



Pale Cyst Nematode (PCN) Eradication Program - Idaho Falls, Idaho 2025 4th Quarter Report (October 1st-December 31st)

PROGRAM UPDATES AND NEW INFORMATION:

- The current Pale Cyst Nematode (PCN) regulated area, which spans portions of northern Bingham and southern Bonneville Counties, is 6,265.64 acres (3,420.10 acres of infested fields and 2,845.54 acres of associated fields). The PCN infestation is limited to an area with an 8.5-mile radius and represents less than 1% of Idaho's total potato production areas.

ERADICATION ACTIVITIES

- The PCN program contracted with a licensed chemical applicator to fumigate one PCN-infested field (approximately 142.88 acres) with the nematicide Telone II® (1,3-dichloropropene). Fumigation was completed in one field in October 2025.

REGULATORY DATA

Table 1. Number of Pieces of Equipment Treated by PCN Program by Treatment Type.

Treatment type	4 th Quarter of 2025	2025 Year to Date	Since Program Inception (2006)
Pressure washed	20	1072	37793
Steam Sanitized	1	95	5922
Total	21	1167	43715

Table 2. Number of Pieces of Equipment Treated by Stakeholders Participating in the Self-Certification Program.

Treatment type	4 th Quarter of 2025*	2025 Year to Date*	Since Program Inception (2006)
Pressure washed	76	565	5702

*Self-certification data lags all other program data as stakeholders have three months after the end of each quarter to self-certify.

Table 3. Regulatory Documentation Issued by PCN Program.

Documentation type	4 th Quarter of 2025	2025 Year to Date	Since Program Inception (2006)	Active
Certificates (PPQ* 540)	7	385	16438	**
Limited Permits (PPQ 530)	5	112	4739	**
Compliance Agreements (PPQ 519)	1	21	444	23

*Plant Protection and Quarantine (PPQ); **Not applicable

SURVEY DATA

- To date, the PCN program has collected 540,874 soil samples in Idaho outside of the 31 known infested fields.

Table 4. Soil Samples Collected in Idaho.

Type of Survey	4 th Quarter of 2025	2025 Year to Date	Since Program Inception (2006)
Detection	31	1,240	243,243
Delimiting	0	1,068	299,908
Eradication	176	1,517	210,833
Total	207	3,825	756,534

LABORATORY DATA

- Since 2009, the PCN program has collected and screened 89,379 soil samples in support of the Idaho State Department of Agriculture's (ISDA) post-regulation monitoring survey of fields deregulated by the Animal and Plant Health Inspection Service (APHIS). Note: this data remains static, because the ISDA no longer conducts post-regulation monitoring surveys.
- Since program inception, the PCN laboratory has screened 122,684 soil samples collected in other potato-producing states. There have been no PCN detections in the United States outside of Idaho.

Table 5. Samples Processed by the PPQ Idaho Falls PCN Laboratory.

Type of Survey	4 th Quarter of 2025	2025 Year to Date	Since Program Inception (2006)
Detection	31	1,235	311,846
Delimiting	1,717	2241	293,092
Eradication	176	1,511	210,103
Total	1924	4,987	815,041

Table 6. Historic Info: Samples Processed at Other Idaho Laboratories.

Type of Survey	Idaho Food Quality Assurance Laboratory (2006-2009, now closed)	Idaho State Parma Research and Extension Center (2006-2009)
Detection	52,670	69
Delimiting	10,227	896
Total	62,897	965

ERADICATION MONITORING AND PROGRESS

ERADICATION STATUS

Infested Field Deregulation Steps:

1. Viability Test: Since its inception in 2006, the PCN program has used a staining technique to analyze the viability of nematode eggs. Cyst samples are collected from infested field-monitoring grids before and after fumigation treatments to monitor viability. If a field is determined to have zero viability, the field may move to the next step of deregulation: greenhouse bioassay.

2. Greenhouse Bioassays: A greenhouse bioassay is a test of the nematode's ability to hatch, feed, and reproduce when cysts are placed in proximity to a growing host plant in a controlled environment. Fields must undergo three rounds of greenhouse bioassay to progress to the final deregulations stage: in-field bioassay. Greenhouse bioassay is a test of the nematode's ability to hatch, feed, and reproduce when cysts are placed in proximity to a growing host plant



3. In-field bioassay: After successful completion of greenhouse bioassay testing, fields have reduced sanitation requirements and are eligible to return to potato production at the landowners' discretion only for the purpose of an in-field bioassay following harvest. Fields that return to potato production must undergo full-field surveys following each of three subsequent potato crops to check for viable PCN populations. If viable nematodes are found after a survey, the program reinstates prohibitions on growing potatoes, and full sanitation treatments for equipment and vehicles leaving the field (i.e., pressure washing and steam treatment). Infested fields are released from regulatory control after three rounds of in-field bioassay where viable cysts are not detected.

Table 7. Current Regulatory Status of PCN Infested Fields.

Field Status	Number of Fields	Acres
Passed Greenhouse Bioassay Test: Eligible to Return to Potatoes and start the In-Field Bioassay Test (See Table 8 for in-field bioassay results summary)	25	2,746.54
Passed Viability Test: Greenhouse Bioassay Test in Progress	4	394.63
Viable PCN: Continue Monitoring Fields with Viable PCN	2	278.93
Total	31	3,420.1

Table 8. Current In-Field Bioassay Status.

Deregulation Status	Fields that have passed one round of in-field bioassay (viable nematode eggs not detected following harvest)	Fields that have passed two rounds of in-field bioassay (viable nematode eggs not detected following harvest)	Fields that did not pass in-field bioassay (viable nematode eggs were detected following harvest)
# of Fields	1	4	7*
# of Acres	148.66	334.69	826.3

*Viable nematodes detected in five fields on first deregulation iteration and in two fields on the second deregulation iteration.

Table 9. Deregulated Infested Fields

Number of Fields	Number of Acres	Year Deregulated
1	119.71	2025



IMPACTS ON COMMERCE

In response to the initial PCN detection in 2006, Canada, Mexico and Korea shut off importation of potatoes from Idaho, while Japan cut off importation of potatoes from the entire United States. The Mexico and Canada export markets have both been re-opened except for potatoes from PCN-regulated areas. Both require PCN soil surveys from origin fields. The Korea market was reopened in June 2010 except for potatoes originating from Bingham and Bonneville Counties, Idaho. Japan reopened the market for all except Idaho potatoes in February 2007 and to Idaho potatoes in September 2017. This action represented a major milestone for the Idaho potato industry and the PCN program, the full restoration of all markets lost due to the original 2006 PCN detection. Because of extensive field surveys conducted throughout production areas in Idaho, all of which have been negative beyond the thirty-two infested fields, the general opinion by trading partners is that potatoes produced outside regulated areas do not pose a risk for spread of PCN.

PUBLIC OUTREACH

Pale Cyst Nematode program information is available via the USDA APHIS Stakeholder Registry. The Registry allows anyone to subscribe and receive alerts by email or by text message when new information about PCN or other topics of interest are announced. Subscribing is simple and you can unsubscribe or change your selections at any time. For PCN program announcements, select Plant Health in the U.S. (Domestic), then Pest Management, and finally Potato Pests and Diseases. To sign up, visit <https://public.govdelivery.com/accounts/USDAAPHIS/subscriber/new>

More PCN program information can be found at:

<https://www.aphis.usda.gov/aphis/ourfocus/planthealth/plant-pest-and-disease-programs/pests-and-diseases/nematode/pcn>

If you have additional questions, contact the PCN program office at (208) 522-2431, Monday through Friday, 7:30 AM to 4:00 PM (Mountain Time), excluding federal holidays.