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Notes and Comments

First report of *Chrysodeixis includens* (Walker, [1858]) (Lepidotera: Noctuidae) in the dragon fruit (*Hylocereus undatus*) (Cactaceae)

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Chrysodeixis includens (Walker) (Lepidoptera: Noctuidae) is one of the most important pests of soy, beans, cotton, sunflower, tobacco, tomatoes, and potatoes (Eichlin and Cunningham, 1978). This species is reported in more than 174 plant species from 39 host families (Specht et al., 2015; CAB International, 2020). The pest is described in the Americas, mainly in southern South America in the northern United States (Moscardi et al., 2012). The egg stage duration for *C. includens* varies between 3 to 5 days, and the larval development is completed in 6 instars (Shour and Sparks, 1981; Barrionuevo et al., 2012; Andrade et al., 2016). C. includens requires almost 30 days to complete its larvae development to the adult when fed on soy or cotton (Shour and Sparks, 1981; Wier and Boethel, 1995; Barrionuevo et al., 2012; Andrade et al., 2016).

Hylocereus undatus (Cactaceae), popularly known as dragon fruit, originates in Mexico and Central and South America (Britton and Rose, 1963; Morton, 1987; Mizrahi et al., 1997). The fruit can be used for fresh human consumption or fruit processing, such as juices or medicinal teas (Liaotrakoon, 2013). This species also has ornamental and medicinal value for presenting attractive flowers and their leaves with healing, diuretic, and hypoglycemic properties (Ibrahim et al., 2018). The cultivation of dragon fruit in Brazil represents a promising and profitable alternative for fruit culture (Silva et al., 2016).

This note aimed to describe the first record of the occurrence *of Chrysodeixis includens* feeding on *Hylocereus undatus*, in Brazil.

Immatures of *C. includens* were observed feeding in *H. undatus'* cladodes (variety "Vietnamese White ") during all juvenile stages up to the pupal stage in the experimental area of the Federal Institute of Education, Science and Technology of Bahia, Teixeira de Freitas, Bahia, Brazil (17° 34' 21" S, 39° 43' 51" W, 68 m altitude), between August 2018 and April 2019. The prevailing regional climate is tropical monsoon and trade wind "Am",based on the Köppen-Geiger classification system, with annual precipitation of 1099 mm, and an average temperature of 24 to 27 °C (Climate Data, 2020). The pest incidence in the area occurred in the plants' vegetative stage, after 27 days of planting.

Specimens of first and second instar larvae were collected from the plants and sent to the Laboratório de Biologia do Instituto Federal de Educação, Ciência e Tecnologia Baiano, where they were kept and fed of *H. undatus'* cladodes until the emergence of the adults for confirmation of their identity as *Chrysodeixis includens* Walker, 1858 (Lepidoptera: Noctuidae) by Dr. Júlio Cláudio Martins following identification key (Lafontaine and Poole, 1991; Pogue, 2005).

The larvae collected in the incidence of *C. includens* were green with white longitudinal stripes interspersed with black dots along the body (Figure 1A and 1B). The adult moth had brown to black spots, anterior wings darker than the posterior wings, and silvery-white spots (Figure 1C and 1D). The presence of all immature stages of *C. includens* observed in *H. untandus* suggests that this insect may complete its biological cycle in this host.

In Brazil, *C. includens* had been reported to feed on plants from various botanical families, such as Asteraceae, Solanaceae, Fabaceae, Lamiaceae, Brassicaceae, Poaceae, Amaranthaceae (Specht et al., 2015). The report of new host plants has been carried out based on sampling carried out in the field and collection of larvae, leading them to adulthood for identification (Ward, 1988). This species had not yet been described as feeding on plants of the Cactaceae family, such as *H. untandus*. Thus, the first report of soybean looper *C. includens* associated with a Cactaceae on *H. undatus* in Brazil is registering in this communication.

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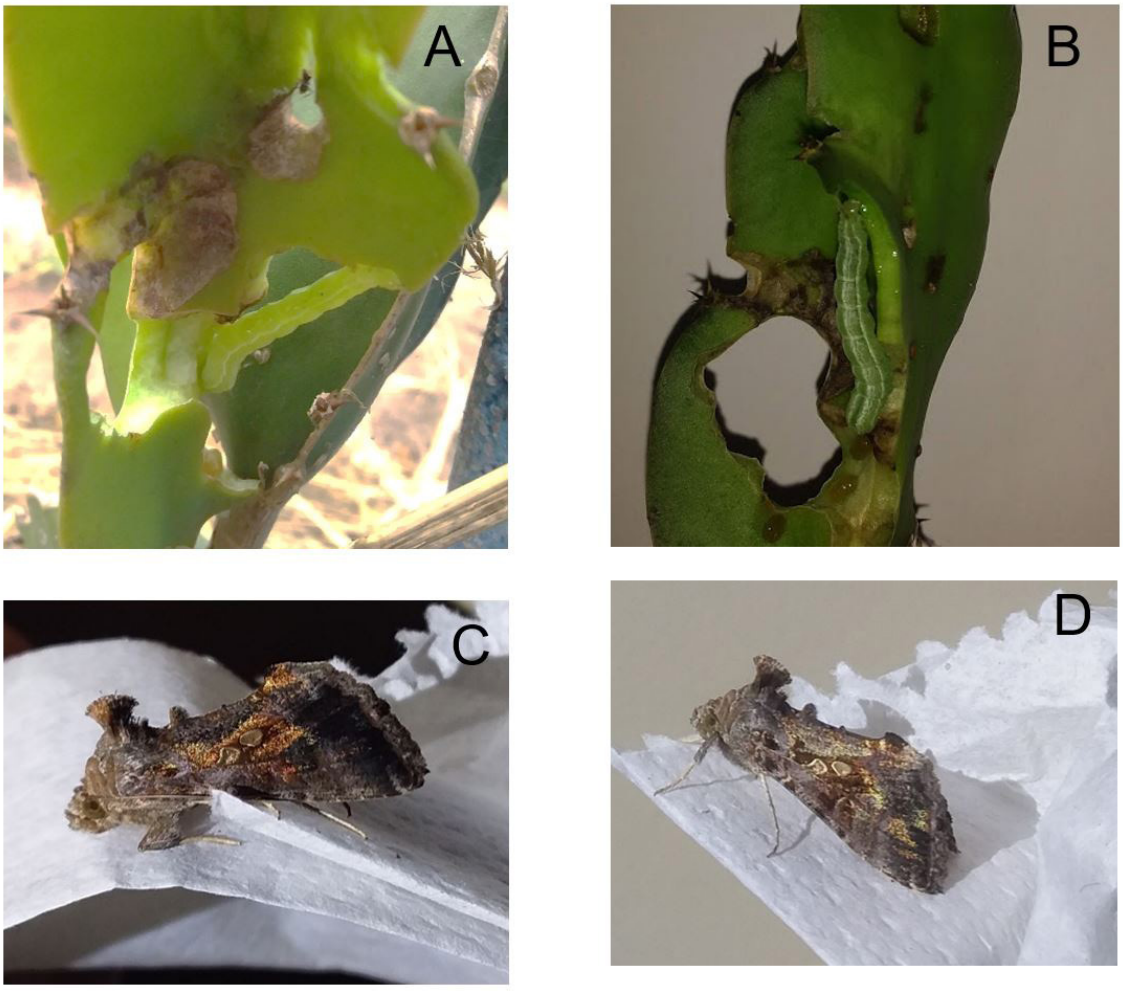

Figure 1. (A and B) Caterpillars on *H. undatus*; and adults of *C. includens* (C and D).

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