

Sclerotinia rot – *Sclerotinia sclerotiorum*, the causal agent of Sclerotinia rot, is one of the most destructive and widespread fungal diseases on horticultural crops. Worldwide, the disease on pumpkins and other cucurbits is generally considered a minor problem because it is not very common. When it occurs, however, outbreaks can be serious with large crop losses. Wet conditions are required for this disease and New Mexico’s typically dry conditions generally limit problems associated with this fungus. This fall, the disease was identified on pumpkins grown in New Mexico. This outbreak is the first time the pathogen has been identified on this host in the state and it is believed that heavy September rain created a perfect environment for infection. Previously, the pathogen has been found causing disease in peanuts, cowpea and beans.

Symptoms – Rotting stems or fruit lesions are the most noticeable symptoms. Rot may appear on fruit still in the field or as a post-harvest decay. Fruit is usually infected where the rind contacts the soil. Stem rot begins when the pathogen invades old tendrils or withered flowers, or through stem injuries. The injured tissue first develops a water-soaked appearance. Eventually, white, cottony fungal growth (mycelium) develops around the water soaked tissue and hard black fruiting bodies, called sclerotia, may appear. These fruiting bodies can be easily seen with the naked eye.

Disease Cycle and Conditions for Disease – The fungus overwinters as mycelium in plant debris or as sclerotia in the soil. Sclerotia are long term survival structures remaining viable in the soil for many years. The disease is favored by moderately cool temperatures and wet conditions. Once the disease occurs in a field, the likelihood of future outbreaks in that field is high.

Management – No pumpkin cultivars are known to be resistant to this disease. Crop rotation with non-hosts, especially small grains, is recommended. Other



Sclerotinia rot on pumpkin fruit (Photo: Charles Higgins)



Sclerotinia rot on pumpkin stem (Photo: Charles Higgins)

management strategies include, deep plowing immediately after harvest, planting only in fields with good drainage, and avoiding overhead irrigation or irrigating only when plants have an opportunity to dry quickly. Where disease outbreaks are common, fungicides may be helpful in managing the disease.

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