

SCIENTIFIC NOTE

Occurrence of the Green Leafhopper of Papaya, *Solanasca bordia* (Langlitz) (Hemiptera: Cicadellidae), in Brazil

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Ocorrência de *Solanasca bordia* (Langlitz) (Hemiptera: Cicadellidae), Cigarrinha Verde do Mamoeiro, no Brasil

RESUMO - Neste artigo é relatada no mamoeiro a espécie de cigarrinha verde do mamoeiro, *Solanasca bordia* (Langlitz) (Hemiptera: Cicadellidae), resultado de um levantamento realizado em lavouras comerciais de mamão em seis localidades do Espírito Santo, em 2001/2002 (Linhares, Jaguaré, Sooretama, Pinheiros, Vitória e Serra).

PALAVRAS-CHAVE: *Carica papaya*, mamão, praga

ABSTRACT - This article reports the presence of the green leafhopper of papaya, *Solanasca bordia* (Langlitz) (Hemiptera: Cicadellidae) on papaya, based on a survey of commercial papaya orchards in Espírito Santo, in six municipalities, in 2001/2002 (Linhares, Jaguaré, Sooretama, Pinheiros, Vitória e Serra).

KEY WORDS: *Carica papaya*, papaya, pest

Worldwide, at least 13 species of leafhoppers (Cicadellidae) were recorded on papaya (*Carica papaya* L.), of which only *Empoasca* sp. is cited as important pest of papaya in Brazil (Martins & Marin 1998, Pantoja *et al.* 2002, Culik *et al.* 2003).

As part of efforts for development and implementation of the “Produção Integrada do Mamão” (Integrated Production of Papaya) in the state of Espírito Santo and Brazil (Martins *et al.* 2003), which includes integrated pest management (IPM) as a major component to reduce environmental pollutants, various leafhopper samples were collected in 2001 and 2002 from papaya in Espírito Santo, aiming to verify the specific name of this important pest of papaya.

The leafhopper samples of papaya were collected from commercial papaya orchards located in the northern region of Espírito Santo in municipalities of the major papaya producing area of this state (Linhares, 10 samples; Jaguaré, 2 samples; Sooretama, 2 samples; Pinheiros, 1 sample) managed with two systems of production, conventional or integrated production. Collections were also done in isolated plants in two other municipalities, Vitória (2 samples) and Serra (1 sample), which are not major commercial producers of papaya. One of the samples collected from papaya with conventional production in 2001 was from an orchard intercropped with beans. For comparison, three leafhopper samples were also collected from beans in 2001. One sample was from bean

plants intercropped with papaya (municipality of Jaguaré) and two others were from monocropped beans, distant from papaya orchards (municipalities of Jaguaré and Linhares). The total number of leafhopper samples collected was 18 from papaya and three from beans.

The samples collected were processed in the Laboratório de Entomologia do Centro Regional de Desenvolvimento Rural de Linhares - CRDR de Linhares/Instituto Capixaba de Pesquisa, Assistência Técnica e Extensão Rural - Incaper and the leafhoppers preserved in 70% alcohol for later identification. Samples collected in 2001 (13 samples total) were sent for identification to the Laboratório de Entomologia, Universidade Federal do Rio de Janeiro – UFRJ, and the leafhoppers collected in 2002 (8 samples) were sent for identification to the Illinois Natural History Survey, Champaign, Illinois, USA, and part of the samples were saved and deposited in the collection of arthropods of Incaper, in Linhares, Espírito Santo.

The leafhopper specimens from the 18 samples collected from papaya plants from six different municipalities of Espírito Santo, in 2001 and 2002, were all identified as the species *Solanasca bordia* (Langlitz) (Hemiptera: Cicadellidae). In 2001 in Espírito Santo, *S. bordia* was found on papaya being cultivated in the municipalities of Serra, Sooretama, and Pinheiros (one sample each), Jaguaré and Vitória (two samples, respectively) and Linhares (three samples). The

species was also found in one sample collected from papaya in the municipality of Sooretama in August 2002, and in seven samples collected from papaya in six different orchards located in the municipality of Linhares in August and September 2002. The three samples of leafhoppers collected from beans, including those from beans grown with papaya, were identified as *E. kraemeri*.

At present, besides *S. bordia*, we know no other species of leafhopper found on papaya in Brazil. The leafhopper common on papaya in Brazil was, until now, only identified to genus and referred to in the scientific literature as *Empoasca* sp. Because they possess many similar taxonomic characteristics, many species from the genus *Empoasca* were included in a group originally known as the *solana* group. The *solana* group was later elevated to the status of genus and named *Solanasca* by Ghauri (1974). For this reason, from 1974, the name of the species *Empoasca bordia* Langlitz was changed to *Solanasca bordia* (Langlitz). Twenty-four other similar *Empoasca* species were also included in the new genus *Solanasca* (Ghauri, 1974).

It is concluded that the important leafhopper pest of papaya in Brazil is *S. bordia*, which is very common on papaya in the state of Espírito Santo.

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Literature Cited

- Culik, M.P., D. dos S. Martins & J.A. Ventura. 2003.** Índice de artrópodes pragas do mamoeiro (*Carica papaya* L.). Vitória, INCAPER, 48p.
- Ghauri, M.S.K. 1974.** The *solana*-group of *Empoasca* Walsh (Homoptera, Cicadelloidea): Its generic status and a new species from pawpaw. Bull. Entomol. Res. 63: 425-429.
- Martins, D. dos S., O.K. Yamanishi & J. da S. Tatagiba. 2003.** Normas técnicas e documentos de acompanhamento da produção integrada de mamão (Documentos, 120). Vitória, INCAPER. 60p.
- Martins, D. dos S. & S.L.D. Marin. 1998.** Pragas do mamoeiro, p.143-153. In L.B. Braga Sobrinho, J.E. Cardoso & F. das Chagas (eds.), Pragas de fruteiras tropicais de importância agroindustrial. Brasília, Embrapa-SPI, Fortaleza, Embrapa-CNPAT 209p.
- Pantoja, A., P.A. Follett & J.A. Villanueva-Jiménez. 2002.** Pests of papaya, p.131-156. In J. Pena, J. Sharp & M. Wysoki (eds.), Tropical fruit pests and pollinators: Biology, economic importance, natural enemies and control. Cambridge, CABI Publishing, 448p.

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