

DOTHICHIZA LEAF SPOT OF BLUEBERRIES

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INTRODUCTION. Blueberries are native to several areas in the United States, including the Atlantic coastal states. The rabbiteye blueberry, *Vaccinium ashei* Reade, is native to the southeastern United States and occurs along large streams in northern Florida and southeastern Alabama and Georgia. The highbush types (*V. corymbosum* L. and *V. australe* Small) are grown extensively in New Jersey, North Carolina, and Michigan (2). Blueberry cultivation in Florida has grown from 50 acres in 1974 to 300 acres at present (C. E. Arnold, Univ. of Fla., pers. comm.). The rabbiteye cultivars best suited for Florida in descending order are 'Climax', 'Woodard', 'Aliceblue', 'Beckyblue', 'Delite', and 'Bluebell'--the highbush cultivars include 'Sharpblue', 'Avonblue' and 'Flordablue' (Paul M. Lyrene, Univ. of Fla., pers. comm.). Acid (pH 4.5 to 5.5), well-drained soils are best suited for blueberry production (1,2,4). Blueberries are also intolerant of nitrate fertilizers and weed competition (4).

Blueberries are affected with a number of disease problems (1,2,3,5,6,7). Of these, *Dothichiza caroliniana* Demaree & Wilcox (3,5,7) is reported to cause a leaf spot or 'double spot' that can be of minor to moderate significance on some cultivars. Its pathogenicity was subsequently established by Taylor and Clayton (7). The inoculum overwinters in fallen leaves and on infected stems (5). In North Carolina it was reported to be of widespread occurrence and damaging among cultivated varieties of highbush blueberry (3). This disease frequently defoliates susceptible blueberry cultivars (5).



Fig. 1. *Dothichiza* leaf spot of rabbiteye blueberry caused by *Dothichiza caroliniana*. (DPI Photo #702627)

SYMPTOMS. Leaf spots caused by *Dothichiza caroliniana* are initially characterized by pinpoint, dark brown lesions which enlarge to circular or subcircular brown spots up to 3 mm in diameter, with a dark brown margin and a slight, diffuse yellow halo (Fig. 1). Leaf spots tend to enlarge, hence the name 'double spot'. It is possible that varietal differences in susceptibility to the pathogen exist. For example, of three cultivars recently observed at a commercial outlet, the rabbiteye cultivars 'Homebell' and 'Tifblue' had a few to a moderate number of lesions (1 to 10) per leaf, with 'Tifblue' having fewer and smaller lesions, whereas the rabbiteye cultivar 'Climax' had none.

CONTROL. Benlate is recommended for control of leaf spot diseases of blueberry and should be applied according to manufacturer's recommendations, if the disease is serious. Captan, Dyrene, and zineb are also registered for use on blueberries (T. A. Kucharek, Univ. of Fla., pers. comm.).

SURVEY AND DETECTION. Look for the onset of dark brown, discrete, pinpoint leaf spots, which progress to a lighter brown with a slight halo and enlarge up to 3 mm in diameter on the more mature leaves.

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