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IN PREPARATION FOR A POTENTIAL INCURSION OF CITRUS LEPROSIS: HOST PLANT RANGE AND DISTRIBUTION OF *Brevipalpus* MITES IN SOUTH FLORIDA CITRUS GROVES

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Brevipalpus spp. are phytophagous flat mites that have extensive host ranges and are vectors of plant viruses, including the citrus leprosis virus (CiLV). CiLV is progressing northward from the outbreak epicenter in South America and has been recently reported in Mexico. *Brevipalpus* spp. are present in all citrus producing states, which could increase the spread of CiLV if the disease reaches the U.S.A. Citrus orchards and two botanical collections were surveyed to determine the host plant range of these mites in south Florida. In two commercial and one unmanaged lime orchards, one branch from a randomly selected citrus tree was inspected with hand lens for *Brevipalpus* each month. If the mite was present, the branch, one fruit, and the weeds growing around the tree were collected and taken to the laboratory (n= 10 trees/orchard). *Brevipalpus yothersi* and *Brevipalpus californicus* were found on 17 plant species: six plants had both species, two plants had only *B. californicus*, and nine species had only *B. yothersi*. We report several new host records for *B. yothersi*. Three species of predatory mites were found associated with *Brevipalpus* spp.. In citrus, immatures of *Brevipalpus* were the most prevalent stage and occurred most frequently on the leaves. The unmanaged orchard had significantly more mites than the commercial orchards. *Brevipalpus* were seldom found associated with weeds in citrus orchards. In cause of an incursion of citrus leprosis in the U.S.A., the control of the mites should be focused on unmanaged citrus groves, including domestic plantings. This study provides a better understanding of the distribution and abundance of *Brevipalpus* in citrus orchards and its host plant range in south Florida.

Keywords: flat mites, citrus leprosis, new host records, within plant distribution, population dynamics.