


Stone Fruit IPM for Beginners

Developed by the Great Lakes Fruit Workers and funded by a working group grant from the North Central Integrated Pest Management Center


Chapter 11

European Brown Rot

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European brown rot

Monilinia laxa

Hosts

Tart cherry

Time of concern

White bud until petal fall

Damage, symptoms, disease cycle

European brown rot (*Monolinia laxa*) is a fungal disease that causes blossom blight and shoot and spur dieback of tart cherries (include blossom blight figure). In Michigan, the variety Balaton has traditionally been more susceptible than Montmorency. However, significant infections have been observed in Montmorency orchards with slow drying conditions such as those surrounded by windbreaks, in low spots and in areas where heavy fog settles. Unlike American brown rot that infects both blossoms and fruit, European brown rot-infected fruit have not been observed in the Great Lakes region.

Little is currently understood about the life cycle of European brown rot in the Great Lakes region. The fungus overwinters in infected spurs from the previous season and sporulates in the following spring before and during bloom. Blossom infection occurs during cool and wet conditions of temperatures from approximately 30 degrees Fahrenheit to the low 50s with rain or high relative humidity at the white bud stage before blossoms are open as well as during bloom. The fungus also invades shoots causing dieback and collapse of terminal ends and spurs along the infected branch. Infected spurs remain on the tree and serve as the source of inoculum for the next season.

IPM steps for beginners

Like many tree fruit diseases, the amount of overwintering European brown rot inoculum in specific orchards can play a significant role in the risk of infection under causal conditions.

► Visually scout orchards for infected spurs and shoots. Prune out infected branches to reduce the level of inoculum in the orchard.

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Blossom blight and collapsing terminal ends caused by infection from the European brown rot fungus on tart cherries.

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► Although weather plays a key role in whether or not blossoms will become infected, Balaton tart cherries should be treated for this fungus annually due to this variety's high susceptibility to the fungus.

- Applying an efficacious fungicide during susceptible blossom stages is the best option for management.
- One effective strategy is to make one application of a fungicide containing the active ingredient febuconacole at white bud followed by an additional application of this fungicide seven to 10 days later (during bloom) to prevent blossom blight.