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Update on Soybean Rust in Iowa

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Abstract

Similar to the past several years, soybean rust was not a threat for Iowa soybean growers. This year did have a couple of interesting developments, neither affecting Iowa soybeans.

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Disciplines

Agricultural Science | Agriculture | Plant Pathology

Update on Soybean Rust in Iowa

RFR-A9122

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Introduction

Similar to the past several years, soybean rust was not a threat for Iowa soybean growers. This year did have a couple of interesting developments, neither affecting Iowa soybeans.

First, soybean rust was found in nearly 575 counties, including most (or all) of the counties in Arkansas, Louisiana, Mississippi, Alabama, and Georgia. Soybean rust was found in 16 states; the furthest north was in Illinois. This is the most counties with rust to date. As a comparison, soybean rust was found in 392 counties in 2008.

The second development was that soybean rust finally established early enough in some states to require management. Soybean rust still has not caused yield loss in any Midwestern state. With the widespread movement of soybean rust in 2009 throughout the Southeast, we will be keeping an eye on how well the pathogen overwinters. Remember, the pathogen needs living tissue to survive. Where and how much rust survives will influence the early season establishment of rust next year.

This past season also marks the last year a Section 18 fungicide for soybean rust was available. The Section 18 labels for Punch and Topguard have expired. Punch will not be available for soybean and EPA has not decided on Topguard.

One thing that has not changed over the past few years is our sentinel plot monitoring system.

Materials and Methods

Sentinel plots continue to be an important tool for early detection of soybean rust in many states, including Iowa. A key advantage for sentinel plots is the commitment of Iowa State University staff to carefully scout these plots in hopes of identifying soybean rust very early in its establishment. In 2009, 14 sentinel plots were established across the state, many on research and demonstration farms. These plots were scouted biweekly or weekly throughout the season.

In addition, we participated in a nationwide effort to monitor for the movement of soybean rust spores. Microscope slides that were sampled weekly through the season were processed by the University of Illinois. The information obtained through this network helps model for soybean rust movement. Typically spores will be found before disease, although all the factors influencing this are still being studied.

Results and Discussion

Soybean rust was not found in Iowa, but knowing if soybean rust was here or not helps growers make informed management decisions, especially concerning foliar fungicides. The contributions of the research farms in monitoring for soybean rust are appreciated.

Acknowledgements

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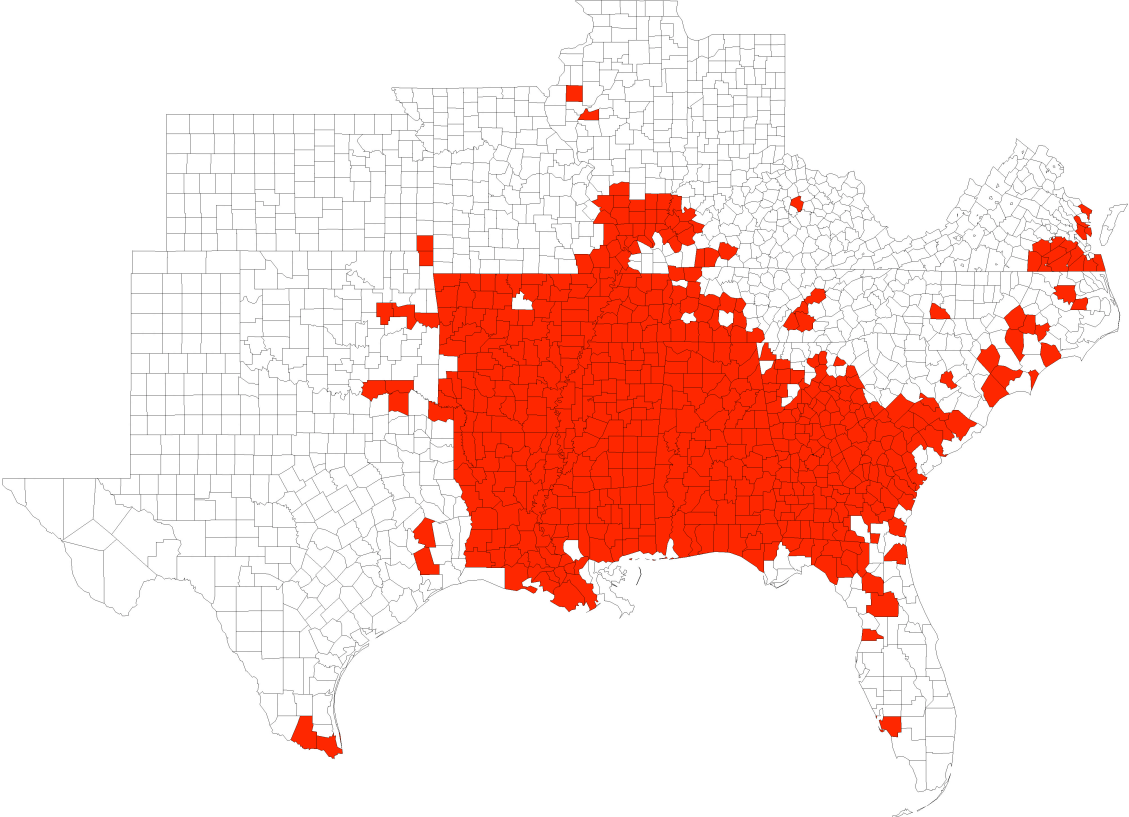


Figure 1. Counties where soybean rust was found in the United States during 2009.