

Monitoring *Helicoverpa zea* and *Heliothis virescens* Seasonal Populations

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Introduction:

Helicoverpa zea, corn earworm, is a major pest in corn and BT cotton in the United States. *H. zea* has a tolerance to BT crops and will need to be controlled in some fields. *Heliothis virescens*, tobacco budworm, is also a pest of BT cotton but because of the low resistance to BT cotton it does not need insecticide treatment. USDA-ARS, SIMRU monitors the populations of these insects through moth trapping.



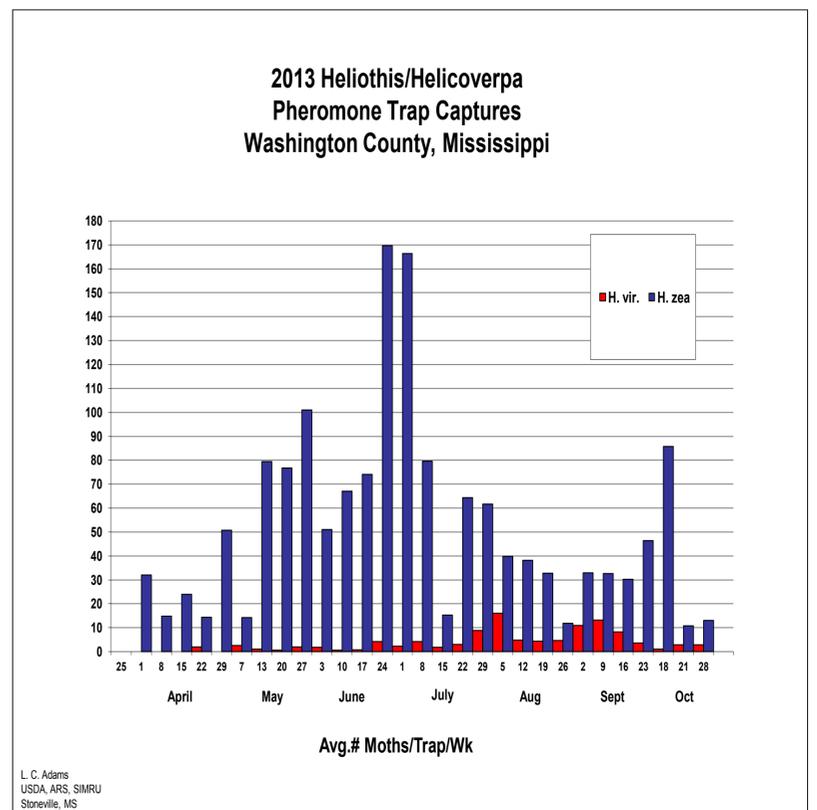
H. virescens



H. zea

Materials and Methods:

The Southern Insect Management Research Unit monitors *H. zea* and *H. virescens* presence with wire cone shaped moth traps designed to capture the male adult in a round wire cylinder when he is lured to the trap using a sex pheromone strip. Five trap locations in Washington county and three trap locations in Bolivar county were checked weekly and numbers of each species were recorded and reported. The pheromone lures were replaced every two weeks.



Results and Discussion:

The past twenty-three years of data collected from moth trapping of these two pest have shown the effectiveness of transgenic crops. After the introduction of BT cotton in the mid 1990's there has been decline in both *H. zea* and *H. virescens* populations resulting in the decrease of insecticide use in both cotton and corn crops.

Reference:

Luttrell, R. G., Jackson, R. E. 2012. *Helicoverpa zea* and Bt cotton in the United states. GM Crops Food. 3(3): 213---227

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