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| Please use this form to clearly and concisely report on project progress. The information included should reflect quantifiable results that can be used to evaluate and measure project success. Comments should be limited to the designated boxes. Technical reports, no longer than 4 pages, may be attached to this summary report. |
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| Project Title:  | Enhancing Stink Bug Resistance in Midsouth Soybean |
| Organization:  | LSU AgCenter |
| Principal Investigator Name: | Jeffrey A. Davis |
| Report Period: | June 15, 2024, to September 15, 2024 |
| Project Status: Ongoing |
| ***University of Missouri (Dr. F. Lin)***List of crosses made for Stink Bug resistance for the 2024 season.

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| **Pedigree** | **Purpose** |
| S18-6328 / S19-10701 | Cultivar development |
| S19-10701 / S17-17644 | Cultivar development |
| S21-22067 / S21-22147 | Cultivar development |
| S21-21942 / S16-7922 | Cultivar development |
| S18-6328 / S21-21942 | Cultivar development |

These F1 seeds, once matured, will be sent to Puerto Rico for advancing generation and should return in April 2026 to be tested as progeny rows.***Louisiana State University AgCenter (Dr. J. A. Davis)***This season, in 2024, we planted 100 F2 lines for genomic screening. The screening of these lines will allow us to conduct a rough mapping of stink bug resistance. Leaves were collected and sent to the University of Missouri for genotyping last week. Once the results are in, we will be able to have preliminary results from some genomic regions responsible for resistance.Overall, for 2024, we will have screened 37 breeding lines and 20 commercial varieties for resistance based on population estimates in the field (via sweep net and egg mass counts), yield, and seed damage (Damage Index). Our first harvest was in late August and further harvests will continue as plots mature. |