

BLUEBERRY DISEASE FAST FACTS

Anthracnose (Ripe Rot)

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Figure 1



Figure 2



Figure 3



Figure 4

What: Anthracnose, or ripe rot, is caused by *Colletotrichum gloeosporioides*. This fungus may infect leaves, twigs, canes, blossoms, and fruit. On young canes, infections occur as dark brown lesions with concentric rings of pimple-like fruiting bodies (acervuli). Twig infections are similar in appearance, and often originate from infected flower buds. Leaf infections may occur but are not common in New York State. They vary from small reddish brown circular spots to large black irregularly shaped lesions. Leaf spots are typically not a problem unless they cause serious defoliation.

Infected blossoms are blighted in appearance (Figure 1). Infections often spread from blighted blossoms into adjoining twigs (figure 2). Berry infections are not usually obvious until fruit ripen (hence the alternative name “ripe rot”) but may occur any time from pink bud to harvest. Infections are most common at the blossom end of the fruit. As fruit ripens, infected regions become slightly sunken, giving the surrounding area a puckered appearance (Figure 3). Under very wet or very humid conditions, a layer of pinkish salmon, slimy spores (conidia) develops on the sunken fruit areas or infected twigs (Figures 2 and 4). Conidia from fruit infections serve as a source of secondary inoculum.

When: The pathogen overwinters in infected twigs and canes. In spring, conidia are produced during wet weather and are carried to new tissue by splashing rain. Infections may occur throughout the growing season whenever conditions are favorable.

Where: This disease is a serious problem in both northern and southern blueberry growing regions of the US and Canada. *C. gloeosporioides* also causes rots of apples, grapes, strawberries and other fruits and vegetables.

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(continued)

How: Infections may occur during rainy periods anytime between bloom and harvest, but are most serious during warm rains (>70°F). Infections can occur at temperatures between 59 and 81 °F after a minimum 12 hour wetting period. The fungus is relatively inactive below 59 °F.

Control Strategies: Anthracnose is becoming a more common problem in New York State. An integrated management program is suggested for best results, especially in plantings that have a history of the disease.

- Some resistant highbush cultivars have been identified. Particularly susceptible cultivars include 'Berkeley', 'Coville', 'Blueray', 'Bluecrop' and 'Jersey' and should be avoided on problem sites.
- Prune and remove or destroy dead wood in the spring to reduce over wintering inoculum. Open the canopy to improve air flow and increase spray penetration. (**Note:** pruning out infected wood **will not** completely eliminate the disease.)
- Avoid excessive nitrogen fertilization as this encourages disease development.
- Limit overhead irrigation. If overhead irrigation is needed, irrigate early in the morning to allow sufficient and rapid drying time for plant surfaces. Avoid harvesting fruit when wet.
- Anthracnose is more common and pronounced on overripe fruit, so harvest promptly and frequently. Consider using multiple short-interval harvests followed by rapid cooling of harvested fruit to minimize disease.
- Disease spores may be spread on infected harvest containers such as pails, flats, or totes. Clean harvest equipment thoroughly between infected and uninfected fields.
- Several fungicides are labeled for anthracnose control in NY. Applications should begin at bloom and continue at regular intervals through harvest when favorable conditions for infection exist.

For more information see *Cornell Pest Management Guidelines for Berry Crops*. Apply all pesticides according to label rates and instructions.

References:

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4. Pritts, M.P., Hancock, J.F. and Strik, B. 1992. Highbush Blueberry Production Guide. NRAES Publication #55, Cornell Cooperative Extension, Ithaca, NY.
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