9.8 Development of Area-Wide Asian Citrus Psyllid Management Strategies in Texas

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The concept of an area-wide management approach against the Asian citrus psyllid, Diaphorina citri, has the potential to significantly lower the risk of huanglongbing (HLB) establishment and spread. Reducing the vector population has the advantage of not only lowering the risk of HLB spread but can make disease eradication possible in case of its accidental introduction, given it is detected early through ongoing survey efforts. In 2009, Texas A&M Kingsville Citrus Center and CPHST Mission Lab implemented a pilot project covering almost 1,500 acres of citrus to test area-wide management of ACP and minimize the risk of HLB in the Lower Rio Grande Valley, TX. Several of our objectives were to implement site-specific treatment regimes for ACP control in commercial citrus and refine monitoring methods for ACP populations and infestations pre- and post-treatment, and continue to test the efficacy of different insecticide application methods comprising aerial and ground application. We have documented that aerial and ground applications are very effective before spring flush. We saw a 93% reduction in ACP adults. The timing of this treatment is critical as adults need to be treated before they begin laying eggs on the spring flush. The most effective season-long treatment option included four foliar applications and soil-applied aldicarb. In 2010, we expanded the project area to cover 4,600 acres of citrus and focused the main ACP control treatment to two dormant season sprays in January and November.