CITRUS ADVANCED TECHNOLOGY PROGRAM

QUARTERLY & FINAL REPORTS: Control of Citrus Greening, Canker & Emerging Diseases of Citrus

SELECT PERIOD September 2013

(●) *Quarterly Report* ( ) *Final*

Proposal Title

Assessment of Systemic Neonicotinoid Insecticides for the Management of ACP

Today's Date	Sponsoring Organization (drop-down)	Category (drop down)
8/26/13	California Citrus Research Board	Vector Management

REPORT UPDATE (500 words-It is not necessary in this public report to disclose your institution's proprietary information or intellectual property.)

During this season, we are focusing our efforts on evaluating different formulations of imidacloprid. This research objective is in response to grower questions about the consistency of different imidacloprid formulations at a time when there are multiple generic products available. We are running two trials in commercial citrus groves - one trial on minneola tangelos and a second trial on grapefruits.

We have completed 2 years of trials where we evaluated the uptake of clothianidin applied by soil drench and trunk spray. The results of the 2011 trials were very promising, whereas the results of the 2012 trials showed no residues in the trees. Due to the inconsistency of the results, we are conducting a third trial at Lindcove during the 2013 season. Soil drench and trunk spray applications at a single timing are currently being evaluated.

In 2012, we evaluated the efficacy of thiamethoxam treatments on navel and Valencia oranges at several field sites in Redlands. At one of two sites where treatments were applied in October, thiamethoxam was only detected at 4 weeks. At a third site, where treatments were applied in mid-July, no thiamethoxam was detected up to 16 weeks after applications. At the latter site, monitoring was only begun at 8 weeks, so thiamethoxam residues may already have been established within the tree and then dissipated. Nevertheless, our data shows that thiamethoxam is not a persistent chemical in citrus trees.

Our objective to conduct imidacloprid residue analysis on fruit from treated trees is now complete. Fruit from trees treated at 2 timings (Feb. and Mar.) with a 2X label rate of imidacloprid from 3 field sites in Bakersfield (Valencia oranges), Lindcove (navel oranges) and Hemet (grapefruit) have now been tested for residues. Samples were collected for up to 8 weeks after treatments at the Bakersfield and Lindcove sites and 16 weeks at the Hemet site. At the Bakersfield and Lindcove sites, residues were not detected (limit of detection of the assay was 0.01 ppm). At the Hemet site, residues were not detected in trees treated with a single application. However, in trees that were treated in 2 successive years with the 2X rate, residues of 0.01 ppm were detected, which is below the MRL established for citrus in the USA.

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Form PR-12 Quarterly Reports **SUBMIT REPORT**

CITRUS RESEARCH AND DEVELOPMENT FOUNDATION, INC.