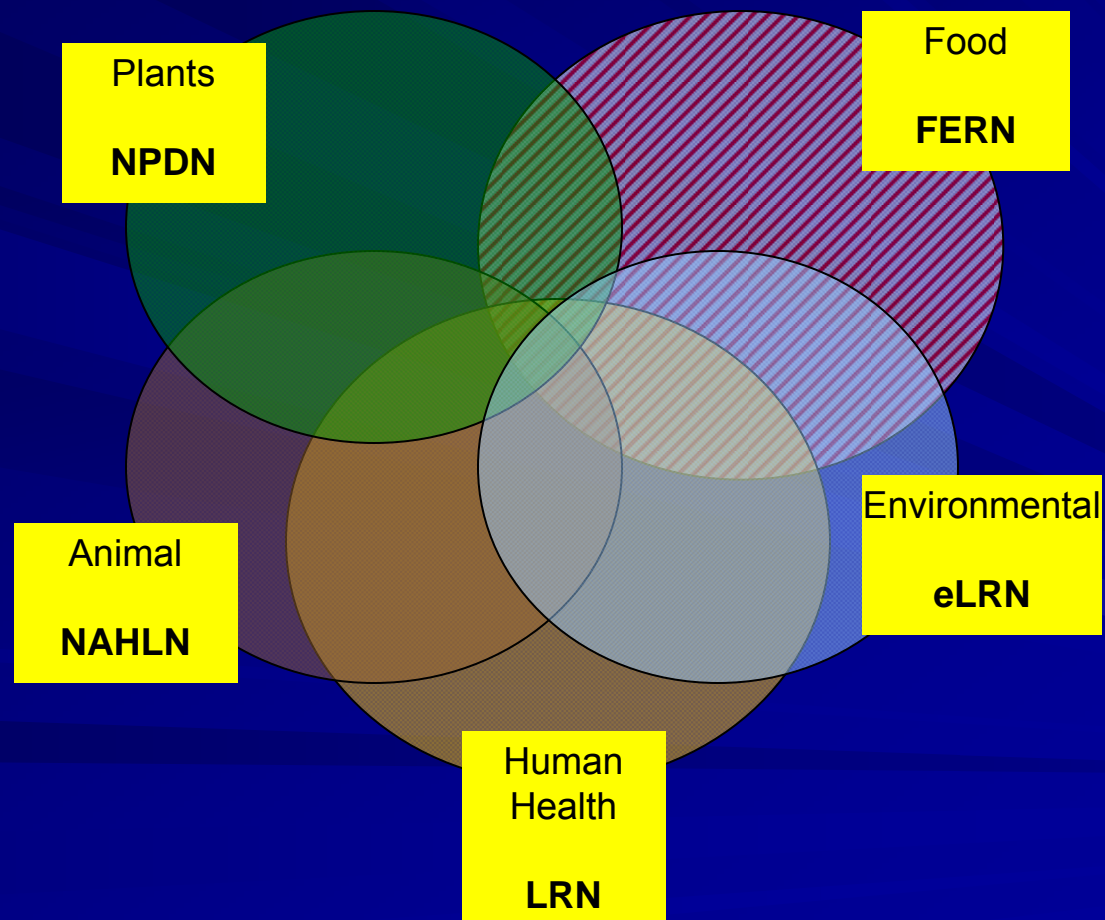
# FERN Interaction with other National Laboratory Networks

- **Coordinated through the Interagency Consortium of Laboratory Networks (ICLN)**
- **Mission of the ICLN:**
  - Improved coordination of laboratory response to incidents
  - Assess, fill gaps in coverage across multiple sample types, potential victim groups (human, animal, plant), all WMD, all response phases
  - Promote common standards of performance across all lab response assets to ensure data supporting homeland security decisions is best quality and defensible

# Integrated Consortium of Laboratory Networks (ICLN)



# FERN's Integration with Other Networks



# FERN Members

- 158 Laboratories representing 50 States and Puerto Rico have satisfactorily completed FERN Laboratory Qualification Checklists.

## Affiliations

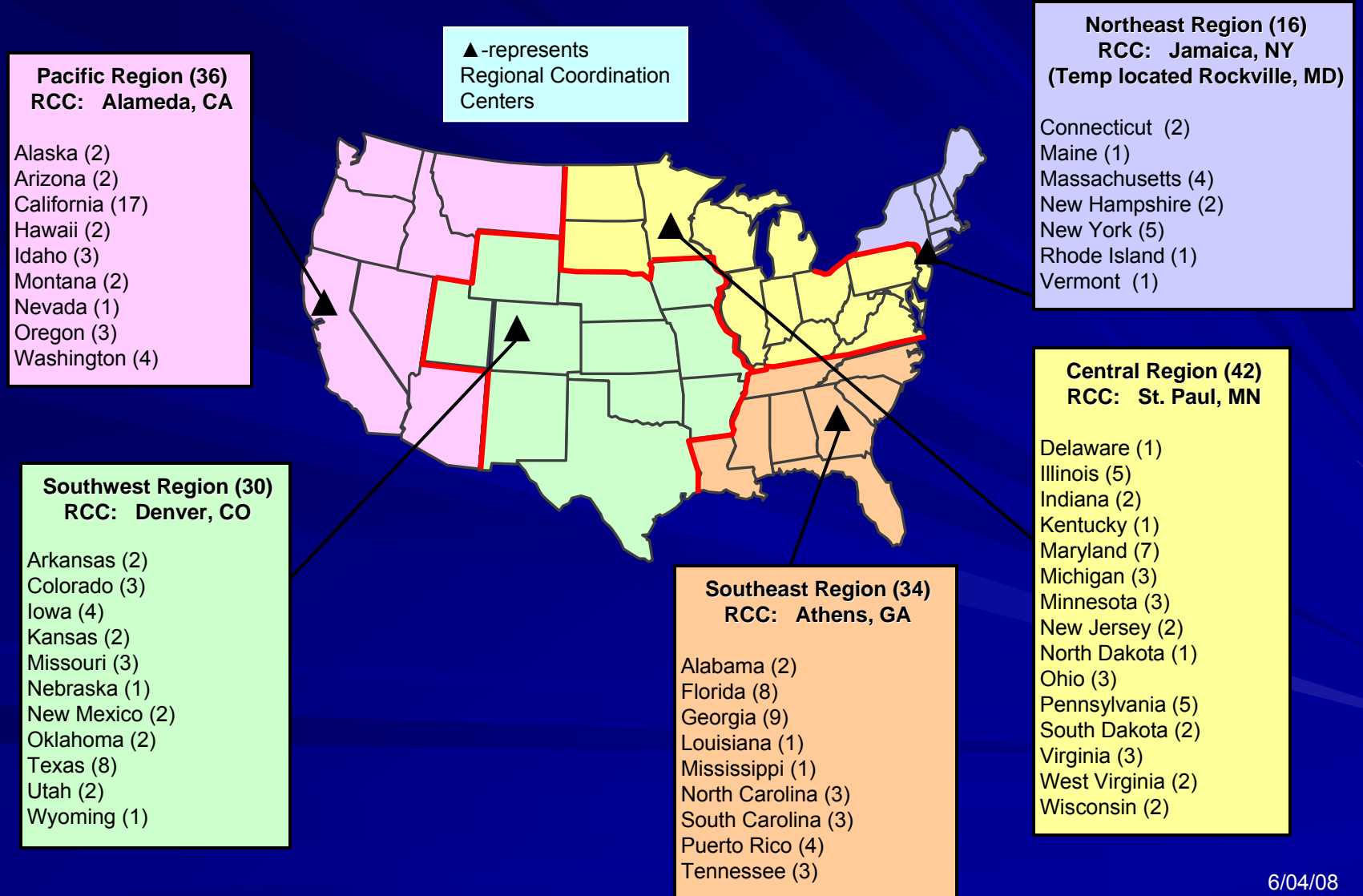
- 35 Federal (HHS-FDA, [USDA-FSIS, APHIS, AMS], DOE, DHS, CBP, DOD),
- 112 State/territory,
- 11 Local

## Disciplines

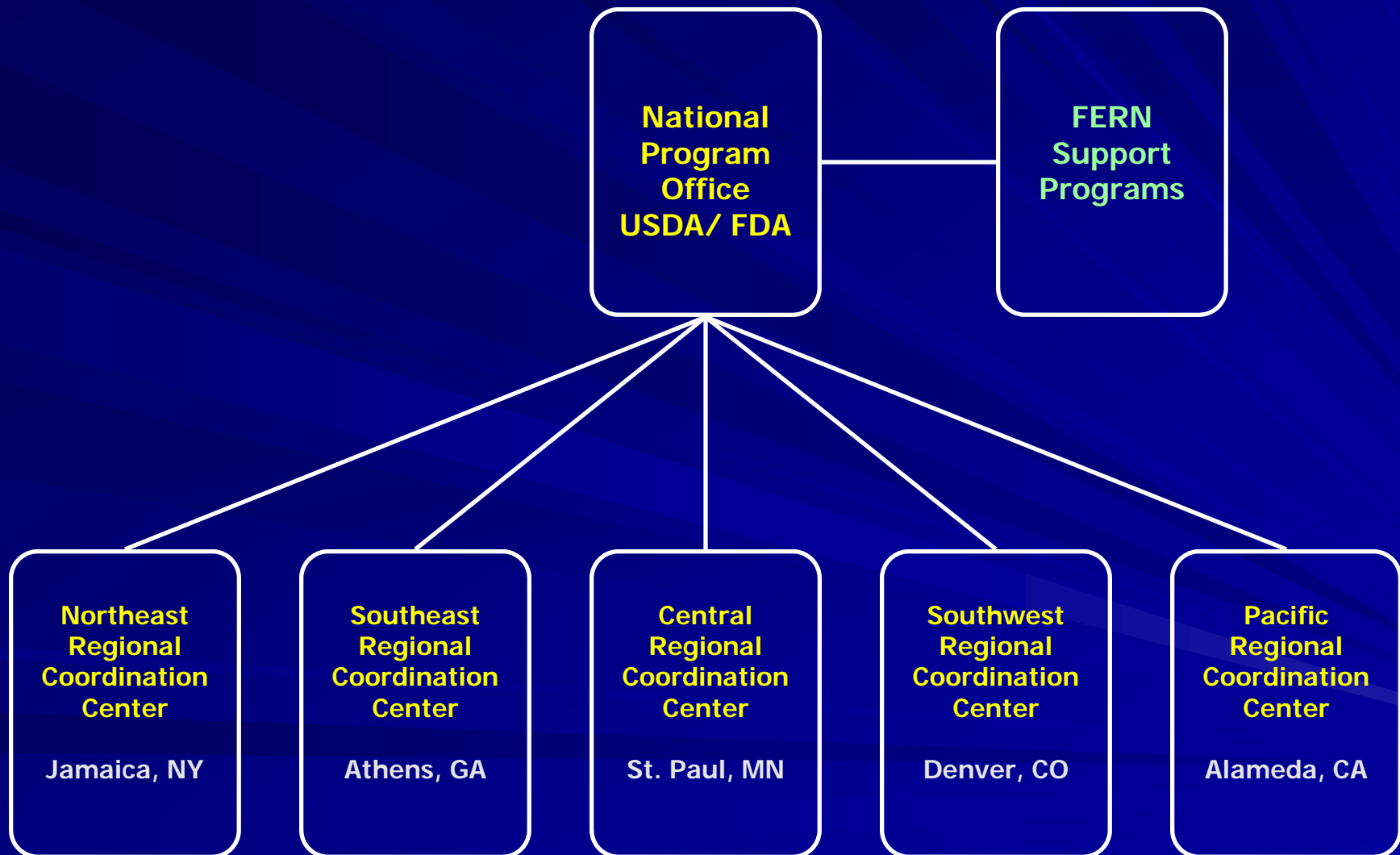
- 106 Chemical
- 121 Microbiological
- 35 Radiological

# Food Emergency Response Network

Federal, State, and Local Laboratories = 138 Total



# FERN Organizational Chart



# FERN National Program Office (FERN NPO)

- Responsible for day to day operation of FERN
- Manage and coordinate FERN Support Programs
- Coordinate national laboratory emergency response
- Coordinate Regional Coordination Center (RCC) activities

# Regional Coordination Centers (RCC): an Integrated Approach

- Five RCCs are located through the U.S., one in each region and are staffed by FDA and FSIS.
- RCC Activities:
  - Identify laboratory capabilities (screening and confirmatory for all analytical areas) within the region
  - Identify needs of the region and convey those needs to the NPO
  - Coordinate regional response of laboratories during an emergency

# FERN Support Programs

## ■ Method Development/Validation

- FERN Methods have been evaluated and shared with CDC/LRN, and harmonized with other lab networks
- Work continues on method development, validation, and harmonization in all analytical areas

## ■ Training

- Training provided in all disciplines
- Over 300 people trained from all 50 states
- Select agent training
- Rapid detection methodology training
- Utilization of web-based training courses

## ■ Proficiency Testing

- Joint PT exercises with LRN conducted when possible
- All three disciplines (Rad, Chem, Micro) tested

# FERN Support Programs

## ■ Surveillance Testing Program Goals

- Assessing and demonstrating the effectiveness and capabilities of FERN
- Testing operating mechanism and protocols of FERN
- Demonstrating coordinated communication and data reporting

## ■ Electronic communications and collaboration

- Data capture & exchange mechanism for FERN is the Electronic Laboratory Exchange Network (eLEXNET)

## ■ Outreach & Leveraging

# New to the Support Programs

- The training centers are:
  - University of Massachusetts Medical School
  - Virginia Division of Consolidated Laboratory Services
  - Arizona State Public Laboratory Services
  - Minnesota Department of Ag



# FERN Cooperative Agreements

- A transfer of money, property, services or anything of value to recipients to accomplish a public purpose of support or stimulation.
- Requests For Applications – through Federal Register
- FERN currently has cooperative agreements in all three disciplines:
  - Microbiology
  - Chemistry
  - Radiological
- State laboratories, geographically dispersed.

# FERN Cooperative Agreements

- Cooperative Agreements - jointly administered by FDA (Chem and Rad) and USDA/FSIS (Micro)
  - 25 FERN Micro labs currently funded - USDA
    - Method development/validation
    - Increase capability/capacity
  - 14 FERN Chemistry labs funded - FDA
    - Three year arrangements with renewals
    - “Go-to” labs: PT’s, surveillance, emergencies (Melamine)
  - 5 FERN Rad labs funded - FDA
    - Same concept as for Chem CAP labs

# FERN Laboratory Response

- Examples of recent events where FERN member laboratories have assisted with method technical expertise and results/information sharing:
  - *E. coli* O157:H7 in spinach, 2006
  - *Salmonella* in peppers, Summer 2008
  - Melamine, Fall 2008
  - *Salmonella* in peanut butter, 2009

# Examples of FERN Laboratory Response

- *Salmonella* saintpaul Outbreak response activities (Summer, 2008)
  - FERN was activated in response to this outbreak 12 FERN Microbiology Labs tested 290 pepper/cilantro/basil samples collected by the states in a FDA coordinated effort
  - FERN testing augmented and complemented concurrent FDA testing efforts (~550 samples)

# Examples of FERN Laboratory Response

- Melamine Outbreak response activities
  - FERN Chemistry Cooperative Agreement Program labs analyzed over 200 samples of protein products in 2007
  - FERN Chemistry laboratories participated in the #09-06 CFSAN Melamine Import Assignment (2008-2009), assisting FDA in the analysis of milk and protein samples
    - Analyzed 340 samples, or ~20% of the total sample collection to date
    - Were a key factor in clearing an FDA sample backlog, which arose due to very high collection rates

# Next steps for FERN

- Continue to establish criteria for FERN Activation and National emergency response coordination
- Communicate FERN objectives, policies and current activities with ICLN & other networks
- Enhance collaboration among FERN labs within a region, i.e. tailored response plans
- Expand FERN capacity and capability
- Leverage existing resources, responsibilities, and roles to maximize cost effectiveness
- Continue to align FERN with a risk-based approach

# For Further FERN Information

- <http://www.fernlab.org/>
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Any Questions?