

Scout Soybeans Closely for Stink Bugs in August

Tim Reed, Extension Entomologist

August 7, 2018

August is the month when Alabama soybean producers typically make the most foliar applications of insecticides to soybeans. The primary targets of these applications are stink bugs (SB's) and caterpillars. SB's begin moving into soybean fields in significant numbers when small beans begin forming in the pods. SB's are long-lived insects that can cause a lot of damage to soybean crops. Adults can live for up to two months, while immatures take 30 days to go through five instar stages. Adults lay 30-130 eggs per egg mass, and these eggs generally hatch within five days during the summer. Thus, once the adult population becomes well established SB numbers can increase quickly. As beans within the pod get bigger they tend to suffer less damage from stink bugs. Thus the economic threshold increases from 2 per 15 sweeps across two rows prior to mid-pod fill to 3 per 15 sweeps after mid-pod fill.

This year the brown stink bug initially was the most common stink bug observed in most cotton and soybean fields. The brown stink bug is more cold tolerant than the green and southern green stink bug (SGSB). The cold winter is expected to also help keep red banded stink bug numbers very low this year in the southern half of the state where they occur.. Brown stink bug numbers tend to decline through July. SGSB's typically begin increasing in reproductive stage soybeans in central and south Alabama in late July/August and tend to be the most abundant stink bug from Prattville south to the coast. Traditionally the Green stink bug is much more abundant than the SGSB in the northern half of the state. Late R5 soybean plots at Prattville on August 6 had both Green and SGSB's with the latter being more abundant. Brown marmorated stink bugs (BMSB's) are becoming more common across the state, but numbers of this large SB have still not reached worrisome levels except in a few locations. However, based on the abundance of BMSB's at the Prattville Ag Research Unit it is likely that over time this SB will constitute a much higher percentage of the SB complex in many counties. On August 6 one sample of ten sweep net sweeps across two rows of soybeans next to a corn plot yielded 20 adult BMSB's plus numerous immatures. Fortunately, to date , BMSB's have not been difficult to

kill with pyrethroid insecticides. Bifenthrin has provided good control of BMSB's and SGSB's in our tests at Prattville.. Bifenthrin typically provides about 60% control of Brown stink bugs in soybeans. A SB complex at the Prattville Ag unit in 2017 caused a statistically significant 6.8 bu/ac yield loss. The complex was comprised of BMSB's, SGSB's and RBSB's. Soybeans in this study were in the early R5 stage when the first of 3 bifenthrin sprays was applied August 2. Two more applications were made on August 9 and August 24. Sweepnet samples were taken on August 7, 14 and 31 in sprayed and unsprayed plots. Unsprayed plots for the 3 sampling dates averaged a total of 5.1 adult SB's and 7.5 immatures per 15 sweeps during the 3 sampling dates. BMSB's comprised 37% of the adult and 58% of the immatures collected. SGSB's comprised 43% of the adults and 34% of the immatures. Examination of soybean seed after harvest showed that 20.3% of the seed exhibited SB damage in the unsprayed plots and 4% SB damage in plots sprayed 3 times.