

## News Column

Stacy Campbell

Cottonwood Extension District, Hays

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### **Southern rust detected on corn in Kansas**

Southern rust is now active on corn from Kansas to Indiana and southward. This disease used to arrive in Kansas around the first of August, but since 2015, it has been arriving much earlier. Thus making it an increasingly important disease. Rising average temperatures have allowed the disease to become established a full month earlier than in its historical past. When corn is planted late because of wet fields, or when it is double-cropped after wheat, southern rust can cause potential yield losses ranging from 10 to 30 percent.

The first positive field in 2019 was discovered on July 11, but based on the age of the pustules, it has been here since sometime in mid-June. This, combined with very late-planted corn in many areas of the state, increases the threat that this disease will cause significant yield loss problems in 2019. The severity is dependent on the weather. Currently the extended forecast indicates that weather will remain favorable for disease development. Southern rust likes 90-degree days, warm nights, and high humidity.

To view a scouting reporting map that is tracking the current confirmed reports of where Southern Corn Rust is identified in Kansas and surrounding states go to <https://corn.ipmPIPE.org/southerncornrust/>

Symptoms of southern rust include pustules that are usually circular to oval, with a diameter of 0.2 to 2.0 millimeters. They typically are densely scattered on the upper leaf surface (Figure 3). When severity levels are high, pustules are occasionally seen on the underside of the leaf near the midrib; however, they are normally confined to the top side of the leaf.

Sporulation can be so heavy that the leaf surface becomes covered with a layer of "spore dust" that transfers easily to clothing as a person walks through an infected field. Light-colored clothing will quickly take on an orange-brown color. Southern rust can sometimes be confused with common rust.

For more information on identifying corn rusts, see K-State Research and Extension Bulletin MF3016, [Corn Rust Identification and Management in Kansas](#).



**Figure 3. Close-up of southern rust on corn. Photo courtesy of Tom Allen, Mississippi State University.**

#### **Treatment recommendations**

Fields that have already been sprayed for gray leaf spot should also be protected from southern rust for three to four weeks after application, depending on the product used. Fields that have not received a fungicide application at tasseling should be regularly monitored for the build-up of southern rust. Fungicide applications as late as hard dough have been reported to provide economic returns in some instances. Efficacy ratings for corn fungicide management of southern rust can be found at <https://cropprotectionnetwork.org/download/5214/>.

Information provided by Doug Jardine, Extension Row Crop Plant Pathologist.

*Stacy Campbell is an Agriculture and Natural Resources agent in the Cottonwood District. You can contact him by e-mail at [scampbel@ksu.edu](mailto:scampbel@ksu.edu) or calling 785-628-9430.*