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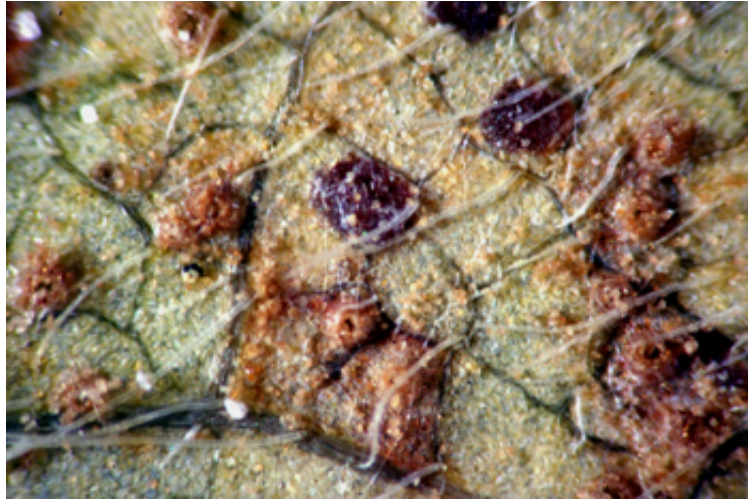
### First Report of *Phakopsora pachyrhizi* Telia on Kudzu in the United States.

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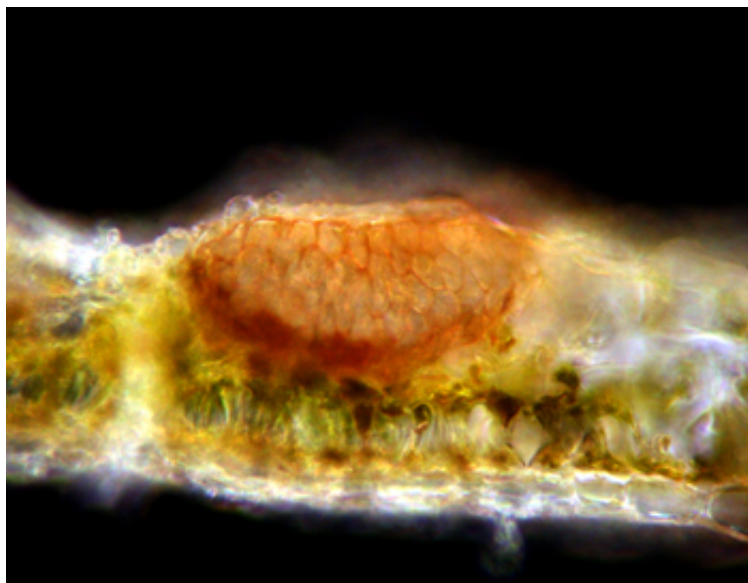
#### e-Xtra

Soybean rust caused by *Phakopsora pachyrhizi* H. Sydow & Sydow was first reported in the continental United States during 2004 (2). By 10 November 2005, the disease was confirmed in eight southern states (Florida, Georgia, Alabama, Mississippi, South Carolina, North Carolina, Louisiana, and Texas). Diagnoses have been based on visual observation of uredinia and urediniospores of the pathogen followed by polymerase chain reaction confirmation. On 10 November 2005, uredinia and telia were identified on leaves of kudzu (*Pueraria lobata*) in central Florida. Telia first were noted as dark brown-to-black flecks on the abaxial leaf surface intermingled with abundant tan-to-light brown uredinia. Of 200 leaves examined, 143 (72%) had telia. The number of telia ranged from a few (1/cm<sup>2</sup>) that were scattered to many (73/cm<sup>2</sup>). Telia were approximately the same diameter as uredinia, but were appressed to the leaf surface and pigmented. Twenty telia were excised from host tissue with the aid of a dissecting microscope and a 20 gauge hypodermic needle. Telia averaged 89 × 100 μm ( $n = 20$ ,  $\sigma = 17$  and 16 μm, respectively). Four telia were crushed and five teliospores from each averaged 4.3 × 8.3 μm ( $n = 20$ ,  $\sigma = 0.5$  and 0.9 μm, respectively). Pale yellowish brown-to-hyaline teliospores were similar in color to urediniospores. Observations matched descriptions by Ono et al. (1). To our knowledge, this is the first report of the telial stage of *P. pachyrhizi* in the United States.

*References:* (1) Y. Ono et al. Mycol. Res. 96:825, 1992. (2) R. W. Schneider et al. Plant Dis. 89:774, 2005.



Digital image of telia, uredinia, and urediniospores of *Phakopsora pachyrhizi* on a kudzu leaf exhibiting symptoms of Asian soybean rust (100X).



Digital image of a thin section through a kudzu leaf and a telium of *Phakopsora pachyrhizi* (dark field objective at 400X).

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