Iowa officials find no additional evidence of Asian soybean rust

Brian Gene Meyer  
Iowa State University, bmeyer@iastate.edu

Dustin Vande Hoeft  
Iowa Department of Agriculture, dustin.vandehoeft@iowaagriculture.com

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Abstract
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Disciplines
Agricultural Science | Agriculture | Plant Pathology
**Iowa officials find no additional evidence of Asian soybean rust**

by Brian Meyer, College of Agriculture Communications Service, and Dustin Vande Hoef, Iowa Department of Agriculture and Land Stewardship

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Asian soybean rust. (Daren Mueller)

"We did verify that one leaf submitted in a plant sample was infected with Asian soybean rust, but how it got into Iowa still needs to be determined," said Bill Northey, Iowa Secretary of Agriculture. "After careful examination of the materials collected to date, we believe no Asian soybean rust infection occurred during the 2006 growing season in Iowa." After analyzing additional plant materials and finding no evidence of rust, IDALS and Iowa State University officials determined that it warranted further investigation by the USDA's Office of Inspector General. "We take the discovery of any new plant pathogen very seriously, especially one that would be the first recorded occurrence in Iowa," said Northey.
On March 8, a sample was submitted to ISU's Plant Disease Clinic. The sample was made up of soybean seeds and plant debris—pieces of pods, stems, and a leaf. The sample was reported to have been taken from a bin of soybeans harvested in Mahaska County in 2006. ISU's testing revealed infection by Asian soybean rust. On March 12, the U.S. Department of Agriculture confirmed that the single leaf in the sample was infected with the disease.

On March 13, personnel from IDALS and Iowa State University collected additional samples of seed and plant materials from bins at the location where the sample was allegedly collected. They analyzed the samples and found no symptoms or signs of Asian soybean rust. IDALS and Iowa State University personnel extensively collected remnants of leaves from the field where the submitted sample reportedly was harvested, as well as from adjacent fields. Although many leaves had symptoms of a common soybean foliar disease called frogeye leaf spot, the officials found none had symptoms or signs of Asian soybean rust. IDALS contacted the USDA's Office of Inspector General, which now is leading the investigation into the origin of the infected leaf submitted to ISU.

In March, when the infected leaf was discovered, the Iowa Soybean Rust Team—which includes representatives of IDALS, ISU, the Iowa Soybean Association, and the USDA Animal and Plant Health Inspection Service—pointed out that it did not pose a risk for the 2007 growing season. The fungus and spores that cause the disease cannot survive an Iowa winter, plus they require green leaf tissue to sustain themselves.

As in previous years, producers need to continue to be vigilant and monitor conditions that favor rust. They should consult with Iowa State University Extension specialists on identification and management plans and work with the Iowa Soybean Rust Team's First Detectors to positively identify any suspected soybean rust in their fields. First Detectors are more than 600 agribusiness professionals around Iowa who were recruited and trained by the Iowa Soybean Rust Team. They can examine leaf samples and decide whether they warrant further analysis by Iowa State University Extension personnel or faculty scientists to detect possible infection.

Growers are encouraged to consult with Iowa Soybean Rust Team First Detectors if they suspect plants might have soybean rust. There is no charge. Names and contact information for First Detectors are available on the Iowa Soybean Rust Team's Asian Soybean Rust Website, and at county Iowa State University Extension offices.

Asian soybean rust was first reported in the continental United States in 2004. So far, the disease has mostly affected Southern states, although the disease has been found as far north as Illinois and Indiana.

In order to infect Midwestern soybeans, Iowa State University scientists [X. B. Yang] say viable spores must blow in from the Gulf Coast states (Florida to Texas) and arrive when there are cool, moist conditions. Iowa State University has planted 20 sentinel soybean plots around Iowa, which is part of a national sentinel system stretching from Florida and Texas up through the Midwest. The plots are monitored throughout the season and producers will be informed of any threat.

Brian Meyer is director of the College of Agriculture Communications Service at Iowa State University. Dustin Vande Hoef is communications director for the Iowa Department of Agriculture and Land Stewardship.