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## ***Common Diseases: Rusts***

*Use Integrated Pest Management (IPM) for successful plant problem management.*

### ***Biology***

In general, rust diseases are easily diagnosed because of the abundant production of colorful powdery spores formed in tiny pustules. Microscopic examination may be necessary to identify specific rust pathogens. Spore production sometimes is limited to the underside of leaves, while the top surface may show discolored spots. Fruit infections may occur in susceptible fruiting plants. Many rust spores appear orange to yellow, while some rusts produce brown to black spores. Most rusts are very host specific and only infect certain plants. Many rusts also need two different types of plants (primary and alternate hosts) to complete their life cycle.

### ***Management Options***

#### **Non-Chemical Management**

- ~ Rake up and destroy all dead leaves.
- ~ Plant resistant cultivars.
- ~ Removing infected leaves early in the season may be effective in some home gardens.
- ~ When applicable, remove alternate hosts growing in the near vicinity.
- ~ Prune out and destroy infected and dead wood during the dormant season.

*Select non-chemical management options as your first choice!*

#### **Chemical Management**

***IMPORTANT: Visit Home and Garden Fact Sheets for more information on using pesticides***

Certain fungicides are effective in protecting plants from infection. Refer to the specific host for registered pesticide effective in managing rusts.

*Common Diseases: Rusts*

*Images*



~ Caption: *Hypericum rust*  
~ Photo by: R.S. Byther



~ Caption: *Rust on serviceberry*  
~ Photo by: R.S. Byther



~ Caption: *Fuchsia rust*  
~ Photo by: R.S. Byther



~ Caption: *Fuchsia rust*: close-up of fruiting bodies  
~ Photo by: R.S. Byther



~ Caption: *Geranium rust*: upper leaf surface and lower leaf surface  
~ Photo by: R.S. Byther



~ Caption: *Geranium rust*: close-up of sporulation  
~ Photo by: R.S. Byther



~ Caption: *Oregon grape rust*  
~ Photo by: R.S. Byther



~ Caption: Oregon grape rust  
~ Photo by: R.S. Byther



~ Caption: Hollyhock rust  
~ Photo by: R.S. Byther



~ Caption: Amelanchier rust  
~ Photo by: R.S. Byther



~ Caption: Snapdragon rust  
~ Photo by: R.S. Byther