

Asian Soybean Rust Detected in Soybean for the First Time in Kentucky

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Asian soybean rust was detected in soybean for the first time in Kentucky on Friday, October 6, 2006. The find was in a sample collected from the corner of an otherwise mature sentinel plot located at the University of Kentucky Research and Education Center in Princeton. Disease incidence was about 25% (i.e., 25 leaves out of 100 had some infection) and infection severity was around 10% infected leaf area. Our new laboratory technician, Carol Nash, is the one who spotted the infections first. Soybean rust was confirmed from this site by multiple people in four different labs, using four different methods, in three different states.

Early during the week of October 16, we also picked up soybean rust in three additional counties: Calloway and Hickman Counties in the far west, and Fayette County in the Bluegrass area in central Kentucky. The Fayette County find is of great interest since there has not been any soybean rust found within a couple hundred miles of Lexington. The SBR model predicted that we should find the disease, and sure enough we did. At that location, SBR was found in a group 5 variety in a sentinel plot. Incidence was about 5 percent, but the leaves with infection were heavily sporulating (20% severity). That find was confirmed visually and by ELISA.

As of October 18, recent samples from Ballard, Carlisle, Daviess, Graves, Henderson, Livingston, Logan, and Muhlenberg Counties in west Kentucky and Bracken, Larue, Hardin, Oldham, and Nelson Counties in central or northeast Kentucky have been negative for soybean rust.

Below is the summary situation in Kentucky as of Wednesday October 18, 2006:

Soybean rust was detected on soybean for the first time ever in Kentucky on Friday, October 6, 2006. The find was in the corner of an otherwise mature sentinel plot located at the UK Research and Education Center in Princeton. Incidence was about 25% and severity around 10%. Then between Sunday October 8 and Tuesday October 17, SBR was detected at various levels in 12 additional counties (Calloway, Christian, Fayette, Fulton, Hickman, Hopkins, Lyon, Marshall, Todd, Trigg, Union, and Webster Counties). All of the finds are in west Kentucky except for the Oct 13 find in Fayette County, which is in central Kentucky. Finds were in commercial fields except for the Caldwell, Fayette, Union, and Webster County finds, which were in sentinel plots. Incidence was generally low (<1-15%). With the exception of the Fulton and Hopkins County finds, which had extremely low severity (<0.01%), severities were around 5-20%. For all finds, the stage of pustules was mostly uniform. This observation, and SBR spore deposition models, suggests that a large number of spores blew into Kentucky sometime during the third week of September. A fairly hard frost has recently been experienced in most of the state, so there may be little additional sampling from this point on.

Finding soybean rust at this time will have absolutely NO impact on the 2006 soybean crop in Kentucky. In fact, soybean rust will "go away" from Kentucky as soon as there is

hard frost. It simply cannot survive this far north. However, these finds are of great importance for refining the soybean rust predictive models.

Continue to monitor the FREE SOYBEAN RUST HOTLINE: 1-888-321-6771 for updates on new soybean rust finds this fall. I will also update the hotline during the winter to reflect information on the overwintering status of soybean rust. During the remainder of the fall, I will update the hotline on Mondays and Friday's. During the winter, I will update the hotline on Mondays only. This hotline is funded by your check-off dollars through the Kentucky Soybean Promotion Board.