



Kramer Tree Specialists, Inc. - "Complete Professional Tree Care"

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Rust

Rust diseases are caused by an unusual group of fungi. Each of these fungi requires two host species to complete its life cycle. In the Midwest, the species most consistently and severely attacked are the Cedar (Juniper), and the broadleaf hosts (Apple, Crabapple, Quince and Hawthorn.)

Symptoms

On junipers, symptoms appear in the spring as light brown to reddish galls. These galls range in size from 1/8 inch to over 2 inches in diameter. They elongate rapidly during damp weather and develop sporehorns up to 2 inches long within several hours. The spores from these galls are blown through the air to the broadleaf hosts. Eventually the galls dryout and remain on the tree for a few years.

Symptoms on the broadleaf hosts are similar. The leaves will develop yellow spots on the upper surface that grow to about 1/4 inch in diameter, turning orange with a reddish border as they mature. The fruit and twigs will become deformed.

Life Cycle

Spores are released during wet weather in April or May from galls or infected twigs on junipers. This rust organism spends the first year of its life cycle on the juniper. During the second spring these spores are blown by air currents to the broadleaf host, where infection of the leaves, twigs and fruit occur. Spores from lesions on infected leaves or fruits of broadleaf hosts are windblown to junipers in late summer. The fungi overwinter on the juniper hosts.

Management

Control is possible through fungicide treatments, sanitation, and proper maintenance. A series of three fungicide spray treatments is applied to the broadleaf trees in the spring. Separation of the alternate hosts is recommended, as spores from juniper galls can travel a quarter mile or more. Because of this mobility, separation is not always possible.

Clean up and destroy fallen leaves and fruit. Fertilize to maintain vitality. Spray crabapple & hawthorn trees in the spring with a series of three fungicide applications made at 14-21 day intervals. Begin spraying junipers in July through August and physically remove galls from junipers.

