EXECUTIVE RESEARCH AND EXTENSION

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Problem: Anthracnose - Colletotrichum coccodes; C. dematium



Host Plant: Tomato

Description: Anthracnose is a frequent problem in the latter part of the growing season on ripening tomato fruit. The disease results in a fruit rot which reduces the quality and yield of tomatoes.

Symptoms of anthracnose appear first as small, circular, slightly sunken lesions on the surface of ripening fruits. The spots quickly enlarge, become deeply depressed, and develop a water-soaked appearance directly beneath the skin (epidermis) of the fruit.

Black, concentric rings form in the center of the lesions; the rings actually consist of numerous small fruiting structures (acervuli) of the disease-causing fungus. During humid weather, masses of buff-colored fungal spores (conidia) are extruded from the fruiting structure. Several lesions may coalesce, causing extensive decay of the fruit. Eventually, secondary microorganisms invade the lesions and cause a complete rotting of the fruit.

The fungus is capable of surviving in infected plant debris and in the soil. During rainy weather, spores of the fungus are splashed onto the fruit. Most infection takes place on ripe or over-ripe fruit. Green fruit also may be infected, although symptoms do not develop until the tomatoes begin to mature. Disease development is favored by high temperatures (80 F) and frequent rainfall.

Recommendations: Several cultural practices help reduce the incidence of anthracnose. Mulching around the tomato plants prevents splashing of inoculum from the soil onto the fruits. Staking tomatoes increases air movement and decreases the likelihood of favorable environmental conditions for infection. Avoid overhead watering and remove infected or rotting fruits from the plant. Chlorothalonil is effective and has a 0-day waiting period from application to harvest. Products that contain chlorothalonil include but are not limited to Fertilome Broad Spectrum Landscape & Garden Fungicide; Ortho Garden Disease Control; Bonide Fungonil Concentrate; Hi-Yield Vegetable, Flower, Fruit and Ornamental Fungicide and GardenTech Daconil.

References:

1. <u>Tomato Leaf and Fruit Diseases and Disorders</u>, K-State Research & Extension, Plant Pathology, L-721

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