

Current Research Objectives

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Research topic: HLB management

Primary Research Objective(s): Determine if steam-based thermotherapy is a viable management option for HLB.

Research Goal: Find the temperature/time combination and season that provide cost effective improvement in tree health and yield. Additional information about how the bacterium moves in a tree in response to canopy stress.

Outcomes to date: Canopy thermotherapy does reduce bacterial populations in whole tree, but bacterial movement from the roots to the treated canopy occurs within a month of treatment. Late spring treatment leads to measurable improvements in tree health including multi-year improvement in root health. Summer and fall treatments cause prolonged damage to the root system leading to poor tree performance. Ongoing experiments suggest that if a positive outcome occurs with spring treatment, it will take at least 3 years to recover costs.

Although steam-based thermotherapy is designed to allow treatment any time of year, season of treatment greatly changes tree response and is likely responsible for the mixed results observed by growers. Evidence from our studies has confirmed the view of many growers that thermotherapy does not improve grove health sufficiently to cover the cost of the treatment.

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