

Occurrence of *Diaphorina citri* (Hemiptera: Liviidae) in citrus orchards of Santa Catarina and prevalence of infection with “*Candidatus Liberibacter asiaticus*”

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Huanglongbing (HLB) is the most threatening disease in citrus (*Citrus* spp.) orchards worldwide. The main symptoms of HLB are leaf yellowing, development of irregular blotchy mottling, thickening of leaf veins, irregular fruit growth and ripening, fruit drop, as well as columella (central axis) distortion and albedo thickening in fruits. Infected plants can die within two to five years, and since there are no curative measures for HLB, eradication of infected plants is crucial to contain the disease progress. The causal agent of this disease is the bacteria “*Candidatus Liberibacter asiaticus*”, which is transmitted by the Asian citrus psyllid *Diaphorina citri* (Hemiptera: Liviidae). HLB was first detected in the state of Santa Catarina in 2022. Consequently, monitoring of *D. citri* is mandatory, as established by the National Program for the Prevention and Control of HLB. Therefore, this study aimed to evaluate the occurrence of *D. citri* in citrus orchards in Santa Catarina, as well as the prevalence of infection with “*Candidatus Liberibacter asiaticus*” within the insect populations. Monitoring was conducted in 195 citrus orchards distributed across 82 municipalities. Yellow sticky traps (one or two per orchard) were installed in the upper third of the tree canopy during the months of February, March, and September, October, from 2024 to 2026. The traps were replaced every 20 days during those periods and sent to the Epagri/Cepaf Plant Health Laboratory for inspection. Captured psyllids were counted, removed from the traps and analyzed by qPCR for the detection of “*Candidatus Liberibacter asiaticus*” in a private laboratory. Approximately 2,170 traps were analyzed, and 192 psyllids were detected in orchards from 14 municipalities (Abdon Batista, Bandeirante, Descanso, Formosa do Sul, Galvão, Ipuacu, Jupiá, Passos Maia, Planalto Alegre, São Bernardino, São Domingos, São José do Cedro, São Lourenço do Oeste and São Miguel do Oeste). The infectivity rate with *Candidatus Liberibacter asiaticus* on the sampled insects was 22%, with infective insects found in Ipuacu, São Domingos, São José do Cedro and São Lourenço do Oeste. These results show that infective populations of *D. citri* are present in Santa Catarina and pose a significant threat to citrus production in the state, as they can contribute to the spread of HLB. Thus, continuous monitoring and the implementation of management strategies are essential to reduce *D. citri* populations and mitigate the impacts of HLB in Santa Catarina.

Key-words: Insect vector; plant health; epidemiology; quarentenary disease

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