



United States Department of Agriculture

APHIS: Animal and Plant Health Inspection Service
PPQ: Plant Protection and Quarantine

PARTNERS AND THEIR ROLES

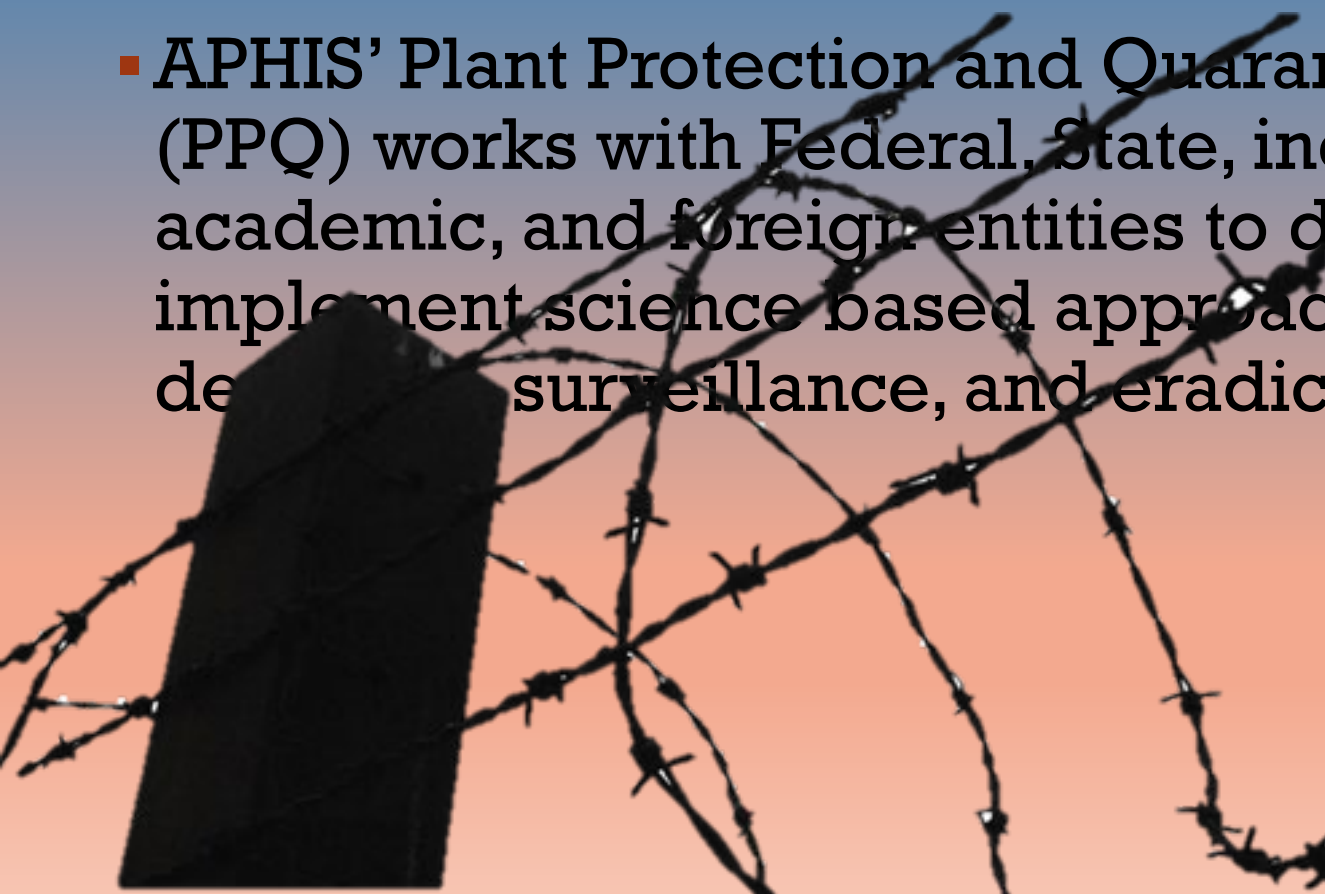
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PROTECTING AMERICAN AGRICULTURE

- How do we do this?
- Partnership and Collaboration
- APHIS' Plant Protection and Quarantine program (PPQ) works with Federal, State, industry, academic, and foreign entities to develop and implement science based approaches to pest detection, surveillance, and eradication



WHAT DOES THAT MEAN?

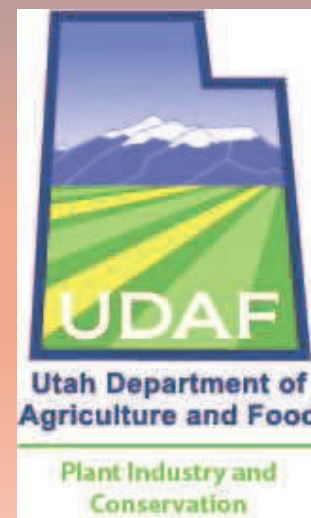


REGULATORY PEST CONTROL

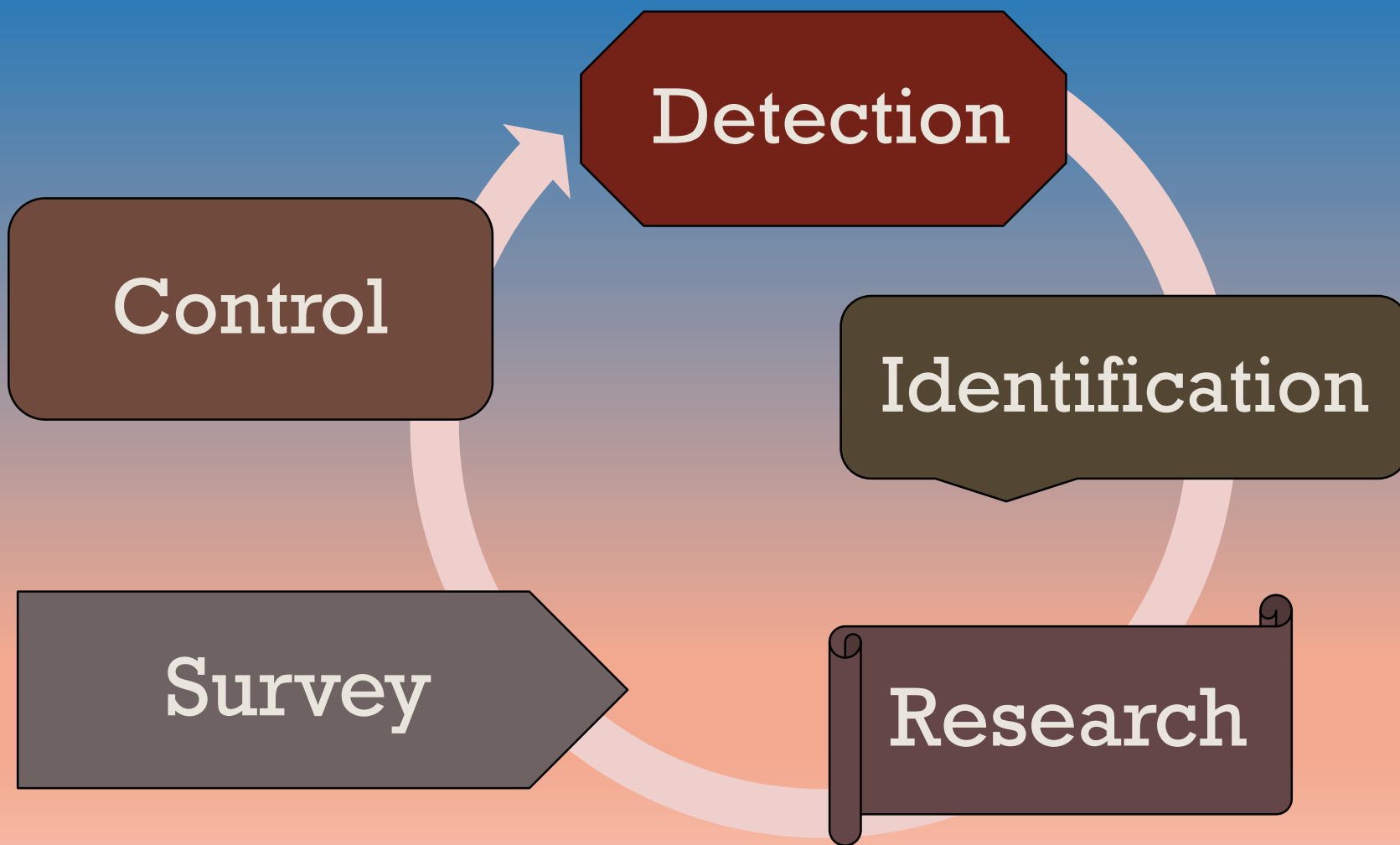
- Not all pest problems can be controlled at local level
- Some pests can endanger public health
- Cause widespread damage to crops, livestock, forests or ornamentals
- Governmental agencies direct quarantine, control or eradication programs to prevent the introduction and spread of such pests

KEY PARTNERS

- (UDAF) - Utah Department of Agriculture and Food
- (USU) - Utah State University Extension
- (NIFA) - National Institute of Food and Agriculture formerly Cooperative State Research, Education, and Extension Service
- (ARS) - Agricultural Research Service
- (FS) - U.S. Forest Service



PLANT PROTECTION AND QUARANTINE



FIRST DETECTION

- NIFA training and outreach for first detectors
- Over 100 land-grant colleges and universities have a critical extension mission
- USU Extension brings vital, practical information to agricultural producers, small business owners, consumers, families and young people



CITIZEN SCIENTISTS

Pests of regulatory significance that have been found and reported:

- Spotted lantern fly by a Fish and Game employee in Pennsylvania in his backyard
- Light brown apple moth found by a professor in Berkley, California in his backyard
- Asian long horned beetle found by a woman in Massachusetts while hiking
- Japanese beetle was found in Utah by a Master Gardener



IDENTIFICATION

- APHIS coordinates the identification and prioritization of pest threats
- APHIS prescribes pest diagnostic procedures
- APHIS confirms the taxonomic identity of plant pests – official ID
- National Plant Diagnostic Network (NPDN)
- NIFA diagnostic response exercises for regulated pests
- USU's Utah Plant Pest Diagnostic lab
- UDAF Entomology Laboratory and collection





NATIONAL PLANT DIAGNOSTIC NETWORK

- Collective efforts of Land Grant Universities, federal agencies, state departments of agriculture and others
- NPDN is a consortium of plant diagnostic laboratories
- Purpose is to quickly detect and identify pests and pathogens of concern
- Report findings immediately to responders and decision makers
- Investment in diagnostic laboratory infrastructure and training

RESEARCH

- NIFA provides research to support long-term control efforts
- ARS and APHIS conduct research on pests and hosts, trap development and design
- ARS searches for biological control agents in foreign countries
- USU also conducts research on native and adventive biocontrol agents, pest survey techniques and control measures



SURVEY



- APHIS standardizes survey protocols
- APHIS administers cooperative agreements to States to carry out pest detection surveys
- APHIS ensures the timely recording and reporting of survey results
- FS manages pests and surveys in national forests
- FS coordinates similar efforts with the state and private foresters
- UDAF and USU conduct pest detection surveys as part of the Cooperative Agricultural Pest Survey (CAPS) program and Plant Protection Act (formerly Farm Bill)
- UDAF also surveys to support control and eradication programs

CONTROL

- ARS is technical liaison to the Environmental Protection Agency (EPA) on pesticide issues
- FS manages pests in national forests
- FS coordinates similar efforts with the state and private foresters
- APHIS and UDAF perform treatments jointly for pests of national concern
- Private applicators treat for individual homeowners

QUARANTINE

- Quarantine is a pest control process designed to prevent entry of pests into pest-free areas
- APHIS coordinates regulatory responses to pest and disease outbreaks
- UDAF often leads regulatory responses to new pests as a joint command with PPQ and may institute their own state quarantines



ERADICATION

- Eradication is the total elimination of a pest from a designated area
- Pests are often under quarantine restrictions
- 1989 -1999 Over \$5 million on aerial treatments for gypsy moth in Utah
- In 1991 almost 50 square miles treated
- Right technology, right people and enough resources to succeed



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MANAGEMENT



- Learning to live with it
- Gypsy moth Slow the Spread campaign
- Emerald Ash Borer
- Japanese Beetle
- Various kinds of control
- Biological control
- Outreach