SCIENTIFIC NOTE

Green Lacewings (Neuroptera: Chrysopidae) Associated with Melon Crop in Mossoró, Rio Grande do Norte State, Brazil

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ABSTRACT - A survey of the green lacewings associated with the melon agroecosystem was carried out with the aim of including lacewings into the integrated management program of melon pests. Three species of this predator were found: Ceraeochrysa cubana (Hagen), Chrysoperla externa (Hagen) and Chrysoperla genanigra Freitas. A key to these species is presented.

KEY WORDS: Semiarid, predator, Chrysoperla, Ceraeochrysa

The municipality of Mossoró, located in the semiarid region of Rio Grande do Norte State is one of the largest melon producers and exporters in Brazil. This makes melon production one of the main segments of agribusiness in the state (Agrianual 2007). However, the expansion of cultivated areas has brought about increases in phytosanitary problems, which became limiting factors to production. Among these problems, pest insects and the damage caused to melon production are a main concern (Araujo et al. 2007). The major pests of melon in the Northeast semiarid region are the leafminer Liriomyza trifolii (Burgess) (Diptera: Agromyzidae) and the whitefly Bemisia tabaci (Gennadius) (Hemiptera: Aleyrodidae) (Guimarães et al. 2008). In recent natural enemy surveys on melon cropping in Mossoró, the presence of lacewings was noticed (Araujo et al. 2008). Lacewings are known for their predatory efficiency, ability of their larvae to seek out for food, for being generalists and for having a high survival rate in agroecosystems (Canard & Principi 1984). However, knowledge on which species occur within melon crop is scanty, particularly in the Brazilian Northeastern region. Only two species were reported associated to the melon crop in RN: Ceraeochrysa sanchezi (Navás) in Assu (Freitas & Penny 2001) and Chrysoperla genanigra Freitas in Mossoró (Freitas 2003). This study aimed at knowing and presenting a key to these species is presented.

A total of 315 lacewings were collected, belonging to three species: Ceraeochrysa cubana (Hagen), collected from August through September, Chrysoperla externa (Hagen), from August through November, and C. genanigra, from September to January. The latter was described in 2003 and to date is reported only in this Northeastern region (Freitas 2003). Chrysoperla genanigra is very similar to the other Chrysoperla species in Brazil and is the only one with a black spot on the gena. This is the first record of C. cubana and C. externa in Mossoró, RN. The occurrence of three lacewing species in melon cropping, and the presence of at least one species throughout the cultivation period sampled, indicates the potential utility of these predators in future pest management programs for melon.

Key to the Species of Chrysoperla and Ceraeochrysa Found in Melon Cropping in Mossoró, RN

1. Pseudopenis absent; pronotum without red marks (Chrysoperla) ......................................................... 2
Fig 1 *Chrysoperla externa* (a), *Chrysoperla genanigra* (b) and *Ceraeochrysa cubana* (c).

1’. Gonapsis elongate; two hornlike structures on gonarcus or arcessus (*Ceraeochrysa*)........................3
2. Gena with black spot (Fig 1b), *Chrysoperla genanigra* 2’. Gena with red spot (Fig 1a); Male arcessus only weakly decurved
3. Scape with dark red, thin stripe dorso-laterally (Fig 1c); flagellum pale; wings venation green with black crossveins; gonarcus with dorso-medial projection; gonosaccus with several large gonocristae.............*Ceraeochrysa cubana*

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References


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