

Pest Bulletin

May 2011



Fig. 1: The name "Black Dot" accurately describes the numerous dot-like black sclerotia as seen here.



Control Measures:

Incidents of Black Dot in the Fraser Valley seem to be increasing according to surveys over the past few years. It has been found in Abbotsford fields, and more sampling must be done in the western Fraser Valley to determine how widespread the disease really is.

- Purchase certified seed potatoes.
- Use long rotations of 3-4 years.
- Rotate with non-host crops (ex: tomatoes).
- Control solanaceous weeds (ex: black nightshade).
- Cultivate deeply to bury sclerotia and infected debris.
- Manage fields to reduce plant stress with proper irrigation and fertilization.

Black Dot Disease in Potatoes

Although not a major disease problem, Black Dot disease may be more prevalent than previously thought, and may be increasing in potato-growing areas of the Fraser Valley. Certainly it is a significant issue in eastern North America and other areas of the world.

Black Dot is caused by the fungus *Colletotrichum coccodes*. Overwintering as sclerotia on tubers or field debris, *C. coccodes* may also survive for some time in the soil. Spores are released in the spring, and infection of below-ground parts may occur throughout the growing season. As with any pathogen, *C. coccodes* will cause increased incidence of Black Dot when plants are stressed.

Symptoms:

As the name implies, Black Dot is observed as many black dots that might be seen on tubers, stolons and stems. These are the sclerotia, and can be found on both above and below ground parts (see figure 1). On the tubers infection manifests as a brown to gray colour over most of the tuber (see figure 2), or sometimes as round spots about 1/4" in diameter. Tuber symptoms can be confused with silver scurf. Symptoms of Black Dot may sometimes be difficult to distinguish from Verticillium symptoms. Also, Black Dot is thought to be part of an early dying complex in conjunction with Verticillium wilt and nematodes. In 2010 early dieback was a serious problem, resulting in a significant decrease in yield.



Fig. 2: Tuber infection appears as brownish to gray discoloration over a large portion of the tuber (as seen on the right) or as roundish spots often larger than 1/4 inch in diameter.

References:

- http://vegetablemndonline.ppath.cornell.edu/factsheets/Potato_BlKDot.htm
- <http://www.plantmanagementnetwork.org/edcenter/seminars/potato/BlackDotRootRot/>
- Power Point presentation, "Role of Quadris for Black Dot Control", Syngenta, presented by Dr. Barry Jacobsen, Montana State University.
- Heather Meberg, ES Crop Consult, telephone conversation April 27, 2011.