4.10 Enrichment of *Candidatus* Liberibacter americanus using an artificial psyllid feeding system.


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*Candidatus* Liberibacter spp., the causal agent of Huanglongbing (greening), is restricted to the phloem tissues and has an uneven and irregular distribution within plants. Two species of *Ca.* Liberibacter, *Ca.* L. americanus (Lam) and *Ca.* L. asiaticus (Las), are associated to HLB in Brazil. Due to the low concentration of the bacteria in tissues of citrus plants, isolation of the bacterial DNA and molecular dissection of the pathogen had not been successful. Therefore it has been necessary to develop new strategies for the isolation of these bacteria. We attempted to capture cells of Lam from psyllids feeding in a system based on small cages covered with membranes. The membranes contained PBS 0.005 mM + 25% of sucrose solution as a medium for feeding of infected psyllids. Psyllids and membranes solutions were collected and submitted for evaluation of the presence of the bacteria through PCR using specific primers. The results showed the presence of the bacteria in psyllids as well as in the solutions. Around 60% of the tested samples were PCR positive. These results indicate that this strategy can be an alternative for enriching Lam without the necessity of using alternate hosts such as periwinkle for the isolation of the pathogen DNA, reducing the molecular contaminants frequently observed in plant tissues.