

## Cedar-Apple Rust

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**What is cedar-apple rust?** Cedar-apple rust is the name of a group of closely related diseases caused by fungi that infects both junipers and woody rosaceous plants such as apple, crabapple, hawthorn and quince.



**Cedar-apple rusts form slimy, orange fruiting body on junipers in early spring.**

**What does cedar-apple rust look like?** On junipers, the cedar-apple rust fungus causes formation of irregularly-shaped brown galls (roughly ½ to 2 inches in diameter). During moist periods in spring, these galls produce a distinctive orange, gelatinous slime. Symptoms on rosaceous hosts appear in late May as circular, yellow-orange areas on leaves. The undersurfaces of these diseased areas often have a fringed appearance.

**Where does cedar-apple rust come from?** Several fungi in the genus *Gymnosporangium* cause cedar-apple rust. These fungi overwinter as galls on junipers.

**How do I save a tree or shrub infected with cedar-apple rust?**

Junipers can easily be treated for cedar-apple rust by pruning branches about 4-6 inches

below the galls. Clean pruning shears between cuts (e.g., by dipping in a 10% bleach solution or an alcohol solution) so you don't move the fungus from branch to branch, or from plant to plant. To prevent future infections, you can apply fungicides containing triadimefon or ferbam every 7-21 days from early July through August. You can control cedar-apple rust on rosaceous hosts using fungicides containing chlorothalonil, ferbam, dithiocarbamates, mancozeb, metiram, sulfur, thiram, triadimefon, triforine, or zineb. Apply treatments when flower buds first show color, when half of the flowers are open, at petal-fall, 7-10 days after petal fall and again 10-14 days later. Be sure to read and follow all label instructions of the fungicide that you select to insure that you use the fungicide in the safest and most effective manner possible.

**How do I avoid problems with cedar-apple rust in the future?** The best way to avoid cedar-apple rust is to plant trees and shrubs that are resistant to the disease. Check at your local nursery for resistant varieties of juniper, apple, crabapple, hawthorn, and quince that are available in your area and that will satisfy your landscaping needs.

**For more information on cedar-apple rust:** See UW-Extension Bulletins A2598 and A8KS711 or contact your county Extension agent: