7.3 Citrus Huanglongbing in Cuba: Current Situation, Management, and Main Research

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Citrus huanglongbing (HLB) was found in Cuba in 2007 and associated with Ca. L. asiaticus, whereas its vector, Diaphorina citri Kuwayama, was present from 1999 and has settled throughout the country. The presence of the pathogen was confirmed by PCR in all citrus commercial areas and residential sectors from 2007 to 2008. Consequently, a management program was established including staff training, systematic inspection, and eradication of symptomatic plants mainly for new plantations, vector monitoring and control using systemic and contact insecticides and mineral oils, and sowing with certified planting material in blocks isolated from possible inoculum sources. Furthermore, the national citrus development program was restructured towards intensive and sustainable citrus growing, which involves the search for new sources of revenue such as recovery of vegetative carbon from eradicated citrus trees and short-term production crops interspersed with citrus plantations. To understand disease evolution and evaluate management efficiency, epidemiologic studies are carried out in blocks of the major citrus areas in the country. Research related to bacterial diagnosis and characterization, vector biology and behavior, evolution of disease symptoms, sanitation through in vitro shoot tips grafting, and the influence of HLB in citrus production is conducted. Nowadays, differences are observed in HLB behavior from citrus areas with dissimilar epidemiological scenes and management strategies; nevertheless, the incidence of symptomatic plants in new plantations and D. citri populations has been reduced in areas with efficient eradication and vector control. These results indicate that a rigorous and more extensive or regional strategy, which should involve commercial areas and small producers with state regulations for the residential sector, will guarantee better results in managing the disease.