There were no differences in maize weevil densities among treatments for samples collected during Nov 2018 to Jun 2019, even though plots were infested multiple times (Figure 1). It is possible that the location where the trial was stored (equipment shed under where tractors and sprayers were kept) influenced establishment of insect infestations. As a result of this possibility, the trial was moved during early Jul to another site, where spray equipment was not stored. For the Jul, Aug, and Sep samples, Actellic and Sensat reduced weevil densities compared to Tempo, Malathion, and the untreated control. Actellic and Sensat resulted in lower weevil densities than Tempo and the untreated control at the Oct sample timing. Across all treatments, mean maize weevil densities only exceed 1 per sample in samples after 1 Jun 2019. Other insect pests, including red flower beetle, sawtoothed grain beetle, sap beetles, Indian meal moth, and Angoumois grain moth, were observed sporadically. There were no differences among treatments for total pest insects for samples collected during Nov 2018 to Jun 2019 (Figure 2). Plots treated with Actellic, Sensat, or Suspend had fewer total insect pests than plots treated with Tempo or the untreated plots for the July sample. For the Aug sample, Actellic and Sensat resulted in fewer total insect pests compared to all other treatments. Also, Suspend resulted in fewer total insect pests compared to Tempo, Malathion, and the untreated control. When plots were sampled during Sep and Oct, Actellic and Sensat resulted in fewer total insect pests compared to Tempo, Malathion, and the untreated control. After one year of sampling (the Oct 2019 sample), only the Actellic, Sensat, and untreated plots were selected for continued sampling. This was because all of the other insecticide treatments had not provided satisfactory control of insect pests for at least two consecutive sampling periods. During Nov 2019 through Jan 2020, both Actellic and Sensat reduced both maize weevil and total insect pest densities below that in the untreated plots, with no maize weevils captured in the treated plots.
These studies demonstrate the performance of stored grain insect management tools under Mississippi conditions. As growers store grain for longer periods of time, information from these studies will be to assist them in managing insect pests to preserve the value of stored grain.

**Project Deliverables**

Currently the results have been presented at the 2019 MSU Seed Technology Short Course and will be presented at the 2020 Mississippi Agricultural Consultants Association annual meeting. Results have also been shared with some consultants (upon request) to aid in management decisions for stored grain insect pests.