

**1450   
Juniper-hawthorn rust**

Juniper-hawthorn rust is a fungal disease that requires a juniper and an alternate host to complete its lifecycle. Alternate hosts are apple, crabapple, [[](http://www.ext.colostate.edu/ptlk/1450a.html)](http://www.ext.colostate.edu/ptlk/1450a.html)hawthorn and mountain ash.

On a juniper, two-inch ball-shaped galls develop on stems from spores blown in from the alternate host. A gall is an abnormal growth of plant tissuescaused by the stimulus of a disease or insect. In the springtime, gelatinous spore horns called teliohorns, erupt from these galls. Spores from teliohorns are blown to an alternate host where they cause leaf spot. These spots are small, bright orange-yellow, and surrounded by a red halo. Spores are produced on the underside of each leaf spot in hair-like projections. Wind carries the disease back to junipers.[[](http://www.ext.colostate.edu/ptlk/1450b.html)](http://www.ext.colostate.edu/ptlk/1450b.html)

Spores produced on a juniper only infect the alternate host, and spores produced on the alternate host only infect a juniper.

Although the galls are innocuous to the juniper, repeated infection on the alternate host can cause early defoliation, and smaller fruit. Defoliated trees maysuffer winter injury and often fail to grow fruit the following season.[[](http://www.ext.colostate.edu/ptlk/1450c.html)](http://www.ext.colostate.edu/ptlk/1450c.html)

Cultural controls include removing juniper galls before they produce spores and separating junipers from potential alternate hosts. A few hundred yardsseparation is generally sufficient for practical garden purposes. The danger markedly decreases with distance, especially when separated by a windbreak.

Fungicides such as Bayleton and Daconil 2787 applied to alternate hosts at seven-to-ten day intervals, beginning at bloom, are effective. Chemical control is not necessary on a juniper.