Meeting of the
California Department of Food and Agriculture
California Citrus Pest and Disease Prevention Committee

MEETING NOTICE

The Citrus Pest and Disease Prevention Committee will hold a meeting on:
Wednesday, April 12, 2023 at 9:00 a.m.

This meeting will be held via Webinar and In-Person at:

Courtyard Oxnard-Ventura
600 E. Esplanade Dr.
Oxnard, CA 93036

PUBLIC PARTICIPATION

Members of the public are encouraged to provide comment to the Committee and may suggest items to be placed on the agenda for discussion at the next Committee meeting. While the Committee values the participation of the public, the Committee Chair reserves the right to limit the time for public comment depending on the length of agenda and the number of commenters. Public comment must be related to the Committee's authority and jurisdiction and its placement on the agenda is within the discretion of the Committee Chair.

All matters noticed on this agenda may be considered for action. Items listed on the agenda may be considered in any order at the discretion of the Committee Chair. Any item not so noticed will not be considered or discussed. Each of the agenda items may include discussion and possible action by the Committee. Time will be allowed for members of the public to make comments on each agenda item. All meeting agendas and notices are available on the California Department of Food and Agriculture website at: https://www.cdfa.ca.gov/citruscommittee/.

For further information, please contact Victoria Hornbaker, Director, Citrus Pest and Disease Prevention Division, 1220 N Street, Sacramento, 95814, (916) 274-6300.

AMERICAN WITH DISABILITIES ACT

All Committee meetings must be accessible to the physically disabled. Any person needing a disability-related accommodation or modification in order to attend or participate in any Committee or Committee meeting or other Committee activity may request assistance by contacting Victoria Hornbaker at (916) 274-6300. Providing your request at least five (5) business days before the meeting will help ensure availability of the requested accommodation.

Meeting of the
California Department of Food and Agriculture
California Citrus Pest and Disease Prevention Committee

Wednesday, April 12, 2023 at 9:00 a.m.

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Courtyard Oxnard-Ventura
600 E. Esplanade Dr.
Oxnard, CA 93036

- This Meeting is Open to the General Public and Available via Webinar and In-Person –

Reserve your Webinar seat at:

https://attendee.gotowebinar.com/register/5773494202754809616

To log in anonymously enter "guest" for name and a blind email account or
Call in anonymously at:
Toll Free Number: 877-309-2071
Participant Code: 956-127-311
Attendee will be in listen only mode

AGENDA

1. Call to Order, Welcome and Opening Comments
   Mark McBroom, Chairman

2. Roll Call
   David Gutierrez, CDFA

3. Public Comment
   Mark McBroom, Chairman

4. Approval of Consent Agenda Items
   Mark McBroom, Chairman
   a. Minutes from November 9, 2022 Committee Meeting
   b. Minutes from December 1, 2022 Special Committee Meeting

5. Executive Committee Report
   Mark McBroom, Chairman
   a. Executive Committee Member Role Changes
   b. Service Appreciation – Carlos Ortiz, Imperial County Agricultural Commissioner

6. Finance Subcommittee Report
   Bob Felts, Jr., Chair, Finance Subcommittee
   a. Review 2022/2023 Expenditures and Revenue – Bob Felts Jr.

b. Rent for Cal Poly Pomona Biocontrol Greenhouses – Victoria Hornbaker
c. Fund Condition Statement – Carl Baum
d. Assessment Rate
e. Discuss Other Funding Opportunities

7. Operations Subcommittee Report
   John C. Gless, Chair, Operations Subcommittee
   a. Strategic Priority 1 - Find and Eradicate HLB
      i. Laboratory Update – Lucita Kumagai
      ii. Review *C*Las Genotyping Data – Lucita Kumagai
      iii. HLB Risk Survey – David Phong
      iv. Risk Based Survey Design Update – Weiqi Luo
      v. CDFA Operational Update – David Gutierrez
      vi. Santa Clara County Update – Laura Irons
      vii. ACP Areawide Buffer Treatment Trapping Schedule – Rick Dunn
   b. Strategic Priority 2 -Control ACP Movement and Enforce Regulations
      i. Regulatory Update – Keith Okasaki
   c. Strategic Priority 3 – ACP Control/Suppression
      i. Biocontrol Update – Dr. David Morgan

9. Science Subcommittee Report
   Dr. Etienne Rabe, Chair, Science Subcommittee
   Strategic Priority 4 – Improve Data Technology, Analysis and Sharing
   a. Ethyl Formate Registration Update – Dr. Etienne Rabe/Dr. Spenser Walse
   b. Neonicotinoid Risk Mitigation Update – Dr. Etienne Rabe
   c. Sweet Orange Scab Regulation Update – Keith Okasaki
   d. Science Advisory Panel Update – Dr. Etienne Rabe

10. Outreach Subcommittee Report
    Kevin Ball, Chair, Outreach Subcommittee
    Strategic Priority 5 - Outreach and Education
    a. Outreach Update – Price Adams

11. USDA Report
    Helene Wright, USDA State Plant Health Director

12. CCM Report
    Casey Creamer, CCM President

13. CRB Report
    Marcy Martin, CRB President

14. CPDP Report
    Dr. Subhas Hajeri, CCTEA Program Director

15. Other Items, Closing Comments and Adjournment

Mark McBroom, Chairman
a. PEIR Update – Victoria Hornbaker
b. CYVYC Update – Jennifer Willems

Alternate Meeting Locations:

416 E. South Ave. Fowler, CA 93625	887 Casserly Rd. Watsonville, CA 95076	4421 Berylwood Rd. Somis, CA 93066
33967 Millwood Dr. Visalia, CA 93292	2789 Somis Rd. Somis, CA 93066	12201 Ave. 480 Orange Cove, CA 93646
24740 Ave. 324 Lemon Cove, 93244	1701 S. Lexington Delano, CA 92315	18541 Van Buren Blvd. Riverside, CA 92508

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CONSENT AGENDA

1. **Minutes approval from November 9, 2022 meeting**

CALIFORNIA CITRUS PEST AND DISEASE PREVENTION COMMITTEE MEETING

Meeting Minutes
Wednesday, November 9, 2022

Committee Members Present:

Craig Armstrong*	Bob Felts Jr.	Dr. Etienne Rabe
Kevin Ball*	John J. Gless*	Rod Radtke
Franco Bernardi	John C. Gless	Gregorio Rundini*
Brad Carmen	Jim Gorden	Roger Smith
Aaron Dillon	Mark McBroom	Keith Watkins

Committee Members Absent:

Nick Hill	Jared Plumlee

California Department of Food and Agriculture (CDFA) Staff:

Kelley Aubushon	Anmol Joshi*	Keith Okasaki*
Fernando Berber	Jason Kilian*	Briana Russell*
Dao, Kiana*	Sara Khalid*	Michael Soltero*
Kiana Dao*	Sarah Kraft*	Javier Tobar*
Samuel Ferris	Luci Kumagai*	Favian Tong*
Alisha Garcia*	Zach McCormack*	ThuyVy Truong*
David Gutierrez	Dr. David Morgan*	Jennifer Willems
Spencer Hom*	Alex Muñiz*	Jason Wu*
Victoria Hornbaker	Colleen Murphy	David Phong
Laura Irons*		

Guests:

Price Adams	Alyssa Houtby	Cressida Silvers*
Casey Creamer	Jessica Leslie*	Katie Sutherland-Ashley*
Melissa Cregan*	Jasmine Lopez*	Georgios Vidalakis*
Natalie DeAngelo*	Marcy Martin	Jacob Villagomez*
Lisa Finke*	Joey Mayorquin*	Alan Washburn
Ariana Gehrig*	Mia Neunzig	Karen Westerman
Jacob Gomez	Margaret O'Neill*	Judy Zaninovich
Dr. Subhas Hajeri*	Curtis Pate*	Sandra Zwaal*

**Attended the meeting virtually.*

Opening Comments
Mark McBroom called the Citrus Pest and Disease Prevention Committee (CPDPC) meeting to order at 10:01 a.m. Mark McBroom welcomed the committee, staff, and members of the public participating in person and online. There was a quorum for the meeting.

Public Comments
There were no public comments.

APPROVAL OF CONSENT AGENDA ITEMS
The Consent agenda contained minutes from September 21, 2022 Committee meeting.

Motion: To approve the consent agenda as presented.
First: Keith Watkins
Second: Jim Gorden
Motion Carries: The motion passed unanimously.

EXECUTIVE COMMITTEE REPORT
Nothing to report.

FINANCE SUBCOMMITTEE REPORT
Review 2021/2022 and 2022/23 Budget Expenditures and Revenue
Bob Felts Jr. reported that fiscal year (FY) 2021-2022 expenditures increased by approximately $800,000 due to late invoicing of expenses, bringing the year-to-date total to $31,164,934.

Bob reported that 2021-22 FY revenue increased by $918,198 since the September 2022 meeting bringing the total to $11,905,476. The projected revenue total will be short by approximately $600,000, due to the short crop year.

Bob reported that FY2022-2023 expenditures were $1,503,811 in July 2022, $2,356,987 in August 2022, and $3,094,488 in September 2022, bringing the year-to-date total to $6,955,286. All three months have been closed by Fi$Cal. Victoria Hornbaker reported that some of these expenses are related to Citrus Yellow Vein Clearing Virus (CYVCV) operations, but that the Citrus Pest and Disease Prevention Division (CPDPD) received $325,000 in a federal Citrus Health Response Program (CHRP) agreement for additional laboratory expenses as well as approximately $500,000 in emergency funds from the California Department of Food and Agriculture (CDFA) to offset CYVCV expenditures.

Review Crop Estimate
Bob reported that projected production was estimated at roughly 188,000,000 cartons. Based on the forecast from the National Agricultural Statistics Service (NASS), there is

400,000 possible additional cartons, but the Finance Subcommittee deemed this not to be a significant enough factor to increase the estimate. At $0.07 per 40-pound equivalent, the projected revenue remains at $13,160,000.

Review Fund Condition Statement
A Fund Condition Statement (FCS) was previously prepared by Carl Baum based on the previous year's FCS and manually calculated in active funding for an estimated total of $27,500,000 carry in. Carl is disputing mathematical errors identified during his audit process with CDFA's Budget Office. Once a corrected FCS is obtained, it will be presented to the Finance Subcommittee for review.

OPERATIONS SUBCOMMITTEE REPORT
Laboratory Update
Lucita Kumagai presented the laboratory update for the huanglongbing (HLB) testing program from the Plant Pest Diagnostics Center. She reported that 5,108 plant samples and 3,195 Asian citrus psyllid (ACP) samples were received in October. The monthly total of plant samples received by CDFA for 2022 have averaged at 6,000 and at 3,000 per month received by Citrus Research Board (CRB). For 2022, the combined plant and ACP samples received by CDFA was 90,335 with a projected total of 108,000 samples by the end of the year. The tally of positive detections reflected 3,952 residential trees, 2,729 sites, and 5092 ACP positive samples. 72 percent of positive trees, 69 percent of positive sites, and 58 percent of ACP positive samples were found in Orange County. Luci also stated that the lab is testing more peduncle and root tissues due to higher titer of the bacteria found than in only petiole testing.

HLB Risk-based Survey
David Phong presented data for 2022 Risk Survey cycle 1. Cycle 1 2022 began in June 2022 and is 52 percent complete with 16 of the 42 allocated counties completed with 19,584 properties visited. 6,629 properties were sampled generating 3,219 entomology and 4,282 plant samples. In Northern California, 5 staff members from 2 offices have completed risk survey for 67 percent of 178 assigned grids with risk survey completed in 10 counties. Staffing for HLB risk survey in Central California was reduced due to staff members being redirected to ACP treatment and CYVCV survey with 9 remaining staff members from 4 offices completing HLB risk survey for 63 percent of the 566 assigned grids with risk survey completed in 6 counties. In Southern California, 27 staff members from 6 offices have completed risk survey for 44 percent of 502 assigned with risk survey completed in Imperial County.

CDFA Operational Update
David Gutierrez presented the operational update including ACP and HLB delimitation survey and treatment areas for the Southern, Central, and Northern Districts.

Southern District
Delimitation survey and treatments were conducted in Orange, Los Angeles, San Bernardino, and Riverside Counties. A total of 205 HLB positive trees were removed in September and October with 129 trees pending removal. A total of 2,511 quadrant

samples were taken and sent to the lab. Treatments in San Diego along the 2-mile US/MEXICO border were completed in October. Treatments around commercial citrus groves (TACCG) in response to ACP detections were completed in San Bernardino, University of California Riverside (UCR), Hemet, and San Pasqual.

Central District
In Kern County, 66 total ACP were detected. ACP detection and trapping is ongoing in Fresno and Madera Counties with ACP delimitation trapping ongoing in Fresno, Kern, Madera, Tulare, and San Luis Obispo Counties. ACP delimitation trapping is ongoing for all residential detections. TACCG in response to ACP detections were completed in Ventura and Santa Barbara Counties. Releases of *Tamarixia radiata* were conducted in Fresno, Kern, San Luis Obispo, Santa Barbara, and Tulare Counties. Citrus commodity survey began in September. CYVCV survey resumed on September 27th focusing on the 7-mile arc radius from the initial detection.

Northern District
ACP detection trapping is ongoing in Placer, San Joaquin, and Stanislaus Counties. Winter trapping started early November 2022 and will continue through April 2023. There have been no subsequent ACP detections in the Alameda County delimitation and if this holds true, the monthly servicing of all 127 traps will conclude in December 2022. ACP delimitation in Santa Clara County is ongoing with traps serviced monthly and the delimitation area being expanded by 3 square miles to the southeast of the previous area. Biocontrol releases are ongoing in San Jose, Santa Clara County, with an average of 5,500 *Tamarixia* released monthly.

Santa Clara County Update
Laura Irons presented the Santa Clara County update and stated there are two active areas, Clayton and Los Arboles. In Area 1: Clayton North, a possible epicenter was identified on Fleming Avenue with 12 of the 18 PDRs being detected on this street. Previous treatments were conducted in April and May 2022. A possible option is for Area 1 is to continue monitoring and releasing *Tamarixia* and treat find sites and adjacent properties for an estimated cost of $3,000, or treat the 400 meters surrounding each detection for an estimated cost of $61,000. In Area 2: Los Arboles, 203 ACP detections were confirmed with 42 ACP detected since September. Previous treatment ceased in December 2020 and from September through December 2022,19 ACP were detected. A possible option for Area 2 is to continue monitoring and releasing Tamarixia and treat the find sites and adjacent properties at a cost of $52,000, or treat the 400 meters surrounding each detection nor an estimate cost of $376,000. Laura noted that this area has a high refusal rate.

Motion: To treat ACP find and adjacent sites where ACP life stages and/or breeding populations are detected in Santa Clara County if costs remain within the current budget.
First: Keith Watkins
Second: Bob Felts Jr.

Motion Carries: The motion passed with 14 yays (Craig Armstrong, Kevin Ball, Franco Bernardi, Brad Carmen, Aaron Dillon, Bob Felts, Jr., John J. Gless, John C. Gless, Jim Gorden, Dr. Etienne Rabe, Gregorio Rundini, Roger Smith, Keith Watkins, and Rod Radtke) and 1 abstention (Mark McBroom).

CDFA Regulatory and County Agreement Update
Keith Okasaki reported that to more accurately capture the activities performed under county contracts, he has asked the counties currently under agreement with CDFA to report their activity differently on future invoices. The counties are only under agreement for bulk citrus enforcement with CDFA staff supplementing those activities and focusing on nursery activities and regulatory violations. Among the issues currently under investigation are the illegal shipment of plants from the HLB quarantine in Orange County to San Jose and Sonoma Counties. There have also been reports of citrus trees being shipped in the cargo areas of passenger buses from Westminster in Orange County, up to the Bay Area. Compliance agreements are also in development for farm labor contractors.

Trace Back at Packing House Detections
Keith Okasaki reported that there have been a number of ACP detections at packing houses in the last couple of months with the majority of the detections being found in the Central Valley. With no detections being found along the highways, tarping is proving effective. CDFA staff are also performing record checks for incoming fruit, including points of origin, for all fruit entering the Central Valley form other ACP Regional Quarantine Zones. Staff work with the County Agricultural Commissioners (CAC) office, and examine the mitigations used and verified through pesticide use reports. Contact is then often made with the grove owner or manager and confirmed with their pest control advisors. Violations and notices of pending action are distributed accordingly. Keith noted that even with all procedures being followed correctly, there is always potential for ACP to hitchhike to new locations.

Biocontrol Update
Dr. David Morgan reported that in additional to releases in Southern California, *Tamarixia* are now being released in Tulare, Fresno, Kern, and Santa Clara Counties. 78 percent of releases are being conducted in Los Angeles, Orange, Riverside, and San Bernardino Counties where HLB has previously been found. Good parasitism rate recoveries have been observed, especially around the HLB find areas in Los Angeles County.

SCIENCE SUBCOMMITTEE REPORT
Ethyl Formate Registration Update
Dr. Etienne Rabe reported that Jim Cranney expects delays in the approval of the use of ethyl formate, which was expected to be registered by the end of 2022.

Neonicotinoid Risk Mitigation Update
Dr. Etienne Rabe reported that there have been no new updates to Casey Creamer's report regarding neonicotinoid risk mitigation.

Sweet Orange Scab (SOS) Regulation Update
Dr. Etienne Rabe reported that CDFA continues to work on establishing an SOS quarantine regulation.

Science Advisory Panel (SAP) Update
Victoria Hornbaker reported that the CPDPC approved the SAP report and was signed by Secretary Karen Ross. Each item of the report will be reviewed at an in-person meeting in December to determine prioritization of the report's recommendations. CDFA staff is already conducting the recommended comparison of the "no-mess" traps and will report the findings when the six-month trial is complete.

OUTREACH SUBCOMITTEE REPORT
Price Adams presented the recent outreach activities. A "what to expect" video targeted towards homeowners to educate them on CPDPD activities (surveying, sampling, treatment, and public meetings) was updated. NST supported several community events including the Goleta Lemon Festival, the Historic Citrus Park Celebration in Riverside, and the Mountain Mandarin Festival. NST coordinated with grower liaisons on homeowner outreach activities around the recent ACP detections and population spikes. Social media ads have been deployed to targeted zip codes to reach residents with survey or treatment refusals. Radio ads have been run in both English and Spanish to raise awareness about ACP and HLB. NST attended the League of California Cities Conference, the California State Associations of Counties Conference, and the Arroyo Grande Festival where they coordinated with the San Luis Obispo CAC's office on outreach materials. NST also conducted deskside briefings with local elected officials from Monrovia, Arcadia, and Duarte. NST met with the grower liaisons and the CPDPD to develop standard operating procedures. NST supported Victoria Hornbaker as she presented to the California Association of Pest Control Advisors Conference. They also partnered with the United States Department of Agriculture (USDA) regarding CYVCV inquiries. NST will help facilitate the SAP meeting in December. Current and upcoming outreach activities include the California State Association of Counties Conference, a refresh of CaliforniaCitrusThreat.org, the San Diego County Farm Bureau 8th annual Farm & Nursery Expo, and the Latino Farmer Conference.

California Citrus Mutual (CCM) Report
Casey Creamer reported that the California Department of Pesticide Regulation (DPR) is currently investigating a statewide pesticide notification system and will be holding hearings this week. CCM will continue to work with DPR to address procedural concerns and ensure that a notification system is put in place while advocating for the protection of growers, including privacy issues. CCM is also advocating to keep the current system in place and for any burden to be placed on the county and the State rather than the growers. Casey also stated the Governor's Office is focusing on a sustainable pest management report and 90 percent reduction in pesticide use. The draft report will emphasize pest exclusion, resources, UC cooperative extension, education, and outreach. The report will be released in January 2023. On a positive note, Casey stated that CHRP allocations and federal budgets may increase due to

inflation. The Governor has vetoed the neonicotinoids bill, a victory for the citrus program.

Citrus Research Board (CRB) Report
Marcy Martin reported that the recruitment period for hiring an integrated pest management entomologist closed on October 31st. Marcy also reported that funding was received through the Huanglongbing Multiagency Coordination Group (HLB MAC) who have directed funds to state and regional programs in Florida, Texas, and California. Funding should last for two years with a likely commitment to provide funds that will help compensate for information sharing and data collection.

Citrus Pest Detection Program (CPDP) Report
Dr. Subhas Hajeri presented the pest control district updates for San Joaquin Valley from September through October 2022. He explained that the CPDP has conducted trapping and inspections with a total of 1,002 traps deployed on approximately 1,000 properties and 6,004 trees inspected. No ACP have been found on the traps. This is the second season that cylindrical traps have been utilized, which have shown to be less efficient than the sticky traps. CPDP is also assisting Dr. Ray Yokomi, who is in the process of hiring a researcher and technicians to work on CYVCV. Dr. Yokomi is working to study the transmission and the host range of the virus and will need to catch and maintain a white fly colony before transmission studies can be conducted. In the meantime, CPDP is working to graft and maintain the various host plants before a full-time researcher is hired for the project.

OTHER ITEMS, CLOSING COMMENTS AND ADJOURNMENT
Program Environmental Impact Report (PEIR) Update
Victoria stated that CDFA continues to work with the contractor to recertify the PEIR.

Regulatory Enforcement
Victoria reported that she received feedback from the Committee seeking to improve regulatory enforcement and working with the counties, growers, packers, haulers, and the farm labor contractors. Victoria prepared a preliminary spring finance letter to hire staff that would be 100 percent dedicated to regulatory operations. Additional regulatory work may also be required once CYVCV rulemaking and protocols are put into place. General funding will be requested to support these positions. Several committee members objected to additional vacancies and expressed frustrations with support the program receives from counties and would like to consider removing some county functions in favor of the State.

CYVCV Update
Kelley Aubushon reported that in March 2022, the first CYVCV suspect sample was sent to USDA. In response to this detection, CDFA initiated a 400-meter survey of the core area. In April 2022, USDA confirmed CYVCV and CDFA expanded the core to a 1-mile delimitation. CDFA also began satellite and 3-mile buffer surveys. In May 2022, travel census surveys were conducted in Fresno, Kings, and Tulare Counties with

commercial grove surveys starting in Fresno and Tulare Counties. CYVCV was detected in the 3-mile buffer survey, triggering core 2. CDFA staff located and collected samples from properties at each of the core 1-mile survey, 3-mile buffer survey, and 4.5 to 6-mile satellite survey points. For core 1 and 2, every citrus host is sampled in the 1-mile delimitation areas with the goal to contact 100 percent of all properties in the areas. In core 1, samples were collected from non-citrus hosts, such as mustard, mallow, grape, and bean, to be tested for the presence of CYVCV. All samples were negative. The 3-mile buffer areas were separated into 1-mile square grids where samples were collected from symptomatic citrus hosts, if vectors are present, or asymptomatic species. The census survey was based on USDA census data and predicts areas of high risk for CYVCV. Surveys were conducted in Visalia, Tulare, Hanford, Corcoran, Delano, Fresno, and Clovis with samples collected from symptomatic citrus hosts, if vectors are present, or asymptomatic species. All CYVCV surveys were paused in August 2022 due to high temperatures. Survey resumed on September 27th with a 7-mile arc centered on a merged core. A positive detection will trigger an expansion to an 8-mile arc, if no detections, then the arc will decrease to 6-miles. All 229 total samples collected have come back negative. There are 60 total samples pending at the lab.

The meeting adjourned at 12:36 p.m. The next meeting will be on December 1, 2022 and December 2, 2022 in Valencia, California.

2. **Minutes approval from December 1, 2022 meeting**

CALIFORNIA CITRUS PEST AND DISEASE PREVENTION COMMITTEE MEETING

Meeting Minutes
Thursday, December 1, 2022

Committee Members Present:

Craig Armstrong	Jim Gorden	Rod Radtke
Kevin Ball	Mark McBroom	Gregorio Rundini
Aaron Dillon	Jared Plumlee	Roger Smith
John C. Gless	Dr. Etienne Rabe	Keith Watkins

Committee Members Absent:

Franco Bernardi	Bob Felts Jr.	Nick Hill
Brad Carmen	John Gless	

California Department of Food and Agriculture (CDFA) Staff:

Victoria Hornbaker	Keith Okasaki	Jennifer Willems
Anmol Joshi		

Guests:

Price Adams	Dr. Subhas Hajeri	Dr. Georgios Vidalakis
Natalie DeAngelo	Mia Neunzig	

Opening Comments
Mark McBroom called the Citrus Pest and Disease Prevention Committee (CPDPC) meeting to order at 9:00 a.m. Mark McBroom welcomed the committee, staff, and members of the public participating in person. There was a quorum for the meeting.

Public Comments
There were no public comments.

REVIEW SCIENCE ADVISORY PANEL (SAP) REPORT
The Committee reviewed each recommendation from the SAP report and determined next steps for each recommendation. Based on the discussions held on each of the SAP recommendations, work plans were developed to serve as a guide for the immediate next steps or actions to be taken on each of the recommendations. Tactical leads were assigned and will be responsible for working with various parties to identify any regulatory requirements or implications, any new processes or standard operating procedures that may need to be established, budget implications and more.

Adjusting the Risk-Based Survey (RBS) Model Strategy in California – Residential and Commercial
Victoria Hornbaker will be the tactical lead for exploring changes to the risk-based survey and will report out at a joint Science and Operations Subcommittee meeting by February 2023.

***Candidatus* Liberibacter asiaticus (*C*Las) Genotypes**
Lucita Kumagai will provide to the Committee at the January 11, 2023, meeting to further explain what work has been done thus far on genotyping on *C*Las.

- Lack of understanding of vector and pathogen diversity (genotypic and phenotypic) limits the understanding of HLB spread in California and could prevent success of the program. If genetic variants exist, as evidence suggests, understanding the biological implications of this variation should guide survey and response efforts.

Greatly Increase Commercial Citrus Testing and Re-evaluate Response to *C*Las+ Plant Material
The Committee agreed to table the discussion until sampling procedures and processes are reviewed and validated.

- Jim Gorden and Etienne Rabe will be the tactical leads to explore the data analysis needed to determine the maximum number of leaf samples that can be combined to detect *C*Las, and the sampling procedures adjusted for this new

approach. They will form a working group and report out to the Science Subcommittee.
- Outreach will continue to encourage growers in Southern California to voluntarily submit additional leaf samples for testing, beyond the RBS or grove surveys currently conducted.

Develop a Clear Response Plan to HLB Detections
John C. Gless will be the tactical lead and will establish a working group to review the current response plan. The working group will report out to the Operations Subcommittee.
- Outreach efforts should be explored to develop more detailed information on what will happen when *C*Las detection occurs in a commercial orchard.

Maximizing Psyllid Surveying and Suppression (Central/Northern California Focus)
Recognizing that ACP traps are not highly effective in detecting ACP in commercial citrus, Nuffer Smith Tucker (NST) will be the tactical lead to develop a campaign to engage pest control advisors and scouts to conduct visual surveys for ACP.

Testing Non-Messy ACP Traps
Victoria is the tactical lead. CDFA is currently conducting a trap comparison and will report out to the Science Subcommittee.

Continue to Support and Promote Coordinated Large Area Treatment for Psyllids
No action needed for now, as these activities are currently happening.

Examine Treatment Areas in the Central and Northern Districts
Victoria is the tactical lead. She and the CDFA team will develop a spreadsheet to include the current response areas and bring it to the next Operations Subcommittee meeting to discuss the feasibility of harmonizing the delimitation areas for ACP in the Central Valley to the same area used in Southern California.

Review and ACP/HLB Action Plan
CDFA will conduct a quarterly review of the action plan to update sampling and response strategies for when *C*Las+ trees or *C*Las+ ACP are found in residential and commercial citrus.

Address Nursery Issues to Prevent the Spread of ACP and HLB
Aaron Dillon is the tactical lead for this recommendation. He will establish a working group that includes industry, retail businesses, and regulators to review various nursery related issues, including:
- Developing a risk reduction strategy for retail locations within quarantine areas.
    - The program should develop a protocol that supports availability of disease-free and insecticide-protected nursery material within HLB

quarantine regions, to make available residential retail nursery trees in those regions, and to discourage citrus plant acquisitions from outside sources.

- Ensure risk assessments are consistent between risk assessment team.
- Work with USDA to revise the pesticide application period to reflect the most recent science regarding nursery tree uptake and retention time.

Conduct a Quantitative and Qualitative Analysis of Outreach
NST will conduct broad quantitative and qualitative analyses of outreach trends and successful tactics targeting a range of key audiences and report out to Outreach Subcommittee.

- As a result, suggest changes in outreach strategies and reprioritization.
- Shift toward proactive outreach strategies instead of reactive.

Continue Coordination of Outreach Efforts Between the Citrus Pest and Disease Prevention Program, University of California (UC) and other entities.
NST will conduct regular strategy sessions to proactively expand outreach in response to changes in the program and regularly report information to the Outreach Subcommittee.

Harmonization and Coordination of Data Collection and Management
Victoria will develop a flow chart of the current program activities by region. This will be reviewed by the Executive Committee and a revised flow chart will be developed to lay out suggested revisions to the organization of the program.

Increase Coordination and Data Sharing
Victoria and staff will convene entities to discuss roles and responsibilities and potential collaborations.

- This coordination should trickle down to methods for data collection, data analysis and sharing, and ultimately replace redundancy with complementarity, where relevant.
- Integrate various survey data from different “groups” (i.e., CDFA, CRB, CCTEA). Better coordination and data integration should be explored as it will allow efficient monitoring and enrich the data that is driving the risk models and other tactics.
- Harmonize data collection methods as it relates to *C*Las (HLB) and ACP management.
  Coordinate data storage and sharing as it relates to activities surrounding HLB management.

Formulate a New Set of Questions for an SAP
NST and the Executive Committee will develop a set of questions focused on the current situation and looking forward 5 years. The results of the questions will likely define new or greatly modified the approaches that CPDPC will implement to keep pace with the changes in the HLB infestation in California.

Create a Standing Technical Group of Experts
Victoria will assemble a group of experts, not directly affiliated with the CPDPP, that meet periodically to review the program from an outside perspective.

Regulatory Issues
Keith Okasaki and Etienne Rabe will assemble a working group composed of stakeholders and regulatory experts to identify more clearly where the interface of CPDPP surveillance and response actions is creating difficulties, and to determine if there are resolutions that can be implemented to minimize the impacts of regulatory issues.

- Keith will review compliance agreements to improve educational components.

CLOSING COMMENTS AND ADJOURNMENT

The meeting adjourned at 5:00 p.m.



CPDPC April 2023 Results

CPDPC Finance Subcommittee

April 4, 2023



FY 22-23 Expenditures

FY 22-23 Expenditures

Month Closed in FI$Cal	Monthly Total Closed	YTD Total
December 2022	$3,918,130	$17,668,105
January 2023	$3,155,607	$20,823,712
February 2023	$3,054,355	$23,878,067

FY 22-23 December 2022 Expenditures

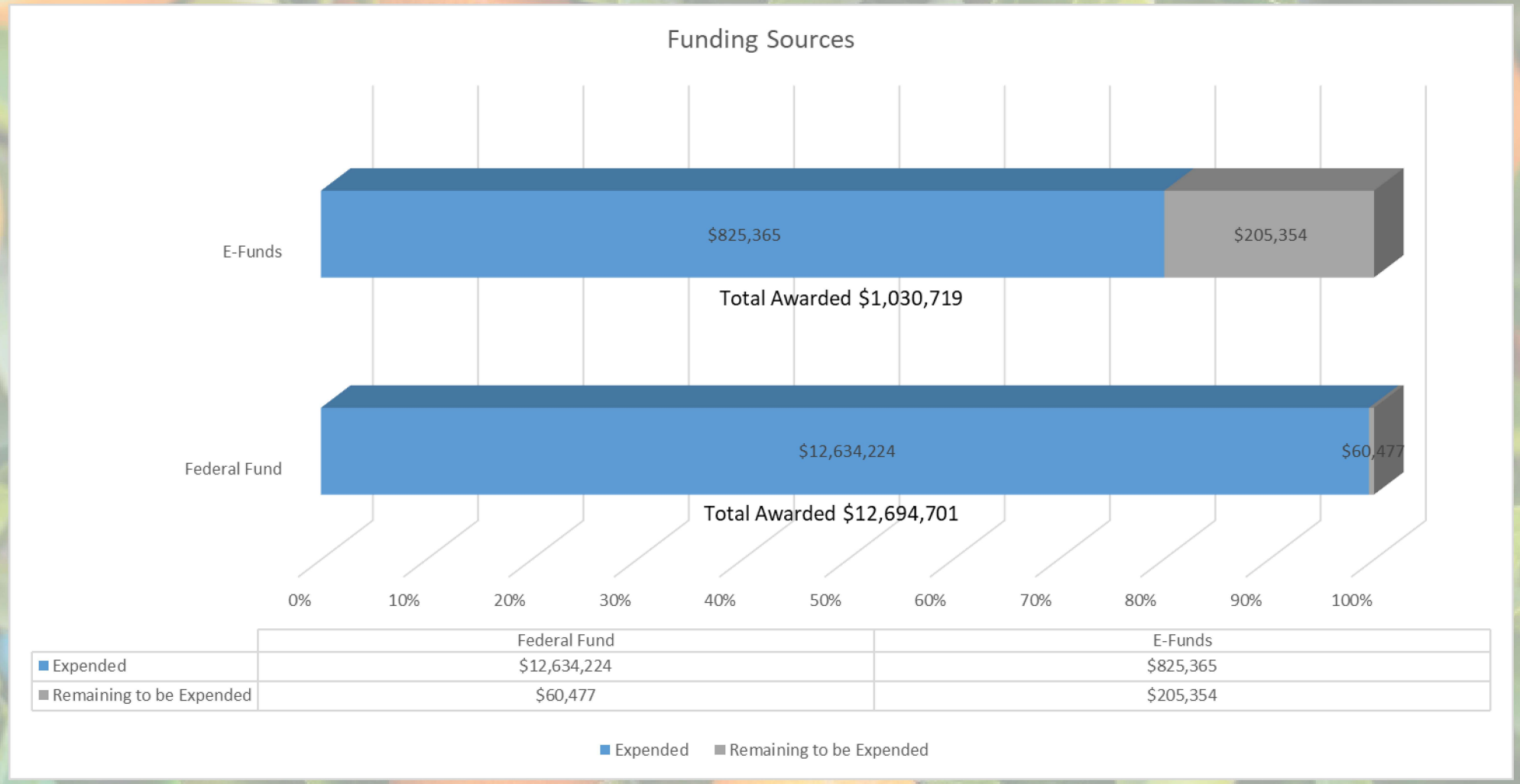
#	Group	Region	Activity	Committee Approved 2022-23 Budget	Remaining 2022-23 Budget	December 2022 Expenditures per FI$Cal	Year to Date Expenditures per FI$Cal	Prior year FY21-22 Year to date Expenditures
1	ACP Mgmt	Border	Treatment	$724,879	$356,454	$ 11,308	$368,424	$ 85,445
2	ACP Mgmt	Central	Survey	$3,029,321	$1,990,554	$ 163,786	$1,038,767	$ 889,353
3	ACP Mgmt	Central	Treatment	$1,523,191	$987,425	$ 118,143	$535,766	$ 61,918
4	ACP Mgmt	Northern	Survey	$1,763,771	$1,268,821	$ 96,839	$494,950	$ 391,582
5	ACP Mgmt	Northern	Treatment	$455,799	$443,125	$ 10,009	$12,674	$ 40,070
6	ACP Mgmt	Southern	Treatment	$2,489,759	$1,982,368	$ 107,869	$507,391	$ 332,153
7	ACP Mgmt	Southern	Survey	$225,853	$144,539	$ 22,145	$81,314	$ 123,046
8	ACP Mgmt	Statewide	Biocontrol	$1,940,356	$1,353,963	$ 142,876	$586,394	$ 648,825
9	ACP Mgmt	Statewide	Survey	$3,000,000	$2,165,018	$ 189,625	$834,982	$ 746,713
10	ACP Mgmt	Statewide	Regulatory	$3,239,008	$2,464,006	$ 199,723	$775,002	$ 1,141,125
11	HLB Det	Border	Survey	$224,385	$172,181	$ 24,053	$52,204	$ 57,107
12	HLB Det	Southern	Survey	$2,126,158	$1,377,125	$ 122,015	$749,033	$ 628,282
13	HLB Det	Statewide	Survey	$6,601,352	$4,034,109	$ 388,358	$2,567,244	$ 2,554,660
14	HLB Det	Statewide	Diagnostics	$3,353,434	$2,090,692	$ 417,845	$1,262,741	$ 892,056
15	HLB Erad	Southern	Treatment	$5,358,641	$2,950,262	$ 527,007	$2,408,379	$ 1,439,558
16	HLB Erad	Statewide	Regulatory	$844,501	$545,725	$ 64,950	$298,776	$ 289,076
17	ACP/HLB	Statewide	Admin	$3,624,361	$103,469	$ 654,925	$3,520,892	$ 3,778,283
18	ACP/HLB	Statewide	Outreach	$1,970,527	$1,215,842	$ 248,539	$754,684	$ 234,174
19	ACP/HLB	Statewide	Data Analysis	$1,739,067	$994,391	$ 376,207	$744,675	$ 326,540
20	ACP Mgmt	Statewide	Diagnostics	$215,393	$141,581	$ 31,908	$73,811	$ 78,017
			Totals	***$44,449,755***	***$26,781,650***	***$3,918,130***	***$17,668,105***	***$14,737,983***

FY 22-23 January 2023 Expenditures

#	Group	Region	Activity	Committee Approved 2022-23 Budget	Remaining 2022-23 Budget	January 2023 Expenditures per FI$Cal	Year to Date Expenditures per FI$Cal	Prior year FY21-22 Year to date Expenditures
1	ACP Mgmt	Border	Treatment	$724,879	$318,400	$ 38,054	$406,478	$ 93,276
2	ACP Mgmt	Central	Survey	$3,029,321	$1,845,576	$ 144,978	$1,183,745	$ 1,027,302
3	ACP Mgmt	Central	Treatment	$1,523,191	$874,547	$ 112,878	$648,644	$ 87,431
4	ACP Mgmt	Northern	Survey	$1,763,771	$1,108,658	$ 160,163	$655,113	$ 503,915
5	ACP Mgmt	Northern	Treatment	$455,799	$441,998	$ 1,126	$13,800	$ 46,476
6	ACP Mgmt	Southern	Treatment	$2,489,759	$1,896,932	$ 85,436	$592,827	$ 344,161
7	ACP Mgmt	Southern	Survey	$225,853	$133,344	$ 11,196	$92,510	$ 139,576
8	ACP Mgmt	Statewide	Biocontrol	$1,940,356	$1,166,517	$ 187,446	$773,840	$ 760,766
9	ACP Mgmt	Statewide	Survey	$3,000,000	$1,870,375	$ 294,642	$1,129,625	$ 858,436
10	ACP Mgmt	Statewide	Regulatory	$3,239,008	$2,279,895	$ 184,112	$959,114	$ 1,712,467
11	HLB Det	Border	Survey	$224,385	$150,649	$ 21,532	$73,736	$ 64,048
12	HLB Det	Southern	Survey	$2,126,158	$1,281,548	$ 95,577	$844,610	$ 719,978
13	HLB Det	Statewide	Survey	$6,601,352	$3,724,720	$ 309,388	$2,876,632	$ 3,042,697
14	HLB Det	Statewide	Diagnostics	$3,353,434	$1,845,489	$ 245,204	$1,507,945	$ 1,277,793
15	HLB Erad	Southern	Treatment	$5,358,641	$2,459,935	$ 490,327	$2,898,706	$ 1,688,242
16	HLB Erad	Statewide	Regulatory	$844,501	$470,538	$ 75,188	$373,964	$ 343,472
17	ACP/HLB	Statewide	Admin	$3,624,361	-$481,465	$ 584,934	$4,105,826	$ 4,426,252
18	ACP/HLB	Statewide	Outreach	$1,970,527	$1,186,765	$ 29,078	$783,762	$ 281,873
19	ACP/HLB	Statewide	Data Analysis	$1,739,067	$925,390	$ 69,001	$813,677	$ 485,255
20	ACP Mgmt	Statewide	Diagnostics	$215,393	$126,234	$ 15,347	$89,159	$ 93,186
			Totals	***$44,449,755***	***$23,626,043***	***$3,155,607***	***$20,823,712***	***$17,996,602***

FY 22-23 February 2023 Expenditures

#	Group	Region	Activity	Committee Approved 2022-23 Budget	Remaining 2022-23 Budget	February 2023 Expenditures per FI$Cal	Year to Date Expenditures per FI$Cal	Prior year FY21-22 Year to date Expenditures
1	ACP Mgmt	Border	Treatment	$724,879	$278,445	$ 39,955	$446,434	$ 147,880
2	ACP Mgmt	Central	Survey	$3,029,321	$1,597,783	$ 247,793	$1,431,538	$ 1,309,623
3	ACP Mgmt	Central	Treatment	$1,523,191	$657,752	$ 216,795	$865,439	$ 111,702
4	ACP Mgmt	Northern	Survey	$1,763,771	$966,210	$ 142,447	$797,561	$ 663,904
5	ACP Mgmt	Northern	Treatment	$455,799	$434,419	$ 7,580	$21,380	$ 46,487
6	ACP Mgmt	Southern	Treatment	$2,489,759	$1,856,168	$ 40,764	$633,591	$ 457,111
7	ACP Mgmt	Southern	Survey	$225,853	$124,796	$ 8,547	$101,057	$ 168,183
8	ACP Mgmt	Statewide	Biocontrol	$1,940,356	$1,075,790	$ 90,727	$864,566	$ 1,098,042
9	ACP Mgmt	Statewide	Survey	$3,000,000	$1,750,932	$ 119,443	$1,249,068	$ 1,500,282
10	ACP Mgmt	Statewide	Regulatory	$3,239,008	$2,022,215	$ 257,680	$1,216,793	$ 1,851,908
11	HLB Det	Border	Survey	$224,385	$111,570	$ 39,079	$112,815	$ 98,189
12	HLB Det	Southern	Survey	$2,126,158	$1,145,729	$ 135,819	$980,429	$ 872,180
13	HLB Det	Statewide	Survey	$6,601,352	$3,395,787	$ 328,934	$3,205,566	$ 3,574,189
14	HLB Det	Statewide	Diagnostics	$3,353,434	$1,674,318	$ 171,170	$1,679,115	$ 1,404,390
15	HLB Erad	Southern	Treatment	$5,358,641	$1,936,091	$ 523,844	$3,422,550	$ 2,400,966
16	HLB Erad	Statewide	Regulatory	$844,501	$395,653	$ 74,884	$448,848	$ 393,925
17	ACP/HLB	Statewide	Admin	$3,624,361	-$894,729	$ 413,264	$4,519,090	$ 5,081,732
18	ACP/HLB	Statewide	Outreach	$1,970,527	$1,106,479	$ 80,285	$864,047	$ 370,145
19	ACP/HLB	Statewide	Data Analysis	$1,739,067	$827,340	$ 98,050	$911,727	$ 536,962
20	ACP Mgmt	Statewide	Diagnostics	$215,393	$108,939	$ 17,295	$106,454	$ 106,040
			Totals	***$44,449,755***	***$20,571,687***	***$3,054,355***	***$23,878,067***	***$22,193,841***



	Federal Fund	E-Funds
Expended	$12,634,224	$825,365
Remaining to be Expended	$60,477	$205,354

FY 22-23 Revenue Summary

Revenue Received	
Revenue Received To Date (October 2022 to September 2023)	$5,846,013
Last Meeting (January 3, 2022) Revenue Received to Date	$1,554,113
Increased from last meeting to current	$4,291,900

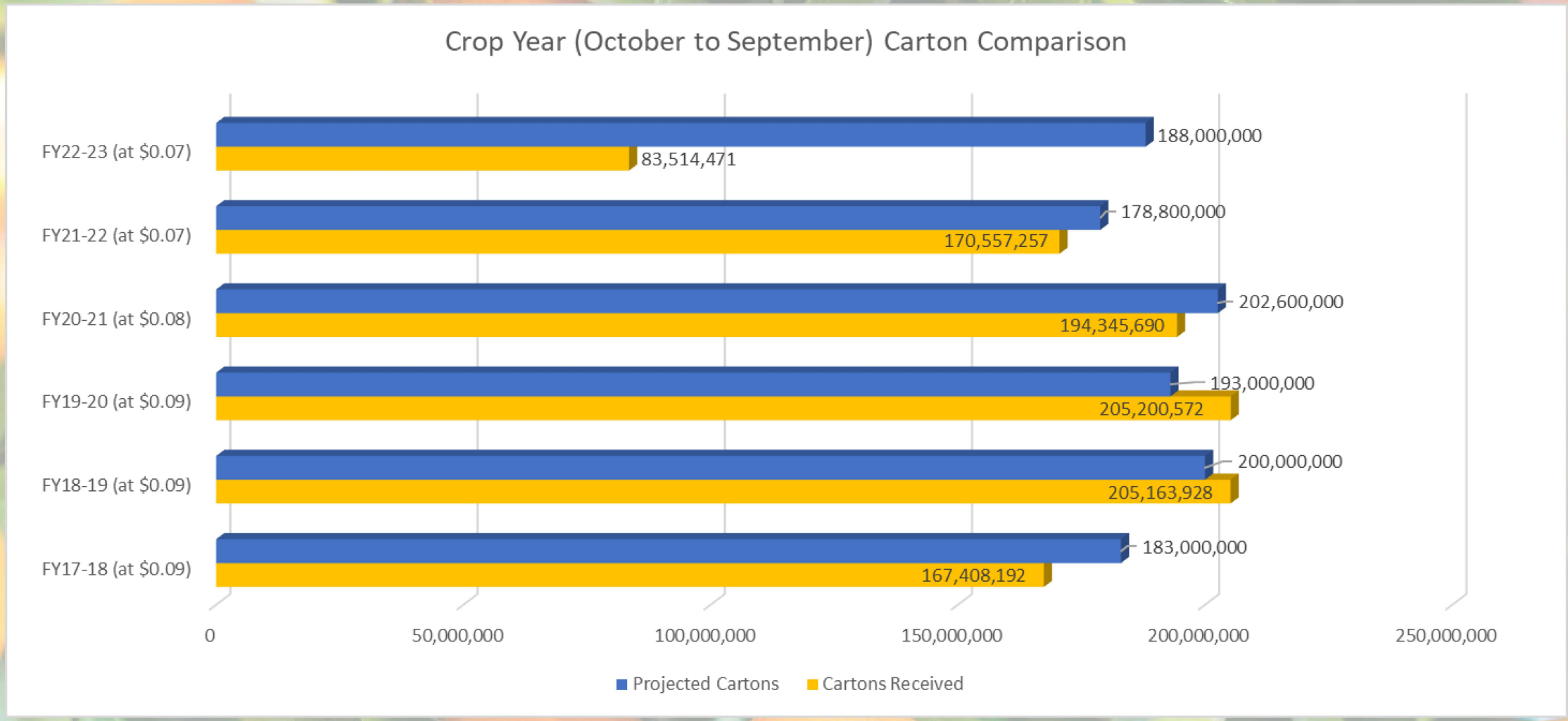
FY 22-23 Carton Comparison

FY22/23 Projected Cartons	FY22/23 Projected Cartons (NASS)	FY21/22 Projected Cartons (CPDPC)
188,400,000 Cartons $0.07/per carton $13,188,000	188,000,000 Cartons $0.07/per carton $13,160,000	184,450,000 Cartons $0.07/per carton $12,911,500

FY21/22 collected 170,557,257 cartons at $0.07/ per carton, which was 95% of the projected cartons received

Year to Date Revenue Received	Revenue Amount	Cartons
Current YTD ($0.07/per carton)	$5,796,016	83,514,471
Prior Year FY21-22 YTD ($0.07/per carton)	$5,701,175	81,445,357

Converted assessment amounts to cartons for comparison


Crop Year (October to September) Carton Comparison
FY22-23 (at $0.07)
188,000,000
83,514,471
FY21-22 (at $0.07)
178,800,000
170,557,257
FY20-21 (at $0.08)
202,600,000
194,345,690
FY19-20 (at $0.09)
193,000,000
205,200,572
FY18-19 (at $0.09)
200,000,000
205,163,928
FY17-18 (at $0.09)
183,000,000
167,408,192
0
50,000,000
100,000,000
150,000,000
200,000,000
250,000,000
Projected Cartons
Cartons Received



QUESTIONS?

2022-23 California Valencia Orange Objective Measurement Report

California Department of Food and Agriculture

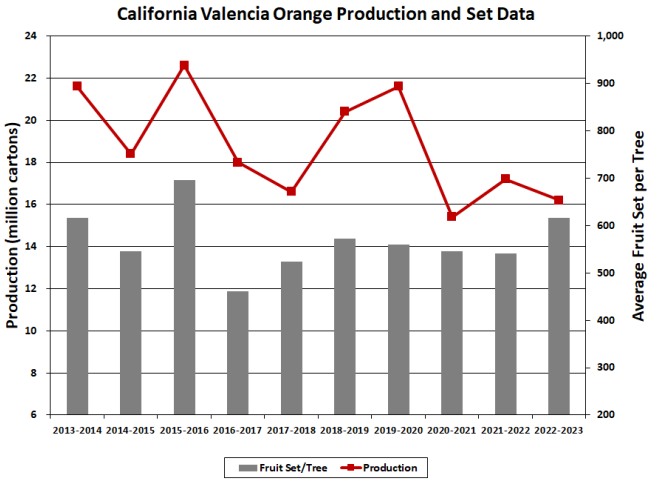
Cooperating with the USDA, National Agricultural Statistics Service, Pacific Regional Office - California
Pacific Regional Office · 650 Capitol Mall, Suite 6-100 · Sacramento, CA 95814 · (916) 738-6600 · (855) 270-2727 Fax · www.nass.usda.gov/ca

Released: March 8, 2023

VALENCIA ORANGE PRODUCTION FORECAST AT 16.2 MILLION CARTONS

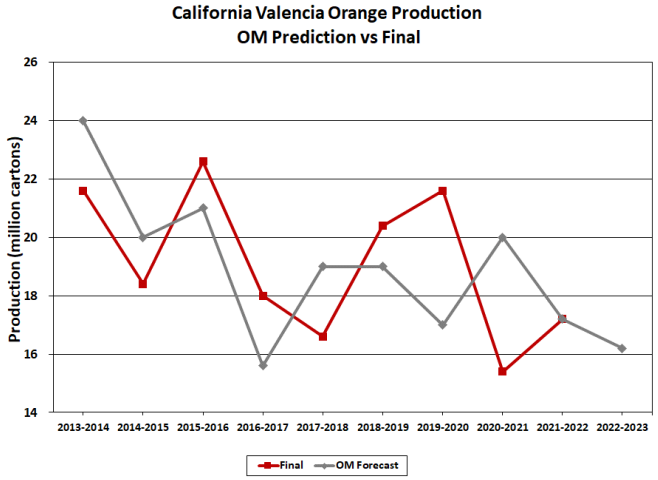
The March 2022-23 Valencia orange forecast is 16.2 million cartons. This forecast was based on the results of the 2022-23 Valencia Orange Objective Measurement (O.M.) Survey, which was conducted from January 9 to February 28, 2023. Estimated fruit set per tree, fruit diameter, trees per acre, bearing acreage, and oranges per carton were used in the statistical models estimating production.

The season experienced scattered precipitation in some areas which caused a rainy start to the growing season. Survey data indicated an average fruit set per tree of 616, a 13.9% increase from the previous year and 12.2% above the five-year average of 549. The average March 1 diameter was 2.391 inches, down 2.8% from the previous year and 5.1% below the five-year average of 2.520.



SURVEY HISTORY

A Valencia Orange Objective Measurement Survey was conducted from the 1985-86 to 1993-94 seasons before suspension due to a lack of funding. The survey has been conducted since it was reinstated for the 1999-00 season, with the exception of the 2006-07 season due to a substantial freeze. The data from the first three years after the survey was reinstated were used for research purposes in developing crop-estimating models.



SURVEY SAMPLE

A sample of 375 Valencia orange groves were randomly selected proportional to acreage, county, year planted, and variety representation in the state, with 340 of these groves being utilized in this survey. Once a grove was randomly chosen and grower permission was granted, two trees were randomly selected for each grove. For each randomly selected tree, its trunk was measured along with all connected branches. A random number table was then used to select a branch, and then all connected branches from the randomly-selected branch were measured.

This process was repeated until a branch was reached with no significant limbs beyond it. This randomly-selected branch, called the terminal branch, was then closely inspected to count all fruit connected to it, as well as all of the fruit along the path from the trunk to the terminal branch. Since each selected path has a probability of selection associated with it, a probability-based method was then applied to estimate a fruit count for the entire tree.

In the last week of the survey period, fruit diameter measurements were collected on the right quadrant of four trees surrounding the two sampled trees of every third sampled grove. These measurements were used to estimate an average fruit diameter per tree. The sampled groves were primarily in the top Valencia orange producing counties of Tulare, Kern, Fresno, Ventura, and San Diego.

CALIFORNIA VALENCIA ORANGE STATEWIDE DATA

Crop year	Number of sampled groves	Final utilized production (Cartons) [1]	Forecast utilized production (Cartons) [1]	Bearing acres	Average trees per acre	Average set per tree	Average March 1 diameter (Inches)
2011-12	533	25,000,000	28,000,000	40,000	124	611	2.583
2012-13	526	24,000,000	25,000,000	39,000	125	632	2.484
2013-14	500	21,600,000	24,000,000	36,000	124	616	2.570
2014-15	539	18,400,000	20,000,000	34,000	123	545	2.571
2015-16	531	22,600,000	21,000,000	32,000	123	696	2.502
2016-17	498	18,000,000	15,600,000	30,000	124	461	2.552
2017-18	524	16,600,000	19,000,000	29,000	124	524	2.585
2018-19	349	20,400,000	19,000,000	29,000	124	573	2.534
2019-20	346	21,600,000	17,000,000	28,000	124	560	2.471
2020-21	334	15,400,000	20,000,000	26,000	124	545	2.552
2021-22 [2]	349	17,200,000	17,200,000	26,000	124	541	2.459
2022-23	340	---	16,200,000	25,000	124	616	2.391

[1] Cartons have a standard equivalent weight of 40 lbs.
[2] Final production is subject to revision in the Crop Production report released on April 11, 2023.

California Agricultural Statistics publications are available free-of-charge on the Internet at:

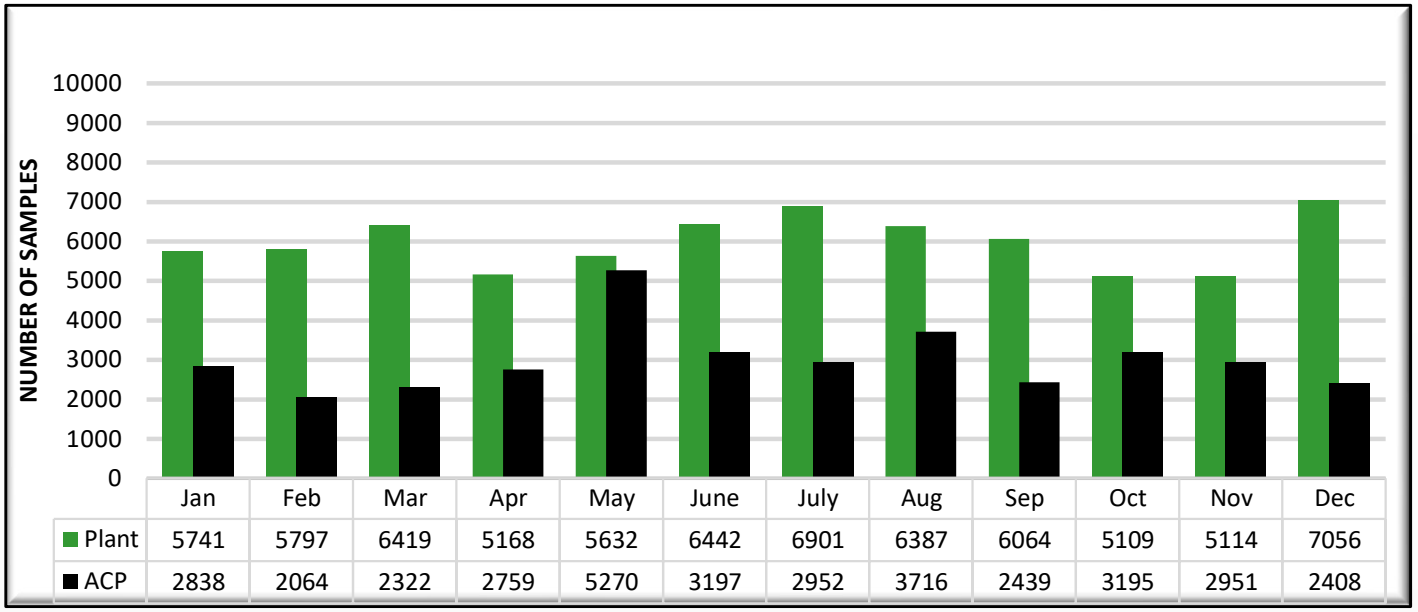
www.nass.usda.gov/ca



California Department of Food & Agriculture
Plant Pest Diagnostics Center
HLB Testing Program
2023

Total number of plant and ACP samples per month – Fig. 1a, Fig1b
Number of samples tested for HLB per year from 2008 –2023 – Fig. 2
Tally of positive detections by county and city – Tables 1-3
Tally of positive detections by city per year – Table 4
Map of CLas Detections as of 3/30/2023 – Fig. 3
If you have any questions, please call or email me at 916-738-6710 lucita.kumagai@cdfa.ca.gov.

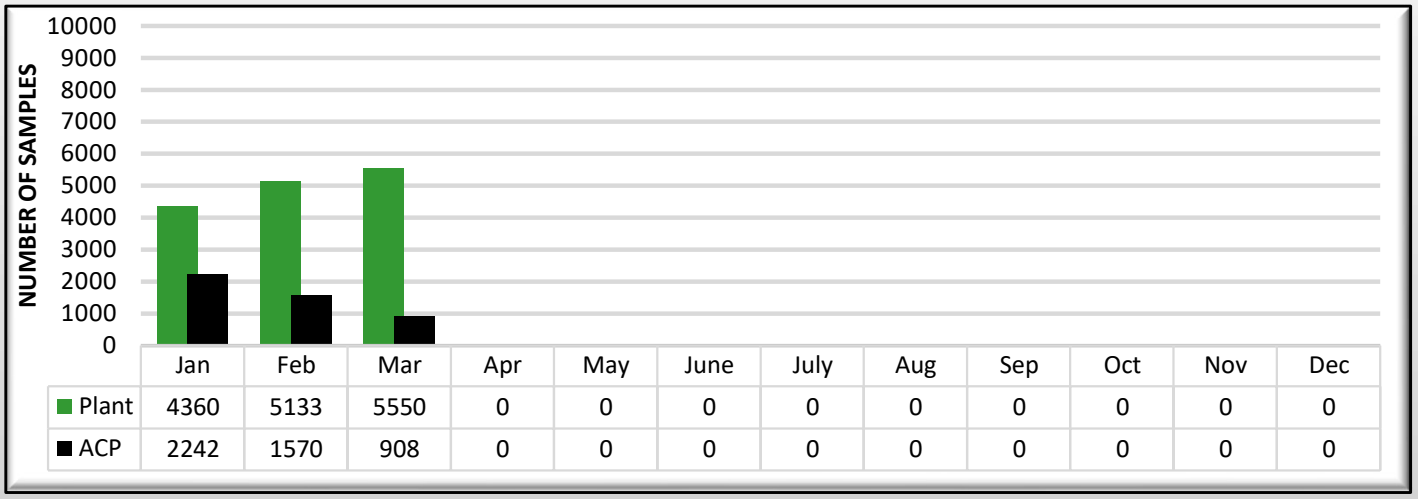
Fig 1a. 2022 - Total number of plant and ACP samples submitted per month.



	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Plant	5741	5797	6419	5168	5632	6442	6901	6387	6064	5109	5114	7056
ACP	2838	2064	2322	2759	5270	3197	2952	3716	2439	3195	2951	2408

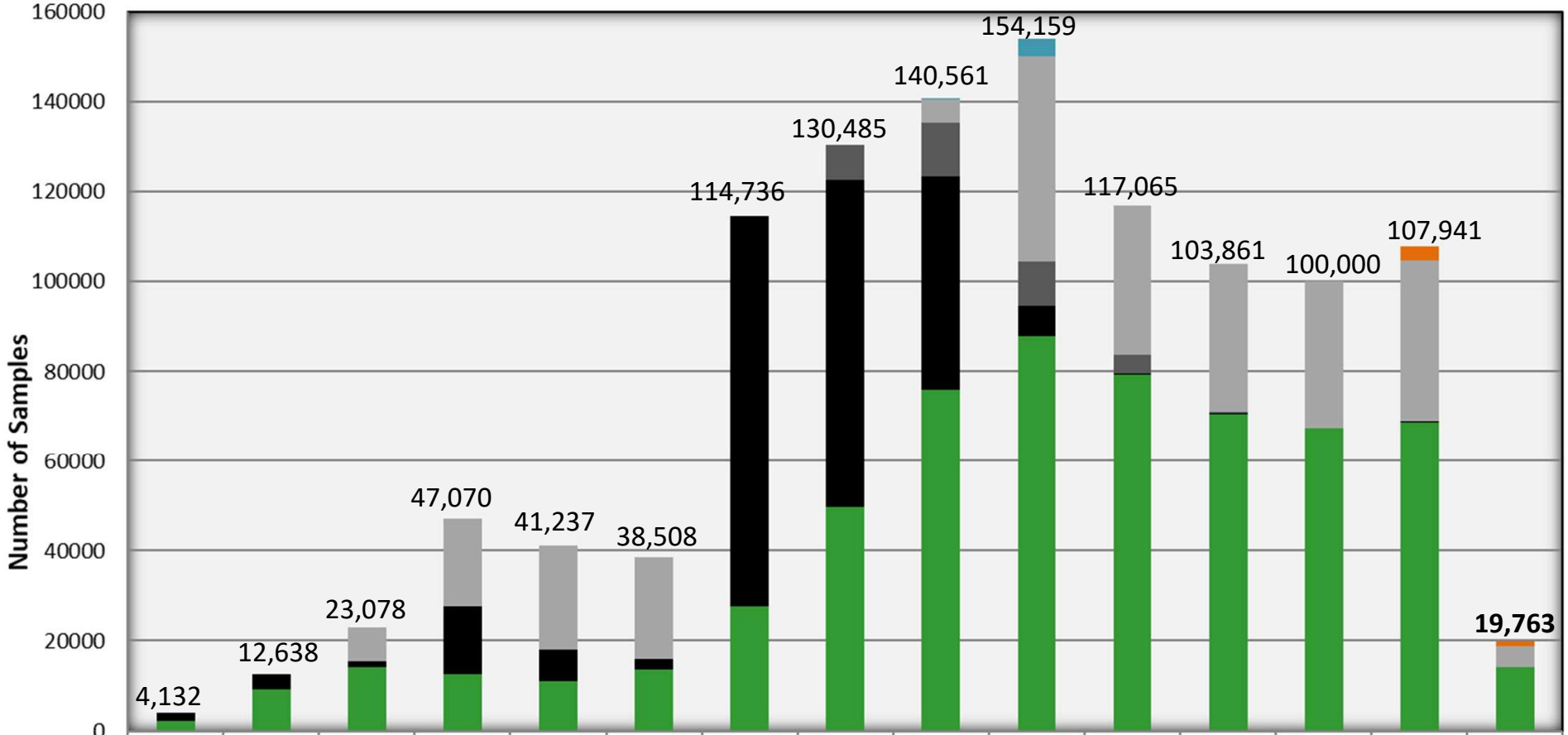
2022 Annual Sample Total
Plant - 71,830
ACP - 36,111

Fig 1b. 2023 - Total number of plant and ACP samples submitted per month.



	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Plant	4360	5133	5550	0	0	0	0	0	0	0	0	0
ACP	2242	1570	908	0	0	0	0	0	0	0	0	0

Fig 2. Number of samples tested for HLB per year from 2008 –2023.



	2008-09	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
CRB Plant														3122	1007
CPDP ACP									94	4020	0	0	0	0	0
CRB ACP			7740	19380	23222	22568	0	0	5085	45550	33247	32920	32507	35948	4690
U AZ ACP								7881	11896	10079	4310	205	0	0	0
CDFA ACP	1923	3527	1105	15032	6872	2300	87052	72832	47619	6698	133	130	29	163	30
CDFA Plant	2209	9111	14233	12658	11143	13640	27684	49772	75867	87812	79375	70606	67464	68708	14036

Combined total of plant and ACP samples tested from 2008 – 2023 is 1,155,234.

Table 1. Tally of positive sites, positive trees, and CLas+ ACP samples by county and city as of 3/30/2023.

HLB Positive Detections			
City	# Sites	# Trees	# ACP samples
Orange County			
Garden Grove	570	834	94
Santa Ana	512	695	92
Anaheim	592	916	150
Westminster	353	578	20
Orange	182	223	39
Tustin	26	24	10
Fountain Valley	8	14	2
Huntington Beach	25	28	2
Placentia	30	32	11
La Habra	5	6	1
Fullerton	11	14	6
Yorba Linda	6	4	5
Irvine	6	6	3
Costa Mesa	4	2	3
Brea	1	1	0
Buena Park	4	7	1
Cypress	5	0	5
Stanton	2	1	1
Midway City	3	4	0
Los Alamitos	1	0	1
Total	**2346**	**3389**	**446**
Los Angeles County			
Whittier	194	235	43
Pico Rivera	161	218	64
Montebello	72	99	2
San Gabriel	67	83	7
Rosemead	36	48	7
Paramount	29	35	5
La Mirada	49	67	6
La Puente	18	20	7
Norwalk	15	12	5
Cerritos	6	6	4
Hacienda Heights	4	4	1
Lakewood	5	6	0
Duarte	48	73	3
El Monte	32	38	8
South El Monte	19	33	4
Alhambra	1	1	0
Temple City	4	3	2
Compton	1	1	0
Glendora	1	0	1
South Gate	7	8	4
Long Beach	7	7	3
Los Angeles	1	0	1
Downey	13	17	5
Carson	4	3	1
Monrovia	19	26	0
Rowland Heights	2	0	2
Pomona	10	13	2
Artesia	2	2	0
Bellflower	2	2	0
Monterey Park	1	1	0
Total	**830**	**1061**	**187**
Riverside County			
Corona	75	116	19
Riverside	26	28	5
Eastvale	2	2	0
Jurupa Valley	17	19	4
Moreno Valley	1	1	0
Total	**121**	**166**	**28**
San Bernardino County			
Rancho Cucamonga	3	7	2
Montclair	7	6	1
Colton	6	11	3
San Bernardino	2	1	1
Ontario	71	133	20
Fontana	26	33	9
Chino	16	21	2
Total	**131**	**212**	**38**
San Diego			
Fallbrook	1	0	1
Oceanside	4	9	4
Pauma Valley	1	0	1
Vista	1	0	1
San Diego	12	15	0
Total	**19**	**24**	**7**
Grand Total	**3447**	**4852**	**706**

Table 2. Percent positives per county

County	Sites	Trees	ACP
Orange	68.1%	69.85%	63.2%
LA	24.1%	21.87%	26.5%
Riverside	3.5%	3.42%	4.0%
San Bernardino	3.8%	4.37%	5.4%
San Diego	0.6%	0.49%	1.0%
Total	100%	100%	100%

Table 3. Tally of positive samples from Risk-based and HLB Response surveys.

Sample type	Trees		ACP	
Risk-based Survey	398	8%	439	62%
HLB Response	4454	92%	267	38%
Total	**4852**	**100%**	**706**	**100%**

Table 4. Annual tally of positive trees per city from 2012 – 2023 as of 3/30/2023

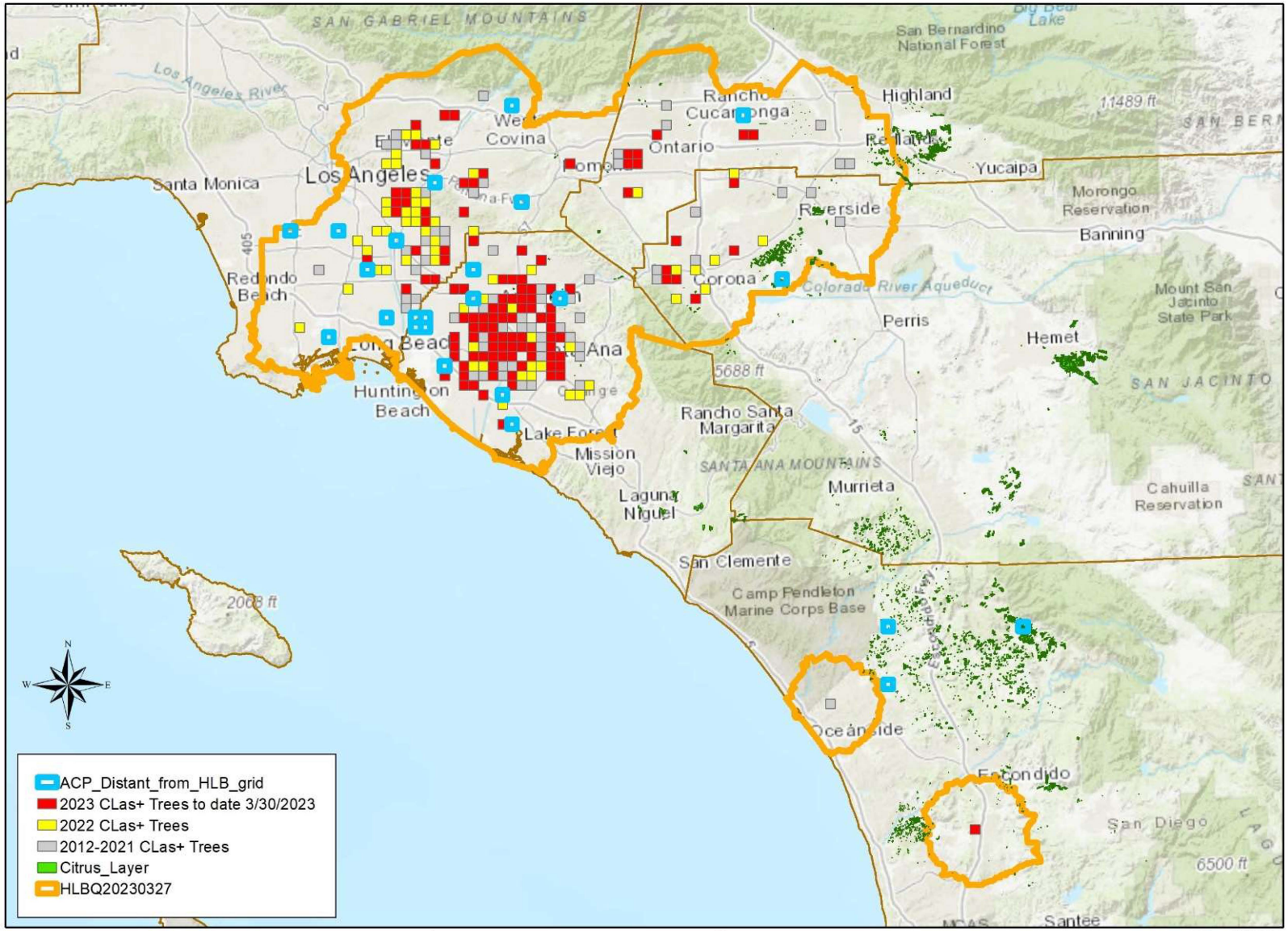
County	Total Plant	Total ACP
Orange	3389	446
Los Angeles	1061	187
Riverside	166	28
San Bernardino	212	38
San Diego	24	7
Grand Total	4852	706

CLas Detections in Plants and ACP

City	2012		2015		2016		2017		2018		2019		2020		2021		2022		2023		Total	
	Plant	ACP	Plant	ACP	Plant	ACP	Plant	ACP	Plant	ACP	Plant	ACP	Plant	ACP	Plant	ACP	Plant	ACP	Plant	ACP	Plant	ACP
Anaheim							132	57	109	9	90	20	21	3	200	11	257	19	107	31	916	150
Garden Grove							13	5	348	43	115	8	116	1	34	5	140	2	68	30	834	94
La Habra							1	-	-	-	2	1	-	-	-	-	1	-	2	0	6	1
Fullerton							1	1	-	1	-	-	-	-	-	1	4	-	9	3	14	6
Santa Ana								2	44	5	168	13	217	16	99	13	71	8	96	35	695	92
Westminster								1	15	4	175	6	3	-	39	5	331	3	15	1	578	20
Yorba Linda									1	2	-	-	-	-	1	-	-	-	2	3	4	5
Orange									31	4	14	3	36	3	43	1	37	8	62	20	223	39
Tustin									5	1	8	2	1	-	-	-	1	-	9	7	24	10
Huntington Beach											6	-	2	-	17	1	-	1	3	0	28	2
Placentia											7	2	-	-	-	-	1	1	24	8	32	11
Fountain Valley													10	-	-	-	1	2	3	0	14	2
Irvine													1	1	1	1	4	1	0	0	6	3
Costa Mesa																	1	2	1	1	2	3
Brea																			1	0	1	0
Buena Park																			7	1	7	1
Stanton																			1	1	1	1
Midway City																			4	0	4	0
Cypress																				5	0	5
Los Alamitos																				1	0	1
Hacienda Heights	1	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	1	0	4	1
San Gabriel			10	3	17	-	33	3	10	-	6	-	-	-	1	-	6	1	0	0	83	7
Cerritos					1	2	1	-	-	-	-	-	-	-	-	-	-	-	4	2	6	4
Pico Rivera							67	35	35	1	18	-	10	-	1	-	28	26	59	2	218	64
Whittier							18	6	80	10	23	2	21	1	35	4	52	19	6	1	235	43
La Puente						1			-	-	3	-	-	-	-	-	8	6	9	0	20	7
Lakewood									1	-	1	-	-	-	4	-	-	-	0	0	6	0
Norwalk								2	1	-	-	-	2	-	1	1	4	2	4	0	12	5
Rosemead								1	17	-	11	3	-	-	-	-	9	3	11	0	48	7
Duarte									2	1	-	-	-	-	-	-	42	2	29	0	73	3
Temple City											1	1	-	-	-	-	1	1	1	0	3	2
Montebello											84	1	4	-	-	-	11	1	0	0	99	2
El Monte											1	1	1	-	-	-	18	7	18	0	38	8
Compton											1	-	-	-	-	-	-	-	0	0	1	0
Alhambra											1	-	-	-	-	-	-	-	0	0	1	0
La Mirada													7	4	6	-	33	2	21	0	67	6
Paramount													11	2	8	1	15	2	1	0	35	5
Long Beach														2	2	-	5	1	0	0	7	3
South Gate														1	2	-	4	3	2	0	8	4
Downey																	14	4	3	1	17	5
Carson																	3	1	0	0	3	1
Monrovia																	19	-	7	0	26	0
Pomona																	12	2	1	0	13	2
South El Monte																	25	4	8	0	33	4
Artesia																	1	-	1	0	2	0
Bellflower																	2	-	0	0	2	0
Monterey Park																	1	-	0	0	1	0
Glendora												1										1
Rowland Heights																		2				2
Los Angeles																1						1
Riverside							3	3	-	-	4	0	6	1	8	0	6	1	1	0	28	5
Corona											15	9	4	1	11	0	69	9	17	0	116	19
Eastvale													1	0	-	-	-	-	1	0	2	0
Moreno Valley													1	0	-	-	-	-	0	0	1	0
Jurupa Valley															1	0	13	4	5	0	19	4
Montclair											2	0	2	0	2	0	-	-	0	1	6	1
San Bernardino										1			1	0	-	-	-	-	0	0	1	1
Ontario												1	1	0	64	10	48	6	20	3	133	20
Colton												1	4	2	7	0	-	-	0	0	11	3
Rancho Cucamonga													5	2	2	0	-	-	0	0	7	2
Fontana														3			27	6	6	0	33	9
Chino																	16	2	5	0	21	2
Oceanside															9	4	-	-	0	0	9	4
San Diego																			15	0	15	0
Fallbrook														1								1
Pauma Valley																		1				1
Vista																		1				1
Total	1	1	10	3	19	3	269	116	699	82	756	75	488	44	598	59	1342	166	670	157	4852	706

CITRUS PEST & DISEASE PREVENTION DIVISION
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

CLas+ ACP Detected >1 mile distant from a CLas+ Tree Detection
As of 4/4/2023



United States Department of Agriculture

cdfa CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE

CALIFORNIA ALL

USDA



Plant Pest Diagnostics Center

Characterization of *Candidatus* Liberibacter asiaticus isolates from California

Huanglongbing (HLB) in California


ACP Nymphs

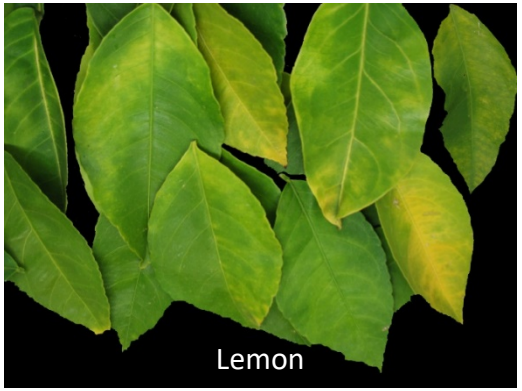

ACP Adult

First ACP detected in 2008,
San Diego County



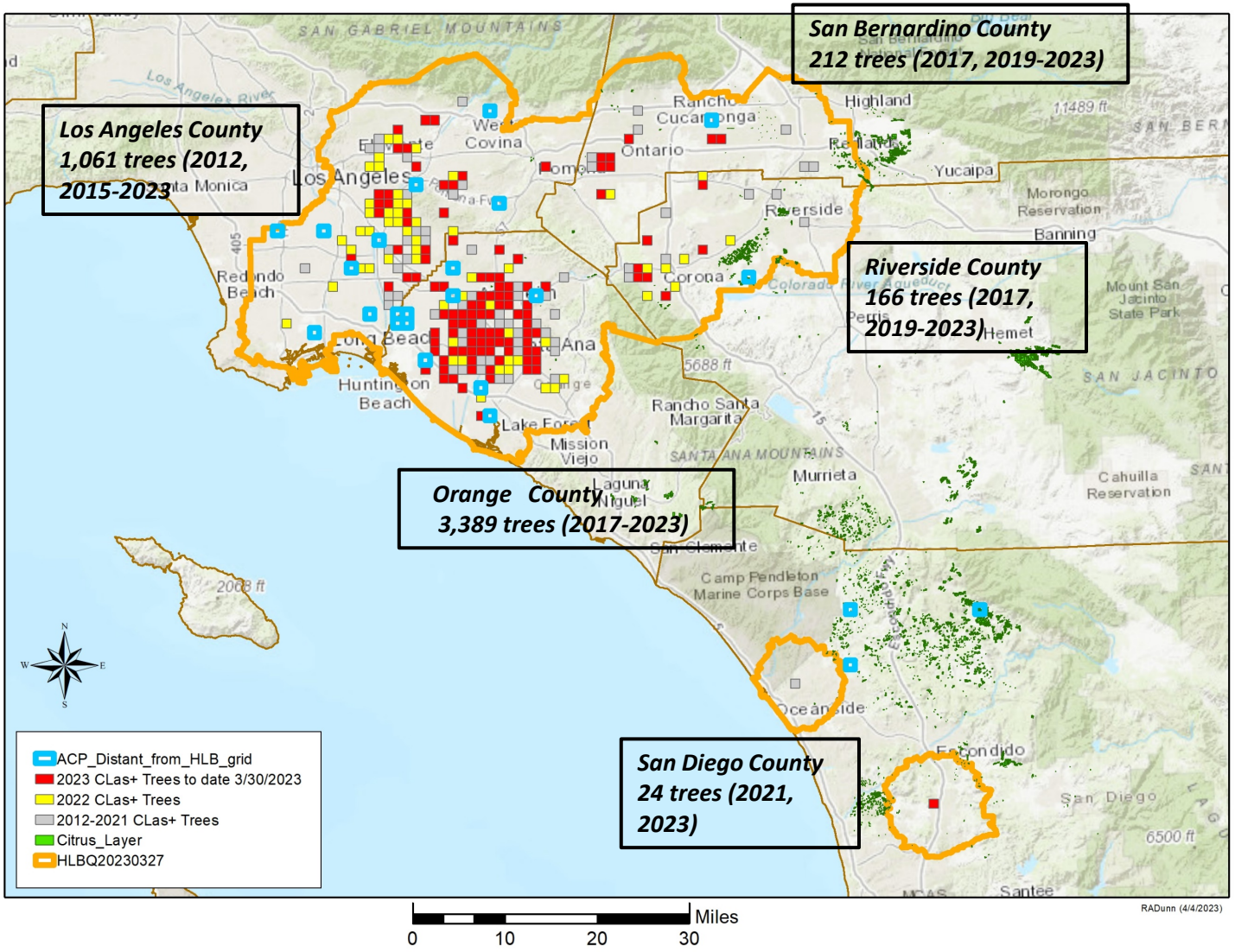
First CLas+ ACP and first infected tree detected in 2012, Hacienda Heights, Los Angeles County


Pomelo


Lemon

CITRUS PEST & DISEASE PREVENTION DIVISION
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

4,852 HLB+ trees detected as of 3/30/2023

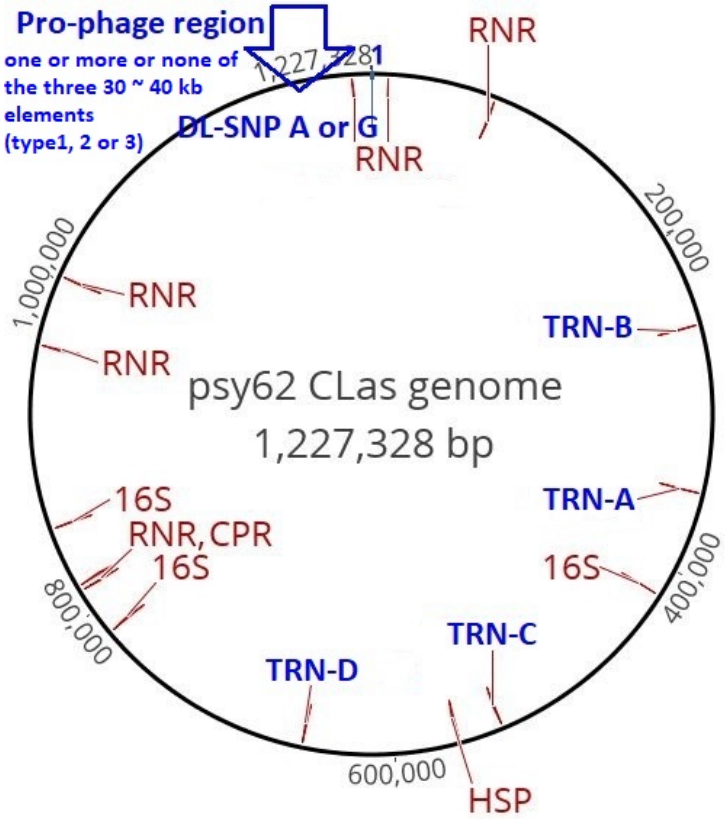


Method

169 California CLas isolates from various detection sites (32 cities, 5 counties) were included in this study.

The isolates were characterized by the **USDA/CPHST** Lab using the following markers to obtain a genetic profile for each isolate.
Markers used:

- Microsatellites or tandem repeat numbers (TRNs) at four genomic loci (A/B/C/D) by PCR product direct sequencing
- Prophage type inserts (pT1, pT2, pT3, pT1&2, pT1&3, pT2&3) by quadruplex qPCRs
- DL-SNP (A/G) at the CLas terminase gene by PCR product direct sequencing

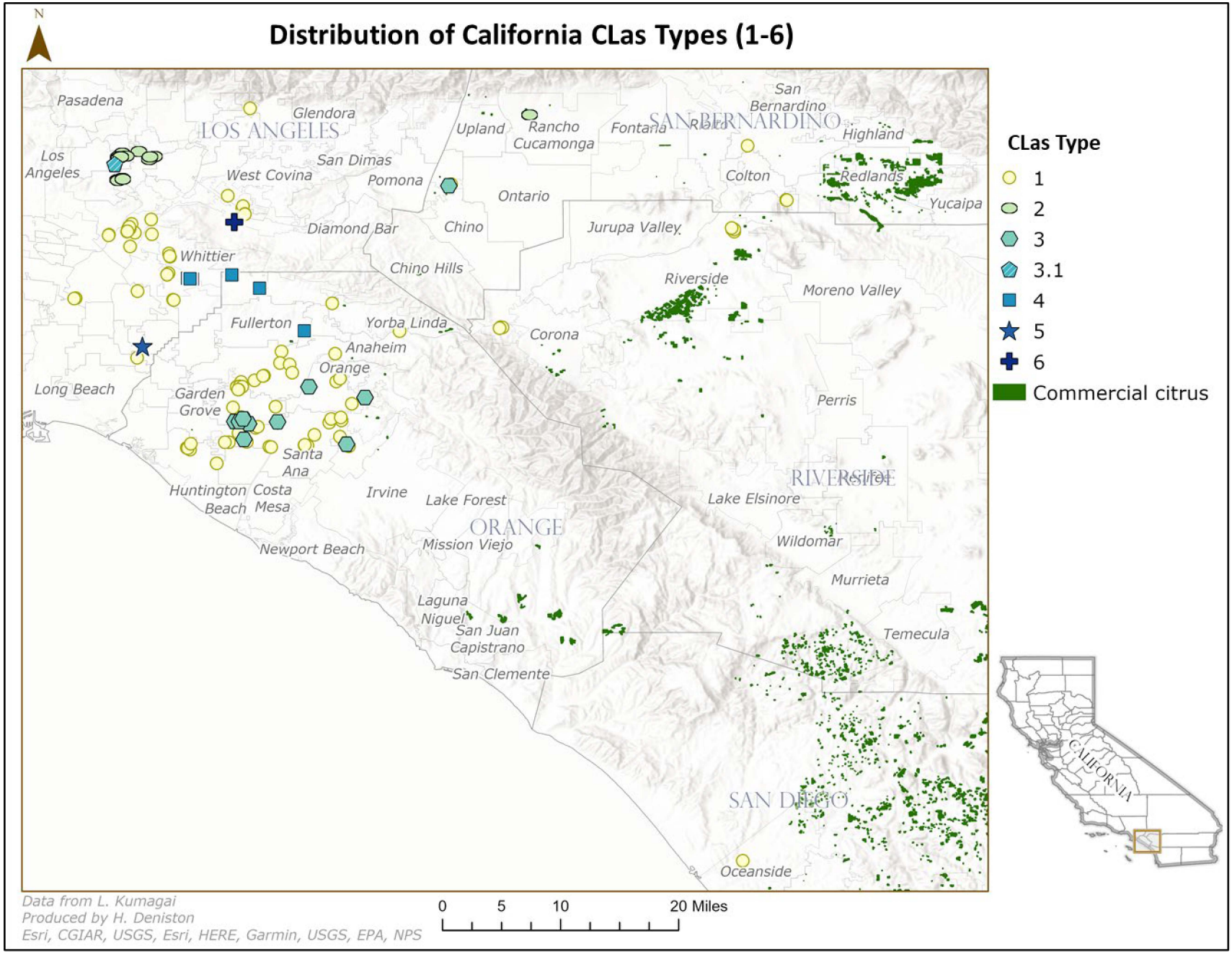


The isolates were compared and grouped based on their genetic profile.

Results - Based on 169 California CLas isolates

CA CLas Types (1-6)	TRN type (# of strains) % of isolates	TRN-A	TRN-B	TRN-C	TRN-D	DL-SNP	Prophage Type (# of strains) % of isolates	County [# of cities]
1	CA-TRN-1 (116) 69%	**7**, 8, 14	11, 15-**19**, 20, 24, 26-29	5	10	A	pT1 (156) 92%	**LA, Orange, Riverside, San Bernardino, San Diego [26]**
2	CA-TRN-2 (22) 13%	12-19	**3**	7	10	A		**LA, San Bernardino [4]**
3	CA-TRN-3 (17, +1) 10%	10	**14**, 16	10	10	A		**Orange, San Bernardino [6]**
4	CA-TRN-4 (10) 6%	6	7, **8**	7	10, **11**	A	pT1&2 (10) 6%	**LA** (Whittier), **Orange** (La Habra, Placentia) **[3]**
5	CA-TRN-5 (1) 1%	14	6	11	8	A	pT1&3 (1) 1%	**LA** (Cerritos) **[1]**
6	CA-TRN-6 (2) 1%	4	23	7	14	A	pT2 (2) 1%	**LA** (Hacienda Heights) **[1]**

Six CLas types with distinct TRN profiles were observed.
Four prophage types were detected pT1, pT1&2, pT1&3, pT2 with the dominant pT1 found in 92% of the isolates tested.
The six CLas types found in California were:
CLas Type 1, linked to prophage pT1, was the most prevalent at 69% and found in all five counties
CLas Types 2 and 3 also linked to pT1 were detected at 13% and 10%, respectively; with Type 2 in LA and San Bernardino and Type 3 found in Orange and San Bernardino.
CLas Type 4 linked to pT1&2 was found in limited areas in LA and Orange counties.
CLas Types 5 and 6 were unique finds in LA County; Type 5 with pT1&3 in Cerritos and Type 6 with pT2 in Hacienda Heights.


Distribution of California CLas Types (1-6)
N
Pasadena
Glendora
LOS ANGELES
Los Angeles
West Covina
San Dimas
Pomona
Upland
Rancho Cucamonga
Fontana
SAN BERNARDINO
San Bernardino
Rialto
Highland
Colton
Redlands
Yucaipa
Ontario
Chino
Diamond Bar
Jurupa Valley
Whittier
Chino Hills
Riverside
Moreno Valley
Fullerton
Yorba Linda
Corona
Anaheim
Orange
Long Beach
Garden Grove
Perris
Santa Ana
RIVERSIDE
Huntington Beach
Costa Mesa
Irvine
Lake Forest
Lake Elsinore
ORANGE
Mission Viejo
Wildomar
Newport Beach
Murrieta
Laguna Niguel
San Juan Capistrano
Temecula
San Clemente
SAN DIEGO
Oceanside
CLas Type
1
2
3
3.1
4
5
6
Commercial citrus
CALIFORNIA
Data from L. Kumagai
Produced by H. Deniston
Esri, CGIAR, USGS, Esri, HERE, Garmin, USGS, EPA, NPS
0
5
10
20 Miles

Summary

- Based on the 169 CLas California isolates characterized in this study, there may be six distinct types of CLas in California.
- Four prophage types were detected pT1, pT1&2, pT1&3, pT2 with the dominant pT1 found in 92% of the isolates tested.
- Type 1, linked to prophage 1 (pT1), was the most prevalent at 69% and was found in five counties; Los Angeles, Orange, Riverside, San Bernardino, and San Diego.
- All six CLas types were detected in Los Angeles County, including two unique types; Type 5 in Cerritos and Type 6 in Hacienda Heights.
- The six CLas types imply multiple introductions of the HLB disease into California.
- CLas Type 1 may have been introduced first in California because of its prevalence, wide distribution and higher TRN variation in two loci.



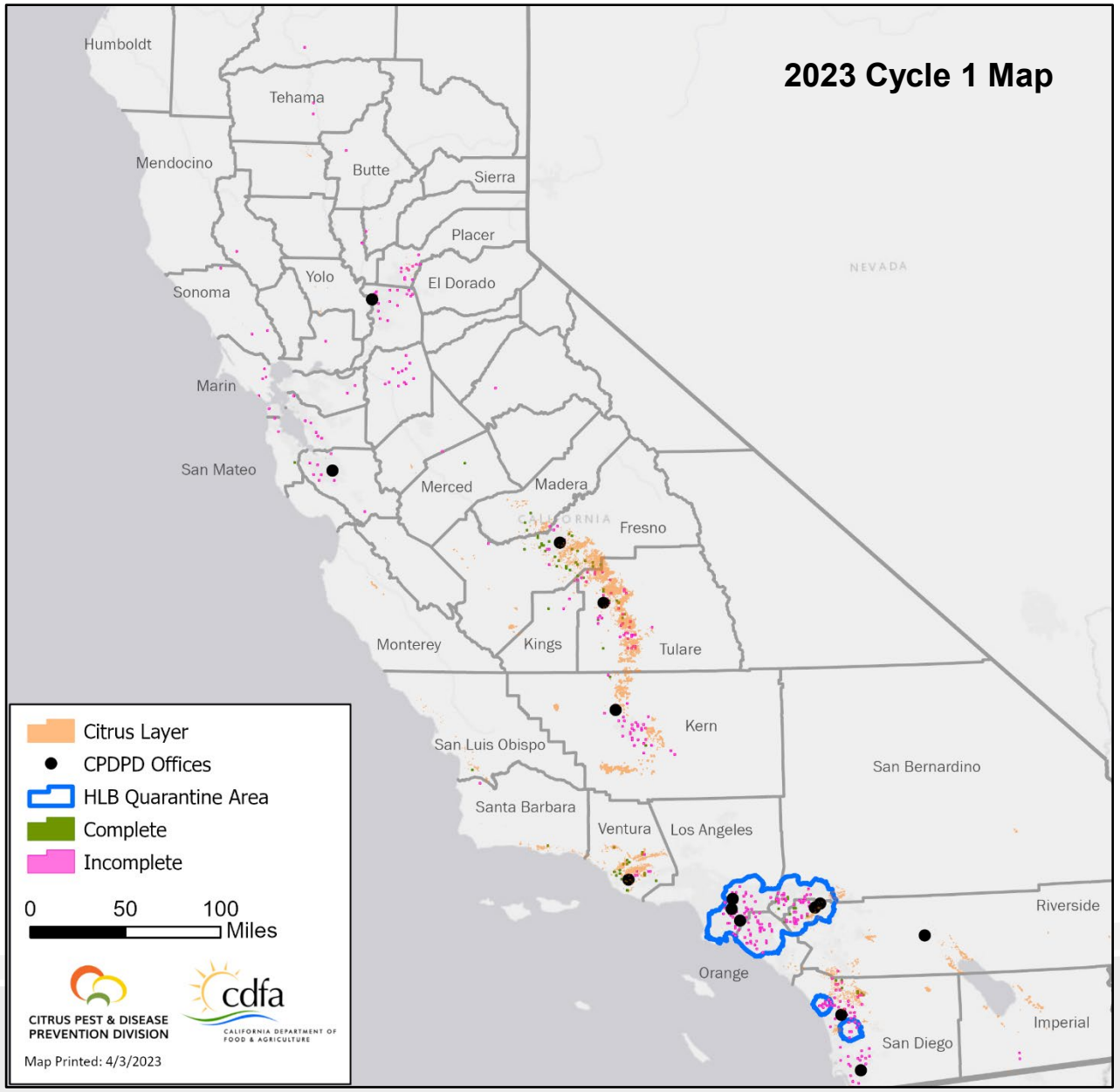
Acknowledgements

USDA/CPPDL and NPPLAP
CDFA Citrus Division
CRB DATOC



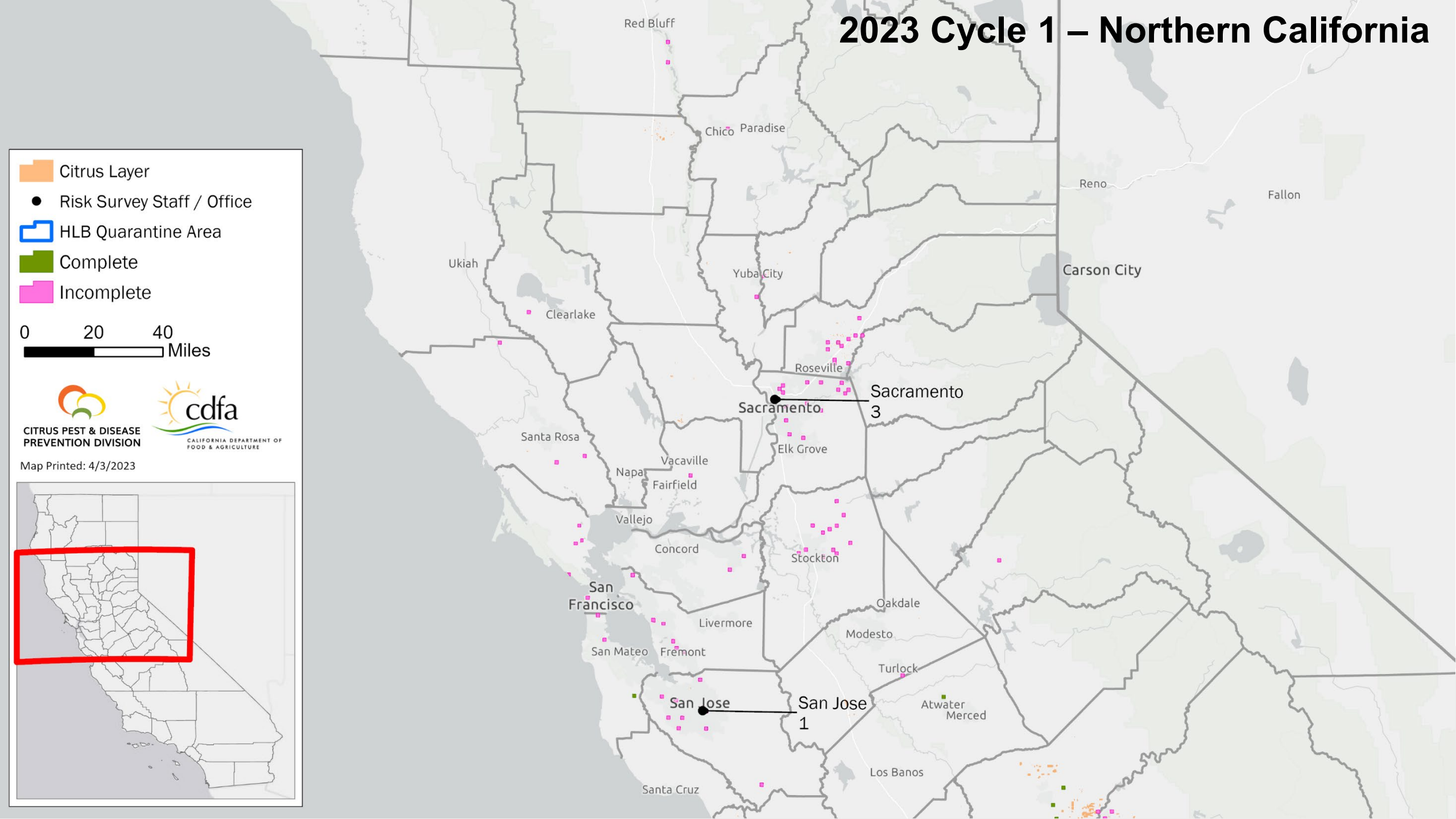
Risk Research Survey Update
California Citrus Pest and Disease Prevention Committee
April 12, 2023

2023 Cycle 1

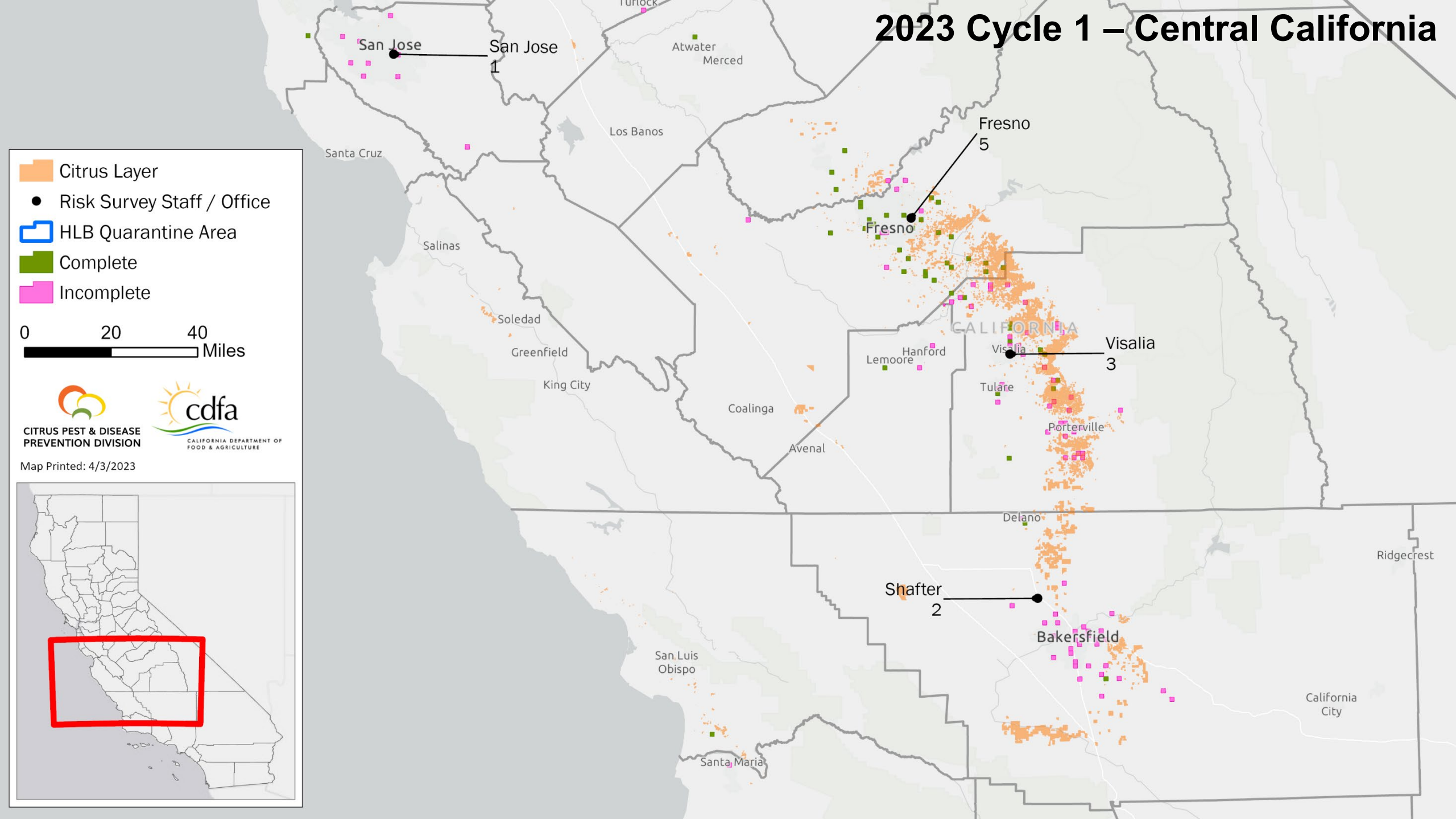


- Began February 2023
- 20% Complete
- Survey Complete in 2 of 34 Allocated Counties
- 1,349 Properties Visited
- 591 Properties Sampled
- 299 Entomology PDRs
- 411 Plant PDRs

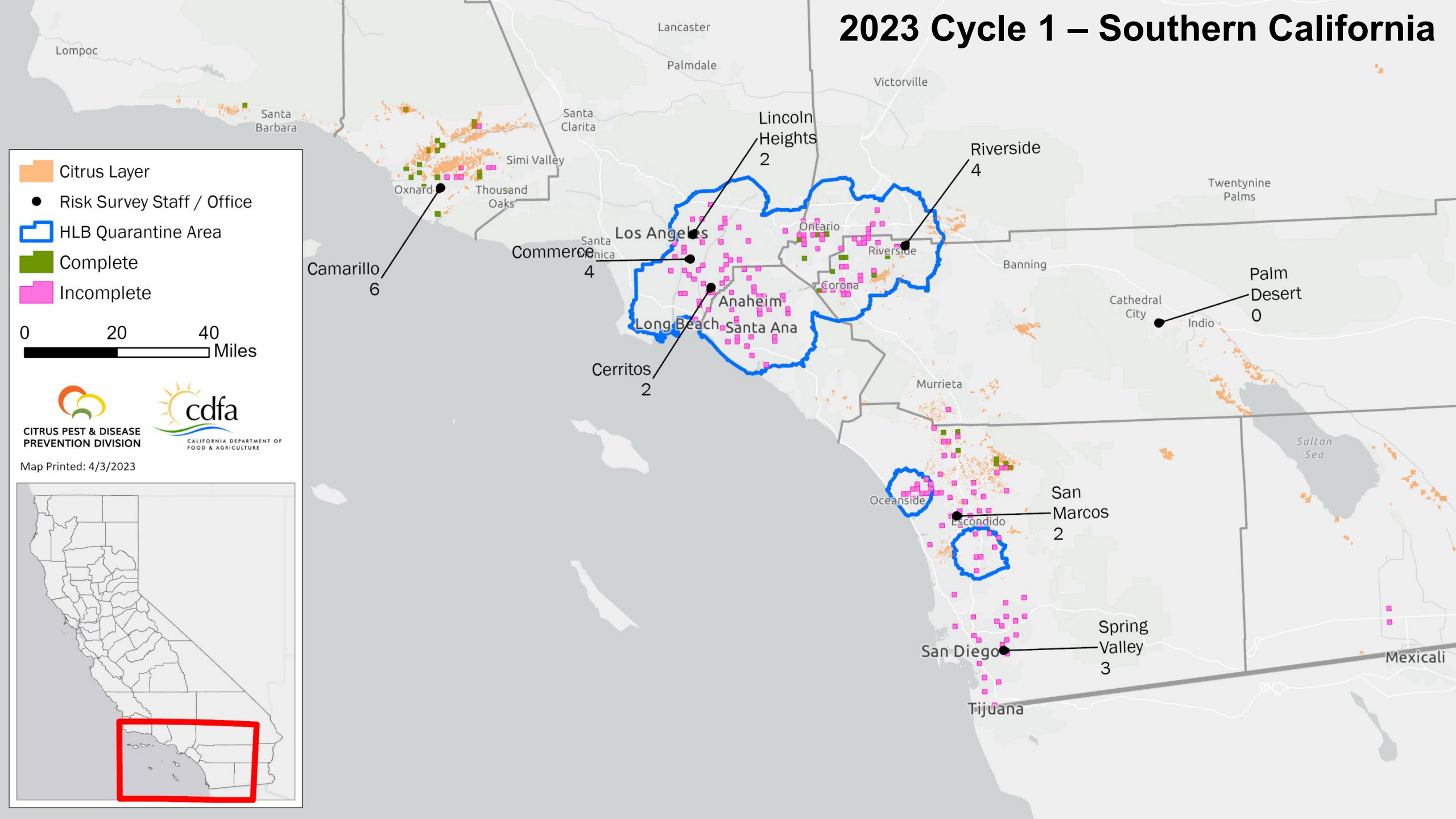
2023 Cycle 1 – Northern California



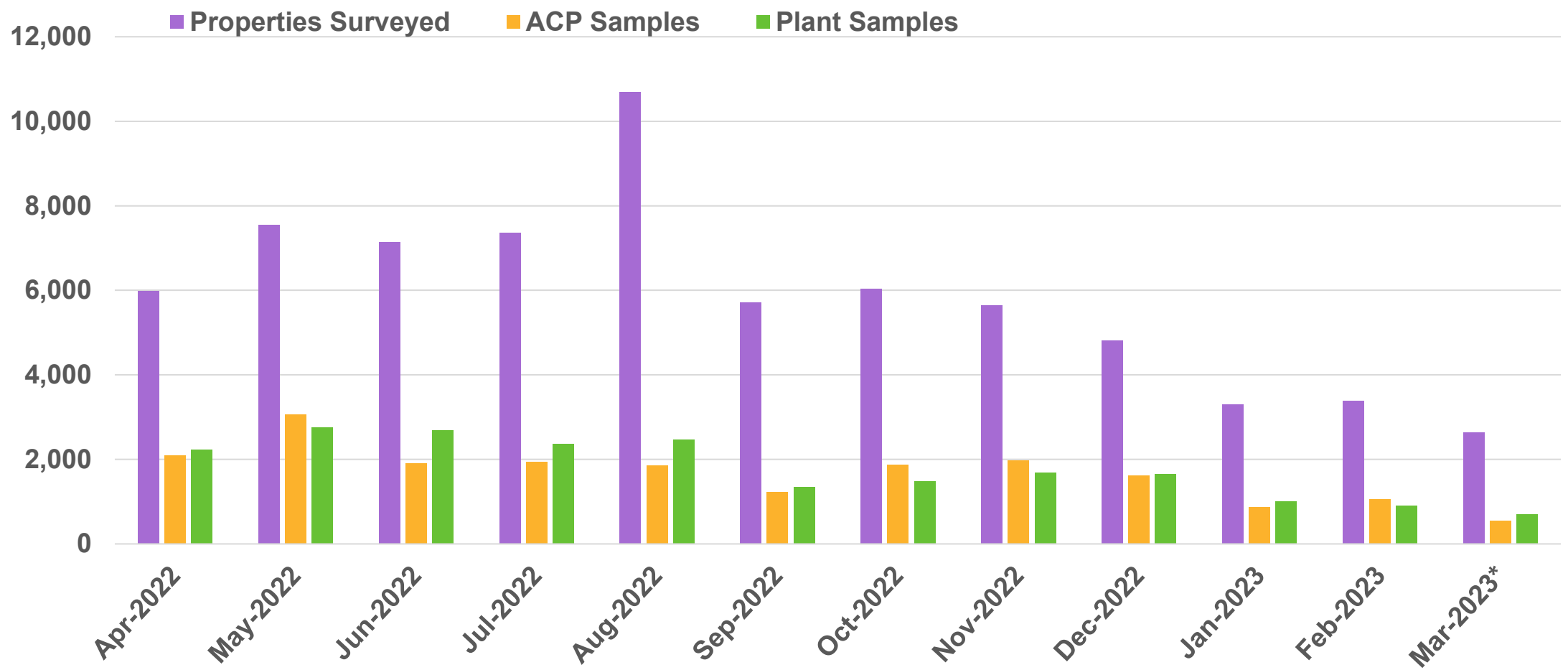
2023 Cycle 1 – Central California



2023 Cycle 1 – Southern California



Statewide Trends (2021 Cycle 2, 2022 Cycle 1, and 2023 Cycle 1)



Start — 2023 Cycle 1

Start — 2022 Cycle 1 — Stopped

2021 Cycle 2 — Complete

*March data is being finalized



Operational Update

CPDPC Meeting

April 12, 2023

Southern District

- **HLB+ Detection in Rancho Bernardo, San Diego County**
- First detection on Jan 24, residential property, small lime tree.
- Completed survey of all find sites and adjacent properties.
- A total of 15 HLB positive trees were detected in the neighborhood.
  - All trees were removed and disposed off at the local landfill.
- No commercial nurseries or groves within the delimitation area.
- Delimitation survey in the 250m was completed in the first expansion.
  - The survey is still ongoing in the subsequent expansion areas.
- Delimitation treatments will be completed by mid-April, weather permitting.

Southern District



Delimitation Survey

County	Areas
Orange	Anaheim, Fountain Valley, Irvine, Orange, Placentia, and Santa Ana
Los Angeles	El Monte, Duarte, La Mirada, La Puente, Norwalk, Paramount, and Pomona
San Bernardino	Chino, Fontana, and Ontario
Riverside	Corona, Jurupa Valley, and Riverside

Delimitation Treatments

County	Areas
Orange	Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Garden Grove, Irvine, Orange, Santa Ana, Tustin, and Yorba Linda
Los Angeles	Bellflower, El Monte, La Mirada, La Puente, Norwalk, Paramount, Pico Rivera, Pomona, Rosemead, Temple City, and Whittier
San Bernardino	Chino and Ontario

Southern District



HLB Positive Trees

County	Trees Removed (Jan- Mar)	Cumulative Pending Trees
Los Angeles	46	107
Orange	223	239
Riverside	25	9
San Bernardino	28	22
San Diego	15	0
Total	**337**	**377**

Quadrant Samples – Find Site, Adjacent, Inconclusive (Jan- Mar)	
Los Angeles	1,017
Orange	2,385
Riverside	390
San Bernardino	328
San Diego	470
Total	**4,590**

Southern District



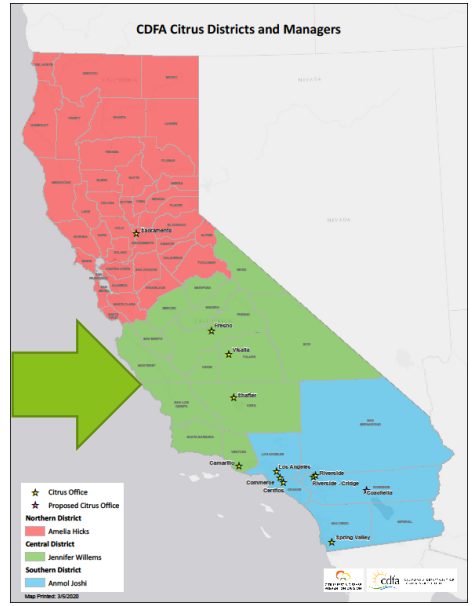
➢ Treatment Updates

- Residential buffer treatments around the commercial citrus groves (TACCG) were completed for the winter cycle. The next cycle will begin in Fall.
- Treatments are still ongoing in the 2-mile buffer along the US/MEX border in San Diego County and will be completed by mid-April.

➢ Public Meetings

- Ten pubic meetings were held from January through March to conduct delimitation treatments in different areas of Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties.
- Three public meetings were held to conduct treatments along with two mile border buffer and also around the commercial citrus groves for the winter cycle.

Central District



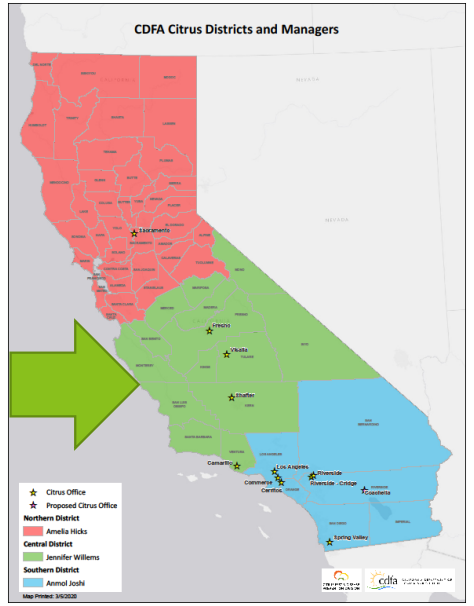
➢ County ACP Detections

ACP detections from November 9, 2022 – April 5, 2023

- Kern County - 23 ACP detections since the last meeting.
- Madera County - 1 ACP detection since the last meeting.
- Monterey County - 27 ACP detections since the last meeting.
- San Luis Obispo County - 2 ACP detections since the last meeting.
- Tulare County - 5 ACP detections since the last meeting.

*Detections = PDRs, not individual ACP counts

Central District



➢ Trapping Activities

- ACP delimitation and detection trapping activities are on-going.
- The “No-Mess” trap catch comparison trial was completed. The DAVU is compiling the data to report.

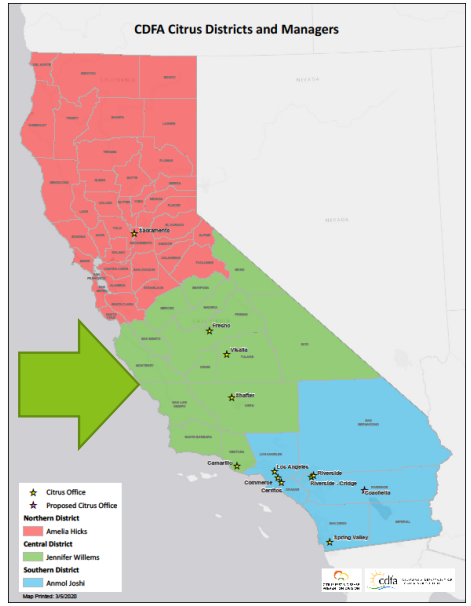
➢ ACP Treatment

- Treatment is on-going for all the residential detections.
- Ventura and Santa Barbara treatment around commercial citrus groves was completed at the end of January.

➢ Biocontrol

- *Tamarixia* releases continue in Kern, Monterey, San Luis Obispo, and Santa Barbara Counties.

Central District



- **Multi-pest Risk Survey**
  - Surveys are ongoing.
- **Citrus Commodity Survey**
  - Staff are preparing to begin commodity surveys.
- **CYVCV Survey**
  - Delimitation surveys have been completed. Jennifer will provide a CYVCV specific update.

Northern District



➢ ACP Detection Trapping

- Ongoing trapping in Placer, San Joaquin, and Stanislaus Counties.
- Winter trapping started November 2022, will continue through April 2023.

➢ ACP Delimitation Trapping

- Ongoing delimitation in Santa Clara County.
  - ✓ 776 traps placed and serviced monthly.
- ACP detection in San Joaquin County on December 12.
  - ✓ 43 traps placed and serviced monthly.
- First ACP detection in Sonoma County on December 21.
  - ✓ 55 traps placed and serviced monthly.
- Delimitation traps in Alameda County removed after 1 year with no detections.

Northern District



- **ACP Treatment**
  - 36 properties in Santa Clara County treated December 2022.
  - 2 properties in San Joaquin County treated December 2022.
  - 4 properties in Sonoma County treated January 2023.

- **Biocontrol**
  - *Tamarixia* releases ongoing in San Jose, Santa Clara County.
  - Average 6,000 releases monthly.

- **HLB Risk Survey**
  - 2022 Cycle 1 completed March 2023.
  - 178 square miles surveyed in 24 counties.
  - 2023 Cycle 1 started April 2023.

Update: Santa Clara County

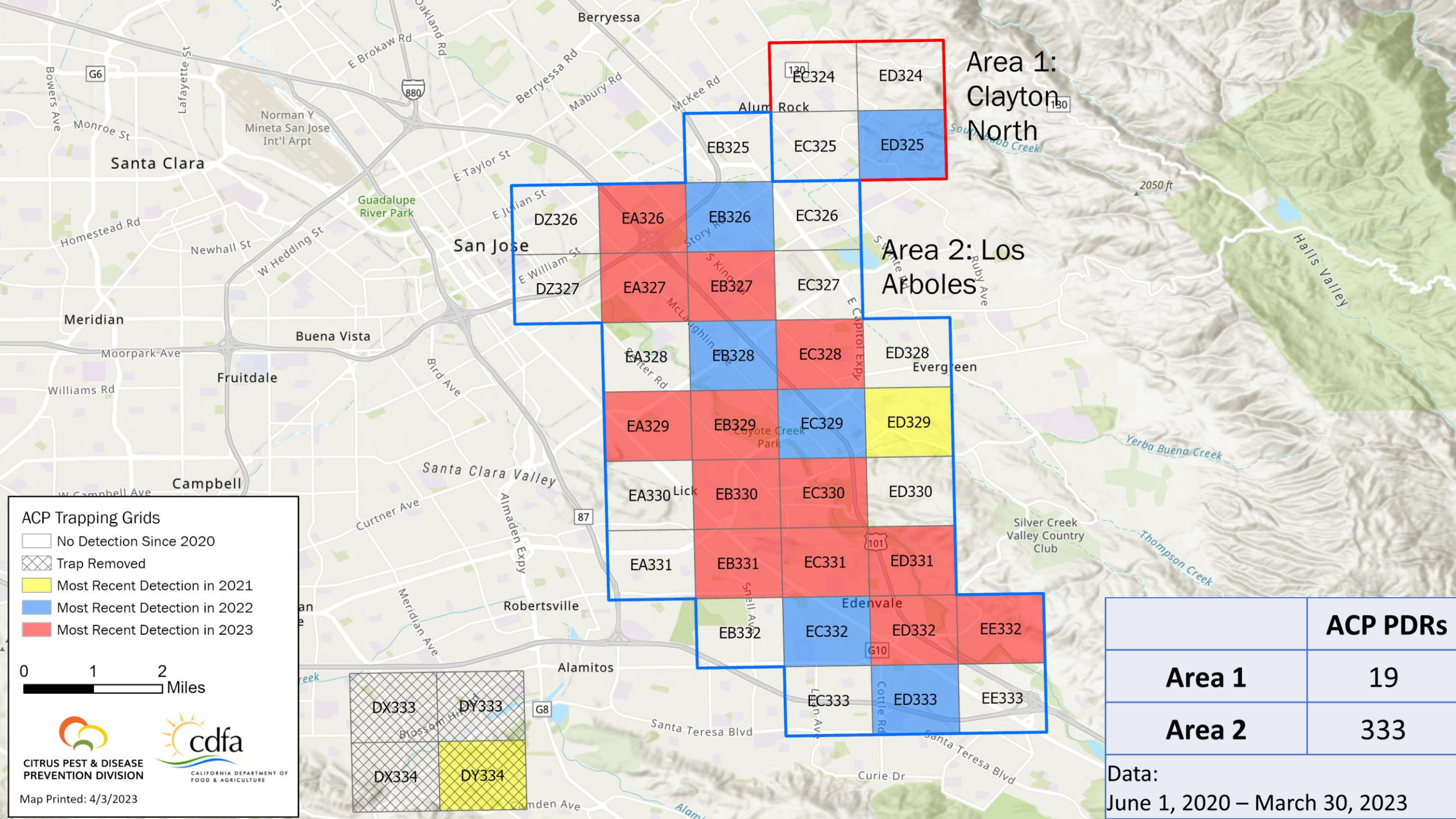
Clayton North and Los Arboles Delimitations and Treatment

cdfa
CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE

Northern District

April 12, 2023

CITRUS PEST & DISEASE PREVENTION DIVISION
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

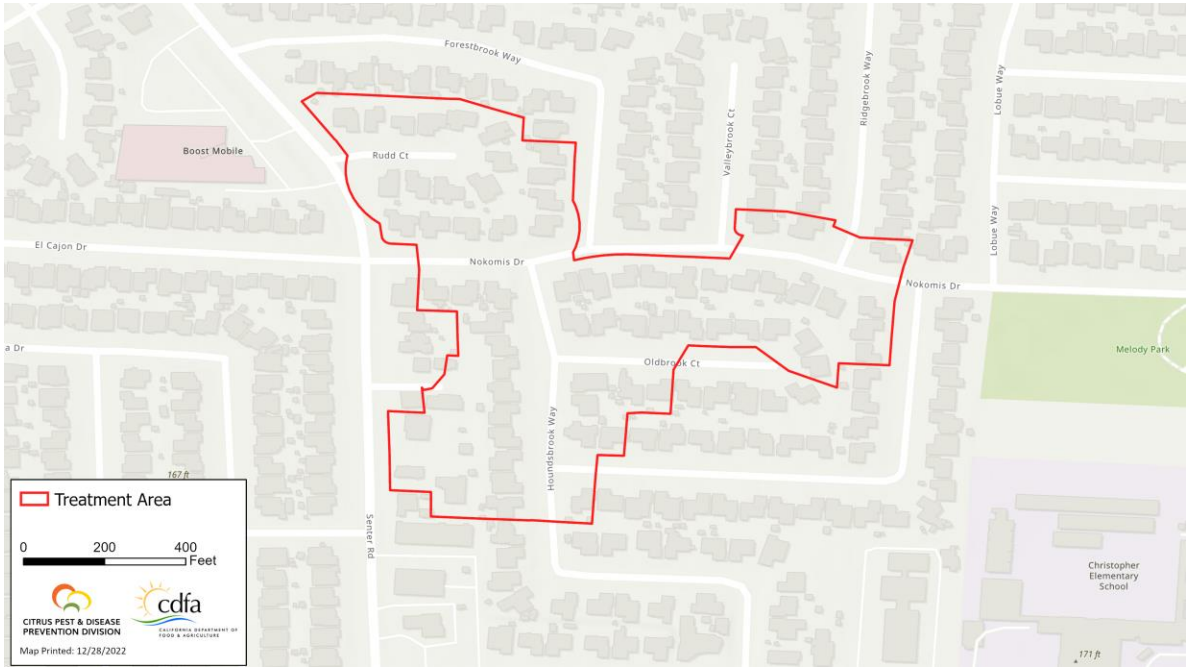


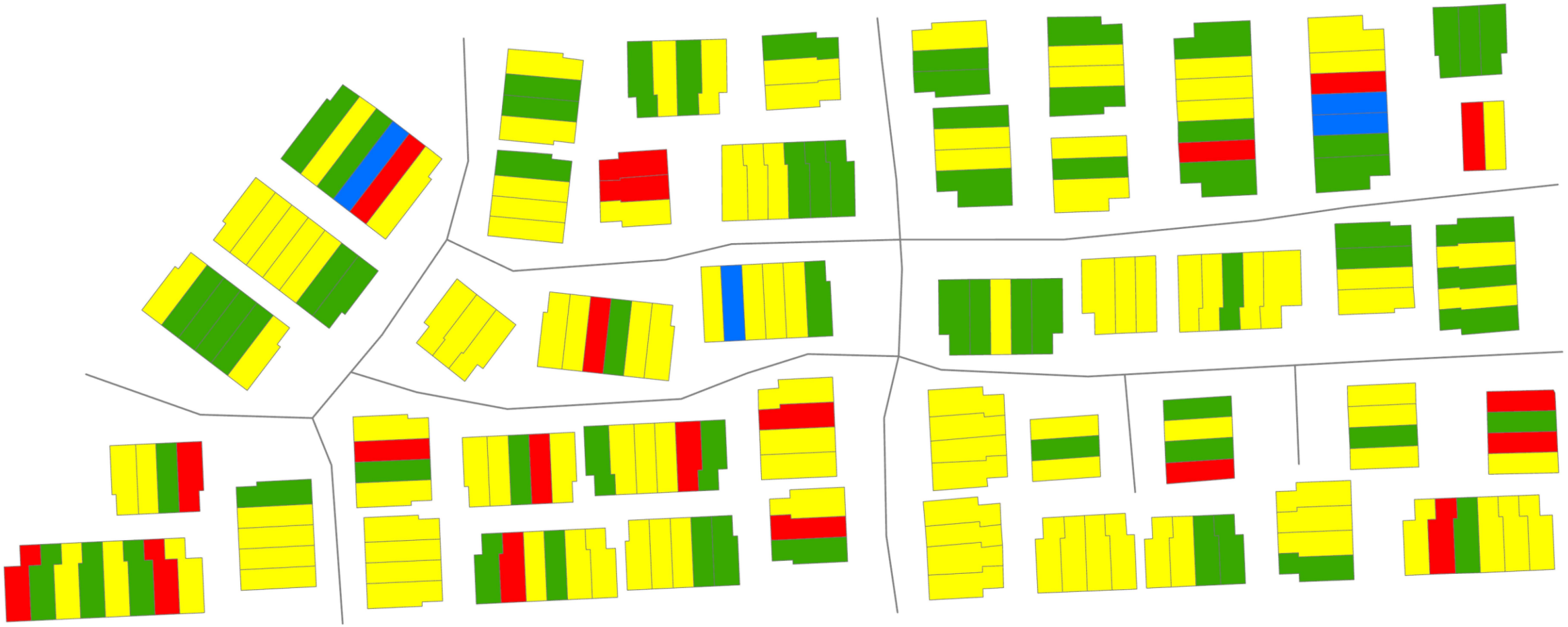
	ACP PDRs
Area 1	19
Area 2	333

Data:
June 1, 2020 – March 30, 2023

Treatment
Area 2: Los Arboles

- Treatment conducted by CDFA/CPDPD staff.
- Public meeting: December 8, 2022
- Start date: December 13, 2022.
- Total properties in treatment area: 68
  - Total treated: 36 Properties (52.9%)
  - Total no host: 7 Properties (10.3%)
  - Total no access: 13 Properties. (19.1%)
  - Total no contact: 3 Properties. (4.4%)
  - Total refusal: 9 Properties (13.2%)





ACP Treatment Area
Map 1

Printed 12/28/2022

Total 2020 Treatment Properties

- Treated (50.1%)
- Refused (4.6%)
- No Host (41.4%)
- No Contact (4.0%)

0 — 100 Meters

This map does not provide actual physical locations. However, this map provides a model of full treatment based on historical data.

CITRUS PEST & DISEASE PREVENTION DIVISION

cdfa CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE



ACP Treatment Area
Map 2

Printed 12/28/2022

Total 2020 Treatment Properties

- Treated (50.1%)
- Refused (4.6%)
- No Host (41.4%)
- No Contact (4.0%)

Meters

0 100

This map does not provide actual physical locations. However, this map provides a model of full treatment based on historical data.

CITRUS PEST & DISEASE PREVENTION DIVISION

cdfa CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE

Proposed Modification of Area-Wide Buffer Trapping Program

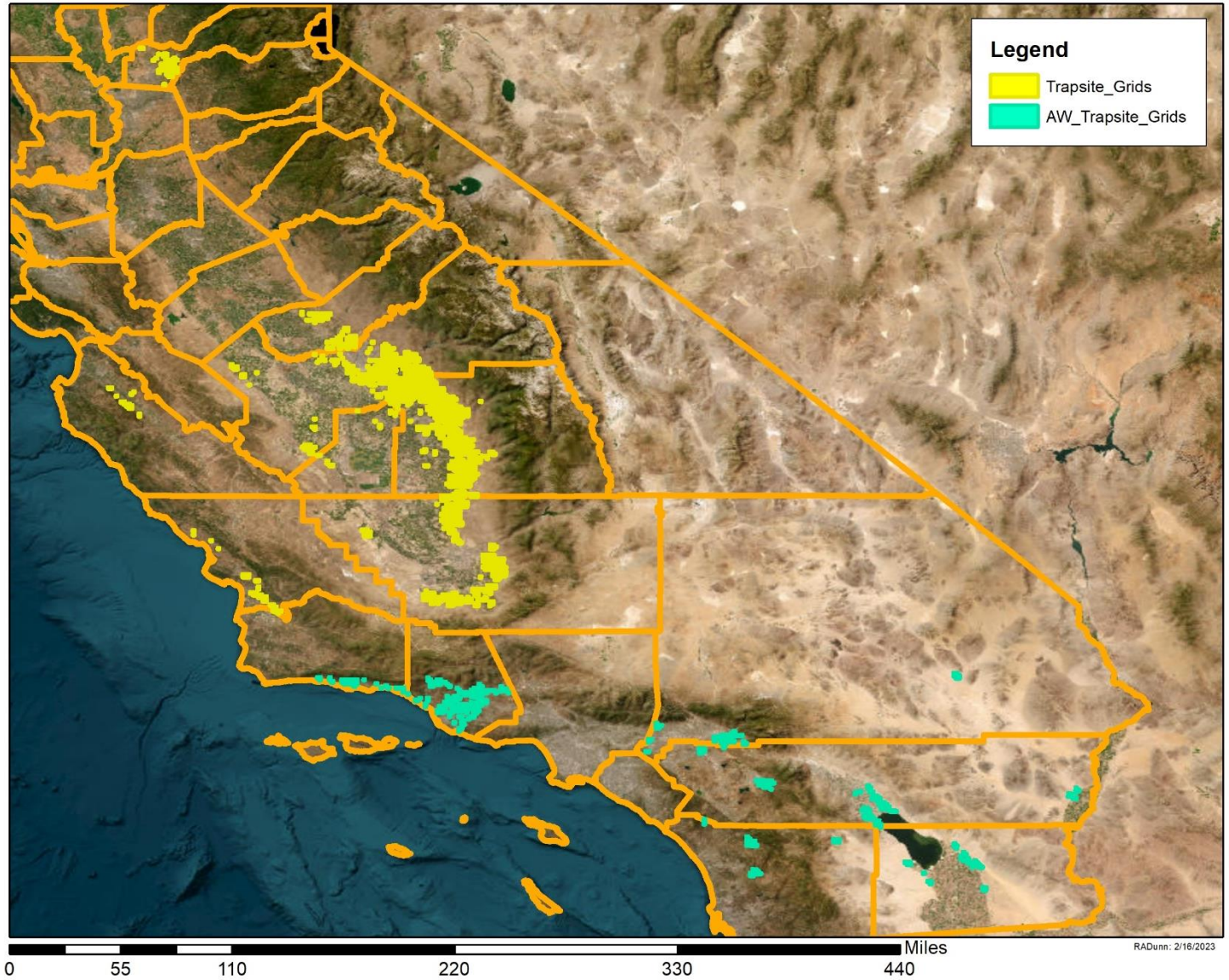
Rick Dunn

CRB Director of Data and Information Management

4/12/2003

CITRUS PEST & DISEASE PREVENTION DIVISION
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

Commercial Grove Trap Placement



- 5,138 Commercial grove traps
  - Approx. 1/50 acres of commercial citrus
  - Serviced twice a month
  - For the purpose of detection
- 426 Area-Wide buffer traps
  - 1/Square mile grid
  - Serviced once a month
  - For the purpose of verification
- 9146 Sentinel tree sample sites
  - In SoCal, not shown
  - Inspected twice a year
  - For the purpose of live ACP collection
  - Insects collected are tested for CLas

TIMING FOR AREA-WIDE BUFFER TREATMENT OF RESIDENTIAL CITRUS*

	Winter Tempo*								Summer/fall Merit-Tempo			
	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Santa Barbara	Yes	Yes	Yes						Yes	Yes	Yes	
Ventura	Yes	Yes	Yes						Yes	Yes	Yes	
Riverside - city area/hemet	Yes	Yes	Yes					Yes	Yes	Yes	Yes	
San Bernardino	Yes	Yes	Yes					Yes	Yes	Yes		
San Diego	Yes	Yes	Yes						Yes	Yes		
Riverside - Coachella	Yes	Yes	Yes							skip**	skip**	
San Diego - Borrego	Yes	Yes	Yes							skip**	skip**	
Imperial	Yes	Yes	Yes							skip**	skip**	

*Timing as recommended by Beth Grafton-Cardwell

PROPOSED REVISED TIMING FOR TRAPPING OF CITRUS IN THE AREA-WIDE TREATMENT BUFFERS

	Winter Tempo								Summer/fall Merit-Tempo			
	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Santa Barbara	Yes	Yes	Yes				*		Yes	Yes	Yes *	
Ventura	Yes	Yes	Yes				*		Yes	Yes	Yes *	
Riverside - city area/hemet	Yes	Yes	Yes			*		Yes	Yes	Yes	Yes *	
San Bernardino	Yes	Yes	Yes			*		Yes	Yes	Yes	*	
San Diego	Yes	Yes	Yes				*		Yes	Yes	*	
Coachella, Borrego, Imperial	Yes	Yes	Yes				*			skip	skip*	
*Re-install traps late in this month												
Service traps in this month												

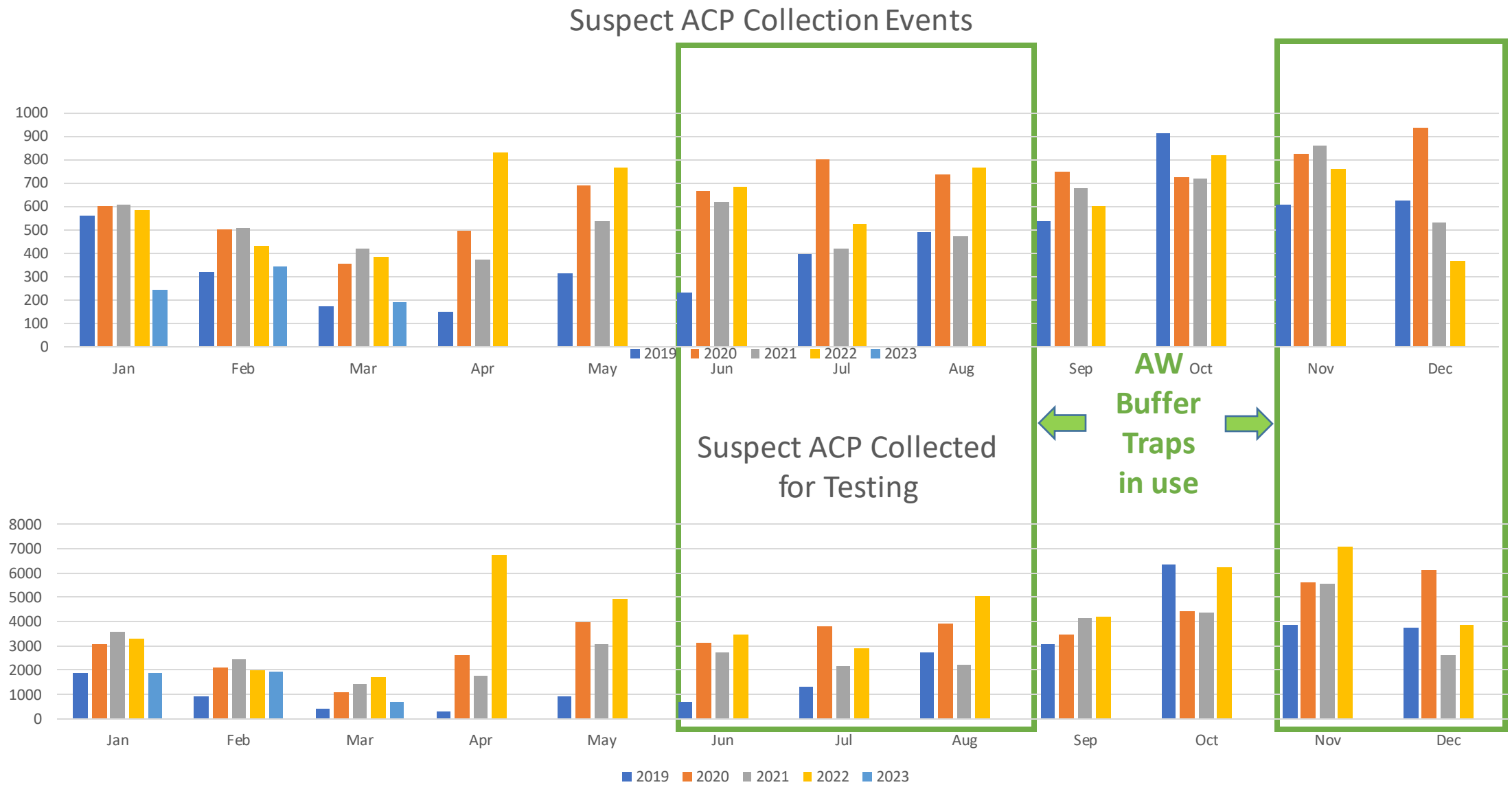
- Currently, the AW Buffer traps are being serviced and screened monthly by CASS staff, year-round.
- If ACP are trapped and confirmed in the 1- 2 months prior to a treatment window, that information verifies the pest is present and the treatment is scheduled.
- The proposed change would free up CASS Grove trapping field staff to conduct additional ACP sampling in the months when traps are not in place. (Approximately 19 man-days per month)

MONTHS WHEN WE CATCH ACP ON THE AW BUFFER TRAPS*

	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Santa Barbara	+++	++	++	++	++	++	++	+++	+++	+++	+++	+++
Ventura	++++++	+++++	++++	++++	+++++	+++++	+++++	+++++	+++++	+++++	++++++	+++++++
Riverside	++	++	+	++	++	++	++	+	+	++	++	++
San Bernardino	+++	+++	+++	+++	++++	++++	++++	++++	+++	+++	++++	++++
San Diego	++++++	++++++	++++++	+++	++++	++++	++++	++++	++++	++++++	++++++	+++++++
Coachella, Borrego, Imperial	+	+	+	+	+	+	+	+	-	+	++	++
*Based on trapping results July 2018 - November 2022												

- The proposed change would also free up CASS lab staff to process additional ACP collections and screen traps from detection and delimitation programs in other regions of the state.

CPDPD Commercial Grove Sampling Program
March 2023 update



In summary:

- I propose a reduction in the months in which CASS Area-Wide traps are in use in southern California.
- This change will permit the continued collection of ACP trap data and verification as required, just prior to AW treatment of groves in the nearby Psyllid Management Areas.
- This change will reduce the cost of AW trapping efforts with CASS staff being redirected to sampling. This should increase the both the number of ACP samples collected in commercial groves and insects being tested for CLas.

County Monthly Activity Report
October 2022 - February 2023

County	FY 2022-23 Budget	Percent Expended	CAs Issued	Grower Inspections	Transporter Inspections	Packer/Processor Inspections	Fruit Seller Inspections	Regulatory Incidents	NOVs	NOPAs
Fresno	$84,424.26	100%	37	1	305	1	0	0	20	3
Imperial	$55,892.01	39%	2	17	21	5	0	1	1	0
Kern	$70,000.00	30%	52	1	257	14	0	0	2	0
Kings	$20,035.30	28%	0	0	0	36	0	0	0	0
Los Angeles	$263,358.11	28%	0	25	0	35	143	0	0	0
Monterey (*1)	$14,227.50	21%	0	5	0	0	0	0	0	0
Orange (*2)	$87,987.88	7%	0	15	0	0	0	0	0	0
Riverside	$680,306.63	62%	9	106	740	1	13	12	4	0
San Bernardino (*1)	$29,334.95	17%	2	6	0	0	0	1	0	0
San Diego (*2)	$561,592.75	22%	0	20	21	12	17	0	1	0
San Luis Obispo	$8,035.44	43%	3	0	0	0	0	0	0	0
Santa Barbara (*1)	$15,147.08	27%	1	0	0	0	1	0	0	0
Tulare	$340,031.38	49%	150	0	1,544	21	0	15	48	12
Ventura (*2)	$200,951.41	37%	15	0	134	4	0	0	6	0
Total	**$2,431,324.70**	**42%**	**271**	**196**	**3,022**	**129**	**174**	**7**	**82**	**15**

(*#) = number of invoices missing from reporting period

Asian Citrus Psyllid Biocontrol Update

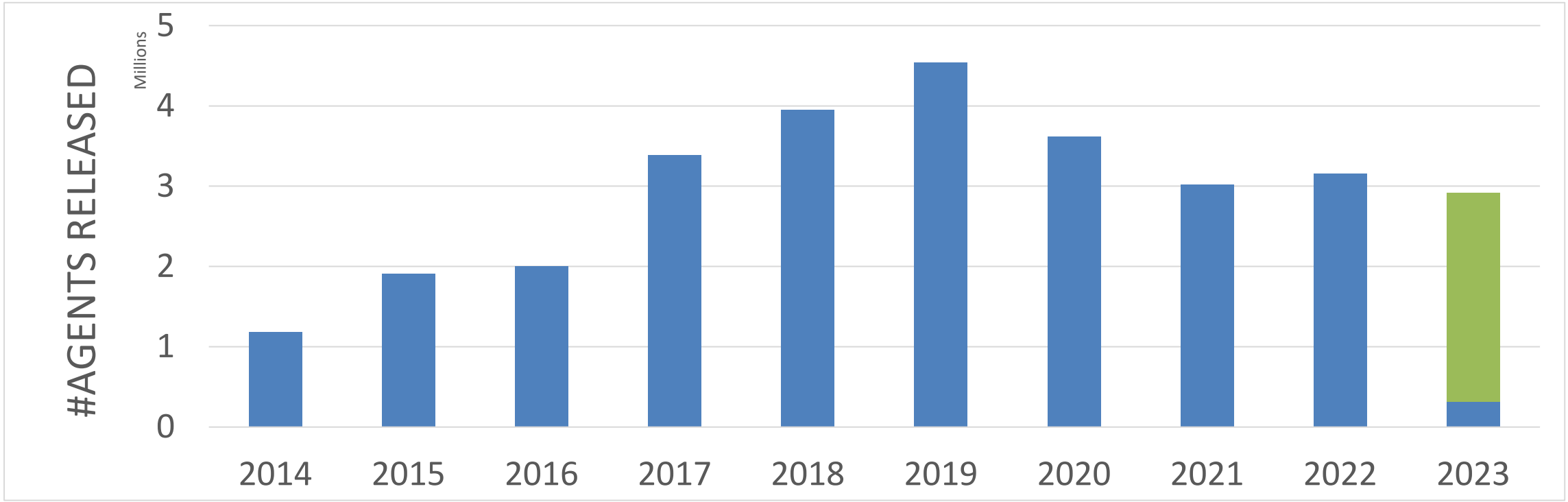


April
2023

CITRUS PEST & DISEASE
PREVENTION DIVISION
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

Tamarixia Releases in California

Total Releases by Year



CITRUS PEST & DISEASE PREVENTION DIVISION
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

Biological Control Agent Releases

December 2011 – April 2023

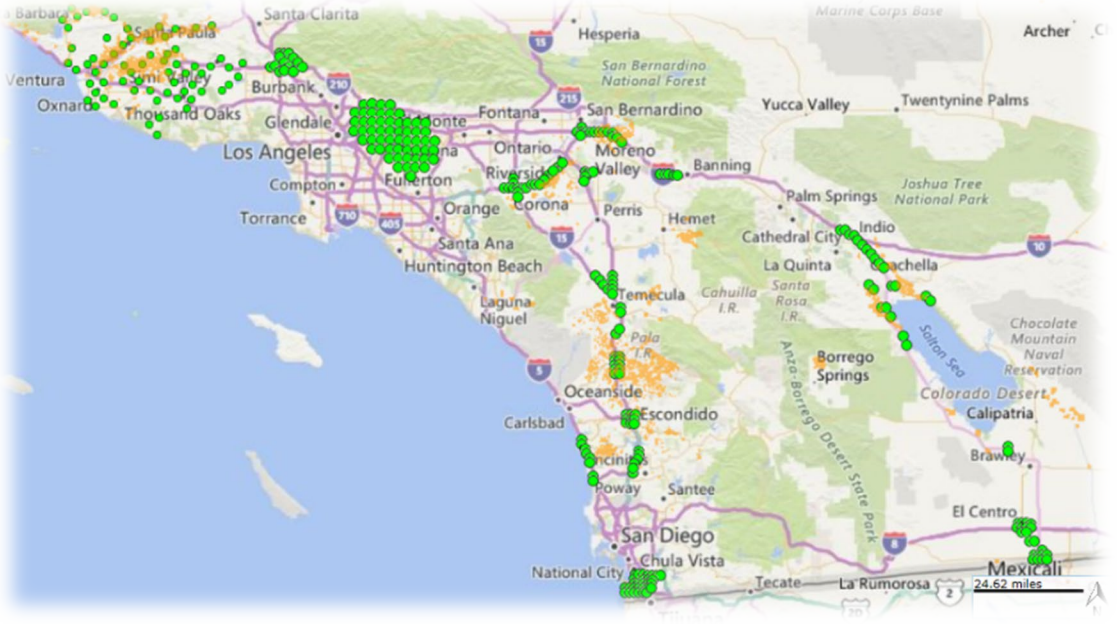
County	Releases, 2023	Releases 2011-2023	
	T. radiata Released	Tamarixia Released	*D. aligarhensis* Released
Imperial	21,000	608,743	10,295
Los Angeles	158,700	7,546,009	107,734
Orange	150,080	5,869,256	71,179
Riverside	71,400	3,928,502	127,739
San Bernardino	54,200	2,104,455	57,252
San Diego	32,700	3,035,064	86,403
Ventura	42,000	2,284,106	16,830
Santa Barbara	26,300	377,782	12,012
Kern	32,000	388,664	0
Santa Clara	12,000	238,037	0
Placer	0	3,400	0
San Luis Obispo	12,200	142,500	0
Tulare	1,800	63,400	0
Fresno	0	17,400	0
Monterey	14,600	29,000	0
Madera	1,200	5,600	0
Arizona	20,000	241,500	0
Mexico	0	306,000	0
TOTAL	650,180	27,189,418	489,444
	TOTAL (2011-2021):		27,678,862

CITRUS PEST & DISEASE PREVENTION DIVISION
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

Biological Control Agent Release Areas

Releases in:

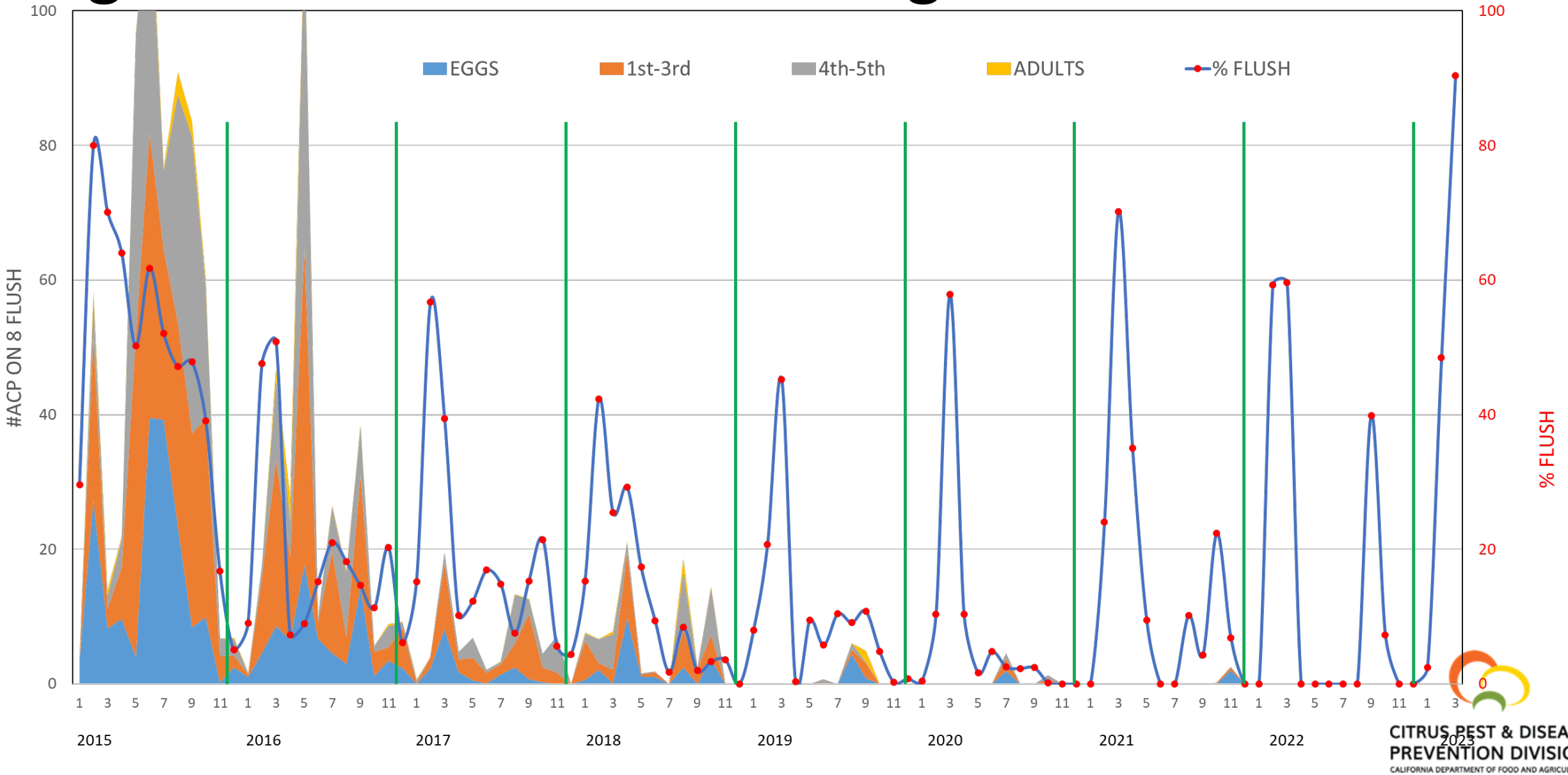
- HLB Quarantine areas
- Borders
- Trade routes
- Area-wide management
- Newly established ACP



Release Type	2022		2023	
	# Agents	%	# Agents	%
Borders	129,600	4	42,000	5
HLB	2,406,050	76	82,500	10
New	291,600	9	685,980	84
Routes	333,050	11	1,800	0

CITRUS PEST & DISEASE PREVENTION DIVISION
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

Region-Wide Urban Monitoring 2015 - Present



CITRUS PEST & DISEASE PREVENTION DIVISION
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE



Outreach Update

April 12, 2023

CITRUS PEST & DISEASE PREVENTION PROGRAM



Welcome Dinh Lee!

Account Coordinator
Outreach Support

CITRUS PEST & DISEASE
PREVENTION PROGRAM



Recent Outreach Activities

CITRUS PEST & DISEASE PREVENTION PROGRAM

Homeowner Outreach Activities

Media Outreach for New HLB Detections

- Media outreach and interview coordination on new HLB detections, quarantine expansions and the state of the ACP and HLB in California
  - Rancho Bernardo HLB detection
  - Costa Mesa HLB detection
  - Long Beach HLB detection

67+ Stories Secured





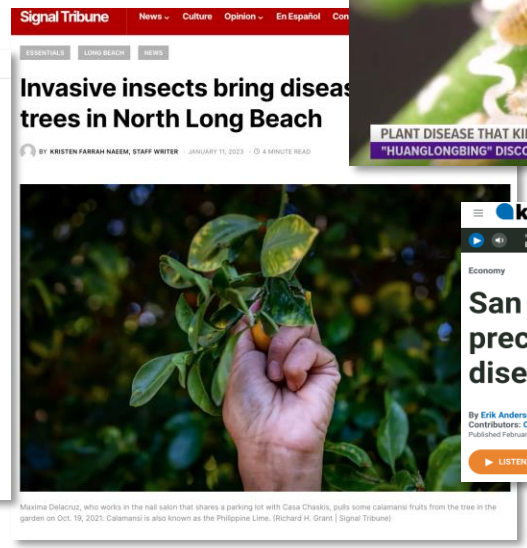






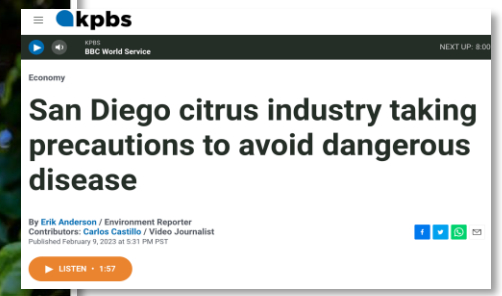












Homeowner Outreach Activities

Lunar New Year Asian American Media Partnerships

- Online and print placements in publications spanning the Bay Area and Southern California

11
Media Placements

195,650+
Audience Reach



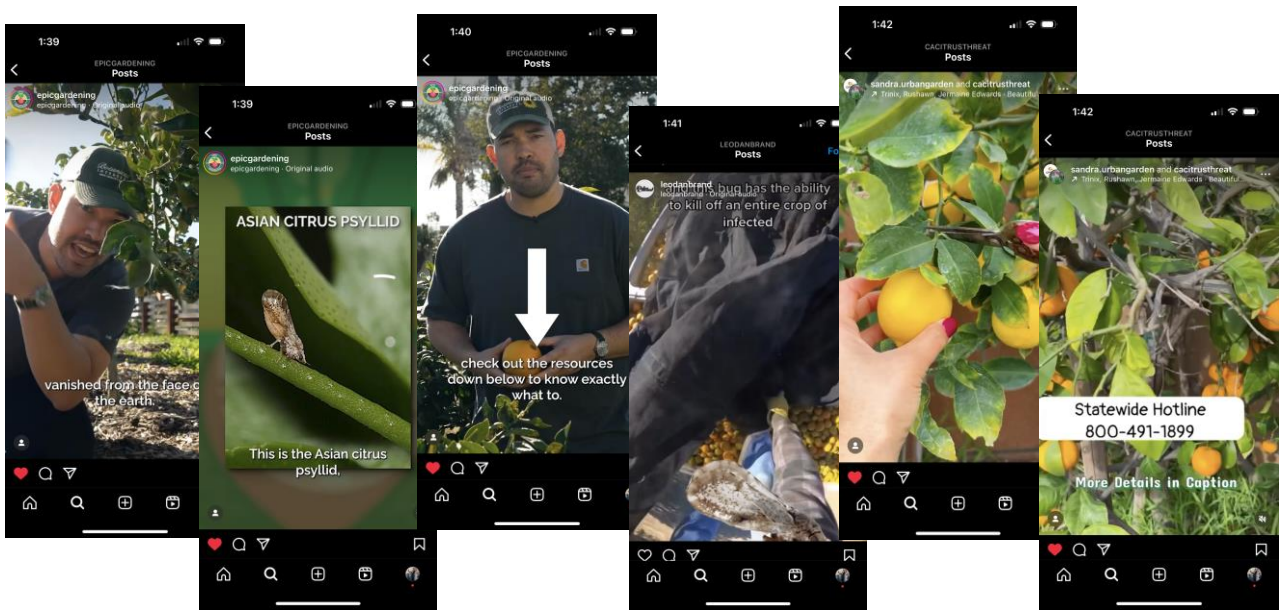
Social Media Influencer Partnerships

- Partnered with three gardening influencers to share content on Instagram and Facebook Reels, TikTok and YouTube Shorts

1.2 Million
Combined followers on Instagram

&

2.5 Million
Combined followers on TikTok



“What to Expect” Video



Click to Watch

Elected Official Outreach Activities

City and County Outreach

- California State Association of Counties conference
- Banner coordination with Riverside County Ag Commissioner
- Chino City Council and city of Buena Park meeting presentations
- Conducted outreach to cities along the border of all HLB quarantine zones, including new area in San Diego
- HLB outreach to Monterey Park, Temple, Costa Mesa, Brea and Buena Park

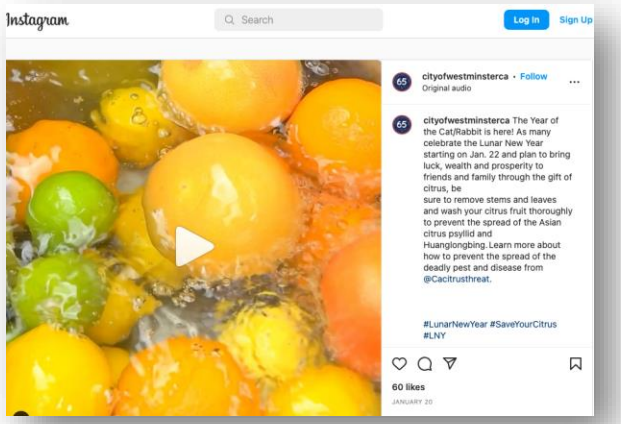




Citrus Content Distribution

- Tips for keeping the “holiday cheer” in your citrus trees throughout the winter
- Distributed to over 1,000 elected official contacts
- Encouraging ACP/HLB prevention methods when gifting citrus during the Lunar New Year holiday





CITRUS PEST & DISEASE PREVENTION PROGRAM

Industry Outreach Activities

CCM Citrus Showcase

- Hosted booth at CCM's Citrus Showcase with local grower liaisons and CDFA staff





CPDPP Annual Report

- State fiscal year
  - Updated timing
  - Discussions around new pest and disease threats to California citrus
  - SAP review of the program
  - Trends
  - Financial reporting



Current and Upcoming Activities

Homeowner

- Continuing social media influencer partnerships
- Master Gardener Summit - April 19
- Citrus Festival at Citrus Historic Park – April 15
- National Orange Show in San Bernardino – April 19-23
- CaliforniaCitrusThreat.org refresh

Industry

- CitrusInsider.org “Other Pests and Disease” page
- CAPCA Spring Summit – April 25-26
- New Industry educational video
- Pest Control Advisors statewide outreach plan

Elected Official

- New CRM system for elected official outreach and management
- San Bernardino County banner
- CACASA Southern California annual group meeting presentation – April 20
- Southern California Association of Governments (SCAG) Annual Conference – May 4-5
- Quarterly content distribution to elected officials

CITRUS PEST & DISEASE PREVENTION PROGRAM


Thank You
CITRUS PEST & DISEASE
PREVENTION PROGRAM

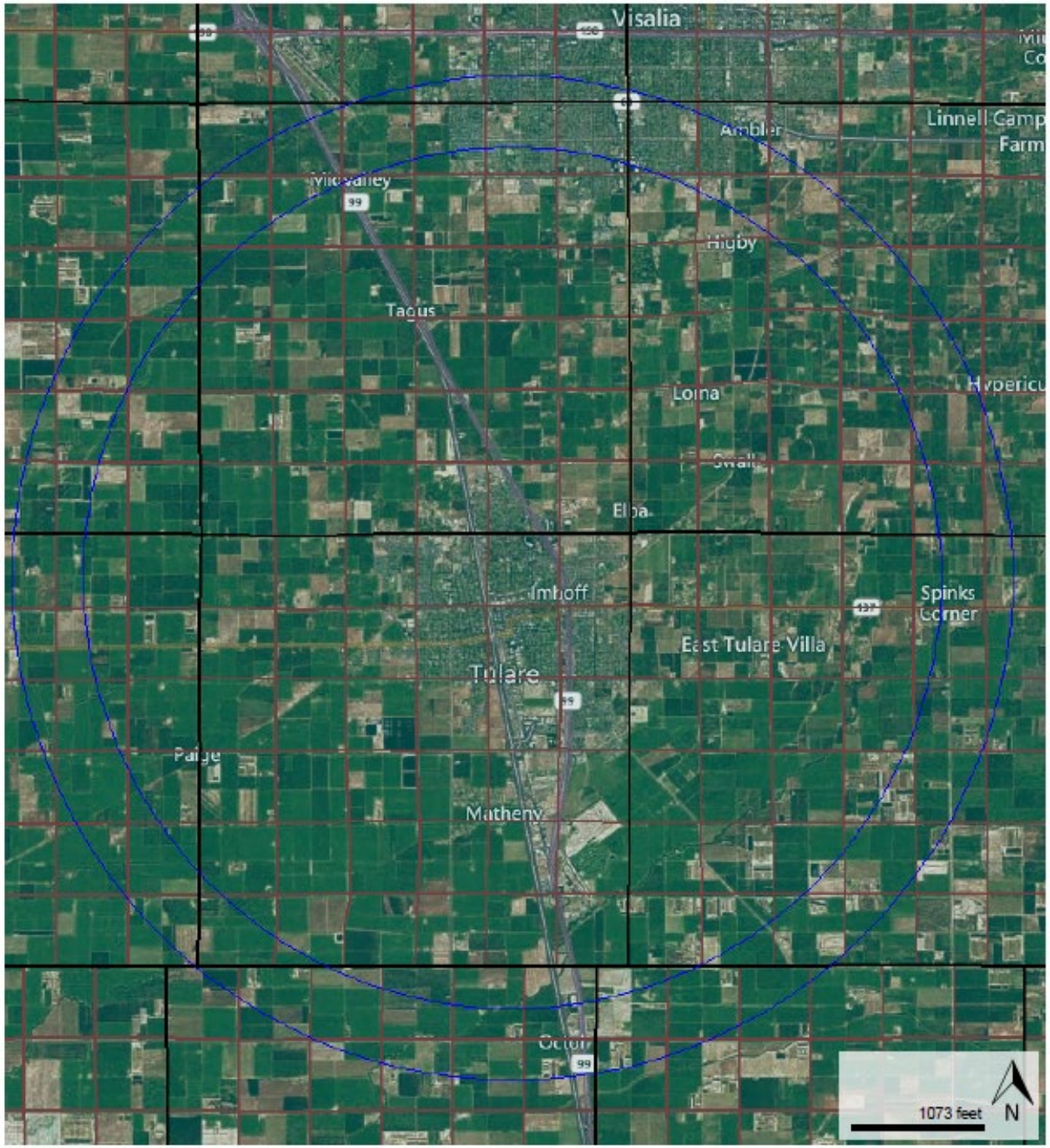


CITRUS YELLOW VEIN CLEARING VIRUS (CYVCV) SURVEY UPDATE

Jennifer Willems – CDFA

7 & 6-MILE ARC SURVEY

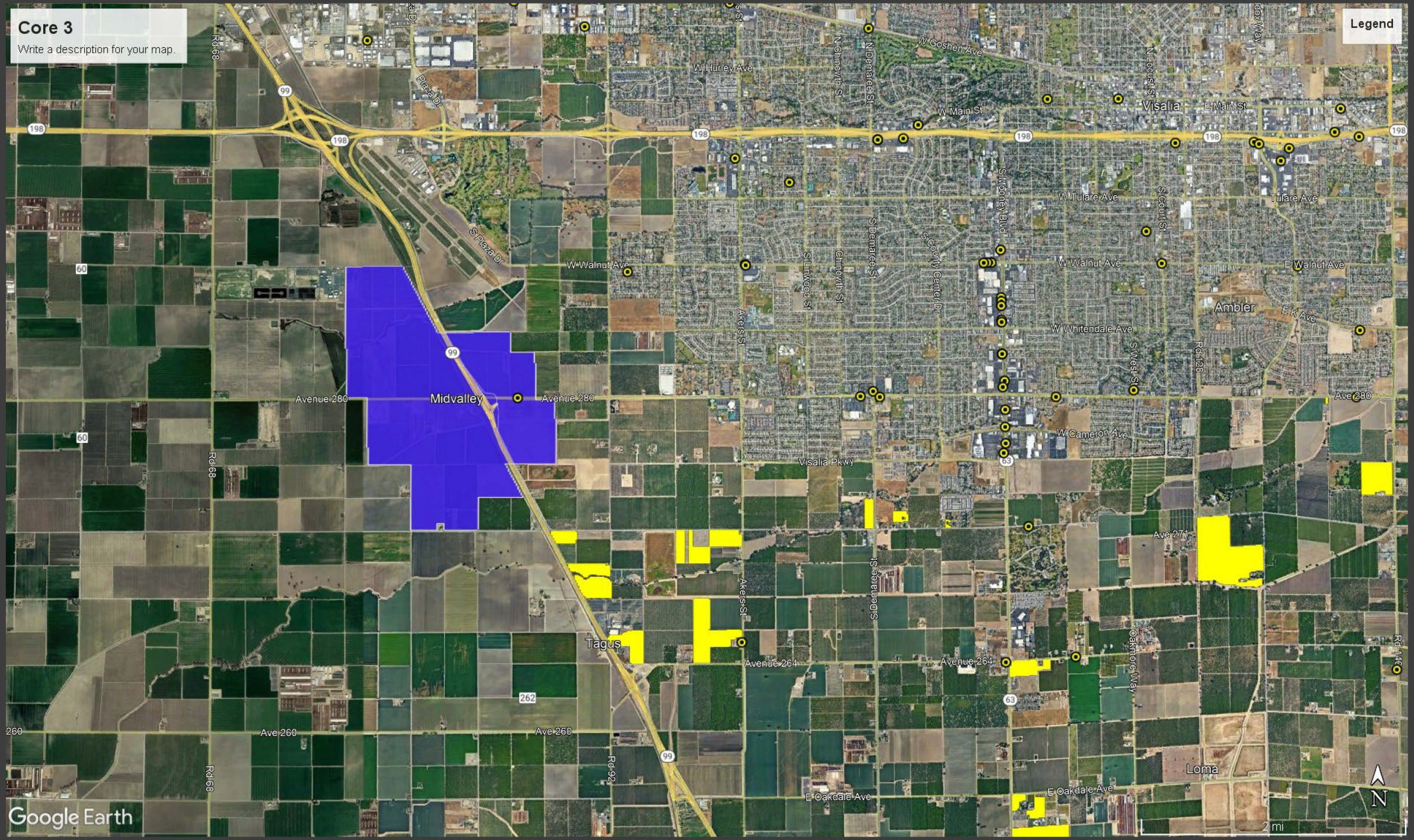
- Arc centered on merged core.
- All parcels that touch the arc are surveyed.
- Samples are collected from all citrus hosts.





CORE 3

- 1-mile delimitation survey.
- Sample every citrus host.
- Goal is 100% contact with every property.


Core 3
Write a description for your map.
Legend
Midvalley
Tagus
Loma
Visalia
Ambler
W Hurley Ave
W Goshen Ave
W Main St
E Main St
W Tulare Ave
Tulare Ave
W Walnut Ave
E Walnut Ave
W Whitendale Ave
W Cameron Ave
Visalia Pkwy
E Oakdale Ave
Avenue 280
Avenue 264
Ave 260
Ave 271
S Plaza Dr
S Demaree St
N Demaree St
N Chinowth St
S Chinowth St
S Linwood St
S Mooney Blvd
S County Center Dr
S Court St
S West St
N Locust St
Akers St
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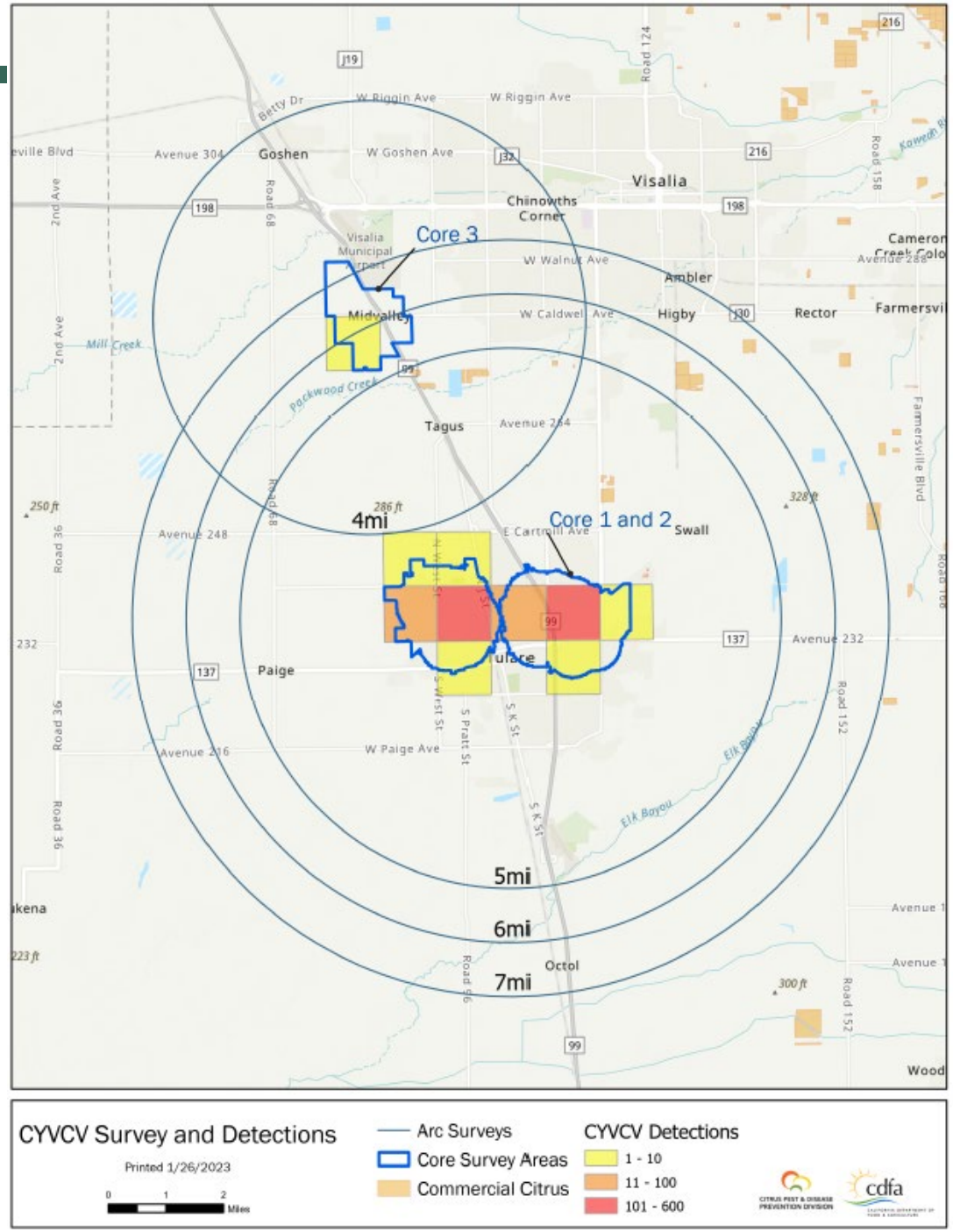
63
262
Google Earth
2 mi
N



CORE 3 IN RELATION TO CORE 1 & 2

- As of 3/28/23 580 positive trees.

CYVCV 6-MILE ARC SURVEY RESULTS – AS OF MARCH 28, 2023

Survey Time Period	Total Properties	Completed Properties	Host Properties	No Host Properties	Total Host Trees	Total Samples Collected
11/28/22 - 12/1/22	74*	55	10	45	43	43
12/2/22 – 12/15/22	158	149	37	112	94	94
12/16/22 – 12/29/22	94	99	24	75	40	40
Total	**326***	**303**	**71**	**232**	**177**	**177**

*Estimated number.

SURVEY RESULTS – AS OF MARCH 28, 2023 FOR CORE 3 AND THE CORE 3 4-MILE ARC

Survey Area	Total Properties	Completed Properties	Host Properties	No Host Properties	Total Host Trees	Total Samples Collected
Core 3 1-mile	35*	35	5	30	6	6
Total	35	35	5	30	6	6

*8 properties were surveyed in the 7 and 6-mile arc, they were not re-surveyed for Core 3.

CYVCV CORE 3 4-MILE ARC SURVEY RESULTS – AS OF MARCH 28, 2023

Survey Time Period	Total Properties	Completed Properties	Host Properties	No Host Properties	Total Host Trees	Total Samples Collected
1/17/23 - 1/25/23	95	54	14	40	115	114*
1/26/23 - 2/10/23	111	95	33	62	66	61*
2/13/23 – 2/23/23	79	77	14	63	60	60
2/24/23 – 3/9/23	59	56	13	43	39	34
Total	**344**	**282**	**74**	**208**	**280**	**269**

*Some trees too small to sample.









