Name that Disease!



a. Pythium leakb. Bacterial soft rotc. Fusarium dry rotd. Pink rot







F. culmorum F. oxysporum F. redolens F. sambucinum F. coeruleum

Answer: c. Fusarium dry rot

Management: Clean seed, sharpen knives, seed treatments

First four images courtesy of C. Christian and K. Duellman



Fusarium infection in vascular system.



Fusarium infection followed by bacterial soft rot.



Fusarium dry rot in Clearwater Russet

a. More Fusarium dry rot

b. Bacterial soft rot

c. Pythium leak

d. Toxic seed piece syndrome





Fig. 4A and 4B. Potato leaves showing interveinal chlorosis and bronzing. Photo Source: Carrie Wohleb, WSU.



Figure 2. Potato seed piece with a translucent and gelatinous appearance typically associated with TSPS. (Phil Hamm and Jordan Eggers, Oregon State University).

Answer: d. Toxic seed piece syndrome

Management: ????

Extension Bulletin E-3336 • New • March 2016

MICHIGAN Potato Diseases



Toxic Seed Piece Syndrome

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Pacific Northwest Vegetable Extension Group Identification & Management of Emerging Vegetable Problems in the Pacific Northwest

Pacific Northwest Vegetable Extension Group

November 2012

Toxic Seed Piece Syndrome (TSPS)

- a. Late blight
- b. Gray mold
- c. Fertilizer burn
- d. Early blight















Answer: a. Late blight

Management: clean seed, protective fungicide program

- a. Herbicide damage
- b. Potato Virus Y
- c. Early blight
- d. Potato leafroll virus



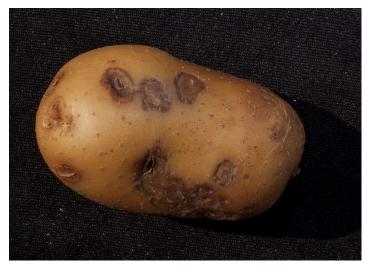
Ranger Russet



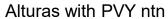
Ranger Russet infected with PVY n:o

Answer: b. Potato Virus Y

Management: clean seed, roguing



Yukon Gold with PVY Nwi

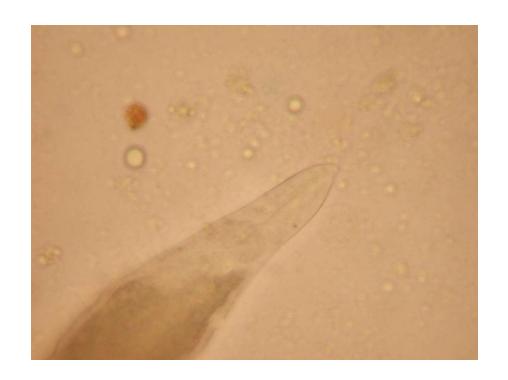




- a. Root knot nematode
- b. Powdery scab
- c. Common scab
- d. Potato mop-top virus







Answer: a. Root knot nematode

Management: rotation, nematicides



- a. Roundup drift
- b. Potato wart
- c. Powdery scab
- d. Potato mop-top virus



Image from Bayer Crop Science

Image from Wikipedia







Canadian Food Inspection Agency > Plant health > Invasive species > Plant diseases

Potato wart or potato canker - Synchytrium endobioticum

Potato wart disease is caused by a soil-borne fungus, Synchytrium endobioticum, that attacks the growing points on the potato plant, such as eyes, buds and stolon tips. The fungus can be dormant in soil for more than 40 years while it waits for the ideal conditions to grow: a cool, wet spring and a nearby potato plant.





Potato wart detected in Prince Edward Island (PEI)

In October 2021, the Canadian Food Inspection Agency (CFIA) confirmed the presence of potato wart in 2 fields on PEI. We immediately initiated an investigation and implemented strict regulatory measures to prevent potential spread.

Find more information about the situation in PEI.

https://inspection.canada.ca/plant-health/invasive-species/plant-diseases/potato-wart-orpotato-canker/eng/1327933703431/1327933793006

Answer: b. Potato wart

Management: quarantine

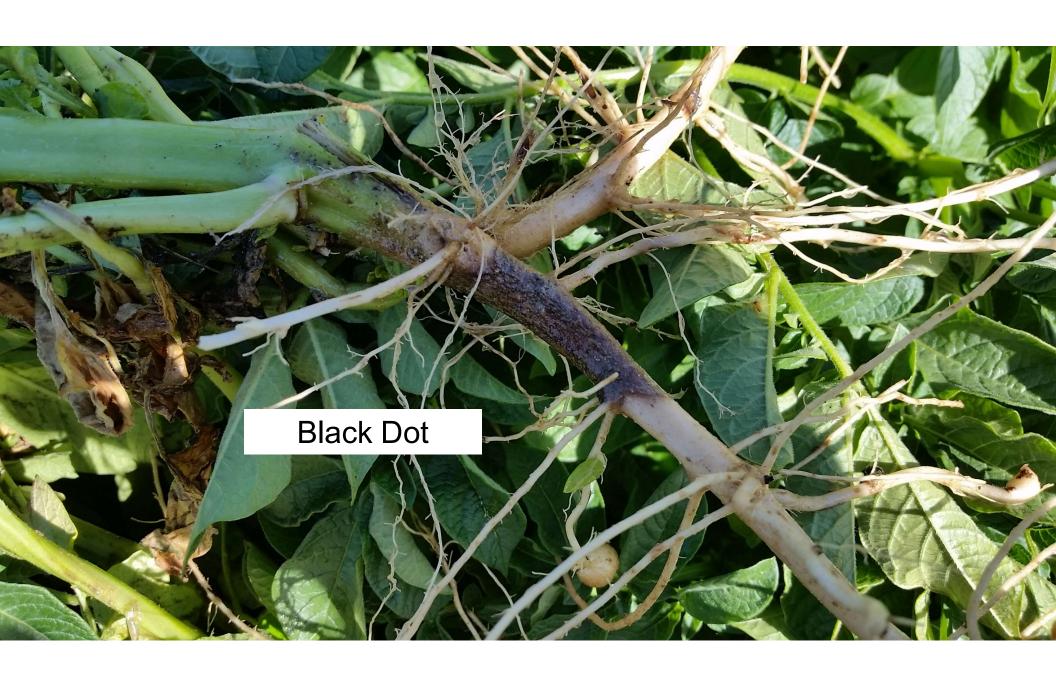
- a. Rhizoctonia canker
- b. Blackleg
- c. Black dot
- d. Powdery scab

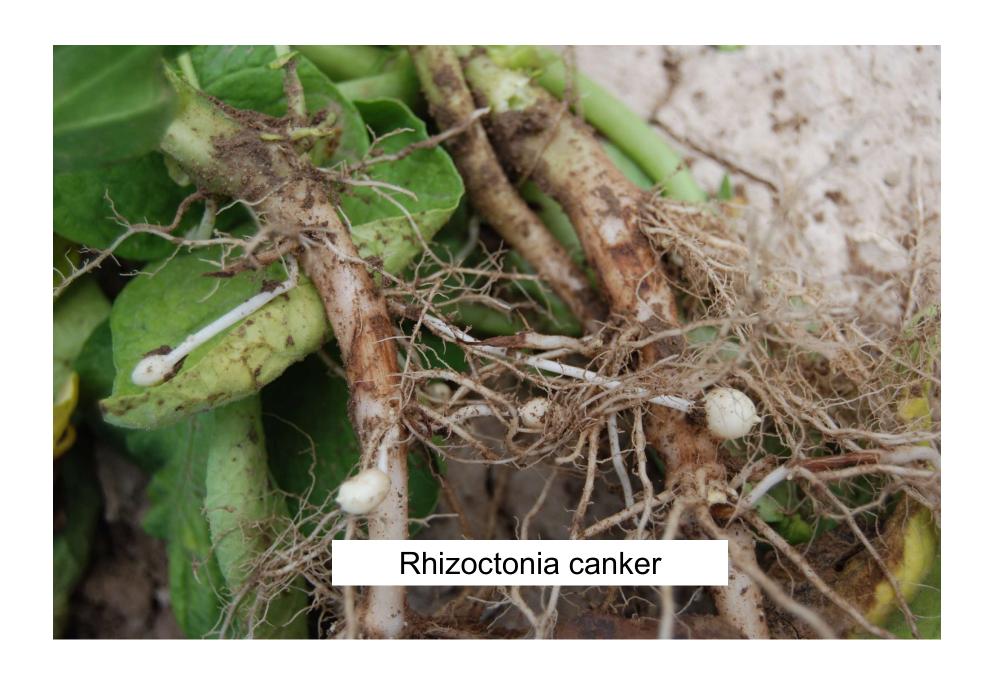




Answer: a. (Rhizoctonia canker) and c. (black dot)

Management: Rotation, fungicide for Rhizoc, unknown for black dot





Thanatephoris cucumeris
Sexual stage of Rhizoctonia
Not known to be problematic



- a. White mold
- b. Gray mold
- c. Black dot
- d. (Not a disease)





Bird's nest fungus



Sclerotinia sclerotiorum apothecia (WM)

Answer: d. Not a disease – bird's nest fungus

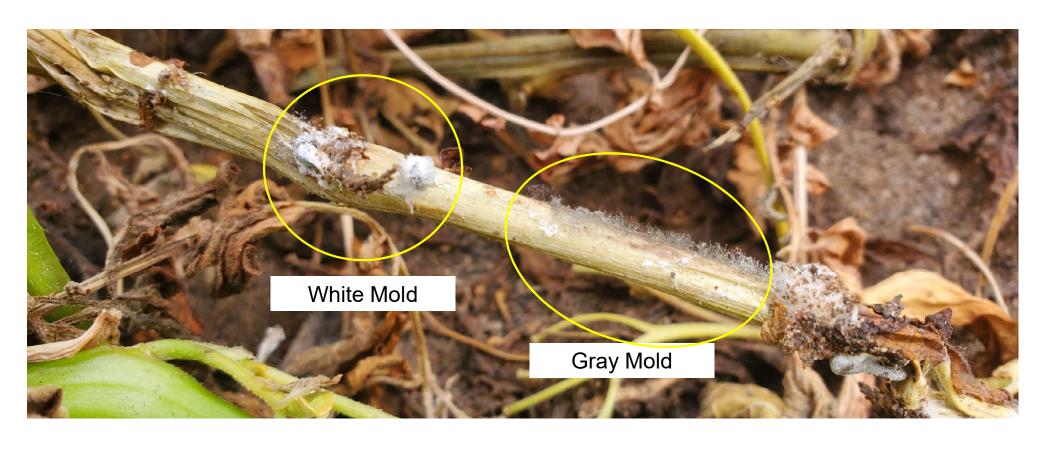
Management: None needed. It's a good sign.





- a. White mold
- b. Gray mold
- c. Black dot
- d. Aerial stem rot





Answer: a. white mold and b. gray mold

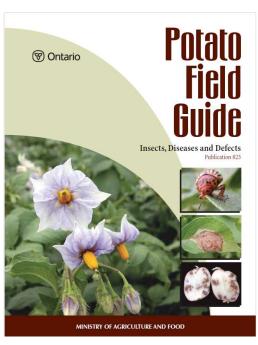
Management: Foliar fungicides





Resource for Potato Disease Identification

https://spudsmart.com/ontarios-potato-field-guide-available-to-view-online/





Proper diagnosis is important!

- Multiple diseases/disorders can look similar.
- The wrong diagnosis can lead to the wrong treatment.
- Use available resources.
 - University of Idaho Extension, other labs