9.11 Evaluation of Low Volume Sprayers Used in Citrus Psyllid Control Applications

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Citrus greening is a disease that threatens the survival and economic viability of the Florida Citrus Industry due to the disease’s ability to kill an infected tree. An insect called Asian citrus psyllid is a carrier of the bacteria that causes citrus greening; therefore, citrus growers are using several insecticides and sprayers to find the most effective method to control the insect. A number of studies involving numerous citrus sprayers and active ingredients were conducted to determine the droplet size generated by the different sprayers and how to adjust the sprayers to meet a droplet size requirement that is on many insecticide labels. In the sprayer tests, it was found that reductions in engine speed or increases in flow rate were required to increase droplet sizes to meet the product label required droplet size. As the equipment tested here represent the most typical application equipment used in Florida for psyllid control, these results will provide applicators, growers, and extension agents with general guidelines to ensure that spray systems are operated in a manner that complies with label restrictions.