

## plant disease

Overview • Current Issue • Back Issues • Search PD Search Back Issues • Subscribe • Acceptances • Editorial Board

## <u>Back</u>



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Copyright 1994-2008 The American Phytopathological Society Late Season Occurrence of Soybean Rust Caused by *Phakopsora pachyrhizi* on Soybean in Illinois. G. L. Hartman, USDA-ARS and Department of Crop Sciences, University of Illinois, Urbana; and R. A. Hines, C. D. Faulkner, T. N. Lynch, and N. Pataky, Department of Crop Sciences, University of Illinois, Urbana. Plant Dis. 91:466, 2007; published online as doi:10.1094/PDIS-91-4-0466B. Accepted for publication 4 December 2006.

Soybean rust, first reported in the continental United States in Louisiana in 2004 (2), is one of the most important foliar diseases of soybean worldwide. On 10 October 2006, 20 soybean leaflets from 20 plants at physiological maturity were arbitrarily collected in research plots near Glendale, IL at the University of Illinois Dixon Springs Agricultural Center in Pope County and sent by overnight courier. On 11 October, leaflets were examined with a dissecting microscope at the Soybean Disease Laboratory at the National Soybean Research Center, and then at the Plant Disease Clinic, University of Illinois. Tan, angular lesions that were 2 to 4 mm in diameter were observed on the lower leaf surfaces of two of the 20 leaflets. Within these lesions, there was one uredinum on one leaflet and four on the other leaflet exuding hyaline, echinulate urediniospores ( $20 \times 25$ μm). On 11 October 2006, these leaflets were sent by overnight courier to the USDA/APHIS/PPQ/NIS Laboratory, Beltsville, MD Plant Disease Clinic for identification by morphological examination and by PCR using primers specific to *Phakopsora pachyrhizi* (1). Both tests confirmed the presence of *P*. pachyrhizi. The 18 leaflets that did not have sporulating pustules on 11 October were incubated in the laboratory for 5 days at near 100% relative humidity. Following incubation, nine leaflets were observed to have uredinia exuding urediniospores with a range of 1 to 43 uredinia per leaflet. These results indicate that incubation may be necessary to maximize the potential to observe uredinia exuding urediniospores. To our knowledge, this is the first report of P. pachyrhizi infecting plants in Illinois.

*References*: (1) R. D. Frederick et al. Phytopathology 92:217, 2002. (2) R. W. Schneider et al. Plant Dis. 89:774, 2005.

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