

## **Action Thresholds for Striped Cucumber Beetle (Coleoptera: Chrysomelidae) on 'Carolina' Cucumber**

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**ABSTRACT.** Field studies were conducted in 1994 and 1995 to quantify the relationship between simulated striped cucumber beetle, *Acalymma vittatum* (F.), defoliation and yield loss in 'Carolina' cucumber. Six simulated defoliation levels (0-100%) were imposed over 5 time intervals in 1994 and 9 simulated defoliation levels were imposed over 6 time intervals in 1995. Time intervals began at cotyledon, 1st, 2nd, or 3rd true-leaf, or 1st flower growth stages, and were terminated at either 1st flower or harvest. There were significant differences among timing of defoliation treatments for continuous defoliation, and significant yield loss occurred only when defoliation was > 25% in both years. One-time simulated insect defoliation treatments showed no significant differences in timing of defoliation and significant yield loss occurred only at > 50% defoliation. Simulated defoliation results were used to estimate action thresholds. Results of the studies suggest that 'Carolina' cucumber can withstand high levels of defoliation before yield loss occurs, and that *A. vittatum* damage is primarily a concern during early plant growth stages.

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