



NOAA

- **Welcome**
- Fourth National Soybean Rust Symposium
- Development of one of the best integrated multi-institutional & international efforts ever
- USB, NCSRP and state commodity boards
- Training and Education –
- Research – collaborations, Universities and Agencies

# First: It's Manageable



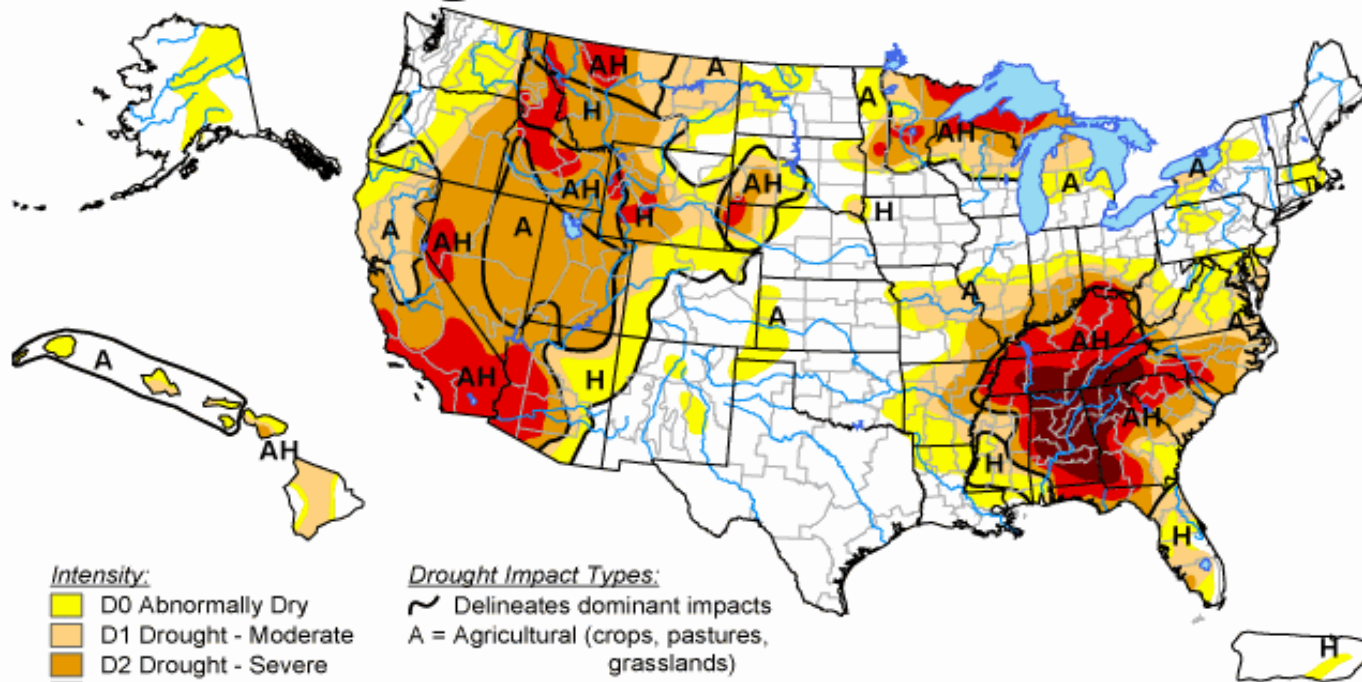
- Fungicides are effective
- Key is well timed application
- Numerous resources to track the movement of this pathogen

Fungicide trials from Univ. Florida, Quincy  
Courtesy, Jim Marois

# Why slow build-up during 2007

## U.S. Drought Monitor

August 28, 2007  
Valid 8 a.m. EDT



### Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

### Drought Impact Types:

- ~ Delineates dominant impacts
- A = Agricultural (crops, pastures, grasslands)
- H = Hydrological (water)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



Released Thursday, August 30, 2007  
Author: Thomas Heddinghaus, CPC/NOAA

# All Rust Epidemics Were Not Equal....



Bob Kemmerait, Univ. of Georgia - 2005

# 170 Publications since November 2004

- Choi, J.J. et al., 2008. Expression patterns in soybean resistant to *Phakopsora pachyrhizi* reveal the importance of peroxidases and lipoxygenases. *Functional and integrative genomics* 8:341-359
- Anderson et al., 2008. Development of simple sequence repeat markers for the soybean rust fungus, *Phakoposora pachyrhizi*. *Molecular Ecology Resources* 8:1310-1312.
- Scherm et al. 2009, *Crop Protection* 28:774-782 “... whereas presence of any disease at the first application had a negative effect on R<sup>n</sup>Y (syn. Yield), even when disease pressure was low” – meta analysis of 71 uniform fungicide trials in Brazil



- 63 peer reviewed articles
  - *Phytopathology, Plant Disease, MPMI*
- <http://apsjournals.apsnet.org/>
- Open access – 2 years or older

# Challenges

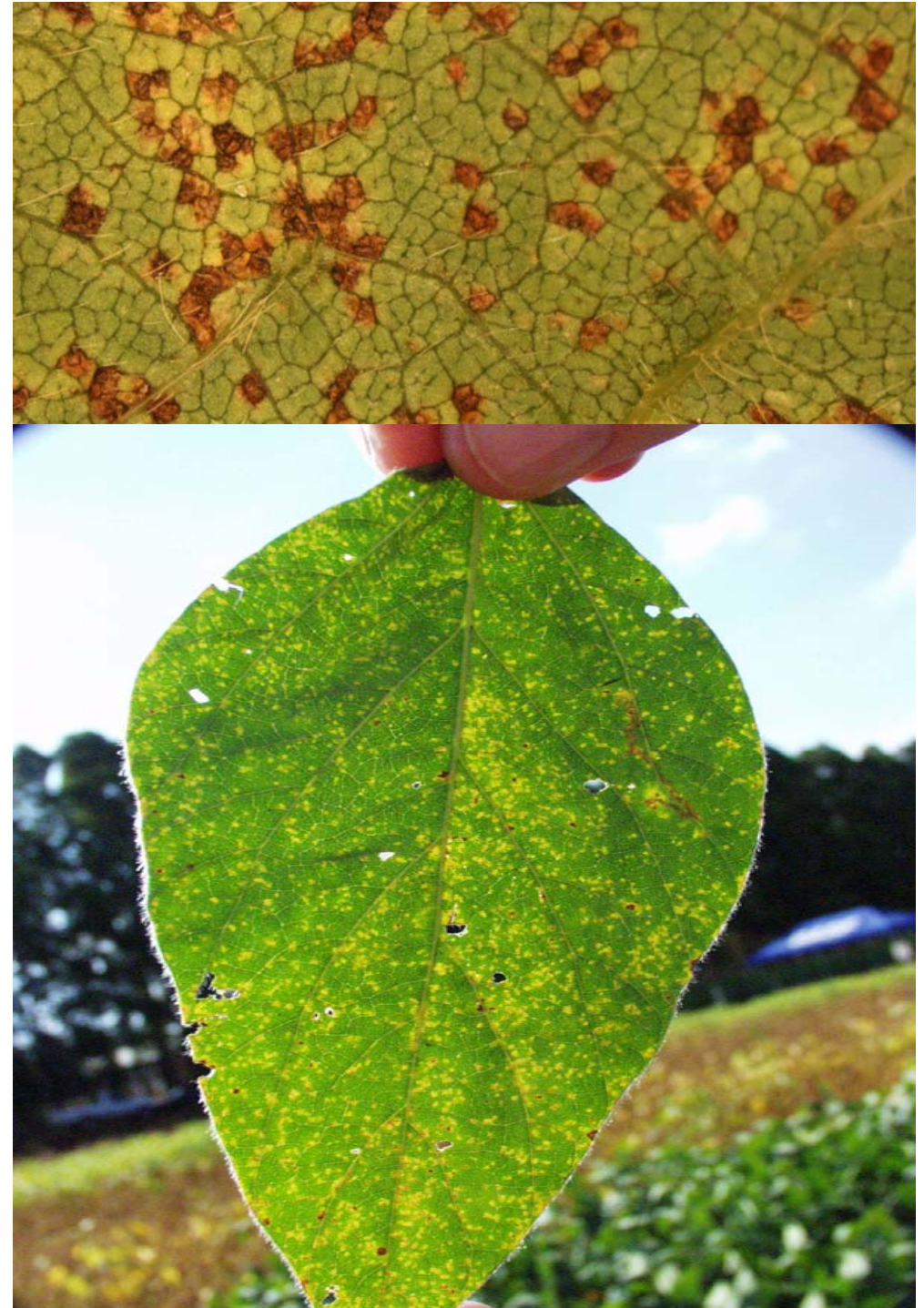
Posted 21 September 2009. Plant Health Progress.

Mississippi Has First Loss to Soybean Rust

**Source: Mississippi State University Press Release.**

[www.cals.msstate.edu](http://www.cals.msstate.edu)

Mississippi State, Mississippi (September 11, 2009)--A Noxubee County soybean field severely infected with soybean rust will represent the state's first yield losses to the disease that has been present in the state since November 2004.



# More challenges to come...

- RIFs
- Retirements
- Burn-out
- Graduations





**THANK  
YOU!!**

- Louisiana State University
- Florida State University
- University of Georgia
- Auburn University
- Mississippi State University
- Texas A&M

E. Sikora - Auburn

SBR-infected kudzu, Mobile, Alabama, 1-8-07