

# Secondary Diseases of Table Beets

Written by Renee Prasad (University of the Fraser Valley) and Susan Smith (BC Ministry of Agriculture)

There are several foliar diseases of table beets that occur in the Fraser Valley. The severity of these issues varies from year-to-year and from field-to-field making these pests classical secondary pests. The commonly occurring secondary diseases of table beet production in the Fraser Valley are:

- Leaf spots
- Powdery mildew

## Leaf Spots

Table beet leaves have lots of discolouration and spots. Two common fungal causes for leaf spots are *Cercospora* spp. and *Phoma betae*.

### Cercospora Leaf Spot

Severe *Cercospora* leaf spot can result in defoliation and yield loss thus fields should be monitored for this disease.

#### Monitoring and Management of *Cercospora* leaf spot:

- Monitor for *Cercospora* leaf spot by looking for lesions which are tan with a ring of purple or red tissue (Figure 1) and are first apparent on older leaves;
- Use a 3-year crop rotation;
- Control weeds (red root pigweed and lambs quarters are alternate hosts);
- Bury crop residues left in fields by deep plowing; and
- For chemical control options, see Table 3 Beet Disease Control in the [BC Vegetable Production Guide](#).



Figure 1: *Cercospora* Leaf Spot (Photo: Renee Prasad, University of the Fraser Valley)



Figure 2: *Phoma* leaf spot (Photo: Lindsey J. du Toit, Washington State University)

### *Phoma betae*

The foliar stage of *Phoma betae* has the potential to cause a build-up of the pathogen in the soil. *P. betae* infection could be seedborne or come from inoculum in the soil or crop residue.

#### Monitoring and Management of *Phoma betae*:

- To prevent seedborne infection, use seed treated with **Thiram** or **Captan**.
- Monitor fields for *Phoma* leaf spot lesions, looking for a bulls-eye pattern on the foliage (Figure 2).
- Fields with significant amounts of *Phoma* leaf spot could be at risk for developing *Phoma* storage rots.
- Consult with Ministry of Agriculture staff about storage options for beets coming out of these fields.

# Secondary Diseases of Table Beets

Written by Renee Prasad (University of the Fraser Valley) and Susan Smith (BC Ministry of Agriculture)

## Powdery mildew

Powdery mildew is frequently observed in table beet fields in the Fraser Valley towards the end of the field season (August through September). In sugar beets, powdery mildew has the potential to defoliate the entire plant. While not an issue to that extent for Fraser Valley table beets, powdery mildew should be regularly monitored for.

## Monitoring and Management of Powdery Mildew

- Look for white discoloured patches covering leaves (Figure 3). Note: This can be difficult to notice if foliage is wet or discoloured).



**Figure 3:** Powdery mildew lesions on yellow beet foliage (Photo: Renee Prasad, University of the Fraser Valley)

- Pay attention to the timing and severity of the disease. Large amounts of powdery mildew infection earlier in the season (July) may be a cause for

concern. If severe infection is observed early in the season, fungicide applications may be needed to reduce disease pressure. Table 3 Beet Disease Control in the [BC Vegetable Production Guide](#).

- Contact the BC Plant Health Diagnostic Lab for more information regarding this foliar disease.

This project is supported by *Growing Forward 2*, a federal-provincial-territorial initiative.

Opinions expressed in this document are those of the author and not necessarily those of Agriculture and Agri-Food Canada and the BC Ministry of Agriculture. The Government of Canada, the BC Ministry of Agriculture, and its directors, agents, employees, or contractors will not be liable for any claims, damages, or losses of any kind whatsoever arising out of the use of, or reliance upon, this information.

*Date last revised: March 2016*