

Cherry leaf spot

Tart, sweet cherry, and plum are attacked by a fungus disease called cherry leaf spot. Cherry leaf spot appears first on the upper leaf surface as small reddish to purple spots. All commercially acceptable cultivars of cherry, and especially Montmorency tart cherry, are susceptible to leaf spot, while plums are less susceptible. On plums, and occasionally on cherries, the necrotic circular lesions drop out, producing shot-hole symptoms. During rainy weather, light pink to white masses of conidia appear on the underside of the leaf in the center of the spots. The spots turn brown, and in sufficient number can cause premature defoliation and weakening of the tree. Fruit on trees severely defoliated before harvest will fail to mature normally and are light-colored, low in soluble solids, soft and watery. Flower bud formation and fruit set on severely defoliated trees may be reduced for at least two seasons. Trees defoliated in mid-summer, particularly young non-bearing trees, are less cold hardy and may be killed by low temperatures in winter.

The fungus overwinters in old infected leaves on the orchard floor and in the spring produces apothecia with ascospores. Ascospores may be discharged during and shortly after rainfall from early bloom to about 6 weeks after petal fall. Infection by ascospores and conidia depends on the duration of wetting and temperature.



A wet period of only a few hours is sufficient for spore germination and infection when temperatures are favorable. Development of visible lesions occurs in 5 to 15 days. Infection takes place through stomates (air pores) located on the leaf undersides. Once unfolded, leaves are susceptible throughout the season, but susceptibility decreases with age.

Optimum conditions for lesion development are temperatures of 60 to 68 degrees F with rainfall or high humidity. As lesions appear, acervuli containing masses of white-to-pink conidia are visible on the leaf undersides. The conidia are disseminated from leaf to leaf by splashing rain and wind. Secondary spread and infection by conidia continues in repeated cycles until autumn leaf.

Are conditions right for cherry leaf spot?

Forecast models for cherry leaf spot are available at [Enviro-weather](#). Select a weather station from the map that is closest to your location. Then click on "fruit" for a list of weather resources and models for fruit production.

References:

Eisensmith, S. P. and A. L. Jones. 1981. A model for detecting infection periods of *Coccomyces hiemalis* on sour cherry. *Phytopathology*.71:728-732.

Jones, A. L. and T. B. Sutton. 1996. Diseases of tree fruits in the east. *Northcentral Regional Bulletin* 45, Michigan State University