

## **Soybean Rust Found In Alabama November, 21, 2004**

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Soybean leaf samples collected From Mobile county last week tested positive for *Phakopsora pachyrhizi*, or soybean rust. The samples were collected by a State Inspector from the Alabama Department of Agriculture and Industries. The fungus was initially identified by Dr. Jackie Mullen at the Auburn University Plant Diagnostic Laboratory. The sample was later sent to researchers at USDA's National Plant Germplasm and Biotechnology Laboratory in Beltsville, Md., for secondary confirmation.

On Thursday of last week, two members of the USDA soybean rust detection assessment team visited Mobile and Baldwin counties to assess the situation and conduct surveillance around the detection site to determine the extent of the disease spread. The assessment team visited numerous fields in the two-county area along with representatives of the Department of Agricultural and Industries and Ed Sikora, Extension Plant Pathologist with Auburn University. Leaf samples from five fields expressed symptoms of soybean rust based on field observations, though positive identification will be made by researchers in Beltsville, Md.

Soybean rust has now been confirmed on soybeans in Alabama, Louisiana, Mississippi, Florida and Georgia. The disease has also been positively identified on kudzu in Florida. In our survey last week, one kudzu sample collected from Baldwin County appeared to be infected with rust; however, further testing will be necessary to confirm the presence of the pathogen. Kudzu is an invasive plant that can serve as a "host" for the fungus that causes the disease. It is estimated that 11 million acres of kudzu exist in the southeast.

While this is the first instance of soybean rust to be found in the United States, the detection comes at a time when most soybeans have been harvested across the country. As a result of the harvest, the impact of the fungus should be minimal this year. Information gathered in the ongoing Gulf Coast regional assessment this year will help extension specialists and regulatory officials determine the distribution of the fungus in the United States. Soybean rust is spread primarily by wind-borne spores capable of being transported over long distances. At this point in time, based on predictive models, we believe the detection in the United States is related to this year's very active hurricane season.

While the harvest for this year is complete, during next year's planting season, producers will need to watch for symptoms of the fungus. Soybean rust produces two types of lesions, tan and reddish brown.

Tan lesions, when mature, consist of small pustules surrounded by slightly discolored necrotic area with masses of tan spores on the lower leaf surface (this is what we observed in Mobile and Baldwin County last week).

Reddish brown lesions have a larger reddish brown necrotic area, with a limited number of pustules and few visible spores on the lower leaf surface. Lesions are most common on leaves but may occur on petioles, stems and pods. Once pod set begins on soybean, infection can spread rapidly to the middle and upper leaves of the plant.

Soybean rust can be managed with the judicious use of fungicides. However, early detection is required for the most effective management of soybean rust. Monitoring soybean fields and adjacent areas is recommended throughout the growing season. Fungicide applications can reduce yield loss, depending on the plant developmental stage, time when soybean rust is detected, and fungicide application method.

For more information on soybean rust, please visit [www.aphis.usda.gov](http://www.aphis.usda.gov)