# Producers Can Add Yellow Vine to the Long List of Pumpkin Diseases

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COLUMBUS, Ohio -- When it comes to pumpkins, damaging pests and diseases are never in short supply. And this year, amid a drought and more common disease issues, some producers experienced the impact of a relatively new foe.

Celeste Welty, an Ohio State University Extension entomologist, said that some of Ohio's pumpkin crop fell victim to yellow vine, a disease of cucurbits thought to be spread by the squash bug, according to research at Oklahoma State University. Yellow vine disease has been in Ohio since 2003, but only sporadically. This year, however, was more severe.

"Ohio State specialists believe this may be the worst year yet for yellow vine," said Welty, who also holds an Ohio Agricultural Research and Development Center appointment. "Because of the nature of how it's spread and the damage it does to the crops, there's concern that this has the potential to be a serious disease."

Research suggests that squash bugs carrying the pathogen (Serratia) transmit it to the plant through feeding. Once infected, the plant exhibits symptoms of yellowing and wilting foliage and stem discoloration. The plants collapse prior to fruit maturity, and death can follow. If the plant lives, it will not produce any fruit.

Yellow vine infects a number of cucurbits, including squash, pumpkin and melon. Cucumbers are not impacted.

Welty collected samples of pumpkin and squash plants at Waterman Farm that exhibited symptoms of yellow vine. The samples were tested by OARDC plant pathologist Sally Miller and her colleagues. Half of the samples turned up positive for the disease. Researchers are hoping to have the test available to producers next year.

"Diagnosing the disease is tricky because the yellowing is similar to other diseases and symptoms don't show up until about 28 days after infection," said Welty. "The key to managing the disease is controlling the squash bug."

Squash bug adults overwinter and emerge in June, laying eggs on the leaf underside. The eggs hatch about two weeks later, with nymphs feeding on the plant leaves and stems for up to a month. Squash bugs will also feed on the fruit before harvest. Ways of controlling the squash

bug include rotating in non-cucurbit crops or promoting the crop's early growth, using biological controls such as parasitic flies and wasps and chemical control with approved insecticides.

Yellow vine is just one of several diseases that can impact pumpkins. Other diseases producers face include Phytophthora foliar blight, bacterial wilt, anthracnose, angular leaf spot, bacterial spot, Fusarium fruit rot, white mold, wet rot, powdery mildew, downy mildew and Microdochium blight.

"Pumpkins are a tough crop to produce," said Welty. "But despite the shortage of pumpkins we faced this year, they are a moneymaker and still an important crop for Ohio."

Ohio is one of the nation's top pumpkin-producing states, accounting for 18 percent of the country's supply in 2007, according to the National Agricultural Statistics Service. Last year Ohio's pumpkin crop was valued at over $33 million, up from $22 million in 2006.

For more information on yellow vine or other cucurbit diseases, log on to http://vegnet.osu.edu/.