2-27-2006

Tracking soybean rust in 2006

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Tracking soybean rust in 2006

Abstract
Under favorable conditions, soybean rust can spread and develop rapidly. This characteristic makes it important to track its advancement on a national scale so Iowa producers can apply protective fungicides when necessary but avoid expensive unnecessary treatments. It was with this in mind that the North Central Soybean Research Program (NCSRP), the United Soybean Board, and the United States Department of Agriculture (USDA) established the soybean rust sentinel plots. In 2005, sentinel plots were established in 31 states and Ontario, Canada. The results of scouting these plots are posted at the USDA Soybean Rust Information Site. This provided producers and researchers with current information about the development of the disease in the United States.

Keywords
Plant Pathology

Disciplines
Agricultural Science | Agriculture | Plant Pathology
Tracking soybean rust in 2006

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After the growing season, the monitoring efforts by plant pathologists in the southern states continued. In January and February, pathologists in Alabama, Florida, and Georgia found kudzu that survived the winter in protected places like under bridges, in culverts, and between buildings. This kudzu was infected with *Phakopsora pachyrhizi*, which in turn produced viable spores. Extension specialists and state officials are working to remove kudzu from protected locations where its presence is known. In addition, soybean rust was found in central Mexico in October. We do not know how or if these developments will influence disease development in 2006. We are certain *P. pachyrhizi* has survived on our continent and that it will be critical to monitor the diseases development on a national scale again in 2006.

Planning is underway to establish a national monitoring network during the 2006 season. Thanks to funding from NCSRP, the United Soybean Board, and the USDA, we will again have 30 sentinel plots located across Iowa. These plots will again be scouted by trained professionals in order to detect soybean rust at a low incidence and early enough that producers will be advised when and if a fungicide treatment is recommended. Results will again be posted on the Internet so producers can monitor disease development on a national scale.

We know that *P. pachyrhizi* is present in the United States and that our soybean varieties are susceptible to this fungus. The development of soybean rust will be driven by weather patterns and environmental conditions. Iowa State University will use Iowa sentinel plots and those in other states to inform producers about the development of soybean rust in 2006.
A sentinel plot located at Sidney in Fremont County. (Ralph von Qualen)

Researchers cover a sentinel plot at the Iowa State University College of Agriculture’s Curtiss Farm in Ames to protect it from frost the first week of May. (S. Navi)

A sentinel plot located at the Andrew Jackson Demonstration Farm near Maquoketa in Jackson County. (Ralph von Qualen)
A sentinel plot located near Waterloo in Black Hawk County. (Ralph von Qualen)

This article originally appeared on pages 41-42 of the IC-496 (3) -- February 27, 2006 issue.

Updated 03/09/2006 - 11:26am