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Functional Responses of Three Species of Predatory Ladybirds (Coleoptera: Coccinellidae) to Population Densities of *Bemisia tabaci* (Homoptera: Aleyrodidae)

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ABSTRACT

The functional response of ladybirds, *Coccinella septempunctata* L., *Hippodamia variegata* Goeze, and *Clitostethus arcuatus* Rossi (Coleoptera: Coccinellidae) was evaluated on different densities of *Bemisia tabaci* Gennadius in the laboratory, at 25±2 °C, 75 – 90% RH, and 16: 8 (L: D) photoperiod. All data fitted well to the type II model of the Holling disc equation. The predators consumed larger numbers of early than late instars of *B. tabaci* within the same exposure time. Adult *C. arcuatus* had a lower instantaneous searching efficiency and handling time and could also consume larger numbers of *B. tabaci* than could mature larvae. Overall, the predation efficiency of *C. septempunctata* on *B. tabaci* was higher than other ladybirds, thus it can control the aleyrodids' population effeiciently.

Key words: Functional Response, Ladybirds, *Bemisia tabaci*, Predation

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