

Cedar-Apple Rust

Dr. Green Thumb

Arkansas Gardener – February

By: Stephen Vann

Background

One of the most dramatic and spectacular plant diseases to appear in early spring is cedar-apple rust. This disease is caused by the fungus *Gymnosporangium juniperi-virginianae* and is rather unique in that it requires both cedar and apple trees to survive each year. It is mainly a problem in the eastern portion of North America and is most important on apple or crabapple (*Malus* sp). However, it can also affect our ornamental quince and hawthorn.

Symptoms

The chief damage by this disease occurs on apple and crabapple trees, causing early leaf drop and poor quality fruit. This disease can harm overall tree appearance in the home landscape. On apple, symptoms first appear as small, green-yellow leaf or fruit spots that gradually enlarge to become a bright yellow-orange color (**FIG. 1**). The fungus produces specialized fruiting bodies on the lower leaf surface that give the spots a raised, hair-like appearance in the centers. Wet, rainy weather conditions favor severe infection of the apple. On cedar, the fungus forms large jelly-like galls in the spring (**FIG. 2**). The disease is generally considered insignificant on our native red cedar and ornamental cedar, although some twig dieback may occur.



FIG. 1 Leaf spots of cedar apple rust (apple)



FIG. 2 Jelly-like galls of *Gymnosporangium* (cedar)

Prescription

Resistant varieties of apple and crabapple are the best method of control. Because it is impractical to keep enough distance between the native cedar trees and cultivated apples or crabapples in Arkansas and many other southeastern states to minimize infections, fungicides may be used to protect apples against infection. Early fungicide applications beginning at bud break work best as they will protect very young apple leaves from infection. Fungicides that contain captan or myclobutanil are registered on apples. Mature leaves tend to be less susceptible to the disease. Fungicide control on the cedar is not recommended since the damage to cedar is not considered significant and it would not help anyway,

unless all cedars in the area could be sprayed. Early detection and identification are important for effective disease management strategies. For further information about cedar-apple rust and other rust diseases of plants, contact your local county Extension office.

** [See Extension Fact Sheet FSA 7538](#)

BYLINE: Stephen Vann is an associate professor and Extension plant pathologist with the University of Arkansas, Cooperative Extension Service.

University of Arkansas, United States Department of Agriculture and County Governments Cooperating.

The Arkansas Cooperative Extension Service offers its programs to all eligible persons regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status, or any other legally protected status, and is an Affirmative Action/Equal Opportunity Employer.