



Rust



Description: *Puccinia* spp: There are many different rust fungi that can infect lawn grasses, but they all have in common the production of reddish, yellowish or orange spores that give "rusts" their name. If only a small amount of infection has occurred, the rust spores will only be seen by close observation of the tiny, powdery pustules on the leaf blades. In severe cases, there may be enough spores present to leave a reddish dust on mowers, pants and shoes. The turf grass itself may not look particularly diseased until after the infection is well developed. In fact, because spore production does not occur until one to two weeks after infection, rust-infected turf grass leaf blades are usually mowed away before rust spores can be produced. In rare severe infections, the lawn may look thin and be weakened and more susceptible to other stresses such as drought or winterkill. Rust is most common on Kentucky bluegrass and perennial ryegrass, and occurs mostly in late summer and early fall.

Disease Cycle: Most rust fungi have complex life cycles that involve two unrelated host plants and many spore stages. The disease cycle on lawns is usually limited to the rust-colored spore stage which rarely survives New England winters. As a result, most rust infections are initiated by spores that are blown up from warmer southern areas. Rust fungi cannot grow without a living host plant. Infection only occurs when water is on the leaf surface and can occur at most normal summer temperatures. There is usually not enough time for spores to be produced on lawns that are mowed regularly, so epidemics are not usually severe.

Control Measures: Fertilize to keep the grass growing about one inch per week in summer and early fall droughts. Use a balanced fertilizer; do not apply excessive nitrogen. As the grass grows, it pushes rust-infected leaves outward, making infected blades easy to mow and remove. Mow regularly to remove infected leaf tips, but avoid mowing below the recommended height for the particular turf species or cultivar. Grasses growing slowly under stressful environmental conditions are most susceptible to rust, particularly when water, fertility, and soil conditions are inadequate for good growth. Logically, control measures should target stress areas. Badly infected areas of turf may have to be renovated and reseeded.

The most important way to avoid rust infection on lawns is to keep the turf grass growing vigorously so that it will be mowed before spores can be produced. Balanced fertility based on soil tests, aeration to relieve compaction, thatch removal and adequate water supply are among the important factors that will optimize turf grass growth. Watering practices that keep foliage dry as much as possible will help reduce infections by rust and other foliar fungi. Mow on a regular schedule and do not irrigate in the evening. Mowing the turf too short can sometimes stress the plants and increase their susceptibility to rust attack. Prune surrounding trees and shrubs to improve light penetration and air circulation around densely shaded areas. The best time to do this is mid- to late-August.

Information obtained through Virginia State University

