Southern Rust Found in Central Iowa

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Abstract
Southern rust was reported in several fields in Butler and Grundy counties late last week. Leaf samples were received by the ISU Plant Disease and Insect Clinic, and confirmations were made. Because common rust is widespread in cornfields in Iowa, it is important for farmers and agronomists to correctly distinguish between these two rusts, especially if a fungicide decision is to be made.

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Southern Rust Found in Central Iowa

By Alison Robertson, Department of Plant Pathology and Microbiology, and Erika Salaau-Rojas, Plant and Insect Diagnostic Clinic

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Southern rust versus common rust

Southern rust can develop rapidly under favorable conditions (Table 1), and foliar fungicides are often required to protect yield. The earlier during the grain fill period that southern rust occurs, the greater the impact it can have on yield. Although we see southern rust in Iowa in most growing seasons, it is usually only reported in mid- to late August as the crop nears maturity. The outbreak of southern rust in central Iowa is unusually early, grain fill has just started, and, therefore, this outbreak is of concern. Furthermore, weather conditions in central Iowa at this time are very conducive to disease development (Table 1).

Common rust rarely impacts yield because most hybrids have very good tolerance to the disease, and conditions during grain fill are often too warm for common rust disease development (Table 1). Thus, a fungicide application for common rust is not usually warranted to protect yield.

Management

Hybrids vary in their tolerance to southern rust, so some fields will be more at risk than others.

Previous cropping history and percent crop residue do not increase risk since this pathogen survives in the south and spores are blown up to Iowa each growing season.

Foliar fungicides are very effective against southern rust, but timing is important, especially if weather is conducive for disease development; applications should be made as soon as possible after southern rust is identified in a field or on susceptible hybrids within the area in which the disease has been reported.
southern rust found in central iowa

Figure 1. Common rust pustules are brick red, elongated and sparsely scattered on both leaf surfaces.
Update on Goss’s wilt and leaf blight

Goss’s leaf blight symptoms have been observed in our foliar product efficacy trials in southwest Iowa and central Iowa. Furthermore, ISU Extension and Outreach Field Agronomist Brian Lang reported Goss’s leaf blight on drought-stressed corn in northeast Iowa. The ISU PDIC has also received several leaf samples with Goss’s leaf blight. Farmers and agronomists are encouraged to continue to scout at risk fields for Goss’s. Please see this ICM News article, “Tips for diagnosing Goss’s leaf blight.”

References


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