

Moth Trapping in West TN - 2006

Methods. Pheromone moth traps for corn earworm (CEW or bollworm), tobacco budworm (TBW), and beet armyworm (BAW) were run on a weekly basis from early May through August. Traps were located in cotton growing areas of each county and were usually placed on the borders of cotton fields. All pheromone lures were obtained from Great Lakes IPM (Vestaburg, MI) and were changed weekly. At least one, and usually two, sets of bollworm and tobacco budworm traps were run in each of the following 12 counties in West Tennessee: Carroll, Crockett, Dyer, Fayette, Gibson, Hardeman, Haywood, Shelby, Tipton, Lake, Lauderdale, and Madison. One beet armyworm trap was located in each of the above counties except Shelby.

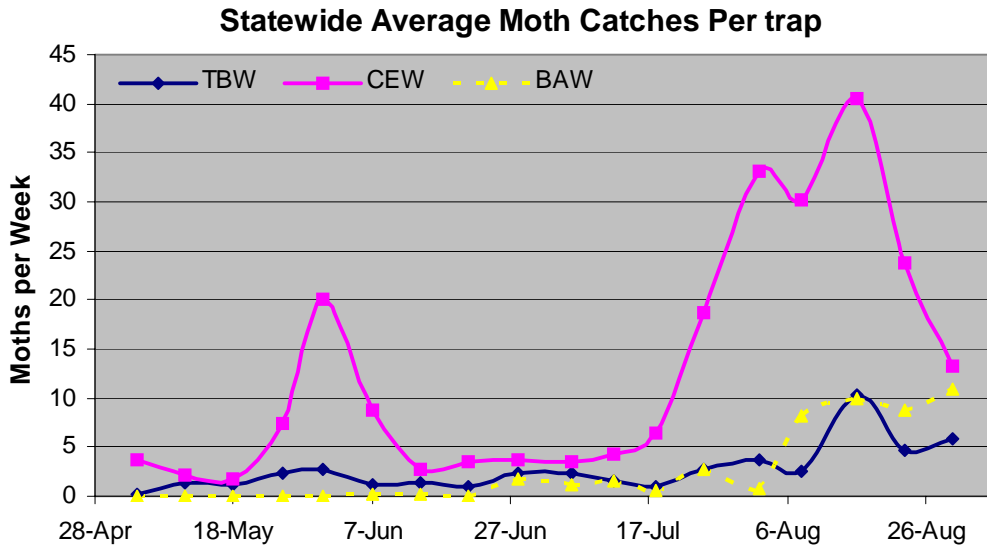
Results. Catches of beet armyworm, tobacco budworm and corn earworm (i.e., bollworm) moths in pheromone traps were higher than those reported in 2004 and 2005. Corn earworm moths were caught more frequently than either tobacco budworm or beet armyworm (see figures). Corn earworms composed 70% of all moths caught based on average trap catches made from early May through August. In contrast, tobacco budworms and beet armyworms each composed about 15% of the moths caught, respectively. Peak beet armyworm trap catches occurred during mid to late August but only averaged about 10 moths per trap per week. A high percentage of these moths were caught in Lauderdale County, but treatable infestations of beet armyworm in cotton fields were rare in 2006.

Although small numbers of tobacco budworm moths were caught, catches were consistently higher than in 2005. During late June, some non-Bt cotton fields had tobacco budworm infestation above treatment threshold, particularly in Madison, Crockett, Shelby and Lauderdale counties. This corresponded well with trap catches in the previous weeks. Some non-Bt fields in these same counties also had treatable infestations of tobacco budworm during August, and control failures with pyrethroid insecticides were observed. The highest single-trap catch was in Lauderdale County captured 69 moths during the mid August, and more tobacco budworm moths were caught in this county than any other.

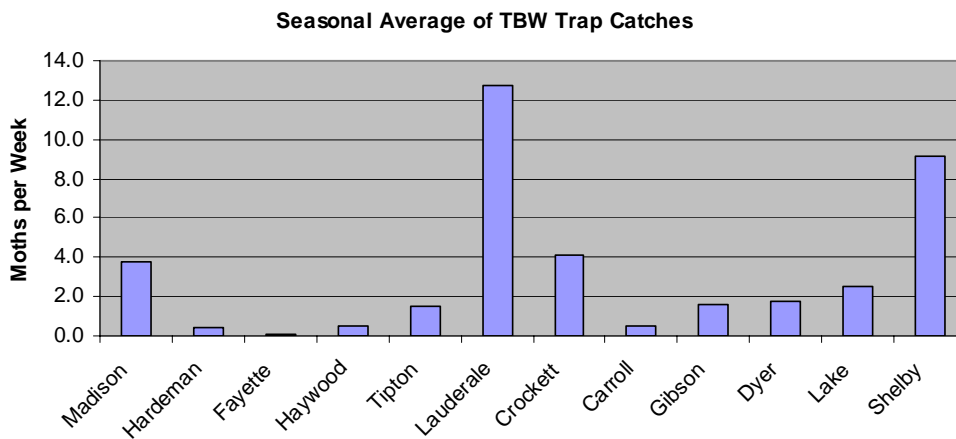
The corn earworm (i.e., bollworm) is Tennessee's most significant caterpillar pest in cotton because this species is able to cause economic injury to Bt cotton, which composes the vast majority of the acreage. Compared to the other species, more corn earworm moths were caught in our pheromone traps. Two peaks of moth catches were recorded, one in early June and another extended peak that extended through August. Peak trap catches were similar to those observed in 2005. However, the August moth flight occurred earlier than in 2005, so more cotton fields were affected. The greatest in-field infestations were observed in Lake, Gibson, Dyer, Lauderdale and Madison counties, and this corresponded well to trap catches in those areas. The highest number of moths caught in any one trap was 165 moths per week, on August 8, in a trap located on Shelby County.

Trapping did not necessarily reflect all local variations in population densities observed in cotton fields, in part because trap density was not high and because other factors influence oviposition and survival of these pests in cotton. However, the pheromone trapping program did an excellent job of predicting the increased occurrence of tobacco budworm in some areas.

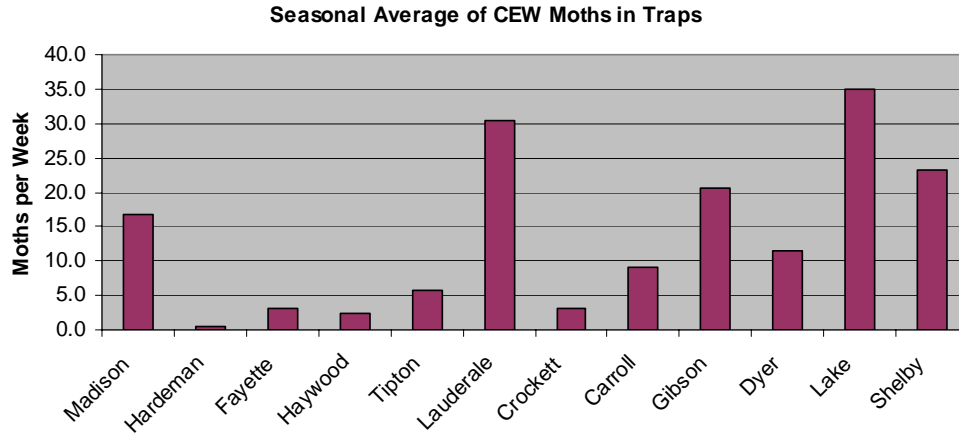
Trapping also reflected field infestations of corn earworm which occurred in the northern half of west Tennessee during August.



Average number of tobacco budworm (TBW), corn earworm (CEW), and beet armyworm (BAW) moths caught per trap in pheromone traps across West Tennessee (2006).



Seasonal, county average number of tobacco budworm moths caught per week in West Tennessee (2006).



Seasonal, county average number of corn earworm moths caught per week in West Tennessee (2006).