

PPQ in Maine and Beyond

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United States Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine

Talk Outline

- ▶ USDA APHIS PPQ in Maine
 - ▶ Who we are, what we do
- ▶ Our role (directly and tangentially) with potatoes
- ▶ PPQ's role at the national level

About me

- ▶ Plant Protection Technician
- ▶ B.S. in Wildlife Ecology, M.S. in Entomology
- ▶ Specialties in insect ecology and insect identification
- ▶ Role includes:
 - ▶ Conducting visual and passive insect surveys
 - ▶ Provide identifications of potential insect pests
 - ▶ Assist in export/import inspections

Our office

Rachel Nyce
State Plant Health Director
(SPHD)

Carol Murphy
Office Manager

Kaj Thomsen
Plant Health Safeguarding Specialist
(PHSS)

Tony Slowik
Pest Survey Specialist
(PSS)

Chase Gagne
Plant Protection Technician

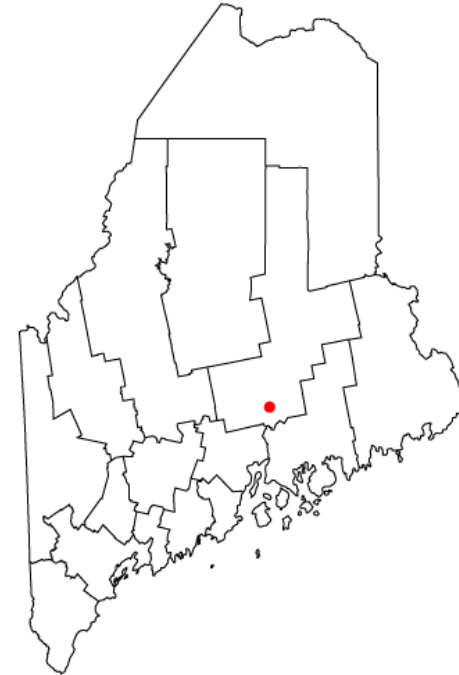
PPQ in Maine

► Primary goals

1. Protect Maine's plant commodities from disease and invaders
2. Facilitate commerce (intrastate, interstate, international) while still achieving goal #1

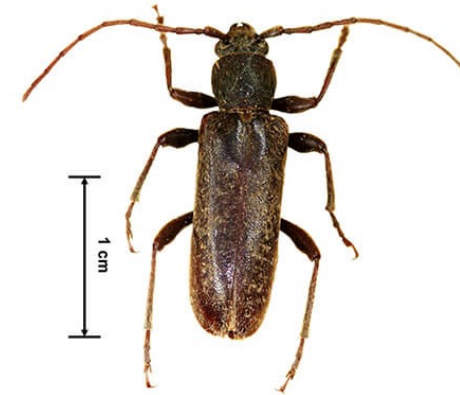
► To achieve these:

- Conduct statewide exotic insect surveys
- Conduct visual surveys for invasive insects, plants, and plant diseases
- Perform inspections of imported/exported plant commodities



Exotic wood-boring beetle surveys

- ▶ Wide drag-net approach
- ▶ Cover as much ground as logistically possible
- ▶ Bait and survey for exotic wood-boring beetles, like:
 - ▶ Brown spruce longhorned beetle
 - ▶ Oak pinhole borer
 - ▶ Velvet longhorned beetle
 - ▶ European spruce bark beetle
- ▶ Some samples to Carnegie Museum, others processed in-house



Visual surveys

- ▶ In recent years, mostly spotted lanternfly
 - ▶ Also, elm zigzag sawfly and Asian longhorned beetle
 - ▶ Emerald ash borer in non-infested counties
- ▶ For SLF, survey areas with hostplants (mostly grape) and favorable climate
- ▶ Target locations with movement of nursery stock



Import and Export Certifications

- ▶ PHSS inspects any plant commodity moving internationally or to/from federal quarantine zones
- ▶ Logs, lumber, Christmas trees and wreaths, seeds, etc.
- ▶ Issue phytosanitary certificates
- ▶ Inspect kilns, soil research laboratories, industrial autoclaves for regulated garbage, issue and maintain compliance agreements
- ▶ Inspection of potatoes is extremely rare for us



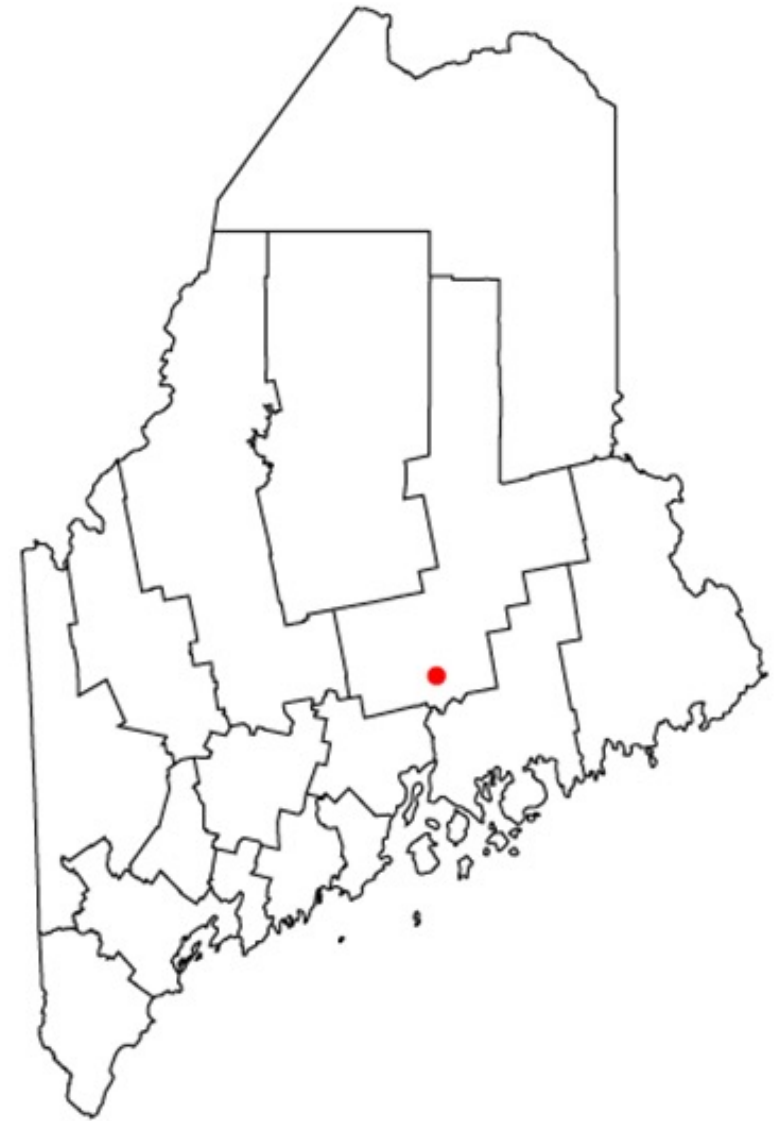
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PPQ's role with potatoes in Maine

- ▶ PPQ has a Memorandum of Understanding (MOU) with Maine DACF
- ▶ MOU effective for 5 years
- ▶ State is given ability to inspect imports/exports of potato commodities for cooperative pest/disease prevention
- ▶ Must meet federal standards
- ▶ In other states, PPQ does most inspections. Maine is a special case

Reasoning for the MOU

- ▶ Logistics
 - ▶ Maine PPQ is a small office
 - ▶ Centrally located, so not close to most potato operations
 - ▶ Workload in busy season is exceptionally great, another office would be needed
- ▶ Expertise
- ▶ State tends to be more nimble
- ▶ Less risk of transmission of disease, such as ringrot



PPQ's occasional role

- ▶ PPQ export specialists can provide support and guidance
- ▶ Provide regulation, guidance, and testing requirements for potato commodities from regulated areas
- ▶ Potatoes sometimes submitted to Hermon office for testing



PPQ at the national level

- ▶ When pests or diseases are detected, PPQ may be established and enforce a federal quarantine
 - ▶ Movement out of or through quarantine zones are subject to federal regulation, even if movement is intrastate
 - ▶ Pests and diseases are “deregulated” only after there is deemed to be no more significant threat
- ▶ Some examples:
 - ▶ Pale cyst nematode (PCN, *Globodera pallida*)
 - ▶ Golden nematode (*Globodera rostochiensis*)

Pale Cyst Nematode

- ▶ Program established upon detection in Idaho in 2006
 - ▶ Quarantine established in 2007
 - ▶ Federal survey and sampling guidelines established in 2009
- ▶ PCN, along with other potato cyst nematodes, can cause 20-70% yield loss
- ▶ Transmitted by soil
- ▶ When host plants are absent, nematodes survive as cysts
 - ▶ Each cyst can contain up to 500 eggs
 - ▶ Can withstand most chemical treatment
 - ▶ Can survive 30 years without host plant in optimal conditions



Pale Cyst Nematode

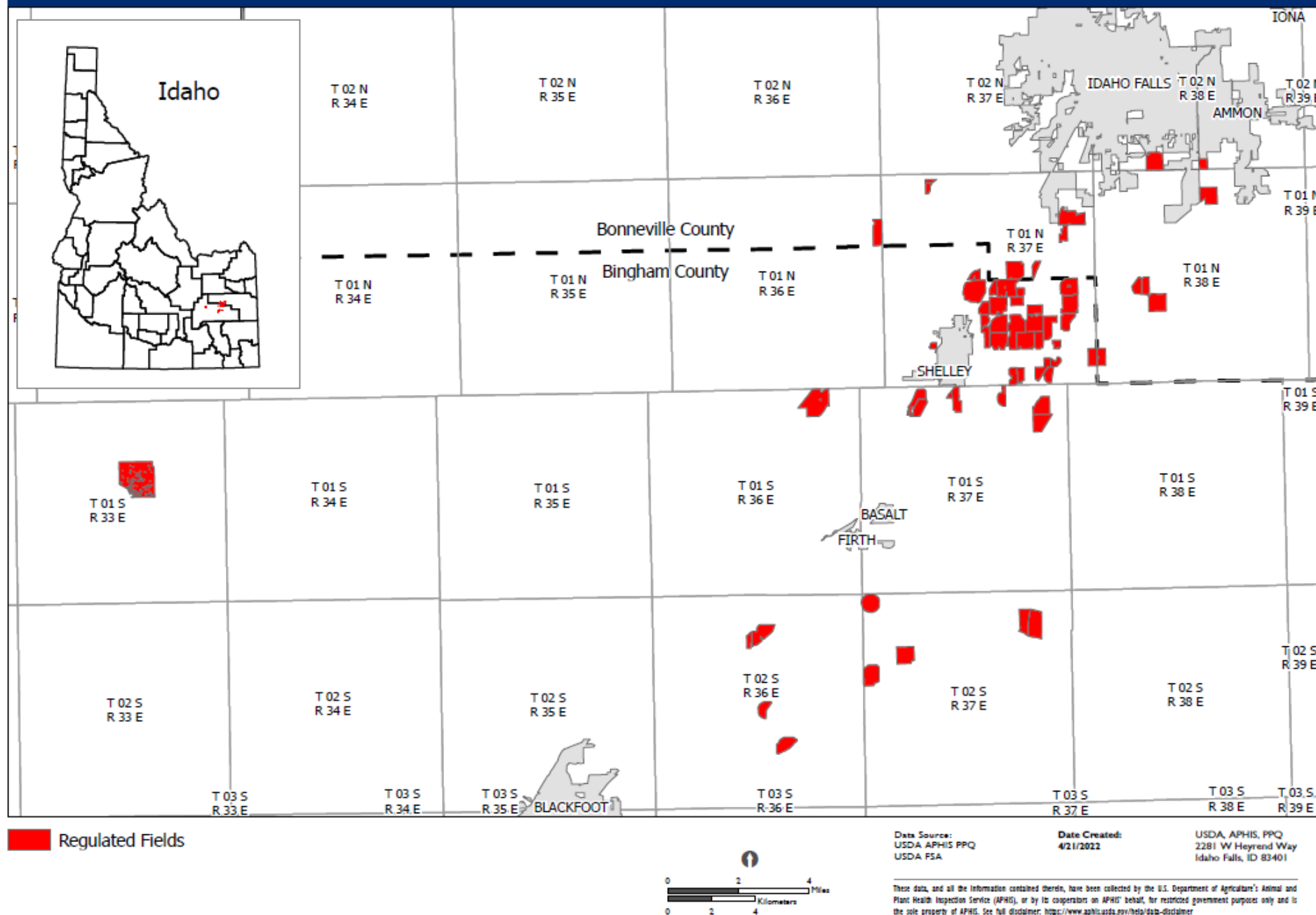
- ▶ Impacts on commerce following detection:
 - ▶ Canada, Mexico, Korea ceased importation of potatoes from Idaho
 - ▶ Japan ceased importation of potatoes from entire U.S.
- ▶ Canada, Mexico reopened in 2007 for potatoes outside of quarantine area
- ▶ Korea reopened in 2010 for potatoes outside of infested counties
- ▶ Japan reopened to non-Idaho potatoes in 2007, fully reopened in 2017
- ▶ Establishment of federal quarantine and extensive surveys helped markets reopen



Pale Cyst Nematode

- ▶ Publish quarterly program updates
- ▶ Field sampling programs pulls PPQ field operations employs nationwide
 - ▶ Soil sampled from infested fields, associated fields, and surrounding area
- ▶ If sample is positive, field is quarantined and fumigated
- ▶ Cysts are collected, tested for viability
- ▶ Greenhouse bioassay conducted
- ▶ Field can return to potato production, still with regulation and testing
 - ▶ Full-field surveys for three subsequent crops
- ▶ Currently, regulated area is 6,568 acres (down from ~55,000 at peak)

- Regulated area is <1% total production area in Idaho



Golden nematode

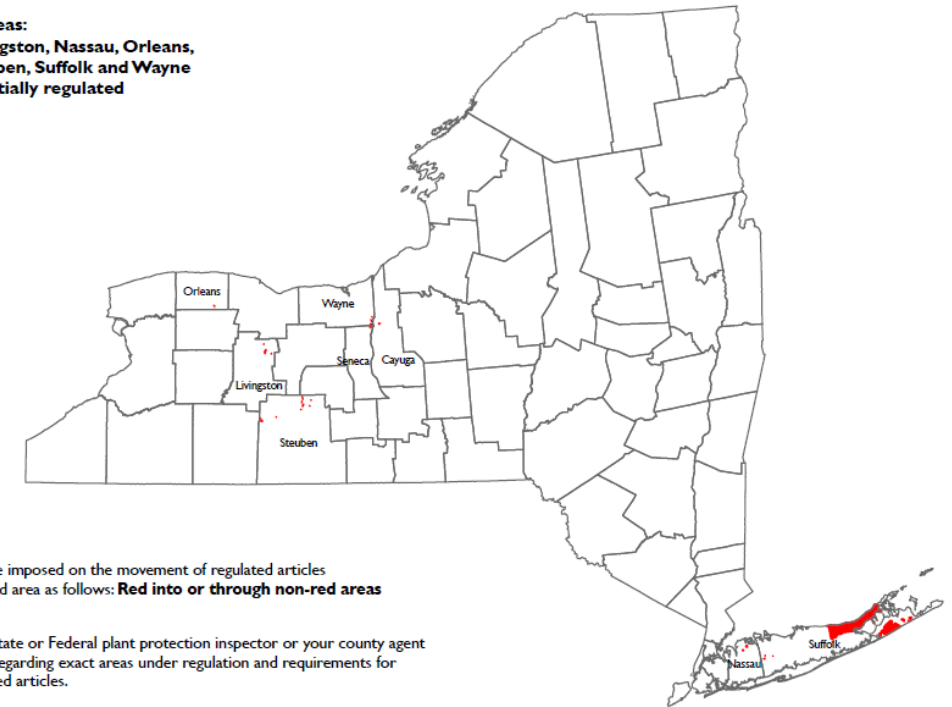
- ▶ Detected in New York in 1941
- ▶ Similar in impact to PCN
- ▶ However, quarantine measures and rotation of resistant potato varieties have contained golden nematode
- ▶ 90,307 acres regulated, with 5,945 considered infested
 - ▶ Since 2010, over 1M acres removed from regulated area



REGULATED AREAS IN NEW YORK

Golden Nematode (*Globodera rostochiensis*)

Regulated areas:
Cayuga, Livingston, Nassau, Orleans,
Seneca, Steuben, Suffolk and Wayne
Counties partially regulated



Restrictions are imposed on the movement of regulated articles from a regulated area as follows: **Red into or through non-red areas**

Consult your State or Federal plant protection inspector or your county agent for assistance regarding exact areas under regulation and requirements for moving regulated articles.

For detailed information see 7 CFR 301.85 for quarantine and regulations.

● State and Federal Regulated GN Areas

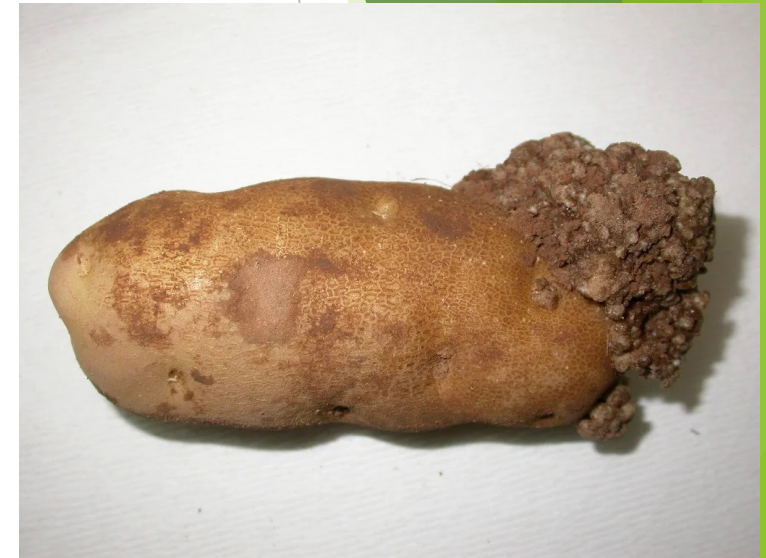


Data Sources: USDA APHIS PPQ, NYSAGH
Date Created: 3/4/2022
USDA APHIS PPQ, 600 E. Maryland Lane, Glenside, PA 19038

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Potato wart

- ▶ Regulated by APHIS as a Select Agent
- ▶ Federal order on U.S. imports of potatoes from PEI
 - ▶ Enacted April 1, 2022
- ▶ Field-grown seed potatoes prohibited
- ▶ Potatoes for consumption allowed if meet specified conditions



Some APHIS resources

- ▶ All program information available online
 - ▶ Updates, maps, regulations, historical records
- ▶ APHIS website houses all pest programs (aphis.usda.gov)
- ▶ APHIS Stakeholder Registry
 - ▶ Sign up to get email or text updates on topics of interest
 - ▶ For potato pests and diseases:
 - ▶ Select Plant Health in the US (Domestic) > Pest Management > Potato Pests and Diseases
- ▶ Hermon PPQ Office: 207-848-0001
 - ▶ Or contact SPHD: rachel.s.nyce@usda.gov

Thanks

Any
questions?

