

RHODODENDRON RUSTS

Rusts are becoming a serious problem on some varieties of rhododendron and azalea. They are more pronounced in the spring. Infected leaves develop yellow to orange pinpoint pustules of uredial spores on the lower leaf surface which coincide with leaf spots on the upper surface. In cases of severe infection, defoliation and death of the plants may occur. All rhododendron rusts are airborne and can attack rhododendrons without the need of the alternate host, which is usually hemlock or spruce. They can survive through the winter as mycelium or uredia on the rhododendron leaves.

Two types of rusts are known to attack rhododendron. 1) Common or native rusts; the most common one is *Chrysomyxa piperiana*. Other species of rusts that commonly attack *Ledum sp.* and rhododendron are *Chrysomyxa ledicola* and *Chrysomyxa ledi glandulosa*. 2) European Rust is caused by *Chrysomyxa ledi rhododendri*. The fungus is believed to have been introduced from Europe or Asia where the disease is native. Gould et al in Washington in 1955 reported the disease for the first time in the United States. The disease is known to occur in Oregon, California, and British Columbia. It attacks many species and varieties of rhododendron, especially the narrow leaf varieties. In Europe, the telial state of the rust fungus develops on the native rhododendron, i.e. *R. ferrugineum* and *R. hirsutum*. A survey done in British Columbia showed that the fungus attacks eleven species and hybrids of exotic rhododendron.

While the European Rust attacks the narrow leaf rhododendron, the common rust, *Chrysomyxa piperiana*, attacks the native broad leaf varieties, i.e. *R. macrophyllum* as well as some cultivated hybrids. In Canada, although both wild and cultivated rhododendron have been found infected with the uredial and telial stages, the adjacent spruce were not found infected with the rust.

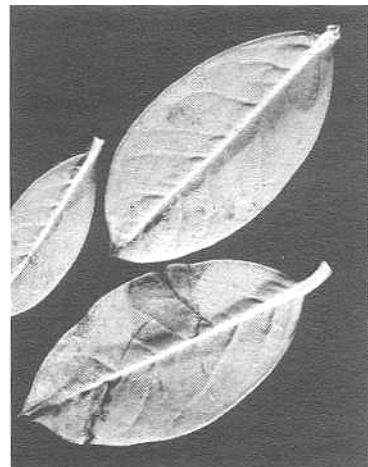


Fig 1. Uredial spores of the rhododendron rust (*Chrysomyxa* sp.) in pinpoint pustules on lower surface of Rhododendron leaf.

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