

### Bacterial Leaf Spot versus Insect Damage on Pumpkins

In VegNet #30, Oct. 9, 1997, the damage described in the article, "Insect Damage On Pumpkins" had tunnels behind the holes through the rind. The callusing was around the edge of the holes, not across the holes. This disorder should not be confused with bacterial leaf spotting on pumpkin fruit.

Bacterial leaf spot (*Xanthomonas campestris*) symptoms on pumpkin leaves start out as small (2-4 mm) angular, yellow to beige spots often associated with large and secondary veins. The lesions can coalesce and dry portions of the leaf can drop out. The appearance and size of fruit lesions can vary depending on fruit maturity and moisture. Initial lesions are small, slightly sunken, circular spots, 1-3 mm in diameter with a beige center and dark brown halo. Later the cuticle and epidermis crack and the lesions enlarge reaching diameters of 10-15 mm. Penetration of bacteria into the fruit leads to significant fruit rot.

Pictures of the insect damage described in VegNet #30 and bacteria leaf spotting on pumpkin fruit are now on view at the VegNet website for comparison. Go to the: 'Problem Of The Week' section.

The internet address is:

<http://www.ag.ohio-state.edu/~vegnet/>

Whenever fruit disorders come into question, you can always get a diagnosis of the problem by sending samples to the plant diagnostic facility in your state. An accurate diagnosis is much better than trying to figure out or second guess the problem during the winter. In OH, contact:

The Plant and Pest Diagnostic Clinic,  
110 Kottman Hall,  
2021 Coffey Rd.,  
Columbus, OH 43210-1087,  
PH: 614-292-5006;  
Fax: 614-292-7162.

Call for shipping instructions and pricing information.

### Pumpkin Defects

Richard Riedel

The following are fruit defects caused by diseases that may appear post-harvest.

#### 1. Sclerotinia Rot;

Fruit affected with this disease will have firm, but very light weight, handles of light tan or straw color. As the handles age, they become pith-like in texture and may have hard, black fungal fruiting bodies in them. Under cool, moist conditions the fungus will move into the body of the fruit. The first symptom of this will be a water soaked, dark tan lesion at the base of the handle. The rest of the fruit is rapidly

invaded and become mushy. The cavity of the fruit generally contains a mass of very large, black sclerotia and masses of white fungal growth.

#### 2. Scab;

Scab lesions at harvest may present a very different picture than active scab lesions early in the season particularly on gourds. Instead of the pitted lesions containing bluish-black masses of spores, the older lesions often callus over and form warty growths on the surface of the rind.

#### 3. Bacterial Leaf Spot and Angular Leaf Spot;

Lesions of these diseases tend to be small (less than 1/4 in) and shallow with a water soaked appearance. A crusty covering may form over some of the lesions. Under very moist conditions the bacteria may move along the vascular bundles into the fruit cavity. If secondary fungal or bacterial rot organisms colonize the lesions they may expand and assume various colors.

#### 4. Fusarium Fruit Rot;

Soft, circular lesions form on the belly of pumpkins with this disease. Early in disease development white to pink spores begin to form in the affected areas. Under moist conditions the rot develops rapidly and affects the entire pumpkin.

#### 5. Phytophthora Rot;

If this disease occurs late in the season, pumpkins and squash may develop a soft rot in storage. The rot tends to develop internally at first. Affected fruit becomes soft to the touch. The fruit cavity may be filled with fluffy, white fungal growth before anything appears on the surface. Eventually, the fungus appears on the surface of rind. It can be fluffy white but most often because of plant sap and secondary bacteria, the fungus will produce a slimy white mass on the surface.

#### 6. Powdery Mildew;

If not adequately controlled this disease can lead to poor handle quality at harvest. Generally the fungus kills only the epidermal (outer) layer of cells on the handle. This causes the handle to become brown. If other fungi invade the killed cells handles can become soft and rot.

Pictures of some of these disorders will be posted next week on the VegNet website.

#### What's New At The VegNet Web Site

In Problem Of The Week, see: [Insect Damage versus Bacterial Leaf Spotting On Pumpkin Fruit](#)>

[My Pumpkins Are Bigger Than Yours - Week 10 The Harvest](#)

[A weekly peek at our pumpkin patch. Post Harvest Handling Tips and Controlling Post-Harvest Rots.](#)

[Coming Next Month: Harvest Wrap-Up \(Pictures plus yield data\).](#)

[Horticulture Field Night At The Enterprise Center, Hillsboro, OH](#)

[Take The Mini Tour.](#)

[For tours and info, Call: Brad Bergefurd at: 1-800-628-7722 for details.](#)

[Highlights From Muck Crops Day](#)

In Problem Of The Week, see:

The Persistence of Weeds.

Scab on Gourds

Powdery Mildew-Pumpkins and

Septoria Leaf Spot on Tomatoes.

More On TOMCAST and Early Blight Visit TOMCAST

Return to Vegetable Crops Homepage Ohio State University Extension

We appreciate very much the financial support for this series of vegetable reports which we have received from the board of growers responsible for the Ohio Vegetable and Small Fruit research and Development Program. This is an example of use of Funds from the "Assessment Program".

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