

Potato Cyst Nematode (PCN)

Detected in Kenya, East Africa, in 2014; confirmed present in all potato growing areas in 2016

Background

The potato cyst nematode (PCN), is a devastating pest of potatoes that is classified as a global quarantine pest. These microscopic, soil dwelling roundworms are highly destructive; they feed on the roots of plants, leading to poor root development, stunted plant growth and reduced tuber yield. The pests are extremely difficult to control due to the longevity of their cysts in the soil and their ability to spread easily with soil and host crop tubers.

PCN originates from The Andes, South America, but the pest has been introduced to Europe and many other potato growing areas of the world. Two years ago, PCN was reported in Kenya for the first time, signalling potential adverse impacts on food security and livelihoods in a region where potatoes are a highly important crop for many households.

Key facts

PCN comprises two species: *Globodera rostochiensis* and *G. pallida*, with different races or pathotypes occurring. Both species are present in Kenya.

Cysts are a protective package for PCN's 500+ eggs, which survive at least 20 years in the soil. Continuous potato production exaggerates the problem.

Dispersal: Cysts with soil, potatoes, agricultural tools, boots, animals, water runoff etc.

Symptoms: Stunted growth, reduced vigour, patchy growth, water stress related, wilting, yellowing.

Hosts crops

Mainly potato, tomato, most Solanaceae's plants.



Potato



Below-ground:

Reduced root volume, and tuber development; When magnified small white (young) or brown (mature) cyst can be seen.



Detection: Soil samples, cysts on roots at flowering.

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