

ACQUISITION OF 16SrIX, HLB ASSOCIATED PHYTOPLASMA, BY SCAPHYTOPIUS MARGINELINEATUS (HEMIPTERA: CICADELLIDAE) FROM CROTALARIA JUNCEAE

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Huanglongbing (HLB) is a severe disease of citrus associated with *Candidatus Liberibacter* spp. (*liberibacter*). Recently, phytoplasmas from group 16SrIX and from group 16SrI were also associated with HLB, independently from *liberibacter*. As of today, we have five bacteria associated with HLB as causative agents: *Ca. Liberibacter asiaticus*, *Ca. Liberibacter africanus*, *Ca. Liberibacter americanus*, group 16SrIX phytoplasma (Pigeon pea witches'-broom group) and group 16SrI phytoplasma (*Ca. phytoplasma asteris* group). Group IX phytoplasmas are associated with a diverse range of disease in different crops and are found associated with leguminous plant in some countries from Americas. Due to the association of group IX phytoplasma with HLB in Brazil, we have searched leguminous plants for occurrence of this phytoplasma. We found *Crotalaria juncea* displaying witches'-broom harboring HLB phytoplasma. The recent discovery of *Scaphytopius marginelineatus* as vector of HLB associated group 16SrIX phytoplasma, led us to assess the acquisition and transmission of this phytoplasma from *crotalaria* to citrus plants. *Crotalaria* plants with witches' –broom symptoms were collected in Potirendaba (SP), transferred to pots and kept in a greenhouse in Araraquara (SP). These plants were positive for HLB phytoplasma as determined by PCR and sequencing of PCR products. Adults from *S. marginelineatus* (250) were caged in *crotalaria* plants for 14 days and were kept for additional 7 days in latency period in *Sida rhombifolia*. After an inoculation period of 5 days in young citrus plants (20 per plant), leafhoppers were collected and groups of 5 individuals were employed for phytoplasma detection. On average, detection of HLB phytoplasma was positive in 80% of leafhopper samples. Citrus plants are under evaluation for HLB symptom development. Additional assays are necessary to prove transmission while no symptom is observed. This results show efficient acquisition of HLB 16SrIX phytoplasma from witches'-broom *crotalaria* plants by *S. marginelineatus*.