

## Chrysanthemum White Rust

Chrysanthemum white rust caused by *Puccinia horiana* is considered of plant quarantine importance in the United States because it can destroy cultivated chrysanthemum plants. Spread mainly by infected nursery stock, its occurrence in the U.S. has been sporadic in greenhouses, and quickly eliminated. This fungus attacks the horticultural varieties of *Chrysanthemum* (Asteraceae). If established in the U.S., chrysanthemum white rust could have significant impact on both greenhouse and outdoor plants of chrysanthemum.

***Puccinia horiana*** Henn.

Spermogonia, aecia and uredinia unknown.

**Telia** hypophyllous, rarely epiphyllous, compact, yellowish to gray, 2-4 mm diameter, often clustered in a circular pattern. Teliospores oblong to oblong-clavate, 30-52 × 11-18 µm, two celled but occasionally 3- and 4- celled, slightly constricted at septum, cell wall pale yellow, smooth, 1-2 µm thick at sides, 2.5-8 µm at the apex; pedicel hyaline, persistent, up to 45 µm long.

**Hosts:** Various species of *Chrysanthemum* sect. *Chrysanthemum* and sect. *Ajanía* (Asteraceae). For a while some species were recognized in the genus *Dendrathera*, but now these species have been conserved in *Chrysanthemum*.

**Geographic distribution:** This fungus occurs commonly in Japan, China, Taiwan, and Thailand and has become established in South Africa as well as many countries in Europe and South America. Although occasionally reported, this rust is considered eradicated from Australia and New Zealand. Recently greenhouses in the U.S. have encountered this disease but it has been eradicated.

**Specimens Examined:** [BPI 843409](#)

Infection by *Puccinia horiana* is first noticed as yellow to tan spots on the upper surface of the leaves, up to 5 mm diameter; the centers of the spots later turn brown. On the underside of the leaves raised buff, pinkish, waxy pustules develop which later become whitish and quite prominent as the teliospores develop.

Severe infections can lead to complete loss of the crop. Losses also are due to the unsightly telial pustules on the leaves making the plants unmarketable.

*Puccinia horiana* is an autoecious rust, that is, it occurs on only one host. Although several other species of rust fungi attack *Chrysanthemum*, white rust is distinctive in having waxy, light colored pustules and pale-yellow, elongate teliospores.





