

Asian Soybean Rust Confirmed In West Tennessee

Producers May Need To Take Precautions

KNOXVILLE, TENN.

Experts with University of Tennessee Extension have documented the presence of Asian soybean rust in the state. A significant agricultural disease, Asian soybean rust was confirmed on September 4 in West Tennessee on soybean leaf samples collected by UT Extension soybean sentinel plot scouts from Shelby County. The samples were collected on Wednesday, September 2.

According to Dr. Melvin Newman, UT soybean plant pathologist, and Dr. Angela Thompson, UT soybean agronomist, the level of rust spores in the field are low right now. "If field conditions continue to be favorable for rust development (high humidity, cloudy and rainy), it may still take 30 days before we are at 1 percent severity in most fields," Newman said.

Newman and Thompson say only West Tennessee growers need to consider spraying their soybeans – mainly those whose beans that are between the R1 and R5 growth stages that have not been sprayed with a fungicide recently. Otherwise, there should be no need for chemical control measures, nor do growers in Middle or East Tennessee need to spray at this time.

This year's crop has fared well and Tennessee producers are expecting excellent yields due to abundant rain throughout the growing season. Soybeans generally rank among the state's top crops, earning farmers approximately \$196 million in cash receipts in 2007. Yields were 34 bushels per harvested acre in 2008 with estimates of over 40 bushels per acre this year.

UT Extension monitored for rust in soybean sentinel plots across the state all summer and only now found these few rust lesions on soybean leaves. The disease samples – a few rust pustules – were found on soybean leaves and visually identified with a microscope at the UT Extension lab at Jackson. The samples were then tested with the "QuickStix" method by Newman. Soybean rust has been found in neighboring states including Arkansas, Alabama, Mississippi and Georgia.

Because soybean rust is spread primarily by wind-borne spores and is capable of being transported over long distances, no regulatory action will be taken. Although soybean rust cannot survive the winter in Tennessee, rust spores can easily be blown in during the grow-

ing season from areas in the Southern U.S. where freezing temperatures do not occur.

Growers should contact their local county UT Extension agent to discuss preventative and control measures for next year.

Asian soybean rust is caused by the fungal species *Phakopsora pachyrhizi* and is known to infect kudzu and many other legume species. It has the potential to significantly reduce soybean yields but can be managed with the use of fungicides if detected early.

At this time there are no commercial soybean varieties resistant to soybean rust. Prevention and control measures are expected to raise costs for producers and ultimately for consumers. Fungicide applications can reduce yield losses from rust and other late-season diseases, depending on the plants' developmental stage, the time during the growing season when soybean rust is detected and weather conditions.

In addition to this West Tennessee site, Asian soybean rust has been found in 8 states in 103 counties; in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, South Carolina and Texas.

More information about soybean rust and recommended measures for controlling the disease are available through the UT Extension Web site: <http://UTCrops.com>. First click on "soybean" then follow the link labeled "diseases and nematodes." Growers can also visit the USDA soybean rust Web site: <http://sbr.ipmPIPE.org/> and view the map showing positive locations or call the toll free UT Soybean Rust HOTLINE Number which is 1-877-875-2326.

UT Extension offices are listed in local phone books under the county government listing. Additional information is available online at: <http://www.utextension.utk.edu/offices>

This is the first instance of Asian soybean rust found in Tennessee during 2009. There were no finds of this disease during the 2005 growing season, however it was found in West and Middle Tennessee during late October 2006, October 2007 and November 2008. Asian soybean rust was first found in the United States in November 2004. The disease was confirmed at that time in samples across nine southern states, including one sample from Shelby County, Tenn.

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