

Potato Cyst Nematode (PCN)
Stakeholder Update
(5/31/06)

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 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. The initial identification of PCN in Idaho was made by the University of Idaho Nematology Laboratory in Parma, ID. The identification was confirmed through microscopic and DNA analysis by the USDA ARS Nematology Laboratory in Beltsville, MD.

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 and ISDA are implementing actions to determine if the pest is actually distributed in fields in Idaho and, if so, prevent movement of PCN to uninfested areas. Officials are working cooperatively with Extension Service and the potato industry to provide Best Management Practices to deal with potato pest issues.

APHIS emergency action notifications (EANS) and ISDA restrictions have been imposed at 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 sites. Previously restricted fresh packed product has been released to move in commerce. Idaho potatoes and potato product are moving normally in domestic commerce.

Updates:

* APHIS has deregulated the tare dirt at two potato processing plants. The action came after the facilities were determined to be free of PCN. Under APHIS/ISDA supervision, facility personnel were able to dispose of all the tare dirt that may have been associated with the potatoes that went through the grading station on the same day as the sample in which the PCN was discovered.

* With the release of the tare dirt at the two processing plants, ISDA and APHIS continue to regulate the remaining five sites and establishments: two fields, one packing shed, and two potato cellars.

o The fields are not allowed to be planted to potatoes in 2006, no soil is to be moved from the fields, and equipment leaving the fields must be cleaned of soil.

o Soil in the settling basin at the packing shed must be moved to an approved disposal site.

o Except for equipment which must be cleaned, nothing is to enter or leave the cellars until they are released from the regulation.

* Soil samples are being collected from piler dirt at potato storage facilities which provided potatoes to the grader station on the same day as the positive sample; if piler dirt is not available then fields that grew the potatoes will need to be sampled. Approximately 28 different farm operations sent potatoes to the grader station on the day in February that the original positive soil sample was collected. Growers are being very cooperative in assisting with tracking down the source of the nematodes. This is extremely important because the source needs to be detected as early as possible to avoid possible spread of the nematode into production areas. Likewise, if nothing is found, it could support the contention that this is "a transient actionable pest under surveillance" according to International Standards for Phytosanitary Measures No. 8 (ISPM 8). Piler dirt from ten growers was sampled during the past two weeks representing 19 fields with 37 samples.

* To date, more than 2500 soil samples have been collected in the survey that began as a result of the PCN detection. This is in addition to the 3,000 soil samples collected since last August as part of the original detection survey. Samples sent to labs have yielded no additional potato cyst nematodes. Only the original sample of tare dirt taken at an Idaho potato grading station has produced potato cyst nematodes. Other types of cysts, commonly associated with cereal crops, have been detected, but these are ordinary detections of non-quarantine pests.

* ISDA and APHIS scientists are gathering information on used farm equipment imported from countries where PCN is known to occur. This is based on the possibility that PCN may have been transported onboard foreign farm equipment. There is still no conclusive evidence that PCN originated in an Idaho potato field. Because of the possibility that the PCN did originate with an Idaho potato field, ISDA and APHIS continue to explore leads for sources of such an infestation, but so far, that search has not yielded any conclusive results.

A total of 21 APHIS and ISDA personnel are currently working on the cooperative control program. A representative of the Shoshone-Bannock Tribe is also assisting the PCN investigation.