

Potato Cyst Nematode (PCN)
Stakeholder Update
(6/15/06)

SITUATION SUMMARY

On April 19, 2006 officials of USDA's Animal and Plant Health Inspection Service (APHIS) and the Idaho State Department of Agriculture (ISDA) announced the detection of potato cyst nematode (PCN), *Globodera pallida*, a major pest of potato crops. This is was the first detection of the pest in the United States. The nematode cysts were detected during a routine survey of tare soil at an ISDA Grader facility in eastern Idaho. In that survey, 3500 samples were analyzed, and only one was positive.

On June 13, 2006, soil samples collected from a 45-acre field in northern Bingham County tested positive for PCN. Production in the area is for fresh market and processed potatoes, not seed potatoes. The field is not within an Idaho Seed Potato Crop Management area, where safeguards assuring quality are monitored. As part of the investigation following the April detection, more than 2,500 samples representing over 60 fields and facilities associated with shipments that went through the grading station were tested. All other samples collected as part of the investigation have tested negative for PCN. Additionally, more than 3,000 Idaho soil samples taken since last fall as part of the Cooperative Agricultural Pest Survey (CAPS) from processing and fresh pack facilities and 500 samples taken from seed potato producers have been negative for PCN. Based on these survey results, and the more 2,500 samples taken since the April detection the PCN infestation appears to be isolated, but additional surveillance will continue.

Investigators from APHIS and ISDA are continuing to conduct interviews which determine where surveys and sample collection may be useful to ensure that the spread of the nematode is limited.

Preliminary identification of the nematodes was conducted by the University of Idaho (U of I) Nematology Laboratory, and the identity was confirmed by the USDA Nematology Laboratory in Beltsville, Maryland using both morphometric and molecular sequencing technologies.

The microscopic nematodes pose no threat to human health and never actually enter the tuber. However, they can reduce the yield of potatoes through root damage. There is no evidence that the quality or yield of potatoes grown in Idaho has been affected. However, there are significant trade implications.

Trading partners have reacted in various ways to the detection of PCN.

- Japan has suspended all potato imports from the U.S.
- Canada, Korea, and Mexico suspended potato shipments from the State of Idaho.
- Taiwan, Malaysia, and Singapore have asked for information, but have taken no action to suspend potato imports from the United States.

APHIS emergency action notifications (EANS) and ISDA restrictions have been imposed on the Bingham County field and other suspect sites. These state and federal actions restrict the movement of soil, plants, plant material and farm equipment which may have been exposed to the potato cyst nematode and they are intended to prevent the introduction and dissemination of the pest. To date, these restrictions have been imposed in Bingham, Bonneville, and Jefferson counties, but they are currently limited to only five six sites. Previously restricted fresh packed product has been released to move in commerce. Idaho potatoes and potato product are moving normally in domestic commerce.

Depending on the results of ongoing surveys, restrictions may be placed on areas surrounding infested fields. Idaho potato farmers, packers and processors continue to work closely with APHIS and ISDA to ensure that spread of the nematode and need for widespread regulations can be avoided.

Updates and related information:

- The APHIS/ISDA unified command in Idaho Falls will continue in operation. Soil samples continue to be collected, focusing on land that is adjacent to the field where PCN was positively identified, and on properties that have shared equipment, labor or other resources with the field.

- AHPIS/ISDA continue to gather information about seed sources for the infested field. That traceback continues with the full understanding that the seed source may have nothing to do with the field infestation. It may have originated with equipment, farm personnel, wind, wildlife or other sources. Those other possibilities continue to be explored as well.

- APHIS/ISDA has not released the specific location of the field in question in order to prevent the spread of the infestation. One media report incorrectly pinned the location as Blackfoot, which is in central Bingham County. The field is actually in northern Bingham County.

- ISDA and APHIS continue to regulate six sites and establishments: three fields, one packing shed, and two potato cellars. Two of the fields remain regulated while soil samples are examined, but have so far not yielded any positive PCN samples. Regulations on those two fields and the shed and cellars are expected to be released soon.

- Approximately 28 different farm operations sent potatoes to the grader station on the day in February that the original positive soil sample was collected. Soil samples continue to be analyzed from more than 50 fields on these farms.

During its 25-plus year history, the U. of I. Nematology Laboratory at Parma, Idaho, has processed approximately 100,000 samples all of which have been negative for PCN until the most recent detection.

• More than 20 APHIS, ISDA, and U of I personnel are currently working on the cooperative control program.