

Problem: Rust on Turfgrasses - *Puccinia sp.*



Host Plants: All commonly grown turfgrasses

Description: Rust occurs to some extent on all turfgrasses grown in Kansas; however, this disease is generally most severe on susceptible cultivars of Kentucky bluegrass, perennial ryegrass, and zoysia grass. Rust normally appears in late August to early September and continues through the fall months. Rust outbreaks are dependent on favorable weather conditions. Therefore, disease severity may vary dramatically from one year to another.

From a distance, rust-infected turf appears dull yellow or light brown. Individual plants may die and the turf becomes noticeably thin. The disease tends to be more severe in partially shaded areas, such as under trees or along fences.

Diseased plants initially develop light-yellow flecks on the leaves. As the spots enlarge, the surfaces of the leaves rupture, exposing masses of powdery, brick-red spores of the fungus. The powdery material rubs off easily on your fingers, shoes or clothing. Rust-colored spores of the fungus are diagnostic of this disease. Continuous heavy infection causes many grass blades to turn yellow, wither and die. Severely rusted lawns may winterkill.

Recommendations: The rust fungi may overwinter in infected plants or be reintroduced into lawns each summer by wind-blown spores. Infection of leaf blades is favored by moderate temperatures (68° - 85° F) and extended wet periods. Once infection has occurred, disease development is favored by higher temperatures. Turfgrasses under stress (drought, shading, close mowing heights, high temperatures) are most likely to be seriously damaged by the disease.

Turfgrass varieties differ in their levels of susceptibility to rust infection. However, under good cultural practices the difference can be negligible. Some turf varieties with high resistant ratings for rust include: Kentucky bluegrass (Barvette HGT, Barserati, Burl, Aramintha, Bolt, Kenblue) and perennial ryegrass (Evolution, Stellar 3GL, Octane, Pangea GLR, Banfield, Bonneville). A complete list of turf variety ratings for rust disease is available from the National Turfgrass Evaluation Program at www.ntep.org .

Turfgrass provided with optimal levels of fertilizer and water is less likely to be severely damaged by rust. Avoid evening watering which increases the length of time the leaf blades remain wet. Regular mowing, which severs infected leaf tips from the plant, will help reduce inoculum levels. The best strategy is to mow frequently at a height not less than what is recommended for the turfgrass. Avoid close mowing or scalping of the turf. It is not necessary to remove clippings.

References:

[Rust Disease of Turfgrasses](#), K-State Research and Extension, EP163

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