



Rose (*Rosa*) Disorder: Rust

G.L. Worf

Symptoms and Effects

This disease gets its name from the red or black masses of dusty spores which develop in diseased tissue. Several species of fungi can cause rose rust and some variation in symptoms can occur. Rust typically causes yellow to red circular spots, about 1/8-1/4 inch in diameter, beginning on the lower leaves of the plant and continuing upward. During early stages of the disease these spots may be too small to notice, and the first indication of the disease may come from a generally unhealthy appearance and loss of lower leaves. The leaves may become quite twisted and dry before falling off.

Rust is best identified by looking for small circular spots containing masses of red, orange or black spores. These spores may be scraped off the leaf surface with a knife. Examine lower leaves first, looking at both sides of the leaves. The effects of this disease may be mild or severe depending on the season and how early the plants become infected.

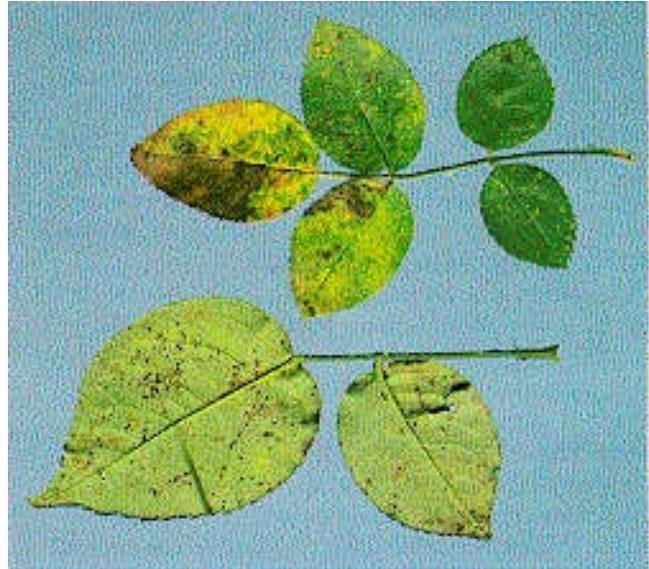
Another form of rust affects *Rosa foetida* and some of its hybrids particularly, producing massive reddish spots and swellings. These spores can also be scraped off with a knife. This rust is systemic and lives from year to year in the twigs of infected plants.

Field diagnosis can be made accurately. However, take care not to confuse it with mite injury or virus infection. Laboratory confirmation can be made by properly submitting suspect plant to your county UW-Extension office.

Causes

Fungus (*Phragmidium spp.*)

Infection frequently starts when diseased roses are introduced into a garden. The fungus is also capable of overwintering in the state. The systemic form of rust survives readily in the diseased tissues of native roses.



The upper leaf surface (on top) illustrates typical yellow and red spots which occur before the leaf dies. The orange and black blotches on the lower surface are rust spores which identify the disease.

Distribution and Frequency

Rust of hybrid and floribunda roses is a moderate problem in Wisconsin. In recent years several infections have been reported, and it has reached epidemic levels in some rose gardens. Rust is generally much more severe in the spring and fall rather than in summer months. However, it can cause trouble at any time during the growing season.

Systemic stem rust is a disease that has long plagued certain Wisconsin roses. However, its appearance on hybrids and floribundas is rare. Report any observations on these crops for laboratory confirmation to your county UW-Extension office.

Wet rainy periods or prolonged periods of dew formation encourage leaf rust to become more severe. Weather conditions do not influence systemic rust so dramatically.

Control

Rose rust is not easy to control. If rust is not presently a problem in your garden, try to keep it from becoming established by introducing only plants that are apparently free from the disease. Carefully clip off any foliage or stems that show signs of rust, and remove them from the garden.

Most "rose fungicides" are not very effective against rust disease. Funginex (Triforine) is perhaps the most effective of the chemicals currently available. It is also very effective against blackspot and powdery mildew. Bayleton (triademefon) is a new fungicide with similar rust control effectiveness. It is registered for rust control on roses and several other crops. For a time it may be difficult to obtain, except by commercial growers. Actidione (cycloheximide) should help suppress rust. We have not successfully controlled rose rust with such conventional rose fungicides as folpet (Phaltan), benomyl (Benlate) and carbamates (Maneb and Zineb).

No chemical is effective against systemic rust. It may be desirable to remove plants infected with systemic rust, or at least promptly cut off and destroy plant parts showing rust outbreaks to reduce the hazard of continued disease spread in the garden.

References to products in this publication are not intended as endorsements to the exclusion of others which may be similar. Persons using such products are responsible for their use according to the current label directions of the manufacturer.



The base of Rosa foetida twig is showing an extensive red-orange pustule which is typical of systemic rust disease.

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