



PLANT DISEASE AND INSECT ADVISORY

Entomology and Plant Pathology
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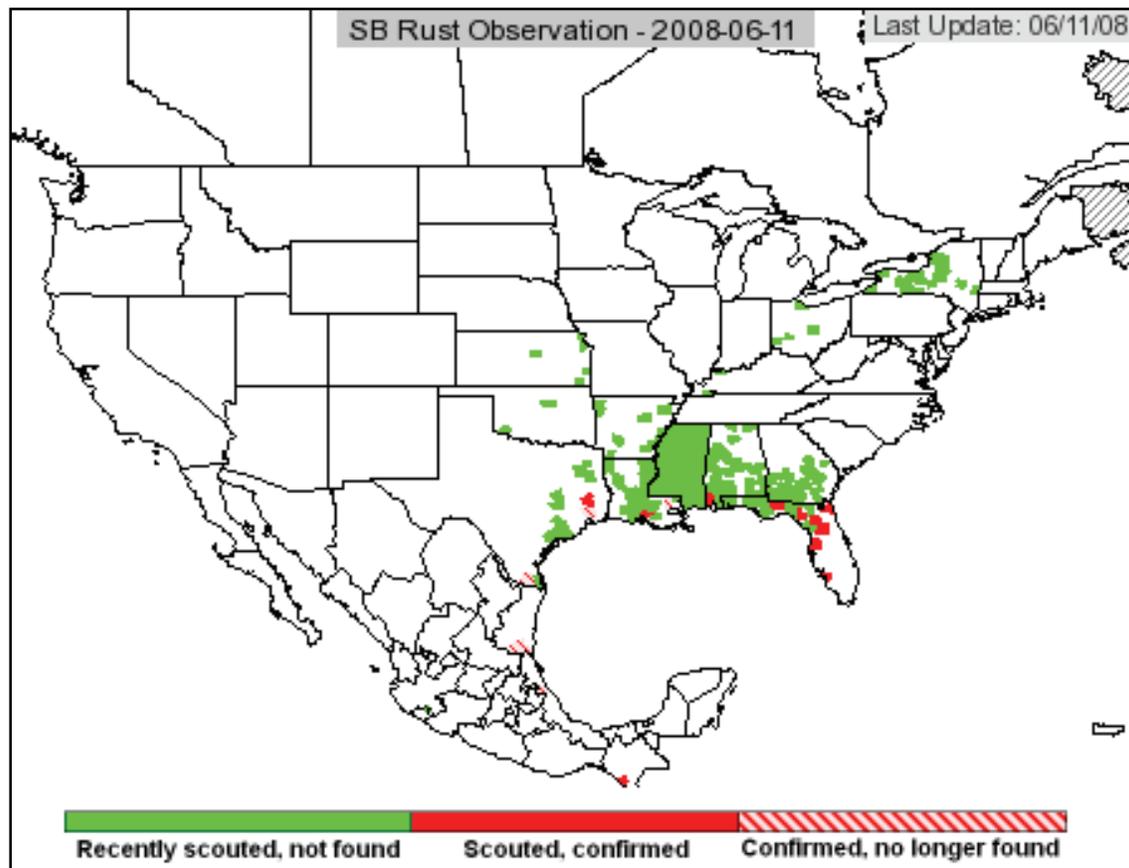
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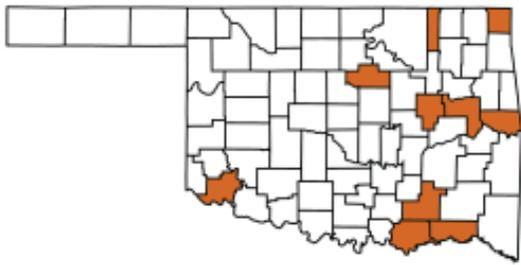
June 13, 2008

Soybean Rust Update and 2008 Monitoring Program

John Damicone, Extension Plant Pathologist

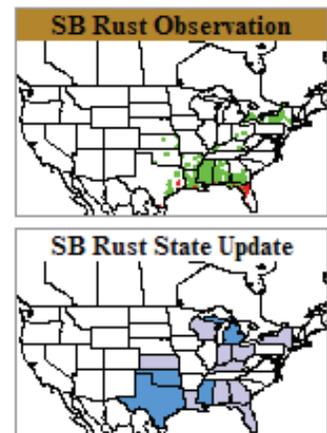
Soybean rust is off to a slow start in the United States again in 2008. Dry conditions in south Texas and along the Gulf Coast have limited increases in the disease thus far. Currently the disease has only been found on kudzu in Texas, Alabama, Florida, and Louisiana. There are no reports of rust on soybeans in the U.S. yet in 2008. Rust has also been confirmed on coral bean (*Erythrina herbacea*) a new alternate host (<http://www.floridata.com/ref/E/erythrin.cfm>) in Florida. This legume is not native to Oklahoma and its function as an overwintering host might prove to be similar to that for kudzu in that its vegetation freezes back each winter in temperate climates. The current distribution of soybean rust (see map) is remarkably similar to that for this time in 2007 when rust eventually developed in Oklahoma soybeans. However, conditions are much different in Texas compared to the wet spring and early summer experienced there last year.





Oklahoma is again participating in the national soybean rust monitoring program. Sentinel plots will be located in Atoka, Bryan, Choctaw, Jackson, Muskogee, Ottawa, Okmulgee, Payne, Sequoyah, and Washington Counties in 2008. We have begun receiving samples from some of the sites (see green counties on map above) and have not found soybean rust.

The current distribution of soybean rust can be monitored anytime at <http://sbr.ipmpipe.org>. Note that the web address has changed, but the old web address (<http://www.sbrusa.net>) will still get you there. Two maps can be viewed at this location. The default map shows the distribution of the disease with positive counties marked in red, and those where rust was not found in green. The state update map with various shapes of blue can be used to access state updates. I and other state specialists leave reports on crop development, rust outlook, and scouting and management recommendation. These can be accessed by clicking first on the map to bring it up, and second on a state to view the state's update. I try to do this each Friday. First reports of rust in Oklahoma will also be reported immediately through this newsletter.



Bacterial Stalk Rot of Corn Stinks! John Damicone, Extension Plant Pathologist

Bacterial stalk rot of corn is usually a minor disease of corn caused by soft rotting bacteria in the genus *Erwinia*. A foul odor is typically associated with *Erwinia* diseases. We received a sweet corn sample from northeastern OK (Rogers Co., John Haase) in which the central leaves in the whorl were yellow, dead, and dying (Fig 1). The affected leaves pulled easily from the whorl revealing a dark brown rot at the base of the whorl (Fig 2) that literally stunk when smelled up close. In older corn, the same bacterium rots the stalks of older corn plants and is called bacterial stalk rot. In corn at the whorl stage, the disease is referred to as bacterial top rot. The disease is favored by heavy rain, high humidity, flooding, overhead irrigation with surface water, and temperatures in the 90's. Genetic resistance to bacterial stalk rot is known to occur, but the disease occurs so infrequently it is doubtful that disease ratings are often collected or reported. The cultivar "Jubilee" has been reported to be highly susceptible in Oregon. Management strategies are limited and include cultivation to incorporate infested residue and crop rotation away from soft rot susceptible vegetable crops such as potatoes. The disease also affects field corn. According to Greg Shaner at Purdue University, heavy rains, flooding, and high winds in the Midwest may lead to increased levels of bacterial stalk rot, crazy top (downy mildew), and common smut. Except for the flooding, we have experienced similar weather so we should be on the lookout for these diseases as well.



Fig 1. Corn sample showing damage.



Fig 2. Bacterial top rot in corn sample.

Dr. Richard Grantham, Director, Plant Disease and Insect Diagnostic Laboratory

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