



Pale Cyst Nematode (PCN) Eradication Program - Idaho Falls, Idaho 2020 1st Quarter Report (January 1 – March 31)

PROGRAM UPDATES AND NEW INFORMATION:

- On January 10, 2020, APHIS announced the deregulation of five associated fields, a total of 404 acres, after completing a release protocol comprised of a sequence of surveys with no PCN detections. These changes bring the total regulated area 7,150 acres, of which 3,446 acres are infested fields.

ERADICATION ACTIVITIES

- The PCN program is planning soil fumigation for five PCN-infested fields (approximately 450 acres) with Telone II (1,3-dichloropropene) in August-September of 2020. Soil samples will be collected from the fields following fumigation, and cysts extracted from them will be tested to determine treatment effectiveness at reducing nematode egg viability.

REGULATORY DATA

Regulatory Treatments

Treatment type	Regulatory Treatments (# of pieces of equipment)		
	1 st Quarter of 2020	2020 Year to date	Since program inception
Pressure Washed	48	48	28,565
Steam Sanitized	5	5	4,799
Total	53	53	33,364

Self-Certification Program

Treatment type	Regulatory Treatments (# of pieces of equipment treated by stakeholders participating in the self-certification program)		
	4th Quarter of 2019*	2019 Year to date*	Since program inception*
Pressure Washed	1	116	4,565

*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 2020	2020 Year to date	Since program inception	Active
Certificate (PPQ 540)	36	36	13,275	*
Limited Permit (PPQ 530)	12	12	3,956	*
Compliance agreements	0	0	*	30

*Not applicable

SURVEY DATA

- To date, the PCN program has collected and screened 532,825 soil samples in Idaho outside of the 31 known infested fields.

Type of survey	Idaho soil samples collected		
	1 st Quarter of 2020	2020 Year to date	Since program inception
Detection	0	0	240,681
Delimiting	0	0	281,121
Eradication	0	0	176,228
Total	0	0	698,030

LABORATORY DATA

- Since 2009, the PCN program has collected and screened 89,379 soil samples in support of the ISDA’s post-regulation monitoring survey of fields deregulated by APHIS.
- The PCN laboratory has screened 84,963 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 2020	2020 Year to date	Since program inception
Detection	5,315	5,315	275,058
Delimiting	257	257	281,230
Eradication	3,744	3,744	177,415
Total	9,316	9,316	733,703



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 976 cyst samples collected from infested fields before and after fumigation treatments. Viable nematode eggs are no longer detected in 23 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	31	23

- Greenhouse bioassay is a test of the nematode ability to hatch, feed, and reproduce when placed in proximity to a growing host plant. Twenty of the 23 fields at zero viability by the staining method have also successfully completed the greenhouse bioassay test. Final greenhouse bioassay results are expected in early 2020 for four of the fields currently in the testing process.
- The PCN program continues to monitor and regulate fields after successful completion of greenhouse bioassay testing, 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.

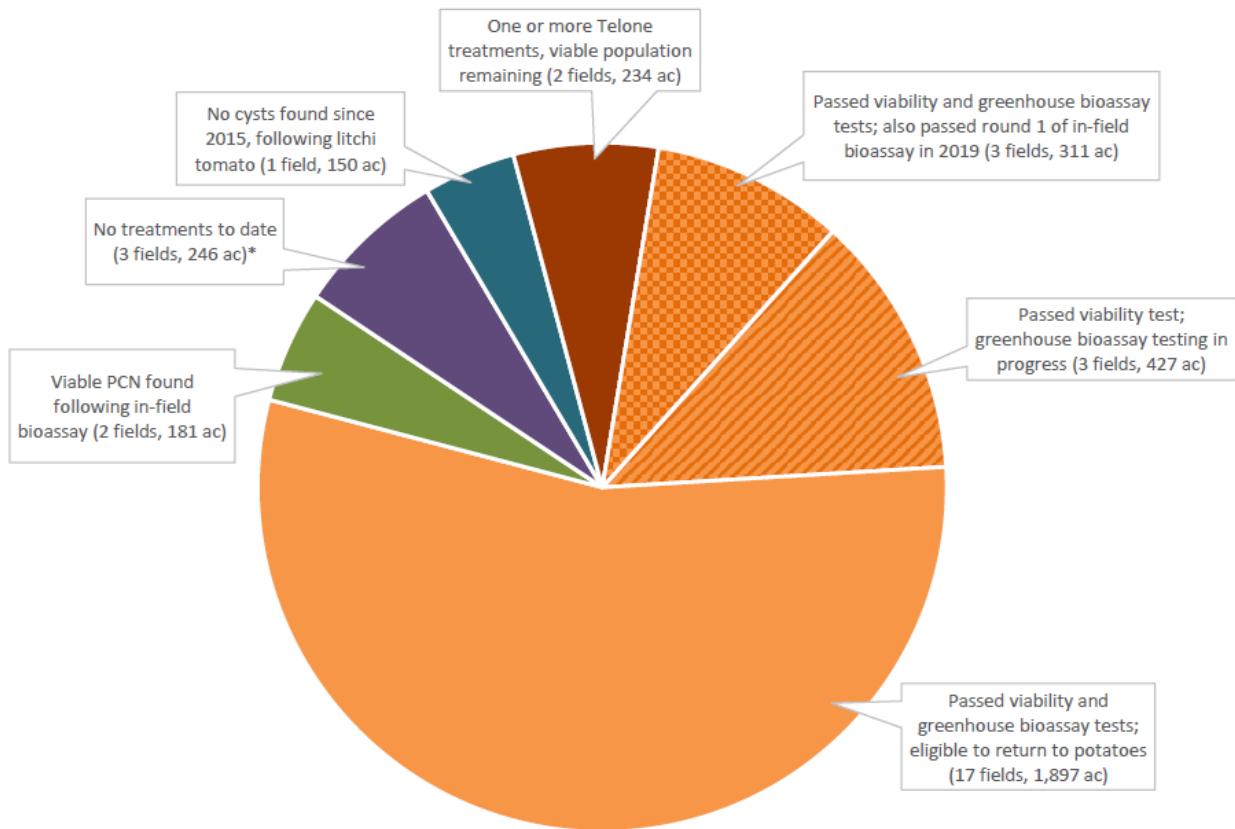
Method	Location	Results	
		Fields that advanced to greenhouse bioassay testing	Fields that have passed greenhouse bioassay testing
Greenhouse bioassay	University of Idaho, Moscow	23	20

- 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 populations. Potatoes were planted in four eligible fields in 2019. Soil samples were collected from the fields following harvest and analyzed for the presence of viable PCN. Three of the fields tested negative and one of the fields tested positive for viable PCN.



ERADICATION PROGRESS SUMMARY

PCN Eradication Progress as of March 12, 2020



*Two of these fields were detected in late 2019 and are scheduled to receive their first Telone II treatment in 2020. The third field is growing a multi-year alfalfa crop and the grower declined treatments until the multi-year crop is ready to be destroyed.

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 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. 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 twenty-nine 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



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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>

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, 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.