

SOUTHERN CORN LEAF RUST CONFIRMED IN NEBRASKA

The UNL Plant and Pest Diagnostic Clinic has confirmed southern rust in several counties in south central and southeast Nebraska. So far Gage County is the nearest county with confirmation of southern corn leaf rust. These samples were from fields that had a low incidence of disease at this time. Southern corn leaf rust will develop and spread if we have warm temperatures and high humidity. Southern corn leaf rust does not overwinter in infected residue. Spores must be carried into the area from southern or western locations by winds from diseased areas. Southern rust has not been confirmed in either Kansas or Missouri corn fields at this time. If this disease spreads into our area, fields planted later are at higher risk for disease and potential severe yield impacts. We recommend scouting fields, especially those at higher risk, such as later planted fields, for southern corn leaf rust and other foliar diseases.

There is a southern corn rust monitoring website that tracks observation of southern rust across the country. This is similar to the soybean rust maps that we have used to monitor Asiatic soybean rust in recent years. There has not been much activity on this website to date. The link to this website is: <http://scr.ipmpipe.org/cgi-bin/sbr/public.cgi>. Unfortunately funding for this monitoring project was eliminated, so activity by state pathologists has declined the last two years. So, this map may not be complete and it is best to refer to reports from your local university plant pathologists, diagnostic laboratories and county Extension offices.

Common rust has been confirmed in Nebraska for several weeks this growing season. Common rust spores are usually brick-red to brown in color. It is generally not an issue because most corn hybrids have natural resistance to this disease. Southern corn leaf rust pustules are light cinnamon-brown to orange in color and are predominantly on the upper leaf surface. Halos can be observed in some hybrids around the pustules. Here is a link to the NebGuide, "*Rust Diseases of Corn in Nebraska*", <http://www.ianrpubs.unl.edu/epublic/live/g1680/build/g1680.pdf>. This NebGuide provides a good description of southern corn leaf rust, differences between common rust and southern rust and a list of fungicides labeled for corn. The most reliable method for identifying corn rust diseases is based on examination of microscopic spore characteristics. This can be done by submitting a sample to the UNL Plant & Pest Diagnostic Clinic. Information on submitting a sample can be found at: <http://pdc.unl.edu/diagnosticclinics/plantandpest>. You can also contact our Extension office at Auburn in Nemaha County at (402) 274-4755 or your local Extension office for information about submitting a sample.

You may recall we had a severe epidemic of southern corn leaf rust in south central Nebraska in 2006. This was blamed on simultaneous development of above-normal night temperatures and excessive rainfall in August. Southern corn leaf rust is a bigger problem because most hybrids do not have resistance to this disease and it is a more aggressive. Timely fungicide application can be effective in corn, but systemic



fungicides can provide protection for only about 21 days, so timing is important to make the best use of a product's protective and curative properties. If you decide to use a fungicide, pay close attention to the labels restrictions and the pre-harvest interval. Much of the information from this article came from an article in "*CropWatch*" that can be accessed on the web at: <http://cropwatch.unl.edu/web/cropwatch/archive?articleID=5356355>. If you have question, feel free to contact me at (402) 274-4755.

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