Soybean rust outlook--July 18, 2005

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Abstract
During the past week, soybean rust was found for the first time infecting a commercial soybean field in southern Alabama, 1 mile northwest of a sentinel plot that was found to be infected three weeks earlier. Earlier this week, it was confirmed in a sentinel plot in George County, southeastern Mississippi, at very low levels. In the Alabama field, the disease level was also at very low levels, and the farmer has sprayed the field during the past weekend. The disease was also found in a second sentinel plot in Georgia.

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Nevertheless, these reported areas are unlikely to be effective sources of rust spores for northern regions because of limited rust activities. Soybean rust-like spores have been found more often in the southern states but in a very low number caught in the traps. No soybean rust has been found in soybean and kudzu in Kentucky after extensive scouting with experts from Brazil. Scouting has been underway weekly in Iowa sentinel plots and no suspicious sample of rust has been found. Soybeans on the sentinels are now well into the advanced stages and most of them are from full bloom to full pod.

**Outlook**

Computer models show an increase in the transport of spores from the known sources in the South up to northern regions, but the higher concentration of spores being predicted is still limited to Florida, Georgia, Alabama, southern South Carolina, and Mississippi.

Our analysis on disease favorability using the past month precipitation data indicates that the moisture conditions have been more favorable for rust development in the Gulf Coast states, whereas northern production regions are at low to very low favorability, due to dry conditions that have been prevailing in the season. The newest detections reported are within the regions our models predicted for both high concentration of spores and favorability for disease to develop. For the next weeks, modeling results show an increasing favorability for the disease to establish in northern regions of Gulf Coast states, up to Kentucky and Tennessee, and still a low favorability for northern states, except southern Illinois and Missouri. Due to limited rust activities in the South, there is a low chance that serious epidemics can develop at this stage there. For Iowa, considering the presented scenario, our assessment is that it is unlikely we will find soybean rust in soybean fields before mid-August. If the rust is found around mid-August in Iowa, the disease is unlikely to cause any significant economic damage.

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