Opening:
The regular meeting of the Operations Subcommittee was called to order at 9:00 a.m. on January 8 by Chairman Keith Watkins.

Subcommittee Members Present:
Zac Green*  Roger Smith  Keith Watkins

Subcommittee Members Absent:
John Gless  Kevin Severns

CDFA Staff:
Jonathan Babineau*  Gavin Iacono*  Alex Muniz*
Kiana Dao*  Sara Khalid  Keith Okasaki*
David Gutierrez*  Anmol Joshi*  Lea Pereira*
Amelia Hicks  Dr. David Morgan*  Jennifer Willems
Victoria Hornbaker*

Guests:
Bob Atkins  Rick Dunn  Mark McBroom*
Casey Creamer  Sara Garcia-Figuera*  Dr. Neil McRoberts*
Kevin Ball*  Jim Gorden  Curtis Pate*
Jill Barnier*  Dr. Beth Grafton-Cardwell*  Sylvie Robillard*
Teri Blaser*  Subhas Hajeri*  Cressida Silvers*
Natalie DeAngelo*  Dr. Melinda Klein*  Jack Williams*
Holly Deniston-Sheets  Jessica Leslie*  Judy Zaninovich*
Aaron Dillon*  Karen Lowerison*  Sandra Zwaal*

* Participated via Webinar

Keith Watkins welcomed the Subcommittee, staff, and members of the public participating in person and online.

STRATEGIC PRIORITY 2 – Control ACP movement and Enforce Regulations
Discuss Mitigations for Movement between Zones
Keith Okasaki explained that the regional quarantine became effective January 1, 2018. He noted that the Committee raised concerns regarding costs of field cleaning or spray and move when moving from a lower risk to a higher risk area. The California Department of Food and Agriculture
CDFA issued a Quarantine Commodity (QC) Permit 1486 and a Pest Exclusion Advisory to counties on January 24, 2018 to allow fruit to move into a Huanglongbing (HLB) quarantine without the mitigation. He added that safeguards during transit and an ACP-free declaration are still required. He stated that 4,718 bins were moved into Zone 6 for packing between September and November 2019.

It was explained that moving Asian citrus psyllids (ACP) into an HLB quarantine zone is high risk, because you are bringing a vector into an area where HLB inoculum may exist. It was noted that additional mitigations could emerge in the next two years that could improve the ability to move between zones. Victoria Hornbaker explained that growers impacted by the new HLB quarantine zones would not fall under QC Permit 1486 but will have their own compliance agreements and permits. Keith explained that shipping citrus to a packer from within the same quarantine area requires one mitigation, and to ship citrus outside the quarantine area requires tarping and either dual mitigation or wet wash. A grower within ACP Zone 6 but not in the HLB quarantine area falls under QC Permit 1486. CDFA possesses a matrix showing mitigation requirements between zones, and this can be posted on Citrus Insider for growers.

**Update on Moving ACP Free Areas into Quarantine Zone 1**

Keith stated that CDFA sent a letter to the United States Department of Agriculture (USDA) detailing criteria to move counties out of quarantine into Zone 1 after two years without an ACP detection. CDFA also provided USDA with four years of negative survey data and negative trap data from the Pest Damage Record (PDR) database. He stated that nine counties qualify for this quarantine shift: Madera, San Benito, Merced, Yolo, Solano, Alameda, San Joaquin, Placer and Stanislaus. Victoria noted that if CDFA returns these counties to Zone 1 internally, USDA may default to quarantining the entire state for ACP. She noted that California has the regulatory bandwidth to do more to mitigate HLB and ACP than other states, which should support the argument to the USDA. The intent is to protect counties with negative trap data by taking them out of an active quarantine zone. Victoria stated that the data given to USDA includes the number of traps placed, separated out by trap type: detection traps, delimitation traps, visual survey information, and the contracted glassy-winged sharpshooter traps. Traps are checked monthly and the survey sites are not differentiated between risk survey and delimitation.

It was stated that when ACP are collected, the PDR applies to the CLas rather than the tested insect. Victoria stated that the decision was made that finds in generally infested areas were diverted to the Citrus Research Board (CRB) lab for *Candidatus* Liberibacter asiaticus (CLas) testing. Samples could not be definitively confirmed as the Asian citrus psyllid without a state entomologist, but the sample could be checked for CLas. She noted that any sample north of the Tehachapis goes to the CDFA lab and south goes to the CRB lab. She explained that if no psyllids are collected by trapping but all the growers treated, Tina Galindo will send staff out to do a visual survey to collect psyllids for the CDFA lab in order to allow area-wide treatment. It is only when the surveyors cannot find psyllids that the area can’t be treated. She added that all trap data is entered into the Animal and Plant Health Inspection Service (APHIS) database.

**STRATEGIC PRIORITY 3 – ACP Control/Suppression**

**Update on Providing Biocontrol Agents to Mexico**
Dr. David Morgan stated that the 4,500,000 *Tamarixia radiata* releases in 2019 are higher than prior years despite difficulties with the CRB field cages due to weather. He stated that the Biocontrol unit has been asked to continue providing USDA International Services with 9,000 *Tamarixia* per week for release into Mexico through June 2020, assisting Arizona with releases and providing *Tamarixia* for Richard Stouthammer and Greg Simmons’s MAC research project in Hemet to test how biocontrol interacts with other management strategies and treatments. He stated that insects are being released in HLB areas, with slightly increased release numbers in border areas. He explained that ACP finds this year were unusual; finds were low and increased in November and December, perhaps due to climactic changes. He explained that it has been difficult to find evidence of parasitism at biocontrol monitoring due to low ACP numbers. He noted that *Tamarixia* can disperse up to eight miles in a year.

David explained that currently the biocontrol unit releases insects in grids immediately around treatment areas, but there is a proposal to do a continuous blanket release further away. This would result in fewer release grids, more insects released per grid and a stronger barrier while being easier on staff. He added that the eastern side of Riverside and northwestern Los Angeles would be prioritized, with western Los Angeles and the urban area of Orange County as a lower priority. It was suggested that the western side around Inglewood be lower priority, and areas protecting commercial citrus be higher priority. David stated that there wasn’t much coastal ACP activity and that area may be dropped, but that he wanted to prioritize trade routes. He noted that he is recommending this change because localized suppression may miss infected plants outside the *Tamarixia* barrier.

**Regional ACP Management**

Bob Atkins stated that winter areawide participation numbers are still being collected but generally there are good participation percentage numbers. He noted that there were increased ACP numbers in September and October, but that numbers are still down from previous years. He added that border areas with low treatments collect significant psyllids. He stated that the grower liaisons are attempting to keep pressure on southern counties, giving them notifications of potentially neglected or abandoned groves, so the counties can reach out to ask growers to remove abandoned groves on their own. He explained that abandoned groves are typically removed at the first attempt, and none have required a hearing. It was suggested that empirical data supporting the process should be sent to grower liaisons, as this section of the cycle sees resistance to the program.

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

Data Analysis and Tactical Operations Center (DATOC) Update

Holly Deniston-Sheets stated that DATOC is holding a video call next week to discuss ACP populations. Sara Garcia-Figuera stated that she, Dr. Neil McRoberts, and Bruce Babcock are working on a CRB project funded last year and renewed this year to assess the benefits of coordination on ACP treatments. She explained that they are focused on Ventura County, studying how improved coordination in area-wide ACP treatments impact the spread of HLB. She stated that Tina Galindo and the grower liaisons have provided participation data since 2016 to look for criteria for which areas get buffer treatments. She specified that area-wide management is the coordinated application of insecticides within a three-week window to suppress Southern California ACP populations. There are two coordinated treatments tracked; one in the fall and one in the winter, with optional additional treatments. She noted that these treatments are overseen by
grower liaisons and coordinated through Task Forces, Psyllid Management Areas (PMAs) and in some Pest Control Districts (PCDs). Sara explained that participation is the percentage of the citrus acreage treated within the treatment window as determined through pesticide use reports. If 90 percent of acreage has been treated within the window, CDFA will consider residential buffer treatments within 400 meters of commercial citrus to increase the efficacy of the coordinated treatment. She explained that they are looking at historic participation levels to determine which PMAs or PCDs qualify for the residential buffer treatments.

Sara stated that San Bernardino County has 18 PMAs coordinated through a Task Force and two PCDs, one in Hemet with two growing zones and one in Coachella with four growing zones. Imperial County PCDs have eight growing zones with one additional potential growing zone. San Diego County has three areas in the PCD active in area-wide management treatments. Ventura County has 50 PMAs coordinated through a Task Force. She stated that the averages of area-wide treatment participation for the 93 PMAs and PCDs in DATOC’s data has not been increasing, but that there are more data points above 70 percent. She explained that the average percentage of acreage treated is over 80 percent. She noted that areas with PCDs usually have participation above 90 percent with less variation than areas with Task Forces and PMAs. She stated that DATOC is looking for data on San Diego prior to its conversion to a PCD but the data fluctuates significantly. It was noted that the San Diego PCDs incorporated the areas with successful organization of area-wide treatment, and there are areas where there are neither PCDs nor area-wide management. It was stated that it is a difficult area to organize due to many groves of 25-200 trees diffused among residential areas. Sara stated that Dr. Beth Grafton-Cardwell has a MAC project to test ACP levels in 50 Ventura County groves twice a month. She explained that she is trying to use that data to link area-wide treatment participation with ACP and HLB control. Bob explained that San Bernardino’s low participation levels are due to old, non-economically viable groves dragging the numbers down. Victoria stated that there is a meeting scheduled on January 29th with Task Forces, PCDs and grower liaisons to discuss options for collaboration on area-wide treatments. Sara stated that she is checking the CRB citrus layer to see if there is a correlation between participation and areas with larger growers or fewer people to coordinate.

Sara explained that the same areas generally reach average participation above 90 percent each cycle. She explained a proposal that PMAs/PCDs that reach 90 percent participation in at least two out of the previous three seasons would qualify for the residential buffer treatment. She explained that 47 PMAs/PCDs qualified for area-wide treatment after the Fall 2019 treatment, while 39 would have qualified if using the proposed criterion. She added that two PMAs/PCDs would have qualified based on the previous three seasons even though they were below 90 percent participation following Fall 2019. Nine wouldn’t have qualified even though they were above 90 percent in Fall 2019; eight that only met the threshold once in three seasons and one that never met the threshold in the previous three seasons. She explained that 43 PMAs/PCDs qualified for the winter 2019/20 buffer treatment, 41 of which also qualified for the fall 2019 treatment. It was suggested that this proposal would penalize areas that hit 90 percent participation for the first time. Beth agreed that a new group would be penalized, but having the criterion being two of three seasons of participation would incentivize steadier participation and let Tina Galindo utilize her time more efficiently based on historical treatment levels. It was stated that this proposal would move on to the next full Committee meeting.
Data Management Update
Rick Dunn stated that the citrus layer map for San Diego County is approaching completion. He explained that many groves identified in the citrus layer are not permitted and have minimal or out of date contact information. He noted that most groves in PCDs are permitted and up to date. He stated that 24,001 ACP samples were collected for Polymerase Chain Reaction testing, with each sample containing a variable number of ACP. The samples include 130,145 individual insects; 55,871 nymphs and 74,274 adults. It was suggested that Rick distribute the block data to the grower liaisons.

Roger Smith stated that the Task Force met to improve trapping efficiency. He explained that lab capacity is 2,500-2,600 samples per week, but was receiving only 1,600 samples per week in 2019. This discrepancy is due to personnel issues in delimitation areas. He suggested that delimitation surveys are the most reliable at producing samples due to the 400-meter testing. He stated that solutions to the staff shortages are in progress, but the Task Force’s job is to focus on these deficiencies. He suggested that psyllid testing is easier and has a better shelf life than leaf samples, so the focus should be on increasing leaf sample numbers.

CLOSING COMMENTS & ADJOURNMENT
The meeting was adjourned at 11:51 a.m. The next Operations meeting will be held in Visalia, California on February 5, 2020 at 9:00 a.m.