Gummy stem blight and black rot are both caused by the fungus *Didymella bryoniae*. Gummy stem blight describes the leaf and stem infection stages of the disease. Black rot describes the fruit rot stage. Fruit rot may develop in the field or after the plant has been harvested.

**Identification**

- Leaf symptoms start as browning at leaf edges.
- In pumpkin, cucumber and summer squash leaf infections develop into a brown wedge extending into the leaf tissue.
- In melon browning progresses into brown discoloration between veins or into circular tan to brown spots.
- Yellow halos may occur around leaf spots and older spots are often dry and cracked.
- Winter squash do not develop leaf or stem blight but may be infected with black rot.
- Tan lesions develop on infected stems, often close to the crown of the plant. These lesions typically crack open and exude gummy-amber colored fluid.
- Raised black pimple like spore producing structures and dark gummy exudates are common within stem infections.
- Fruit rot initially looks water soaked and eventually turns completely black.
- Raised black pimple like spore producing structures are often seen in the black areas of fruit infections.
- Fruit infections may develop in the field or in storage depending on the crop.

**Important biology**

The fungus, *D. bryoniae*, enters through wounds. Plants that are infested with cucumber beetles, aphids and powdery mildew have higher incidences of black rot and gummy stem blight than pest free plants due to minor wounding caused by these pests.

The black rot fungus can be brought into the field in infected seed and survives from season to season in crop debris. New spores are produced in spring in response to wet weather. Spores are then easily
spread throughout the field on splashing water. Moisture on the leaves and high humidity favor disease.

Management

- Buy clean seed from a reputable source. If saving seed, do not collect seed from infected plants.
- Rotate vegetables so 2 or more years go by before planting any member of the squash family in the same location.
- Use drip irrigation instead of overhead sprinklers if possible.
- Remove and destroy infected fruit and vines at the end of the season in small gardens.
- In large fields, till in infected plant debris at the end of the season to speed up decomposition.
- Use powdery mildew resistant varieties or spray to control powdery mildew.
- Use integrated pest management practices to control cucumber beetles and other insect pests.
- Commercial growers should refer to the Midwest Vegetable Production Guide for specific fungicide recommendations.