



Arkansas Soybean Rust Working Group Update

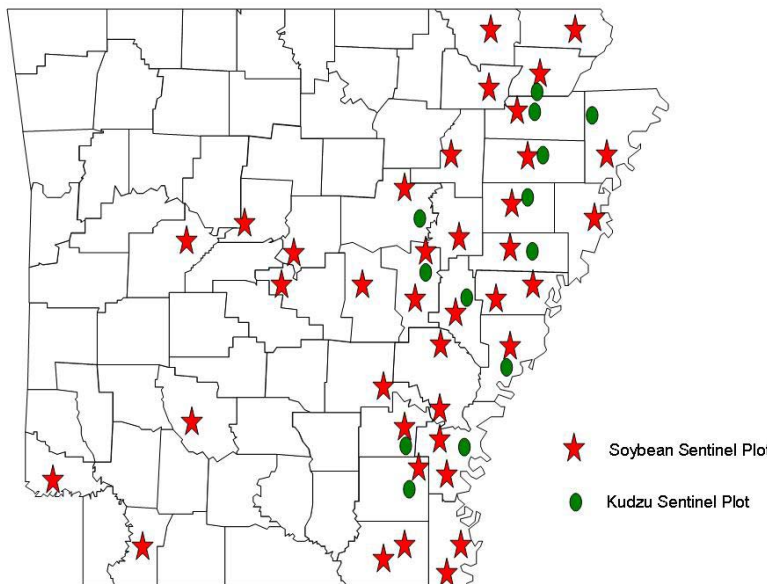


May 23, 2005

Issue No.4

Sentinel Plot Update:

We have completed our sentinel plot planting. Weather, field conditions, equipment malfunctions, you name it has definitely been against us this year. When it was all said and done Arkansas has 37 soybean sentinel plots (red stars represent approximate locations) in the state representing 33 soybean producing counties. Planting dates began with March 14 and continued until May 16. The



difference in planting dates coupled with the maturity groups chosen, Arkansas should have a wide array of soybean growth stages throughout the year for sampling. In addition we have identified 13 kudzu sites (green circles represent approximate locations) to monitor as well. This is quite an accomplishment considering the task that was set before us. Alan Beach, Extension Soybean Program Associate, has committed countless hours over the past 2 months to getting these plots in and is to be commended.

We have also established weather stations at Crittenden, Prairie, Chicot, Miller, Poinsett, and Yell Counties to monitor the environmental conditions throughout the season. Data such as, air temperature, relative humidity, rainfall, wind speed/direction and leaf wetness will be recorded every 30 minutes. All stations will be downloaded every 7-10 days and these results will be posted on our soybean rust web-site:

<http://www.aragriculture.org/cropsoilwtr/soybeans/Rust/default.asp>

Arkansas is Our Campus

Visit our website: www.aragriculture.org

While the previous page updated you to our current sentinel plot status, Dr. Rick Cartwright has put together the following to provide an update as to our current and future soybean rust research efforts as well as funding support for these projects:

- Very limited funding up to \$37,500 has been promised by USDA/APHIS in support of monitoring national sentinel plots we established in Arkansas (15). These funds will be released sometime in the future through the Arkansas State Plant Board.
- Backup temporary personnel for the Plant Disease Clinic and the sentinel monitoring program have been hired.
- Conventional PCR is now available at the Clinic and real-time PCR is available for the Clinic at UA Fayetteville for confirmation of ASBR.
- Testing of the Envirologix Elisa Kit for ASBR Detection continues and results are promising.
- All Section 18 Fungicide Approvals that were expected for 2005, including Quilt and Headline SBR, and Orius 3.6F (another brand of tebuconazole) have now been received by Arkansas. An additional 7 fungicides that were applied for may not be available until 2006 – these include Quadris XTRA, Punch, Charisma, JAU6476, Impact, metconazole, Operetta.
- Efficacy testing for all registered fungicides has been planned and some plots planted. Sites include SWREC, SEREC, CBES and NEREC. Soybean rust control, other disease control, yield and seed quality will be assessed.
- Testing for "slow-rusting resistance" has been designed and seed obtained. Planting has been completed at two locations – NEREC and CBES. A total of 38 Early MG IV varieties and 12 Late IV varieties were included.
- Spore trapping and forecasting projects in collaboration with regional and national researchers have been initiated using backup personnel at UAF and field personnel in eastern Arkansas. Arkansas will provide expertise in reading the spore trap collections for the southern U.S.
- Greenhouse and growth chamber studies on ASBR are planned for the fall if the pathogen becomes re-established in the state during the summer.
- The State of Arkansas appropriated \$150,000 for ASBR research and extension efforts. Federal funding does not appear likely. The State funds will allow us to finish high priority 2005 projects established using check-off funds, however, other planned research was abandoned.