

Phomopsis Fruit Rot and Blight on Eggplant

Symptoms

Stem symptoms of this fungal disease include brown or dark sunken lesions slightly above the soil surface, and can result in cankers. Seedlings eventually collapse and die.

The pathogen attacks leaves but older ones are more susceptible. Lesions are typically circular, gray to brown, and develop a light center. In the center of older lesions, numerous fruiting bodies, called pycnidia, can be observed as small, black pimples, embedded in the host tissue.

Affected leaves may turn yellow and drop prematurely. Spots and cankers can form on mature stems and branches. The most important symptoms are on the fruit.

Fruit injury begins as a pale, sunken, oval area(s) on the surface. These subsequently enlarge and become depressed (Fig. 1). With one lesion or several spots coalescing, large portions of the fruit are affected (Figs. 1 and 2). Fruit is unmarketable.

Causal Agent

Phomopsis blight is caused by the fungus *Phomopsis vexans*. The pathogen can be visually and microscopically observed on infected tissue, especially if pycnidia are present.

Inoculum Source and Conditions

Phomopsis vexans survives between crops in plant debris in the soil. Spores of the fungus are released from the pycnidia. The major means of spread is by rain splashing. Wind dispersal is usually considered to be of minor importance. Disease is favored by hot and wet weather. The optimum temperature for fungal growth is 84°F (29°C) and it grows well up to 90°F (32°C).



Figure 1. Sunken lesions of phomopsis blight on eggplant fruit, showing fruiting structures (pycnidia) of *P. vexans* embedded in the tissue. Photo: Ronald French.



Figure 2. Close up of infected fruit showing typical circular fungal growth pattern and initial sporulation at center of lesion. Photo: Ronald French.

Management/Control

- Prompt destruction of infected plant material to reduce initial inoculum.
- Plant pathogen-free seed and/or resistant varieties.
- Transplants should be *Phomopsis*-free.
- A 3-4 year crop rotation is beneficial, since the fungus does not infect other crops.
- Weed control is advisable since pathogen can survive on solanaceous weeds such as nightshades.
- Fungicides may be warranted and should be done in combination with the above cultural practices.

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