Current Research Objectives

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Research topic: HLB disease management

Primary Research Objective(s): Use of plant extracts to manage HLB disease

Research Goal: Help to mitigate/reduce HLB disease symptoms in infected citrus plantings through foliage and soil drench applications of oak leaf extracts.

Outcomes to date: We have identified antibacterial activity from oak leaf extracts against the Candidatus *Liberibacter asiaticus* (CLas) bacteria in both natural environments and controlled laboratory conditions. Oak leaf extracts are not phytotoxic for the citrus tree when non-infected, but only when infected with CLas.

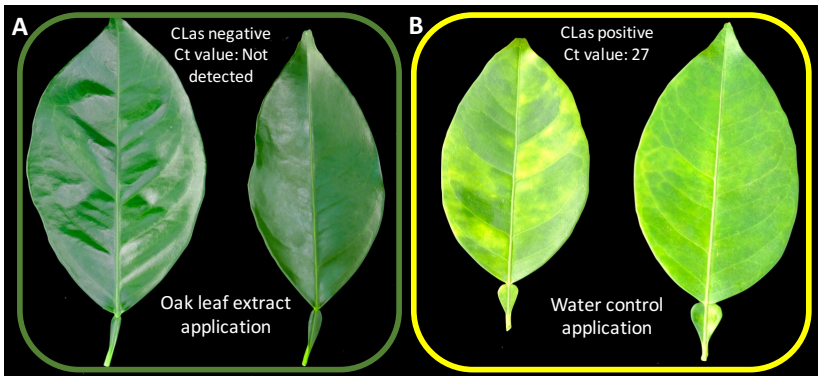

Figure 1. Reduction of classic symptoms of HLB disease, yellowing and bleaching of leaves, after 2 months of foliage applications of oak leaf extracts to infected sweet orange trees cv. pineapple. (A) Citrus leaves after oak leaf extract applications. (B) Control citrus leaves after water applications.

Our goal is to benefit Florida growers in the short term by delivering a high throughput method using steam explosion to process large amounts of oak leaves for field applications that can reduce HLB disease in infected groves.

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