5.4 Economic Considerations to Treating HLB with the Standard Protocol or an Enhanced Foliar Nutritional Program

Morris, R.A., Muraro, R.P.  Associate Extension Scientist and Economist, Professor of Food and Resource Economics, UF-IFAS Citrus Research and Education Center, Lake Alfred, FL, USA

From an economic viewpoint, the main consequences of HLB are increased tree mortality, reduced yields, and increased costs of production. In 2006, one grower in the Immokalee area whose grove had a relatively high HLB incidence rejected the proposition that removal of infected trees was the only management option. Instead of removing infected trees, he began using an enhanced foliar nutrient management program that included SAR compounds reported to activate a tree’s disease resistance mechanisms and selected micronutrients (Zn, Mn, Mg, Bo, and Ca). After implementing the foliar nutrient management program, the visual appearance of the trees improved and an above average crop has been harvested sequentially for 4 years. Two types of groves were analyzed; one under the standard management protocol, and the other under an enhanced foliar nutritional program. The two categories of groves were a mature grove with 15+-year-old trees and an intermediate age grove with 4- to 10-year-old trees. It was assumed that resets would not survive to become productive under the enhanced foliar nutritional program. For the mature grove, the time to switch to the enhanced foliar nutrient program was when annual infection rates from HLB reached 3.9% at fruit prices of $1.50 per pound solids and 4.4% at fruit prices of $1.25 per pound solids. For the 4- to 10-year-old grove, the annual HLB infection rates where a foliar nutrient program was preferable were the same.