11.11 *Candidatus Liberibacter asiaticus* (CLas) Titer in *Poncirus trifoliata* and *P. trifoliata* Hybrids: Inferences on Components of HLB Resistance

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*Poncirus* trifoliata hybrids field grown at USHRL on Sun Chu Sha rootstock were tested for CLas 16S rDNA and Citrus dehydrin by qPCR, assessing random quadrant samples, a diagnostic “worst” sample, and rootstock suckers (November 2009). Resulting data were expressed as abundance of CLas relative to Citrus dehydrin. The two *P. trifoliata* had non-detectable or low CLas abundance, as did two citranges, except that citrange diagnostic samples and rootstock samples had very high CLas (20–24 CLas rDNA/Citrus dehydrin). Variability was observed in relative CLas abundance among the 10 citranges tested with most showing high abundance in quadrants (20 CLas/citrus gene), and all showed high CLas in rootstock suckers. The data suggest that *Poncirus* and some *Poncirus* hybrids suppress CLas even when grafted onto a high-titer source. Data suggest that in some citranges, CLas increases in small populations of leaves with the possibility that leaves undergoing senescence may permit proliferation as host defenses decline. Using only most-symptomatic diagnostic samples may obscure important differences in CLas proliferation. Theoretically, slower development of HLB/CLas could be due to alteration in several components: attractiveness of trees to ACP, CLas establishment at ACP feeding, CLas proliferation following ACP inoculation, systemic movement of CLas with subsequent further proliferation, and development of plant responses observed as HLB symptoms. Reduction or slowing of any of these steps may slow disease development and spread but with different implications in management and commercial significance. Careful consideration needs to be given to the value and implications of such resistance or tolerance.

References
