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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. |
| Project Number: | 2022-47 |
| Project Title:  | Exploitation of weed species extracts as an effective and environmental friendly strategy to control insects and deer in soybean |
| Organization:  | Mississippi State University |
| Principal Investigator Name: | Te Ming (Paul) Tseng |
| Report Period: | March 20, 2023 |
| Project Status: |
| The field experiments were conducted in both Pontotoc (2 plots) and North Farm (NF) (1 plot). The NF plot was cut into four replications with five treatments: sicklepod, sesbania, coffee senna, prickly sida, and blank control. The subplots were 3 ft by 20 ft. The distances between treatments and replicates are 10 and 20 feet, respectively. The extracts were prepared according to our routine protocol with some modifications (2 minutes shorter blending time for sesbania, coffee senna and prickly sida). The plot was sprayed on 10/15/22 and deer browsing data were collected twice on 10/31/22 and 11/17/22, respectively. The deer browsing data showed sicklepod is still the best deer repellent among these weed extracts. Our lab data confirmed sesbania and prickly sida extracts to have better insecticidal property. The field insect data were not collected as planned because the soybean plants were short (5 inches) because of late planting. In addition, the first frost came early on 10/19/22 and killed most insects. Our previous soybean plot insect data showed sicklepod and coffee senna extracts had relatively less number of larvae. |