

# Chestnut blight

## Cryphonectria parasitica

### Synonyms

None

### Plant hosts

Chestnut (*Castanea* spp.), chinkapin (*Castanopsis* spp.), and oak (*Quercus* spp.). The fungus has also been reported rarely in shagbark hickory (*Carya ovata*), red maple (*Acer rubrum*), and staghorn sumac (*Rhus typhina*).

### Symptoms

Symptoms first appear as small, flat, orange-brown areas on the smooth bark tissues of stems and branches. These lesions may or may not be associated with a small, shade-killed branch or other wound. The lesions eventually develop into sunken cankers as the fungus grows into the bark and sapwood of the tree. The bark may crack over the cankers. Small, yellowish to orange stromata (asexual spore-producing structures) break through the bark, becoming larger and more numerous (as many as 50 per square centimeter) as the canker grows. Yellow tendrils of conidia (asexual spores) extrude from the stromata in wet weather. As the canker ages, the black necks of perithecia (sexual spore-producing structures) appear within the stromata. Ascospores (sexual spores) are released in response to warm rains and mild temperatures (68-80 degrees Fahrenheit) to be spread by the wind. Soon after, the canker expands to eventually girdle the stem; wilting and death of the foliage above the stem canker follows. Typically, susceptible chestnuts like the American chestnut are killed within 1- to 2-years.



Tree with chestnut blight

### Transmission

The fungus spreads through the movement of infected bark, leaves, wood (e.g., stems and boles of trees), and true seed. Fungal spores are windborne and may travel up to 120-meters. The pathogen may also spread over long distances through the movement of infected plant material such as firewood, true seed, and nursery stock.

### Geographic distribution

China, Republic of Georgia, India, Japan, Korea, Europe, Tunisia, Canada (Ontario), and in the eastern USA. Infestations have been detected in American chestnut plantings located in western North America, including in Oregon. However, these infestations have all been successfully eradicated.

### Applicable regulations

[OAR 603-052-0075](#), Quarantine:Chestnut blight