Virginia Cooperative Extension

PUBLICATION 450-709

Plectosporium Blight of Cucurbits

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Plectosporium blight (formerly called Microdochium blight) is a disease of pumpkins and squash that was first reported in Tennessee in 1993. It is caused by the fungus Plectosporium tabacinum (formerly Microdochium tabacinum). In 1994 the disease appeared in Virginia in both pumpkins and zucchini, causing severe blighting of the vines before fruit maturity. The reason for the sudden appearance of this disease is unknown, but Plectosporium blight has been present in Virginia every year since 1994.

Symptoms

Plectosporium tabacinum infects stems, leaf veins, and fruit. Symptoms of Plectosporium blight are very distinctive and easily distinguished from other cucurbit diseases. Initially, lesions on stems and leaf veins are small, white, and diamond-shaped (Fig. 1). Lesions quickly coalesce, causing the entire surface of the vine or leaf vein to turn white (Fig. 2). Because leaf lesions are restricted to the veins and do not spread to the interveinal tissue, they may be overlooked in the early stages of disease development. Leaves on severely affected vines die and complete defoliation may occur in severe cases.

On fruit the white lesions are more circular and less diamond-shaped. Spots on the flesh remain small and scattered; however the "handle" or stem stub on the pumpkin may be completely white at harvest (Fig. 3).

Fig. 2. Lesions coalescing on main veins on underside of pumpkin leaf. (Photo by M.A. Hansen)

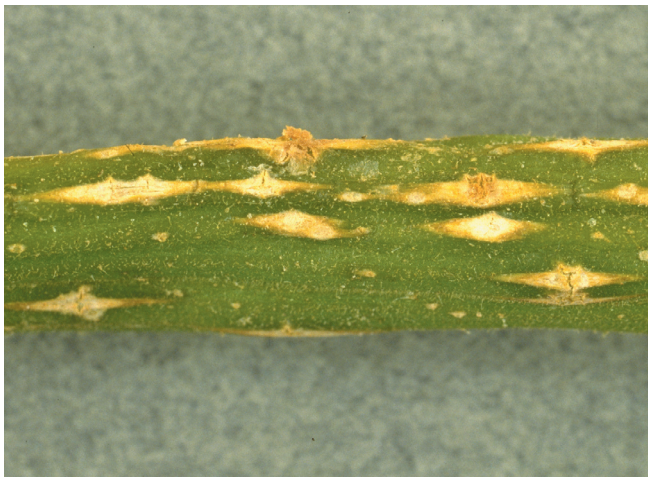

Fig. 1. White, diamond-shaped lesions of Plectosporium blight on pumpkin stem. (Photo by M.A. Hansen)

Fig. 3. Lesions on pumpkin stem and fruit. (Photo by M.A. Hansen)

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Produced by Communications and Marketing, College of Agriculture and Life Sciences, Virginia Polytechnic Institute and State University, 2009

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Disease Cycle

Plectosporium tabacinum occurs in soil and decaying plant material. Little is known about the disease cycle, but spores are most likely spread by wind and rain.

Control

- Regular application of label rates of chlorothalonil (e.g. Daconil 2787) provides excellent control of Plectosporium blight (Fig. 4). The fungicide, trifloxystrobin (e.g. Flint), also provides excellent control of this disease. This fungicide should be rotated with chlorothalonil to prevent the development of fungicide resistance in the fungal population. Refer to the current Virginia Pest Management Guide for Home Grounds and Animals (VCE Publication 456-018) or *Commercial Vegetable Production Recommendations* (VCE Publication 456-420) for general information on the proper use of fungicides and pesticides.

Fig. 4. Death of pumpkin vines due to Plectosporium blight. The center of the field, where the spray boom did not reach, was left unsprayed. Parts of field at edges of picture were sprayed with chlorothalonil fungicide. (Photo by M. A. Hansen)

Refer to the current Virginia Pest Management Guide for Home Grounds and Animals (VCE Publication 456-018), http://pubs.ext.vt.edu/456-018/, for details on the proper use of pesticides.