

No Signs of Soybean Rust Found in Virginia

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Asian soybean rust has not been detected in Virginia this year, according to Erik Stromberg, professor and Extension plant pathologist in the College of Agriculture and Life Sciences at Virginia Tech. However, soybean rust has been identified in southern Georgia, Alabama, Florida, Texas, and Louisiana. In addition, soybean rust spores have been detected in spore traps in South Carolina; though it is unknown if the spores were viable at time of impact in the spore trap.

Virginia Tech's researchers are actively monitoring the commonwealth's soybean crop to assist producers in protecting their fields from major yield reductions caused by Asian soybean rust, an aggressive fungal disease, and the soybean aphid.

Soybeans are the largest row crop in the state. Virginia soybean producers harvested 510,000 acres in 2005 with an average yield of 30 bushels per acre. The crop's farm-gate value has ranged from \$75 million to \$100 million annually.

Asian soybean rust was first identified in the United States in 2004. The soybean rust pathogen cannot overwinter in areas with freezing temperatures; therefore, the fungus overwinters in the south. However, the fungal spores are carried long distances by wind currents to locations farther north.

Stromberg points out that moist conditions favor the development of soybean rust. Last year's dry conditions in the south and southeast inhibited its development and the spread in the southeast.

Asian soybean rust can reduce soybean yields by as much as 80 percent if left uncontrolled.

“The timing of fungicide application is critical to control this disease. If a farmer discovers soybean rust on his crop, it is most likely too late for a fungicide application to be of use because this disease can develop very rapidly if environmental conditions are favorable,” said Stromberg.

According to Stromberg, this year there was an increased amount of overwintering rust inoculum available for initial infections and it overwintered geographically closer to Virginia than in 2004 and 2005. He notes that these factors may increase the disease potential in Virginia this growing season. However, very dry conditions this spring throughout the southeast dramatically slowed soybean rust development, therefore inoculum levels are thought to be low. Still, recent wet weather increases the potential for the development and movement of this pathogen.

Virginia Tech began the Virginia Soybean Rust and Aphid Monitoring Program in 2004 with support from the Virginia Soybean Board. This program ensures that an early warning system is in place for soybean rust and soybean aphid so that significant soybean yield losses from these pests are avoided. Additionally, the program aims to ensure that insecticides and/or fungicides are used judiciously, only when necessary, and at the proper time.

In Virginia, 10 USDA sentinel plots and 41 commercial fields are currently being monitored weekly for soybean rust and soybean aphid. Spore traps are also being monitored in soybean growing areas of the state. Soybeans in sentinel plots are planted early to mature before soybeans in commercial fields in order to provide advance detection capabilities.

The Virginia Soybean Rust and Aphid Monitoring Program is part of the

national effort undertaken through the USDA-Pest Information Platform for Extension and Education, which is a federal, state, and university-coordinated framework for surveillance, reporting, prediction, and management of soybean rust and soybean aphid.

The soybean aphid is native to Asia and was first identified in the North Central United States in 2000. This pest has since spread and in the past five years, millions of soybean acres in the Midwest and North Central states have required insecticide treatments to prevent economic loss. Aphids were first detected in Virginia in 2001. By 2003, they were found in almost all areas of the state and in most fields.

The soybean aphid does not overwinter in Virginia, and infestations are usually not initiated until mid to late July or early August. Of the many acres infested in Virginia, only a small percentage have reached or exceeded the economic threshold.

The Virginia Asian Soybean Rust website

(www.ppws.vt.edu/ipm/soybeanrust/index.htm) was developed as a comprehensive resource for information on symptoms of the disease, disease management, risk management, and other information. It provides up-to-date outlooks and recommendations from plant pathologists, entomologists, and soybean specialists at Virginia Tech on the soybean aphid as well as soybean rust.

Soybean producers, agri-business, and other stakeholders are encouraged to check the website frequently for current recommendations in order to stay ahead of soybean rust and the soybean aphid. Growers can also call the Virginia Soybean Rust Hotline at (757) 657-6450, extension 130, to hear current status and disease alerts for Asian soybean rust.

Source: Virginia Tech

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