CITRUS ADVANCED TECHNOLOGY PROGRAM

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

SELECT PERIOD March 2015

Quarterly Report ◉ Final

Proposal Title

Large-scale mating disruption of citrus leafminer validation and product launch

Today's Date	Sponsoring Organization (drop-down)	Category (drop down)
03/29/2016	Citrus Research and Development Foundation	Infection Consequences

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

This is the final report for Project 13-926C.

Over the last two years, we have been able to confirm that Citrus Leafminer Mating Disruption is a viable control solution for Phyllocnistic citrella. Data from 734 Citrus Holdings, Indian River Exchange Packers and The Packers of Indian River, all distributed across the state, confirmed that the performance of DCEPT CLM is in fact tremendously beneficial to CLM control. Performance across all of the trials, including monitoring data and damage evaluations, was consistent. This evidences the consistent and predictable performance of pheromone based mating disruption.

After evaluating all of the data from this project, we can confirm that DCEPT CLM will quickly reduce populations of CLM and maintain control for up to twelve weeks. For these twelve weeks, pheromone monitoring traps will capture little to no adult CLM males because the populations are being controlled by the pheromone being released by DCEPT CLM. Additionally, damage will follow the same trend as the traps and will be equal or lower than farms that utilize conventional spray programs that spray as often as every two weeks. We also believe that DCEPT CLM, as a sole control input, can control CLM using a single application without CLM targeted conventional insecticide sprays for up to twelve weeks.

Going forward, for farmers that plan to proceed with a single application of DCEPT CLM, our recommendation to farmers will be to target DCEPT CLM applications at the most important ten to twelve weeks of the citrus growing season. This will allow the farmer to have flexibility and choice, one where they can mix and match control strategies. For example, a farmers can protect their citrus during the highest pressure portion of the season with a DCEPT CLM application and protect the rest of the season with conventional insecticide sprays. The farmer could also apply DCEPT CLM twice which will cover nearly the entire susceptible season of Florida citrus. Unlike insecticide treated blocks, DCEPT CLM applications will also maintain the major advantage of residual performance. Although DCEPT CLM will not be able to eliminate damage after twelve weeks in the field, it will still maintain residual performance that keeps CLM populations lower than blocks treated with conventional insecticides. For example, at The Packers of Indian River, blocks that were treated with DCEPT CLM were able to maintain monitoring trap captures three to four times lower than blocks treated with insecticides every two weeks for an additional four weeks.

Lastly, these three trials confirmed that DCEPT CLM performance can be maintained at essentially the same levels with applications in farms with tree densities ranging from 125-175 trees per acre. This confirmation is important because it will allow Florida farmers with various tree densities to adopt CLM mating disruption. We will now recommend that all farmers proceed with a minimum application rate of 125 DCEPT CLM per acre.

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Form PR-12 Quarterly Reports SUBMIT REPORT

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