13.9 Colonization of *Citrus* relatives by *Candidatus* Liberibacter asiaticus.


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*Huanglongbing* (HLB), caused by *Candidatus Liberibacter* spp., is a serious citrus disease with no resistance within the genus *Citrus* and its relatives. The bacteria inhabit the phloem of the host and cause symptoms like yellow shoots and leaf mottling. Considering its importance and the need to find sources of resistance, the main objective of this work has been to evaluate the response to bacteria infection in different species of Rutaceae: *Poncirus trifoliata*, *Fortunella margarita*, *Merope* sp., *Atalantia* spp., *Microcitrus* sp., *Micromellum tephrocarpa*, *Eremolemon coachella*, and *Severinia buxifolia*. Five replicates of each plant were inoculated with buds infected with *Ca. Liberibacter asiaticus*, evaluated for disease symptoms and presence of bacteria. Plants grafted with healthy budwoods were used as negative controls. Evaluation was carried out monthly by PCR, and the titer of the bacteria in the tissues was evaluated by real time PCR (qPCR) with TaqMan probes, each two months. The primers and probes used were designed previously. In the first month the bacteria was detected in all replications of *Microcitrus*, *Severinia* and *Fortunella*. In the second month, some plants of *Merope* and *Micromellum* showed positive results but interestingly, the genus *Atalantia* and *Poncirus* were negative in both analyses (PCR and qPCR) and this result was maintained after 120 days of inoculation. These plants will be evaluated after 12 months to confirm the absence of bacteria in the tissue. No plants showed HLB symptoms in spite of the presence of bacteria in their tissue.