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2010 Soybean Rust Update

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Abstract
This could be the world's shortest ICM News article. It could simply read "soybean rust, meh". But I will take some time to explain. We have identified three critical steps that must happen for rust to get to Iowa. They are (1) to survive winters somewhere in the south, (2) build up inoculum (spores) where survival occurs and (3) movement of these spores to fields further north and successful infection of soybeans in those fields. These steps may need to reoccur several times for rust to get to Iowa.

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Integrated Crop Management NEWS

2010 Soybean Rust Update

By Daren Mueller, Department of Plant Pathology

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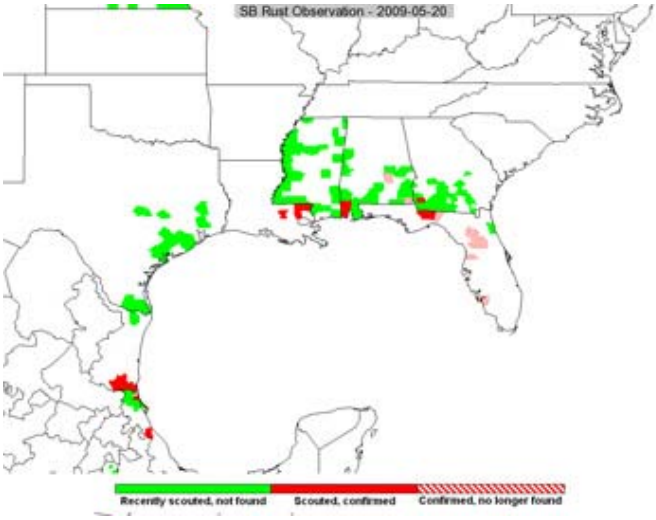
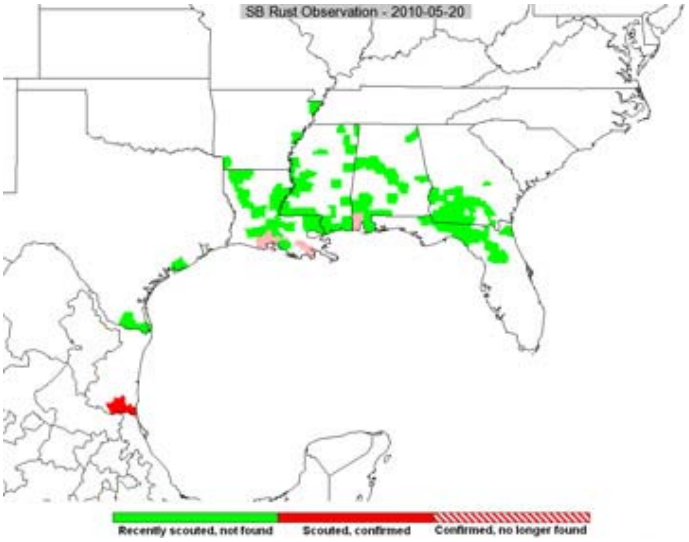
In years past, soybean rust has survived in several states across the southern U.S. Droughts and other obstacles have prevented the overwintered spores from building up and moving north until late in the season. This past winter was a different story. While we are all too familiar with how much snow and cold weather we had here in Iowa. Freezing temperatures crept further south than normal. The main overwinter source of soybean rust, kudzu, was killed back in most places in the south. As a result, there have been NO known locations in the U.S. where soybean rust survived the winter. Kudzu has leafed out and soybeans are growing, but there still have been no known soybean rust finds in the U.S. to date.





Distribution of soybean rust in late May 2009 (top) and May 2010 (bottom). *Note no known sources of soybean rust in the U.S. in 2010.*

During the 2010 growing season, we will have five sentinel plots scattered across Iowa. These will be coupled with our fungicide trials at the Northeast Farm (Nashua), Northeast Farm (Sutherland), Southeast Farm (Crawfordsville), Armstrong Farm (Lewis), and Curtiss Farm (Ames). We have a network in place to increase the number of mobile sentinel plots if the risk of soybean rust increases. We also will continue to use X.B. Yang's predictive model to assess the risk of soybean rust getting to Iowa. According to early results from his predictive model, the risk of rust getting to Iowa is the lowest it has been since 2005, which was the first full year of soybean rust being in the U.S.

Last Section 18 fungicide now gone

Flutriafol (Topguard, Cheminova) was the last of the Section 18 soybean rust fungicides to expire. While the Section 18 label has expired, Topguard received a federal registration on soybeans in late April. Cheminova is working on the state registrations for this product and hopes to have product in the field by June. Topguard is in the triazole class of fungicides and has soybean rust, frogeye leaf spot, Cercospora leaf blight, brown spot and powdery mildew on its label.

Seasonal updates on soybean rust

As a reminder, you can view short, frequent updates on soybean rust on the ISU Soybean Rust webpage. You can also sign up to receive these updates through email. Information on how to sign up for these email updates also can be found on the webpage.

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