



Pale Cyst Nematode (PCN) Eradication Program - Idaho Falls, Idaho 2018 1st Quarter Report (January 1 – March 31)

PROGRAM UPDATES AND NEW INFORMATION

- Statement on the March 20, 2018 PCN Litigation Ruling:

Regarding the suit brought by a small number of growers regulated for pale cyst nematode (PCN), the U.S. Department of Agriculture’s Animal and Plant Health Inspection Service is pleased the U.S. District Court for the District of Idaho ruled in its favor in two claims, and found that two claims were abandoned by plaintiffs. In the remaining two claims, the Court found that although the Agency engaged the public when developing the program to combat PCN and protect Idaho’s potato industry, it erred procedurally. The Court held that while the Agency takes steps to correct any procedural defects, the PCN program will remain in effect because ending it would have disruptive consequences. As the Court recognized, “[i]n the long-run, the quarantine and PCN regulations will help to preserve consumer confidence, both nationally and internationally, in the potato crops of Idaho and the United States.”

PCN can remain viable in soil for up to 30 years, even in the absence of potato crops that are necessary for the pest to feed and reproduce. PCN program eradication efforts are successfully reducing the timeline for infested Idaho potato fields to return to normal potato production. Following eradication program treatments to date, viable nematode eggs are no longer detected in 22 of 27 infested fields, which represents nearly 80% of all infested field acreage detected since the first detection in 2006. Twelve of those fields are now eligible for resuming potato production, and one has resumed potato production with post-harvest surveys negative for viable PCN.

- On March 12, 2018, the PCN program published a change to the regulated area that announced the deregulation of a 222 acre associated field. This field successfully completed a release protocol comprised of a sequence of soil surveys with negative laboratory results for PCN.
- International Trade: On March 1, 2018 Mexico changed portions of the export requirements regarding PCN soil surveys for exported Idaho fresh-pack potatoes. Idaho counties outside of Bingham and Bonneville no longer require field soil survey prior to export. Export potatoes from non-regulated fields in Bingham and Bonneville counties still require a soil survey as in the past. Fresh-pack potatoes from PCN regulated fields are still prohibited from being exported to Mexico.

ERADICATION ACTIVITIES

- The PCN program conducted eradication treatments on five infested fields (665 acres) in fall 2017 with the nematicide Telone II (1,3-dichloropropene). In October and November 2017, soil from four of the five fields was collected to test treatment efficacy. Results are expected in April 2018. Soil will be collected from the fifth field in early 2018, with results expected by September 2018. In the fall of 2018 the program plans to conduct eradication treatments on 3 infested fields using Telone (430 acres).



- University of Idaho researchers and infested field operators will plant the trap crop litchi tomato on a 65-acre portion of a PCN-infested field in 2018. Since litchi tomato is non-native to Idaho, the crop will be managed under an invasive species permit issued by the Idaho State Department of Agriculture (ISDA) defining clear parameters for planting, monitoring and controlling escape of the plant. The PCN program will collect soil samples after the treatment in fall 2018 to determine effectiveness of the trap crop. Results are expected over the winter of 2018-19.

REGULATORY DATA

Regulatory Treatments

Treatment type	Regulatory Treatments (# of pieces of equipment)		
	1 st Quarter of 2018	2018 Year to date	Since program inception
Pressure Washed	46	46	24,518
Steam Sanitized	7	7	3,347
Total	53	53	27,865

Self-Certification Program

Treatment type	Regulatory Treatments (# of pieces of equipment treated by stakeholders participating in the self-certification program)		
	4 th Quarter of 2017*	2017 Year to date*	Since program inception*
Pressure Washed	4	4	4,263

*Self-certification data lags one quarter behind all other program data in order to provide a stakeholder reporting period.

Regulatory Documentation

Documentation type	Regulatory Documentation		
	1 st Quarter of 2018	2018 Year to date	Since program inception
Certificate (PPQ 540)	36	36	11,811
Limited Permit (PPQ 530)	12	12	3,560
New compliance agreements	0	0	191



SURVEY DATA

- To date, the PCN program has collected and screened 519,225 soil samples in Idaho outside of the 27 known infested fields.

Type of survey	Idaho soil samples collected		
	1 st Quarter of 2018	2018 Year to date	Since program inception
Detection	5	5	239,492
Delimiting	1,625	1,625	278,255
Eradication	0	0	157,800
Total	1,630	1,630	675,547

LABORATORY DATA

- Since 2009, the PCN program has assisted with collecting and screening 89,379 soil samples in support of the ISDA’s post-regulation monitoring survey of fields deregulated by the USDA.
- The PCN laboratory has screened 73,910 soil samples collected in other potato-producing states. There have been no PCN detections in the U.S. outside of Idaho.

Identification and Diagnostics

Type of survey	Samples processed by the Idaho PCN Laboratory		
	1 st Quarter of 2018	2018 Year to date	Since program inception
Detection	5,877	5,877	260,482
Delimiting	400	400	268,791
Eradication	7,558	7,558	156,590
Total	13,835	13,835	685,863

Type of survey	Samples processed at other Idaho laboratories	
	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

- Since its inception, the PCN program has used a staining technique to analyze the viability of nematode eggs in 903 cyst samples collected from infested fields before and after fumigation treatments. Viable nematode eggs are no longer detected in 22 of the infested fields, which advances those fields to the next phase of evaluating eradication progress, the greenhouse bioassay.

Method	Location	Results	
		Total number of infested fields	Fields with no viable PCN detected by stain
Cyst stain	Idaho Falls PCN Laboratory	27	22

- Greenhouse bioassay is a test of nematode eggs’ ability to hatch, feed, and reproduce when placed in proximity to a growing host plant. Twelve of the 22 fields at zero viability by the staining method have also successfully completed the greenhouse bioassay test. Final greenhouse bioassay results are expected in 2018 and 2019 for the other 10 fields currently in the testing process.
- The PCN program continues to monitor and regulate fields after successfully completing of the greenhouse bioassay test, but with reduced sanitation requirements. Fields that have passed the greenhouse bioassay test are also eligible to return to potato production at the landowners’ discretion.

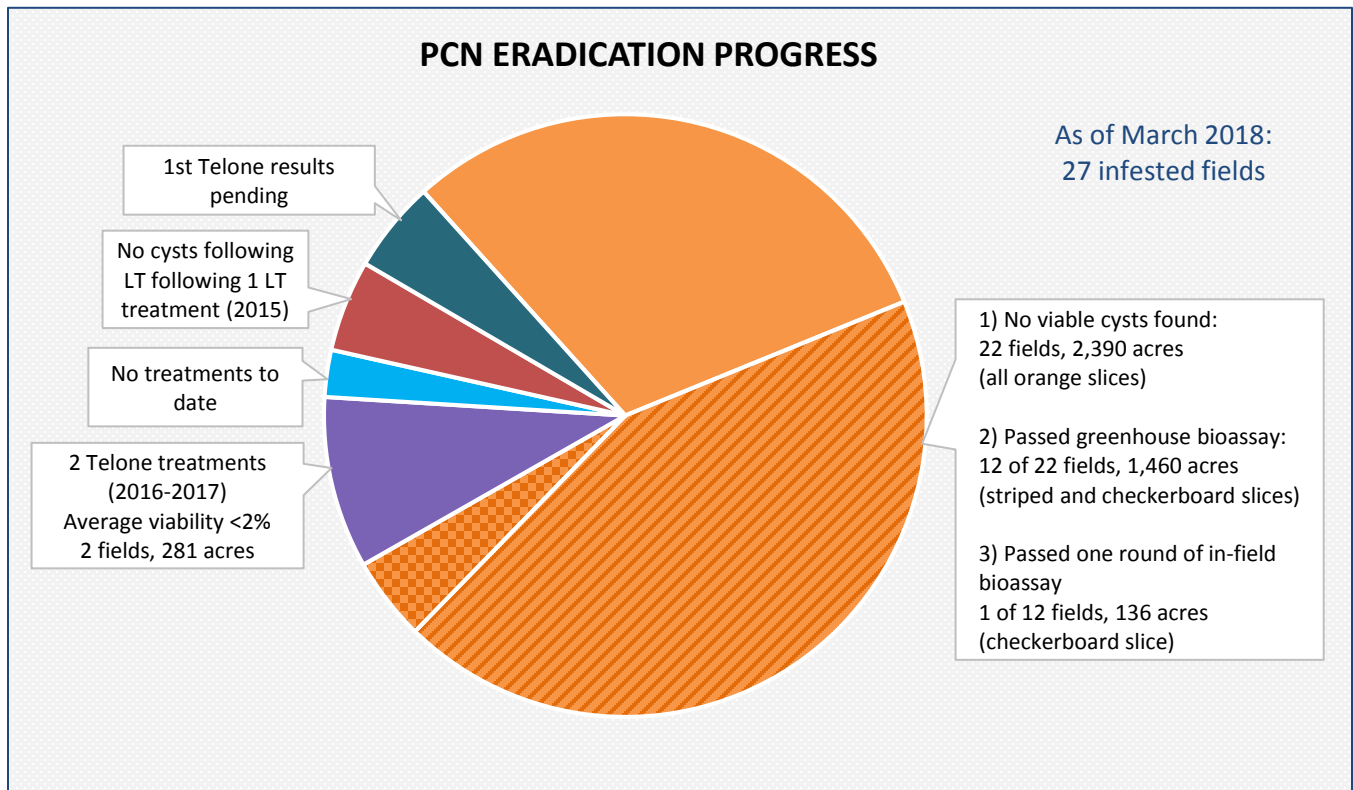
Method	Location	Results	
		Fields that advanced to greenhouse bioassay testing	Fields that have passed greenhouse bioassay testing
Greenhouse bioassay	University of Idaho, Moscow	22	12

- The PCN program requires infested fields that return to potato production to undergo full-field surveys following each of three subsequent potato crops to check for viable PCN. Potatoes were planted on half of one eligible field in 2015, 2016, and 2017 (alternating sides of the field). These were the first potato crops produced on the field since before PCN was detected there in 2006. Potato production has been successful; no viable PCN were detected in post-harvest surveys conducted in 2015, 2016, and 2017.

Method	Results	
	Fields currently eligible	Fields that have passed one or more rounds
In-field bioassay	12	1



ERADICATION PROGRESS SUMMARY



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 U.S. The Mexico and Canada export markets have both been re-opened with the exception of potatoes from PCN-regulated areas. Both require PCN soil surveys from origin fields. The South Korea market was reopened in June 2010 with the exception of potatoes originating from Bingham and Bonneville Counties, Idaho. Japan reopened their market to Idaho potatoes in September 2017, which 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 twenty-seven infested fields, the general opinion by our trading partners is that potatoes produced outside regulated areas do not pose a risk for spread of PCN.

PUBLIC OUTREACH

- There were no public outreach events during the period of January 1st to March 31st 2018.

PCN program information can be found at: <http://www.aphis.usda.gov/planthealth/pcn>

If you have additional questions, please contact the PCN program office at (208) 522-2431, Monday through Friday, 8:00 AM to 4:30 PM (Mountain Time), excluding federal holidays.