

## **Phomopsis blight**

The fungus *Phomopsis juniperovora* causes Phomopsis blight and canker of juniper and other members of the cypress family.

### **Host plants:**

Phomopsis blight most commonly affects *Juniperus* species such as eastern red cedar (*J. virginiana*), along with creeping (*J. horizontalis*), Rocky Mountain (*J. scopulorum*), and Savin (*J. sabina*) juniper. Other susceptible conifers include arborvitae (*Thuja* species), Japanese cedar (*Cryptomeria japonica*), cypress (*Cupressus* species), Douglasfir (*Pseudotsuga menziesii*), fir (*Abies* species), and yew (*Taxus* species).

### **Description:**

Immature foliage and shoots infected with Phomopsis blight turn yellow-green by late spring and brown by summer. Mature foliage is resistant and remains unaffected, with only the newest growth sustaining damage.



**Eastern red cedar seedlings (left) and close-up of branch in early summer (right) infected with Phomopsis blight**

Photos: (left) N. A. Tisserat, *Diseases of Woody Ornamentals and Trees*. APS Press. (right) M. Petitjean, University of Massachusetts Extension

Sometimes black fruiting structures are visible at the base of the brown tissue. The dead portion of the shoot frequently remains on the plant for many months.

### **Disease cycle:**

Infections in the spring are most common. Small black fruiting structures produce *Phomopsis* spores within infected shoots from previous seasons. Wind and water splash spread spores to young foliage and green twigs. Mild, wet weather provides optimal conditions for spores to germinate and penetrate new growth. Repeated spore release and infections occur as long as conditions are wet and there is succulent tissue on the plant. Mature growth is not infected. By summer, new fruiting structures develop in browned foliage and twigs, and *Phomopsis* can survive in the killed plant material for up to 2 years.

### **Management strategies:**

During dry weather, remove and dispose of infected plant parts to improve appearance and reduce *Phomopsis* blight inoculum in the planting. Cut below the boundary of dead and healthy twigs to ensure removal of all the infection. Reduce the ability of *Phomopsis* spores to infect plants by promoting rapid foliar drying when young growth is developing. If overhead irrigation is used, water before midday so the foliage dries rapidly in the afternoon. If the plants are shaded or crowded, prune adjacent plants to improve air circulation and sunlight penetration. If the site is particularly conducive to *Phomopsis* blight, replace susceptible plants with conifers better adapted to the site as well as resistant to *Phomopsis* infection. Fungicide control of *Phomopsis* blight is useful if practiced along with the cultural suggestions above. When conditions are wet, prompt application of fungicides protects immature tissue from infection. If moist weather persists, repeat applications per labeled intervals to maintain protection.

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