

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

Meeting Minutes
Wednesday, November 7, 2018

Opening:

The regular meeting of the Operations Subcommittee was called to order at 9:00 a.m. on November 7, 2018 in Visalia, California by Chairman Keith Watkins.

Committee Members Present:

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

Committee Members Absent:

Kevin Severns

CDFA Staff:

Jonathan Babineau*	Victoria Hornbaker	Magally Luque-Williams*	Nawal Sharma*
Cassandra Davis	Gavin Iacono*	Dr. David Morgan*	Bob Wynn*
Tina Galindo*	Dr. Jason Leathers*	Keith Okasaki	
Sara Khalid	Ray Leclerc	Lea Pereira*	

CRB Staff:

Rick Dunn	Holly Deniston-Sheets	Carolina Evangelo
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Guests:

Bob Atkins	Dr. Beth Grafton-Cardwell	Mark McBroom*	Judy Zaninovich
Jill Barnier*	Karen Gutierrez*	Tracy Moehnke*	Sandra Zwaal*
Erin Betts*	Alyssa Houtby	Curtis Pate*	
Teri Blaser	Karen Lowerison	Sylvie Robillard	
Bob Felts, Jr.	Robert Ledington*	Cressida Silvers*	
Jim Gorden	Dr. Melinda Klein*	Rayne Thompson*	

*** 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.

Grower Liaison Issues

Bob Atkins stated that all fall area-wide treatments in Southern California are completed and awaiting data analysis. He noted that some areas such as Coachella have treated around 90 percent of commercial groves. He also mentioned that San Diego has only recently established a citrus

Pest Control District and is working out issues in achieving compliance with area-wide treatments. Bob stated that an Early Detection Technology (EDT) Task Force meeting is scheduled for December. The EDT Task Force is working with the Primary Investigators involved in the CA-1 and CA-1b studies to complete the analysis of the two projects. All counties are continuing to look for neglected and abandoned groves and are working to remove them.

Teri Blaser stated that there was no commercial citrus within a mile of the find in Visalia and the find site has been treated. The 400-meter treatment will begin following a public meeting. Victoria Hornbaker stated that all tests came back negative for CLAs. It was also noted that there is a follow-up detection in Maricopa on a property just outside the 800-meter area.

STRATEGIC PRIORITY 1 – Find and Eradicate Huanglongbing (HLB)

Discussion revised risk-based surveys

Ray Leclerc stated that the program received the next cycle of Dr. Gottwald’s risk-based survey. This survey is biased 25 percent more heavily towards commercial groves than the previous version, and Dr. Gottwald is developing a commercial grove survey as well. The commercial grove survey will be implemented to the extent possible under current program resources. Ray noted that Dr. Gottwald suggested 25 staff on the project would be the minimum number to devote to the commercial grove survey.

Neil McRoberts noted that in the commercial risk-based survey, not all the risks are weighted equally. Huanglongbing (HLB) finds are weighted three times as much and suspected HLB locations are weighted and twice as much compared to Asian citrus psyllid (ACP) density, residential exposure and census travel risk. When asked, Neil clarified that suspected HLB locations include CDFA modeling, inconclusives and any other leads to suspected HLB finds in the area.

STRATEGIC PRIORITY 2 - Control ACP movement and Enforce Regulations

Discuss movement of fruit between quarantine zones and hand field cleaning of fruit

Keith Okasaki stated the ACP-free declaration form has been updated to ensure field cleaning by machine is the normal practice. He noted that hand cleaning is still possible with permission from CDFA and the local Agricultural Commissioner. Keith stated that all Agricultural Commissioners received an advisory in October to that effect. When asked, Keith explained that CDFA intends to have a conference call with Agricultural Commissioners on Friday to clarify the revised ACP-free declaration and the process for requesting deviations from the approved mitigation measures. It was agreed that the advisory will be posted to the Citrus Insider, Grower Liaisons will help spread the word among growers, and Victoria will discuss the matter with California Citrus Mutual, Sunkist and others.

It was requested that the Subcommittee recommend that the San Luis Obispo and Santa Barbara County zones be combined into one zone to facilitate southbound fruit. It was suggested that the Nipomo finds invalidate any argument to keeping Ventura, San Luis Obispo and Santa Barbara separate. The criteria for establishing regional quarantine zones included ACP population and distribution, HLB threat, packinghouse availability, directional movement of bulk citrus and nursery stock and geographical barriers. It was stated that more regions might prevent artificial movement of ACP in larger zones. Victoria noted that this was considered when the Statewide

Regional Quarantine Working Group was developing the quarantine zones, but was ruled out, because some areas grow citrus, but do not have packinghouse capacity.

Update on Post-Harvest Bulk Citrus Mitigation

Victoria stated that early last spring, CDFA sent out a standard operating procedure (SOP) advisory for Evergreen and Breakthrough as a post-harvest fog. She explained that the SOP was rejected by the Department of Pesticide Regulation (DPR), because the SOP deviated from the registered label. Victoria explained that the SOP was reworked by California Citrus Mutual (CCM) and it was approved by DPR. Victoria explained that the products used in the SOP are currently approved for Navel and Valencia oranges, but CCM is working with the registrant to seek a Section 18 for lemons and mandarins. Victoria stated an advisory was sent out at the County Agricultural Commissioners so they approve the structures that will be used in the post-harvest application. She noted that some counties are requesting 12 hours on reentry rather than the label's warning to not enter until vapors have thoroughly dispersed and area is ventilated with a dilution rate of 650.

Victoria noted the SOP is for 48 bins specifically. It was suggested there should be an amended SOP for a lower number such as 10 bins in the event of a small harvest. Victoria stated that an evaluation would need to be done to make sure that it would not create efficacy or residue issues. It was stated that the approved structure SOP ensures each load does not need to be certified, but there will need to be a compliance agreement and inspection ensuring no deviation from SOP. It was suggested that the cost for Evergreen should be comparable to spray-and-move.

Exposure: Finalizing a Description

Neil stated his lab has been trying to create a definition for HLB exposure in trees near HLB find sites. CDFA provided all find data up to June 2018, and Neil cleaned this data of inconsistencies and then used the resulting data in creating the definition. He explained that he used instances of detection as the analytical unit, regardless of proportion of ACP found or number of trees involved in the detection. The scope of data is 100,162 tree locations of which 659 are HLB-positive, and 134,977 ACP collection events of which 145 were carrying CLAs. Neil stated that Brianna looked at the cumulative distribution of events with the distance of every tree to the nearest HLB-positive tree as the starting point. He explained that average cumulative distribution suggests that 80 percent of HLB-positive trees are located within 76 meters, 90 percent of HLB-positive trees are located within 172 meters and 95 percent of HLB-positive trees are located within 321 meters. He noted that the majority of HLB-positive trees are located within 20 meters of another find, but that even up to 400 to 500 meters there were statistically anomalous finds.

Victoria stated that the response should be the same for both residential and commercial grove HLB finds. The Neil McRoberts lab is attempting to establish a procedure for all citrus, commercial and residential. If the rule is set at 20 meters, then all trees within 20 meters will need to be removed; this would include three rows of trees in a commercial grove. When asked, Neil stated that his lab doesn't currently have data on trees that previously tested negative for HLB or how often those should be re-tested, but that Lucita at the CDFA lab is working on producing that information.

Neil stated that ACP numbers have reached a stable population in Southern California except in Anaheim and Garden Grove. It was noted that San Gabriel was seeing significant reductions in ACP population thanks to regular sprays and *Tamarixia* releases. Neil stated that the relationship between ACP finds and the nearest CLAs-infected ACP were similar but not as tight a relationship

as between HLB-positive trees, trending downward with distance until statistically anomalous finds from 300 to 500 meters.

Neil explained that not all 170-meter infection areas are equally dense, and cities have a range of exposure densities which may impact prioritization. It was suggested that some cities being closer or adjacent, such as Anaheim and Garden Grove, may impact these numbers. He stated that damage done as the radius of removal increases goes up geometrically, and there is a point where the damages outweigh the benefits. Neil noted that a removal radius of 107 meters and a total of 8.24 kilometers affected would allow an 85 percent confidence level that all infected trees were removed. At a 172-meter removal radius, 16.07 square kilometers would be affected to provide a 90 percent confidence level. Neil believed that this line of inquiry had produced as much useful data as it was possible to acquire from it. In response to questions, Ray noted that dispersion of infected psyllids is a different modeling exercise than the Neil McRoberts model. Neil stated that Professor Gilligan's and Dr. Gottwald's models answer that issue. Ray suggested that overlaying all three studies might be useful.

STRATEGIC PRIORITY 3 - ACP Control/Suppression

Biocontrol Monitoring Updates

Dr. David Morgan stated that since its 2012 inception the biocontrol program has released over twelve million biocontrol agents and are on track to exceed the previous year significantly. Biocontrol agents are released around HLB find areas, and David intends to cover urban areas in the Central Valley such as Visalia and Maricopa if the program can find reproducing populations. David stated that transect data showed that if 4,000 or more *Tamarixia* are released within one kilometer in a previous month, it drives down ACP in the area significantly. He noted that the program produces several thousand *Tamarixia* per month.

HLB testing of ACP and plant material

David discussed follow-up information of the CLas-positive ACP in the Mount Rubidoux Biocontrol Facility. He explained that Luci and the Citrus Research Board (CRB) lab studied surrounding vegetation, tested all insects and hundreds of plants involved and have found no further CLas infections. Local citrus has been treated to ensure they are not infested with ACP. Victoria stated that following the incident she consulted with United States Department of Agriculture (USDA) Science and Technology staff, and the USDA staff is confident this was a one-off anomaly. David will continue to work with Qijun and his staff at CRB to regularly monitor the ACP colony, and facility biosecurity will be increased. When asked, David stated that all plants involved have been destroyed, the source colony has been and will continue to be randomly sampled, and the population will be replaced by a new colony of ACP from University of California Riverside when possible.

CLOSING COMMENTS & ADJOURNMENT

The meeting was adjourned at 11:14 p.m. The next meeting will be held in Visalia, California on December 12, 2018 at 9:00 a.m.