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| Project Title | | Enhancing Stink Bug Resistance in Midsouth Soybean | | | | | |
| PI’s Name | | Jeffrey A. Davis | | E-mail | | [jeffdavis@agcenter.lsu.edu](mailto:jeffdavis@agcenter.lsu.edu) | |
| PI’s Title | | Professor | | Institution: | | LSU AgCenter | |
| Mailing Address | | 404 Life Sciences Building | | | | | |
| City/State/Zip | | Baton Rouge, LA 70803 | | | | | |
| Phone number | | Office: 225-578-5618; Cell: 225-747-0351 | | | | | |
| Additional PIs  For this project | | Pengyin Chen, University of Missouri | | | | | |
| Research Locations  (and states involved) | | Ben Hur Research Center, Baton Rouge, LA  Fisher Delta Research Center, Portageville, MO | | | | | |
| **Timeline:**  **Current Year - FY23** | | | **Multi-Year Project Information** (if applicable) | | | | |
| Year 1 | | Year 2 | | Year 3 |
| Start Date | 2022 | | **04/01/2022** | | **04/01/2023** | | **04/01/2024** |
| End Date | 2025 | | **03/31/2023** | | **03/31/2024** | | **03/31/2025** |
| Funds Requested | $259,800 | | $86,600 | | $86,600 | | $86,600 |
| **Program Area (e.g., breeding, mngt.):** **Quality of harvested seed, Insect management/Control** | | | | | | | |
| Objectives | | Public researchers will investigate and incorporate resistance to stink bugs to protect quality and increase yield. | | | | | |
| Justification | | Soybean farmers lack resistant varieties for stink bugs that yearly reduce yield and quality. The purpose of this project is to identify and develop sources of resistance for the stink bug complex. | | | | | |
| Exp Setup | | Soybean lines from Dr. Chen will be sent to Dr. Davis for infield evaluations of stink bug resistance. We will assay quality and yield and determine specific mechanisms of resistance. | | | | | |
| Summary | | Breeding selections (from Dr. Chen) will be evaluated for stink bug resistance (by Dr. Davis). Resistance will then be incorporated into varieties that are adapted to the Mid-South. | | | | | |
| Key Metrics | | High yielding, locally adapted soybean cultivars that are resistant to stink bugs.  identify and map markers contributing to stink bug resistance to use in marker assisted selection (MAS). | | | | | |
| Expected Deliverables | | Improved high-yielding varieties with resistance to stink bugs that reduce insecticide inputs while maintaining quality. | | | | | |
| Benefit to midsouth farmers | | Reduced insecticide costs, increased yields, and protected seed quality. | | | | | |
| Progress Made | | Seventeen soybean selections from Dr. Chen (University of Missouri) were sent to Dr. Davis. An additional fourteen commercial MG IV varieties were also selected for evaluation. Current in-field and in lab testing is ongoing. | | | | | |
| Signature of Principle Investigator | | | | | | Date: | |
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