

Potato Cyst Nematode: Symptoms, Identification, and Damage

PCN Infection Symptoms



PCN Infested Potatoes

Above ground, potato plants infested with PCN are stunted and have dull, yellow leaves. Below ground, roots are heavily branched and brown in color. PCN infection should be confirmed by uprooting plants and inspecting for cysts and female nematodes. PCN infection can reduce yield and quality.



Healthy Potato Plants



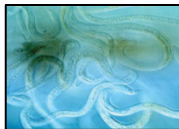
Infested vs uninfested plant

www.bugwood.org

Infected Roots



Mature female Potato Cyst Nematodes and cysts are the only stages visible to the naked eye. They are located on potato roots and are detectable from the flowering stage until harvest. Eggs, juveniles, and males are visible only with a microscope.



Juvenile PCN



PCN Eggs

Potato Cyst Nematode: Prevention and Management

Prevention: PCN may be spread through infested seed or contaminated soil.

- Be sure to follow all phytosanitary and quarantine regulations to minimize PCN spread
- Use **certified seed** free of PCN from registered sellers to prevent spread or increase
- **Clean and disinfect** all tools, footwear, and farm equipment with water and a disinfectant (example: 40% Kerol) prior to entering or upon leaving a potato field to prevent spread
- **Prevent water runoff** between fields by digging trenches and cutting off drains to prevent PCN movement between fields in water.

Management: PCN may be controlled over time with several methods. Follow these recommendations when PCN is detected in fields.

- **Uproot** infested plants and destroy them
- **Rotate crops**, alternating potato plantings with non-solanaceous crops (maize, beans, carrots) for at least 7 years
- **Plow fields** to expose PCN to heat and dry them out during hot months. Covering fields with plastic may help
- **Apply pesticides**, either natural or synthetic to reduce PCN in heavily infested fields. Consult your nearest County Agricultural Office for recommendations.