












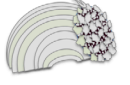
Predator Screening for Lebbeck Mealybug

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Legend	Commercially Available Predators					Naturally Occurring Predators				
	 <i>Cryptolaemus montrouzieri</i>	 <i>Chrysoperla carnea</i>	 <i>Adalia bipunctata</i>	 <i>Hippodamia convergens</i>	 <i>Orius insidiosus</i>	 <i>Euborellia annulipes</i>	 <i>Ceraeochrysa sp.</i>	 <i>Diomus austrinus</i>	 <i>Coccinella septempunctata</i>	 <i>Olla v-nigrum</i>
 Average # Larvae Consumed Per Day	18.8 ± 0.27	16.6 ± 0.71	4.7 ± 0.51	1.4 ± 0.36	0.3 ± 0.15	14.3 ± 1.07	13.4 ± 1.2	3.94 ± 0.82	3.27 ± 0.54	3.0 ± 2.0
 % Predators Consumed Ovisacs	100%	25%	0%	0%	0%	80%	66.7%	10%	12.5%	0%

Lebbeck mealybug is an emerging pest in Florida citrus that has rapidly spread across much of the state. This mealybug can cause fruit damage and branch dieback and has historically been difficult to control with applications of insecticide alone. Because of this, determining what commercially available and naturally occurring predators consume lebbeck mealybug is important for developing effective control strategies. We evaluated five commercially available predators, and five naturally occurring and lab-reared predators

to determine which would eat lebbeck mealybug nymphs and females with ovisacs. For commercially available predators, only the mealybug destroyer (*Cryptolaemus montrouzieri*) reliably consumed ovisacs and high numbers of larvae. Several commercially available predators ate varying amounts of mealybug nymphs but not ovisacs, including green lacewing larvae, two species of adult ladybugs (*Hippodamia convergens* and *Adalia bipunctata*), and the minute pirate bug (*Orius insidiosus*). For naturally occurring field collected predators,

earwings (*Euborellia annulipes*) and trashbugs (*Ceraeochrysa sp.*) reliably consumed ovisacs and high numbers of larvae. Additional predatory ladybeetles screened (*Diomus sp.*, *Coccinella septempunctata*, and *Olla v-nigrum*) only occasionally consumed larvae and did not reliably consume ovisacs. The mealybug destroyer shows promise for augmentative releases to control hibiscus mealybug, while preserving naturally occurring trashbugs. and earwigs may aid in passive control.

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