

**CALIFORNIA CITRUS PEST AND DISEASE PREVENTION PROGRAM  
OPERATIONS SUBCOMMITTEE MEETING**

Meeting Minutes  
Wednesday, October 3, 2018

**Opening:**

The regular meeting of the Operations Subcommittee was called to order at 9:00 a.m. on October 3, 2018 in Visalia, California by Chairman Keith Watkins.

**Committee Members Present:**

John Gless*	Ted Grether*	Kevin Severns	Keith Watkins
Zac Green*	Link Leavens*	Roger Smith	

**CDFA Staff:**

Jonathan Babineau*	Sara Khalid	David Morgan*
Cassandra Davis	Ray Leclerc	Nawal Sharma*
Victoria Hornbaker*	Magally Luque-Williams*	Bob Wynn*

**CRB Staff:**

Ed Civerolo	Rick Dunn	Holly Deniston-Sheets
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**Guests:**

Bob Atkins	Jim Gorden	Mark McBroom*	Jason Schwartz*
Jill Barnier*	Brett Kirkpatrick*	Edwin Moscoso*	Michele Wineman*
Erin Betts	Leslie Leavens*	Neil McRoberts*	Bob Wynn*
Teri Blaser	Karen Lowerison*	Sylvie Robillard	Sandra Zwaal*
Sara Garcia Figuera*	Leslie Leavens*	Cressida Silvers*	

**\* Participated via Webinar**

**Opening Comments:**

Keith Watkins welcomed the Committee, staff, and members of the public participating in person and online. He stated that there was a quorum for the meeting.

**Public Comments:**

No public comments.

**STRATEGIC PRIORITY 1 – Find and Eradicate HLB**

**Laboratory Update**

Victoria Hornbaker stated that the California Department of Food and Agriculture (CDFA) tested 6,760 plant samples, and the Citrus Research Board (CRB) and University of Arizona together tested approximately 5,300 ACP samples in the month of September. She noted the CRB lab is now fully certified and taking samples from the field. Victoria explained that last year was a banner year for numbers of samples tested with 75,867 plant samples processed of 140,561 total samples. 2018 is set to match or exceed 2017, processing 60,128 plant samples of 107,343 total samples as

of August. She stated that previously authorized additional lab staff were being hired which would increase CDFA's lab capacity to 138,000 samples.

Victoria Hornbaker stated that Garden Grove is the leader in Huanglongbing (HLB)-positive tree detection, followed closely by Anaheim and trailed by Pico Rivera and Whittier. She explained that following a week in the lab to reveal a positive find, field staff will apply pesticide the same day, and two tree-removal contractors will schedule a tree removal down to the root ball within two weeks.

### **HLB Detection and Removal Update**

Magally Luque-Williams explained that CDFA is performing risk-based surveys in 27 counties as part of cycle 1, including approximately 33,000 properties. She noted seven risk-based surveys are completed and the rest should be completed by the end of October, except for Los Angeles County and San Diego County.

Magally stated that HLB delimitation surveying for Anaheim was 49 percent complete, Fullerton was 96 percent complete, Orange was 43 percent complete, Garden Grove was 17 percent complete, Santa Ana was 26 percent complete, and Yorba Linda was 99 percent complete. Tustin delimitation started this week and was 25 percent complete. La Habra, Riverside, and San Bernardino were already complete. When asked, Magally stated that 10 to 12 delimitation surveys could be completed per surveyor per day, or 15 to 18 when resurveying. She explained that her program had approximately 60 to 70 seasonal staff doing surveys.

Magally stated that HLB was detected in 48 properties in San Gabriel, 84 properties in Pico Rivera, 75 properties in Whittier, 162 properties in Anaheim and 199 properties in Garden Grove. There was a total of 660 properties with HLB detections, 867 HLB-positive trees and 194 HLB-positive ACP. HLB border surveys for Imperial and San Diego are completed, with San Diego entering the next cycle. Magally noted that 32 square miles in San Bernardino is off-limits to surveys due to Exotic Newcastle disease affecting backyard flocks and were pushed back to the next cycle.

It was suggested that supplemental surveys should be done in Santa Barbara, Monterey and San Luis Obispo. Magally noted that Santa Barbara was likely to be surveyed as part of the next cycle when Dr. Gottwald will be weighting risk surveys towards commercial groves. It was noted that Monterey and San Luis Obispo do some trapping.

## **STRATEGIC PRIORITY 2 - Control ACP movement and Enforce Regulations**

### **Regulatory Activity Update**

A new Data Analysis Tactical Operations Cell (DATOC) advisory for hand-cleaning bulk citrus moving between regional quarantine zones was read to the Subcommittee. It recommended fruit be sprayed within fourteen days of harvest with an approved insecticide or field cleaned. Field cleaning requires either hand-cleaning prior to binning or mechanical brushes or rollers to dislodge leaves, twigs and potential ACP. The advisory proposed that 20 or fewer leaves per bin would be an achievable standard. However, the number of leaves in a bin have not been shown to correlate with ACP presence. Research suggests ACP can survive on fruit alone for some time, and 0.5 percent of ACP remain alive after field cleaning. DATOC does not support the idea of hand leaf removal or setting a leaf count threshold as a means of mitigating risk of ACP movement with bulk citrus.

Victoria stated that the Program was looking for a protocol to assess the current practice of hand field-cleaning. Having less than 20 leaves in a bin does not mitigate the danger of ACP, only that having more than 20 leaves causes the shipment to be rejected in Keith Okasaki's suggested protocol. It was noted the Operations Subcommittee recommended to the Committee to stop hand-cleaning, a motion that was moved to the Regulatory Taskforce for study. It was stated that the citrus season will start soon, and a consensus should be reached before then to allow Nawal to disseminate the consensus to the growers. Victoria recommended the Regulatory Taskforce rework the risk matrixes to give scientific weight to those decisions, and to gain a recommendation from the full CPDPC.

### **STRATEGIC PRIORITY 3 - ACP Control/Suppression**

#### **Trapping and Treatment Update**

Cassandra Davis stated that in some southern counties, ACP traps have been pulled due to a proliferation of ACP. She noted that CDFA is waiting for results on 354 grove sampling sites. She explained that grove traps are sampled year-round every two weeks and county agriculture office traps and CDFA traps are sampled every month. She stated that the majority of county agriculture office traps are urban ACP traps with a minority of delimitation traps that could be set in commercial groves. CDFA traps are half urban ACP and half orchard delimitation traps. She noted that some CDFA traps will be given to the county program to replace old delimitation traps pulled due to protocol change.

Cassandra explained that there were finds in Kern detection traps on Monday on a property outside Maricopa. She stated there were no adjacent sites; the only citrus is over the 800-meter mark. When asked, Cassandra explained that an ACP find requires verification by a United States Department of Agriculture (USDA)-certified lab. She stated that ACP finds have slowed down drastically since 2016. Two properties were treated in Kern and ten properties were treated in Fresno, with two still pending and one no contact. It was stated that the owner of one of the pending properties couldn't afford to treat her trees, with on-going discussions to find the money to remove those trees.

#### **Biocontrol Updates**

Dr. David Morgan explained that CRB produced almost one million agents out of a total 2.8 million insects produced so far this year, with some slow down due to being affected by outside climate. David estimated that by the end of the year CDFA and CRB would together release approximately four million agents

David explained that the CRB's Dimitman lab checks the Riverside lab's ACP for background testing. Of the 5,000 ACP tested on August 27, 2018, one insect tested positive for HLB. David noted that the ACP originated from the University of California Riverside (UCR) quarantine and reared in a closed system. The curry plants the Riverside lab ACP are reared on cannot contract HLB. The lab is testing for possible issues in screening procedures and standard operating procedures, curtailing staff movement, and checking bar-coded lab plants and local plants for HLB since the Riverside lab is three miles from an HLB find site. David noted it may be a variant of CLAs that infects curry plants, but it is difficult to be sure with an incomplete DNA sample. David noted that the greenhouses are heat-treated to prevent any carryover from one generation to the next, and the lab has replaced the preexisting population with a new ACP population from UCR.

Victoria explained that DNA from the insect was sent to the Beltsville lab which confirmed the presence of CLAs. She stated that Lucita is running tissue from the 308 curry plants the HLB-positive insect was reared on, The CRB lab is running the ACP samples and once results are in will debrief with USDA. She noted that *Tamarixia* cannot spread HLB, so there is no danger of releasing the parasitoids on schedule in the meantime.

### **Regional ACP Update**

Bob Atkins stated that all area-wide treatments are either ongoing or recently concluded. He stated there are no new neglected or abandoned orchards. Bob mentioned that Ed Williams has been appointed as the new Ventura County Ag Commissioner and he intends to follow up with him next week on the commitment. Bob stated the Early Detection Technology (EDT) Taskforce hopes to ask what can be done to hasten results from the primary investigators. He noted Florida-1 (FL-1) is continuing, but no other projects are ready for action. It was stated that Dr. Beth Grafton-Cardwell is initiating an ACP scouting project in Kern County to monitor 50 citrus orchards.

## **STRATEGIC PRIORITY 4 – Improve Data Technology, Analysis and Sharing**

### **DATOC Update**

Dr. Neil McRoberts stated that the DATOC expert panel suggested an ACP find in a previously uninfested area should trigger a treatment with a radius not less than 400 meters. He stated that yellow sticky traps are a time- and cost-effective measure, but they are an imprecise measure due to lacking a lure and can be affected by sunlight and temperature. Yellow sticky traps can indicate the presence or absence of ACP in an area but cannot indicate an absolute abundance. A single find in a yellow sticky trap may indicate an infestation nearby. Neil explained that studies show adult psyllids can travel up to two kilometers, and a treatment radius of 50 meters will result in unfound and untreated psyllids.

Holly Deniston-Sheets stated that DATOC is working on an exposure project to establish a basis for an exposure radius around an exposed tree. She explained that Dr. Neil McRoberts is modeling the disease's expansion in six-month increments to look for that point where the disease reaches exponential growth. The data has been inconclusive but the McRoberts lab recommends the stance should be adopted that signs of the exponential growth phase are present in urban areas of Southern California. Holly stated that the lab model is attempting to incorporate many factors such as *Tamarixia* releases and quadrant sampling. Dr. Neil McRoberts stated that the main confounding factor is that sampling protocol changes and evolves over time, and that sampling needs to be as standardized as possible.

Holly stated that the DATOC dashboard is up and running with many features such as direct messaging.

### **Data Management Report**

Rick Dunn stated that he continues updating the statewide citrus layer. Permit data from the Fresno County Agricultural Commissioner and biocontrol data will be added to the citrus layer. Rick stated that systematic grove sampling began in April 2013, replacing grove trapping. 471 area-wide traps, one per square mile, remain which are serviced once a month by a team of eight trappers and a lead trapper. He stated that more sentinel trees are being added. Grove samples from 9,747 sample sites are taken in alternating cycles, each site being sampled twice a year. Rick explained that the process is to spend five minutes attempting to visually identify psyllids in sentinel trees.

If 25 psyllids can be collected in 15 minutes, they stop sampling. He noted that nymphs are handled separately from adults.

Rick Dunn explained that the number of sample sites has been increasing continuously as CRB converts traps over to the grove sample sites. He stated that the number of sites where psyllids are collected tend to rise and fall significantly but the percentage of sites where psyllids are collected and the average number of psyllids collected at each find site have both declined steadily. He noted that Dr. Beth Grafton-Cardwell recommended charting these numbers county by county, and the resulting graphs show some counties being consistently low and some counties being consistently high. Rick stated that in September approximately 2,100 sites were visited; 2,200 individual ACP were collected at 418 find sites. Since the program began in July 2018, almost 2,400 samples were collected for testing including almost 150,000 individual ACPs.

Rick stated that there are areas that are not in compliance with the area-wide project, including parts of San Diego County. It was noted that scouting and the area-wide project could fall under DATOC. Rick added that Dr. Gottwald's risk model cannot perfectly predict where HLB will appear. He stated that a positive detection by these grove sampling programs would trigger a delimitation survey and the same procedure as an urban HLB find. It was stated that due to a recent change in primers, inconclusive samples are much rarer, and therefore sampling should expand rather than the current repeat model.

#### **CLOSING COMMENTS & ADJOURNMENT**

The meeting was adjourned at 11:41 a.m. The next meeting will be held in Visalia, California on November 7, 2018 at 9:00 a.m.