CAES
The Connecticut Agricultural Experiment Station
Putting Science to Work for Society since 1875

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Grape Anthracnose

Pathogen: *Elsinoe ampelina*

Grape anthracnose, also called grapevine black spot and/or bird's-eye rot, is a major problem on grapevines grown in Connecticut during hot humid summers with frequent rain. The pathogen can infect all green tissue of the plant including leaves, young stems, flowers and young developing berries. The disease can destroy berries directly and/or cause significant defoliation depriving the fruit of sugar to properly ripen.

Symptoms.

On leaves, the fungus causes small brown spots which fall out when the tissue dies.

Figure 1. Anthracnose lesions on Vidal Blanc leaves.

Infections on young shoots cause distorted growth and the death of the cane (Figure 2).

Figure 2. Distortion on young infected shoot.

On older canes, the typical symptom is the production of classic white centered bird's eye lesions (Figure 3).

Figure 3. Bird's eye lesions on older infected stem.

Infected fruit exhibits small brown lesions (Figure 4), which expand and eventually

Figure 4. Brown circular spots on infected berries.

cause the berries to drop (Figure 5).

Figure 5. Infected berries wither and drop from cluster.

Disease Development

The fungus overwinters as dense mycelial masses called sclerotia in infected woody tissue. In the spring, when the conditions are suitable, these overwintering structures produce abundant conidia that are transmitted to young tissue via rain-splash. Cankers on stem tissue (Figure 3) can produce conidia throughout the season, resulting in repeated periods of infection, when conditions are wet enough.

Disease Management.

Cultivar Selection

Particularly susceptible cultivars are Marquis, Concord Seedless, Mars, Niagara, and Vidal.

Sanitation and Canopy Management

Inoculum can be reduced by removal of all infected woody tissue in the early spring as part of normal pruning.

Fungicide Application

An early application of lime-sulfur to the vines before bud swell has been shown to reduce the initial spread of grape anthracnose. Fungicide sprays over the course of the season can prevent the rapid defoliation from outbreaks of this disease.

Fungicides

1. Mancozeb
2. Chlorothalonil
3. Thiophanate-methyl
4. Captan

CAREFULLY READ THE LABEL ON EACH PESTICIDE BEFORE USE !!!