CONSENT AGENDA

1. Minutes approval from November 8, 2023 meeting

CALIFORNIA CITRUS PEST AND DISEASE PREVENTION COMMITTEE MEETING

Meeting Minutes
Wednesday, November 8, 2023

Committee Members Present:

Craig Armstrong	Aaron Dillon*	Etienne Rabe
Kevin Ball	John C. Gless	Rod Radtke
Franco Bernardi*	Jim Gorden*	Roger Smith*
Brad Carmen*	Mark McBroom	Keith Watkins

Committee Members Absent:

Bob Felts Jr.	Jared Plumlee

California Department of Food and Agriculture (CDFA) Staff:

Ravneet Behla*	Luci Kumagai*	Phong, David
Fernando Berber	Zack McCormack*	Rathkiry Siv*
Kiana Dao*	Jana Miscevic*	Michael Soltero*
Ariana De La Torre*	David Morgan*	ThuyVy Truong*
Paul Figueroa	Alex Muñiz	Fabian Velasco*
David Gutierrez	Deborah Nardo	Nilan Watmore*
Victoria Hornbaker	Raymond Niem*	Jason Wu*
Sarah Kraft*		

Guests:

Price Adams	Kevin Gallego*	Gabe Olmos*
Victor Ariaza*	Dhiraj Gautam*	Margaret O'Neill*
Chris Aramouni	Sandipa Gautam*	Curtis Pate
Tony Atchley*	Ariana Gehrig*	Abby Peltzer*
Michael Bliss*	Peter Gomez*	Nelson Perez*
David Borchard*	Michelle Haase*	Hnayeli Sarabia
Mike Cardney*	Rachel Johnson*	Tom Schott
Bodil Cass	Fatemeh Khodadadi*	Cressida Silvers*
Marty Coert*	Melinda Klein*	Rayne Thompson*
Daniel Delgado*	Robert Krueger*	David Tomlinson*
Natalie DeAngelo*	Jessica Leslie	Steven Triplett*
John Demshki*	Jasmine Lopez*	Greta Varien*
Jolene Dessert*	Weiqi Luo*	Jacob Villagomez*
Erik Downs	Peggy Mauk*	Judy Zaninovich*
Rick Dunn*	Kurt Metheny*	George Zhang*

John Eliot*	Mia Neunzig*	Sandra Zwaal*
Lisa Finke*	Sandra Olkowski*	

**Attended the meeting virtually.*

Opening Comments
Mark McBroom called the Citrus Pest and Disease Prevention Committee (CPDPC) meeting to order at 9:06 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
Ruben Arroyo, Riverside County Agriculture Commissioner, announced his upcoming retirement in February 2024. He stated his concerns regarding fruit flies throughout California.

Victoria Hornbaker introduced Deborah Nardo, the new Supervising Environmental Scientist for the Camarillo office in the Central District of the California Department of Food and Agriculture (CDFA) Citrus Pest and Disease Prevention Division (CPDPD). Victoria also welcomed Dr. Bodil Cass, who recently joined the University of California, Riverside.

APPROVAL OF CONSENT AGENDA ITEMS
The consent agenda contained the following items:

1. Minutes from the August 9, 2023 Committee meeting.

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

EXECUTIVE COMMITTEE REPORT
Ventura County Vacancy
One candidate has submitted his name for election to fill the Ventura member vacancy. His resume was submitted to the Committee for review.

Motion: To elect Kurt Metheny to fill the Ventura member vacancy on the CPDPC.
First: Craig Armstrong
Second: Kevin Ball
Motion Carries: (Craig Armstrong, Kevin Ball, Franco Bernardi, Aaron Dillon, John C. Gless, Mark McBroom, Etienne Rabe, Rod Radtke, and Keith Watkins) and 2 abstentions (Jim Gorden and Roger Smith).

FINANCE SUBCOMMITTEE REPORT
Review 2022/23 Budget Expenditures and Revenue

Keith Watkins reported that expenditures increased by $3,090,518 in June 2023, with notable increases in huanglongbing (HLB) treatment in Southern and Central California, tree removal, and in state administrative costs. This brings the year-to-date total expenditures to $36,239,404 by the end of June, approximately $200,000 higher than the previous year.
Keith reported that 2022-23 fiscal year (FY) revenue increased by approximately $315,304 in September 2023 bringing the total revenue received to $13,021,243 for October 2022 to September 2023. Revenue received for October 2023 was $415,540.

2023/2024 Budget Review
Keith reported that expenditures in July 2023 was $1,453,244, which is comparable to expenditures incurred at this same time the previous fiscal year. Expenditures increased by $2,401,530 in August 2023 and by $2,425,519 in September, coming to $6,280,293 in total expenditures year-to-date. For the FY 2023-24 Clean Citrus Nursery Stock Program, the current fund balance is $255,036 with $7,883 revenue received, $5,871 total expenditures, and $10,014 reimbursements received to date for July 2023 to September 2023, for a current balance of $267,062.

OPERATIONS SUBCOMMITTEE REPORT

Laboratory Update
Lucita Kumagai presented the laboratory update for the huanglongbing testing program from the Plant Pest Diagnostics Center. She reported that as of October 2023, the lab has received an average of 6,700 plant samples per month and should reach an approximate total of 80,000 plant samples in 2023. The lab also received an average of 850 ACP samples per month, which is significantly lower in comparison to the monthly averages of previous years. However, the number of ACP samples did increase from 348 samples received in September 2023 to 1,290 samples received in October 2023. As of October 2023, a total of 75,124 combined plant and ACP samples were received and tested for HLB. As of November 3, 2023, there were 4,506 total reported HLB positive sites, 6,790 total detected HLB positive trees, and 759 total detected *Candidatus* Liberibacter asiaticus (*C*Las) positive ACP samples with 70 percent of all HLB positive trees having been detected in Orange County.

HLB Risk-based Survey
David Phong presented data for 2023 Risk Survey Cycle 2. Cycle 2 2023 began in August 2023 and is 22 percent complete with 5 of the 34 allocated counties completed. 2,287 properties were visited and 284 properties sampled generating 104 entomology and 208 plant samples.

Southern California Sentinel Survey
David Phong presented a summary of the four survey types (commodity survey, sentinel survey, multi pest survey, and HLB delimitation survey). David recommended that by discontinuing sentinel surveys, CDFA will retain year-round survey coverage and may then focus resources on broader and more intensive surveys throughout Southern California, such at commodity and multi-pest (risk) survey.

Motion: To conclude the Southern California sentinel grove survey, with staff presenting a hybrid sentinel survey model at the next full CPDPC meeting.
First: Keith Watkins
Second: Jim Gorden
Motion Carries: The motion passed unanimously.

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

To date in 2023, a total of 2,460 HLB positive trees have been detected in Southern California with the majority of detections found in Orange County. An adult *C*Las positive ACP was detected in a residential grove in Valley Center, San Diego County. CDFA staff have conducted perimeter survey of the find-site and adjacent groves with more than 225 plant samples and 77 insect samples submitted to the lab and pending confirmation. Delimitation survey of the 250-meter area is still ongoing. Seven public meetings were held to conduct delimitation survey in different areas of Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties. A total of 937 trees were removed during the months of August 2023 through October 2023 with 535 cumulative trees still pending removal in these counties.

Central District

On October 17, 2023, one ACP detection was confirmed on a residential property in Fresno County. Treatment for this area was completed on November 2, 2023. On October 19, 2023, one ACP detection was confirmed on a residential property in Kern County. Treatment for this area completed on October 24, 2024 with one additional residential detection confirmed October 31, 2024. *Tamarixia* releases were conducted in Fresno and Kern Counties near the recent detections and the Santa Paula HLB delimitation boundary. Multi-pest survey and citrus commodity survey are ongoing.

Northern District

There have been no new treatments in Santa Clara County since December 2022. Since the last meeting, no changes have been made to the delimitation trapping areas in San Joaquin and Sonoma Counties. The delimitation traps have been set up for nearly one year and will be converted to detection traps between December 2023 and January 2024. There were 8 ACP detections confirmed on residential properties in Santa Clara County within the existing delimitation area. Detection trapping is ongoing in Placer, San Joaquin, and Stanislaus Counties. *Tamarixia* releases are ongoing in San Jose, Santa Clara County, with an average of 6,000 insects released per month.

Ventura County Detections

Jennifer Willems presented an update regarding recent HLB positive trees detected in Santa Paula, Ventura County. On September 19, 2023, one *C*Las positive ACP was confirmed on a residential property in Santa Paula. Since the initial detection, five additional *C*Las positive ACP samples have been confirmed. On September 27, 2023, one HLB positive tree was detected on a residential property with commercial citrus

within 1 mile of the treatment boundary. As of November 3, 2023, 48 total HLB positive trees have been detected. CDFA staff have removed 25 of the HLB positive trees with the remaining trees located on 29 properties. Due to subsequent detections, the HLB delimitation and treatment area has expanded four times and the 5-mile HLB quarantine boundary has expanded once.

CDFA Regulatory and County Agreement Update

Keith Okasaki presented the regulatory county monthly activity report for October 2022 through September 2023. Counties were able to increase the number of inspections conducted compared to the previous year. The new agreement period began in October 2023 and includes inspections of farm labor contractors as a reimbursable activity.

HLB Mitigation Discussion

Keith presented three proposals for reducing the mitigation requirements for growers in an HLB quarantine area. The three proposals include reducing the following mitigation requirements 1) within contiguous HLB quarantine zones, 2) to non-contiguous HLB quarantine zones, and 3) out of an HLB quarantine zone).

Motion: To remove the mitigation requirement to move fruit from a grove to processor in a contiguous HLB quarantine area.
First: Dr. Etienne Rabe
Second: Kevin Ball
Motion Carries: The motion passed unanimously.

Motion: To reduce the requirement for two mitigations to one mitigation to move fruit from an HLB quarantine to a non-contiguous HLB quarantine for processing.
First: Dr. Etienne Rabe
Second: Mark McBroom
Motion Carries: The motion passed unanimously.

Motion: To reduce the requirement for two mitigations to one mitigation to move fruit from an HLB quarantine for processing outside the HLB quarantine but within the same county.
First: Dr. Etienne Rabe
Second: John C. Gless
Motion Carries: The motion passed with 7 yays (Craig Armstrong, Kevin Ball, John C. Gless, Jim Gorden, Mark McBroom, Etienne Rabe, and Rod Radke) and two nays (Aaron Dillon and Keith Watkins).

Biocontrol Update

Grace Radabaugh reported that a total of 1,951,170 *Tamarixia* have been released in 2023 with the majority of those releases occurring in HLB detection areas, along the border, on trade routes, and in new ACP detection areas.

SCIENCE SUBCOMMITTEE REPORT

Ethyl Formate Registration
Dr. Etienne Rabe reported that the registrant has responded to the deficiency letter and is waiting for review by the U.S. Environmental Protection Agency.

Sweet Orange Scab Regulation Update
Keith reported that the sweet orange scab (SOS) interior quarantine became effective on October 2, 2023. CDFA established 5-mile SOS quarantines in the Calipatria and Winterhaven areas of Imperial County, the Santa Ana area of Orange County, the Pomona, San Gabriel, an Whittier areas of Los Angeles and San Bernardino Counties, and the Riverside and Blythe areas of Riverside County.

Risk Based Survey Working Group Recommendation
Dr. Ram Uckoo and Keith presented the recommendation proposed by the Risk-Based Survey Working Group and supported by the Science Subcommittee. The working group proposed focusing residential survey efforts within 1,500 meters of commercial citrus greater than 5 acres, which allows staff to survey all grids within this proposed area approximately every 2 years.

Motion: To prioritize Southern California residential survey in areas within 1,500 meters of commercial citrus greater than 5 acres.
First: Dr. Etienne Rabe
Second: Keith Watkins
Motion Carries: The motion passed unanimously.

Regulatory Working Group Update
Keith provided an update from the regulatory working group. The Science Advisory Panel (SAP) recommended CDFA convene a regulatory working group to evaluate quarantine requirements. Keith provided an update from that working group. He stated that discussion were held regarding:

1. HLB quarantine mitigations – Nothing further to report.
2. Exit strategy to lift an ACP quarantine – Removing an area from quarantine requires USDA concurrence. CDFA submitted regulatory packages to USDA in 2016 and 2019 to remove areas from quarantine. The packages cited the program's comprehensive pest report and negative trap and survey data. USDA denied the requests.
3. Requirement to safeguard fruit in transit – Keith presented data showing ACP detections along corridors within 1 and 2 miles from citrus highways in the non-generally infested area, before and after 4/1/2017 when the safeguarding requirement was implemented. Significantly fewer ACP have been detected along corridors since safeguarding was required showing the safeguarding is effective.
4. Reviewing and validating screenhouse breach policies – The working group, with the California Risk Assessment Team, created a screenhouse breach risk model

guide. The guide will be made available to nurseries to know what regulatory implications may be expected in a breach event.

OUTREACH SUBCOMITTEE REPORT

Price Adams reported that Nuffer, Smith, Tucker (NST) assembled a Crisis Management Team to help facilitate key messages and press release development regarding the recent HLB positive detections in Ventura County. Media outreach was also conducted to notify residential homeowners of the new detections, the potential impacts for the citrus industry, and the current state of ACP and HLB in California. NST has also been proactive regarding outreach in Kern County and has implemented the placement of an op-ed in the Bakersfield Californian, bylined by Keith Watkins, English and Spanish radio advertising, billboard placement in South Bakersfield, a Valley Ag Voices Advertorial and half-page advertisement, and a Univision Central Valley interview. Hyperlocal outreach was conducted in the city of Los Angeles, encouraging residents to cooperate with agricultural officials and to be vigilant when inspecting their trees for HLB. NST and CDFA staffed a booth at the Ventura County Fair Citrus Day Celebration. Multicultural outreach was conducted during Hispanic Heritage Month with a campaign of radio advertising, editorial placement, a Press Day interview with CDFA's Alex Muñiz, and advertorial content development on ACP and HLB. Following the recommendation from the SAP, NST has been developing an "HLB in a Grove" guide video that will provide a high-level overview of regulatory requirements in the event of a positive plant sample in a grove. Attendees from over 25 different organizations attended Spanish-language "Train-the-Trainer" workshops in Santa Paula and Exeter. Information and shareable content was distributed to 344 elected officials via email. A Citrus Hero award was also presented to Buena Park city officials and staff. NST also garnered over 100 engagements with elected officials at the California League of Cities Conference after sending out a pre-conference eBlast to 62 cities and 565 individual contacts. NST will also have a presence at the upcoming California State Association of Counties in Oakland from November 14-16.

California Citrus Mutual (CCM) Report

Casey Creamer reported that Federal Citrus Health Response Program (CHRP) funding must move through appropriations and that the agricultural bill did not pass this process. The Senate has passed their version of the bill, but the House has not. After expiring on September 30, 2023, the farm bill has been delayed. CHRP funding has received a one-year extension with an additional $25,000,000. Casey continues to work with the United States Department of Agriculture (USDA) to perform reallocation of CHRP agreements so that more funding comes to California. At the state level, a modified bill to ban imidacloprid was supported by the Department of Pesticide Regulation (DPR). While imidacloprid is still being used in the Citrus Pest and Disease Prevention Program (CPDPP) and commercial growers can continue to use imidacloprid when responding to a federally actionable pest, like ACP.

Citrus Research Board (CRB) Report

Marcy Martin reported that CRB has been working to allocate HLB MAC funding in the promotion of citrus research and trials field (CRaFT) projects. They have signed up 13 new field sites and additional mitigation as part of the CRaFT. She also stated that the application window for additional multi-year funding will be opening soon. Additionally, Marcy noted that registration for the International Research Conference on HLB, held on March 26-29, 2024 in Riverside, California, is now open.

Citrus Pest Detection Program (CPDP) Report
Dr. Subhas Hajeri reported that the CPDP plans to deploy a total of 4,800 traps throughout 2,400 locations in the Central Valley. He will be working with David Phong to review data and reduce redundancy of trap deployments. As part of the Joint Powers Agreement for the Central California Tristeza Eradication Agency and the CPDP, the agency has been rebranded as the Alliance of Pest Control Districts to better align with the implementation of multi-pest survey and regional cooperation and coordination efforts.

OTHER ITEMS, CLOSING COMMENTS AND ADJOURNMENT
Fruit Fly Update
Erik Downs, Riverside County Deputy Agricultural Commissioner provided an update on the Oriental fruit fly (OFF) quarantine in Riverside and San Bernardino Counties to invited citrus growers. Victoria noted that CPDPD staff are assisting in the response to the OFF quarantine and to the other invasive fruit fly quarantine areas, including Tau fly and Mediterranean fruit fly in Los Angeles County and Queensland fruit fly ion Ventura County.

Program Environmental Impact Report (PEIR) Update
Victoria reported that Plant Division, Peirce's Disease Control Board and the CPDPD are meeting regularly with the contractor that is revising the PEIR and making progress. Workshops will be held with other agencies to move the draft PEIR along.

Citrus Yellow Vein Clearing Virus (CYVCV) Update
Victoria reported that the California CYVCV working group and the USDA cross functional working group have agreed on the regulatory framework for CYVCV. The regulatory framework was shared and the Committee recommended initiating the regular rule making process.

Motion: To authorize CDFA to initiate the rulemaking process for a CYVCV quarantine to be presented to the CPDPC at the next meeting.
First: Kevin Ball
Second: Rod Radtke
Motion Carries: The motion passed unanimously.

HLB Prevalence and Positivity Rate
Dr. Weiqi Luo presented a report covering the estimated prevalence and positivity rate of HLB in Southern California. Under the assumption of there being approximately 100

trees per acre, that would result in a total of 6,050,032 residential trees and 6,310,100 commercial trees in Southern California with the distribution of these trees being concentrated near the coastal areas of Los Angeles, Orange, and San Diego Counties. HLB has been detected in residential areas across 5 counties in Southern California (Riverside, San Bernardino, Orange, Los Angeles, and San Diego Counties) at a rate that has increased substantially from 2012 to 2022.

The meeting adjourned at 2:22 p.m. The next meeting will be on February 21, 2023 in Ventura, California.

CPDPC December 2023 Results

CPDPC Finance Subcommittee

January 9, 2023

FY 22-23 Expenditures

FY 22-23 June 2023 Expenditures

#	Group	Region	Activity	Committee Approved 2022-23 Budget	Remaining 2022-23 Budget	June 2023 Expenditures per FI$Cal	Year to Date Expenditures per FI$Cal	Prior year FY21-22 Year to date Expenditures	June 2023 Encumbrance Changes	Year to Date Encumbrances
1	ACP Mgmt	Border	Treatment	$ 724,879	$ 116,835	$ 7,947	$ 608,044	$ 316,461	$ -	$ -
2	ACP Mgmt	Central	Survey	$ 3,029,321	$ 231,530	$ 167,995	$ 2,797,791	$ 2,338,123	$ (75,112)	$ 368,002
3	ACP Mgmt	Central	Treatment	$ 1,523,191	$ 317,124	$ 42,913	$ 1,206,067	$ 210,278	$ (17,451)	$ 858,333
4	ACP Mgmt	Northern	Survey	$ 1,763,771	$ 358,486	$ 171,963	$ 1,405,285	$ 1,396,362	$ (120,371)	$ 484,326
5	ACP Mgmt	Northern	Treatment	$ 455,799	$ 402,840	$ 6,897	$ 52,958	$ 89,997	$ (1,696)	$ 182,921
6	ACP Mgmt	Southern	Treatment	$ 2,489,759	$ 1,777,111	$ 12,998	$ 712,648	$ 714,436	$ (417)	$ 374,532
7	ACP Mgmt	Southern	Survey	$ 225,853	$ 87,843	$ 6,603	$ 138,010	$ 265,488	$ (63)	$ -
8	ACP Mgmt	Statewide	Biocontrol	$ 1,940,356	$ 472,912	$ 192,936	$ 1,467,444	$ 1,614,026	$ (472)	$ 1,658,753
9	ACP Mgmt	Statewide	Survey	$ 3,000,000	$ 1,305,074	$ 58,354	$ 1,694,926	$ 2,432,734	$ -	$ 2,021,497
10	ACP Mgmt	Statewide	Regulatory	$ 3,239,008	$ 988,014	$ 87,065	$ 2,250,994	$ 3,004,976	$ (55,590)	$ 667,385
11	HLB Det	Border	Survey	$ 224,385	$ 8,771	$ 25,325	$ 215,614	$ 155,604	$ (13,117)	$ 75,679
12	HLB Det	Southern	Survey	$ 2,126,158	$ 224,742	$ 295,000	$ 1,901,416	$ 1,358,021	$ (936)	$ 689
13	HLB Det	Statewide	Survey	$ 6,601,352	$ 2,210,623	$ 253,642	$ 4,390,729	$ 5,098,800	$ (2,307)	$ 4,232
14	HLB Det	Statewide	Diagnostics	$ 3,353,434	$ 722,055	$ 127,922	$ 2,631,379	$ 2,599,741	$ 19,258	$ 173,403
15	HLB Erad	Southern	Treatment	$ 5,358,641	$ (857,402)	$ 718,603	$ 6,216,043	$ 3,844,814	$ (218,763)	$ 959,410
16	HLB Erad	Statewide	Regulatory	$ 844,501	$ 113,857	$ 63,874	$ 730,645	$ 540,979	$ -	$ -
17	ACP/HLB	Statewide	Admin	$ 3,624,361	$ (1,229,564)	$ 512,896	$ 4,853,925	$ 7,905,864	$ (8,054)	$ 129,023
18	ACP/HLB	Statewide	Outreach	$ 1,970,527	$ 415,059	$ 190,024	$ 1,555,467	$ 979,022	$ (195,054)	$ 855,925
19	ACP/HLB	Statewide	Data Analysis	$ 1,739,067	$ 487,178	$ 137,003	$ 1,251,889	$ 999,996	$ 394	$ 303,775
20	ACP Mgmt	Statewide	Diagnostics	$ 215,393	$ 57,262	$ 10,558	$ 158,131	$ 205,947	$ -	$ -
			Totals	***$44,449,755***	***$8,210,350***	***$3,090,518***	***$36,239,404***	***$36,071,668***	***$(689,751)***	***$9,117,884***

FY 22-23 Revenue Summary

Revenue Received	
Revenue Received To Date (October 2022 to September 2023)	$13,022,888
Last Meeting (January 9, 2024) Revenue Received to Date	$13,022,888
Increased from last meeting to current	$0

FY 23-24 Expenditures

FY 23-24 December 2023 Expenditures

#	Group	Region	Activity	Committee Approved 2023-24 Budget	Remaining 2023-24 Budget	December 2023 Expenditures per FI$Cal	Year to Date Expenditures per FI$Cal	Prior year FY22-23 Year to date Expenditures	December 2023 Encumbrance Changes	Year to Date Encumbrances
1	ACP Mgmt	Central	Survey	$ 3,688,353	$ 2,663,642	$ 151,147	$ 1,024,711	$ 1,038,767	$ 119,056	$ 300,029
2	ACP Mgmt	Central	Treatment	$ 1,881,438	$ 1,797,437	$ 800	$ 84,002	$ 535,766	$ (119)	$ 5,000
3	ACP Mgmt	Northern	Survey	$ 1,759,845	$ 953,500	$ 166,849	$ 806,346	$ 494,950	$ 429,295	$ 495,437
4	ACP Mgmt	Northern	Treatment	$ 53,107	$ 50,055	$ -	$ 3,052	$ 12,674	$ -	$ 381,044
5	ACP Mgmt	Statewide	Biocontrol	$ 1,720,409	$ 1,017,016	$ 147,076	$ 703,392	$ 586,394	$ (2,822)	$ 1,028,639
6	ACP Mgmt	Statewide	Survey	$ 1,000,000	$ 210,700	$ 158,160	$ 789,300	$ 834,982	$ -	$ 3,157,360
7	ACP Mgmt	Statewide	Regulatory	$ 3,257,844	$ 2,749,075	$ 44,859	$ 508,769	$ 775,002	$ 776,440	$ 998,774
8	HLB Det	Southern	Survey	$ 2,199,453	$ 1,007,178	$ 170,959	$ 1,192,274	$ 882,551	$ (9,089)	$ 5,368
9	HLB Det	Statewide	Survey	$ 5,887,471	$ 4,283,903	$ 175,922	$ 1,603,568	$ 2,567,244	$ (7,921)	$ 7,366
10	HLB Det	Statewide	Diagnostics	$ 3,556,269	$ 2,540,955	$ 290,307	$ 1,015,314	$ 1,262,741	$ (27,551)	$ 1,053,287
11	HLB Erad	Southern	Treatment	$ 6,179,634	$ 3,508,014	$ 452,107	$ 2,671,620	$ 3,284,195	$ 684,409	$ 6,856,231
12	HLB Erad	Statewide	Regulatory	$ 770,273	$ 531,906	$ 49,597	$ 238,368	$ 298,776	$ -	$ 16,325
13	ACP/HLB	Statewide	Admin*	$ 2,073,024	$ 1,458,105	$ 116,166	$ 614,919	$ 3,520,892	$ -	$ 7,458
14	ACP/HLB	Statewide	Outreach	$ 1,552,478	$ 1,322,038	$ (170,180)	$ 230,440	$ 754,684	$ 630,696	$ 3,326,915
15	ACP/HLB	Statewide	Data Analysis	$ 1,245,934	$ 870,987	$ 57,420	$ 374,947	$ 744,675	$ (3,041)	$ 203,760
16	ACP Mgmt	Statewide	Diagnostics	$ 209,462	$ 171,977	$ 17,415	$ 37,485	$ 73,811	$ -	$ -
17	Indirect	Statewide	Indirect	$ 4,465,004	$ 2,067,362	$ 538,837	$ 2,397,642	$ -	$ 17,004	$ 108,877
			Totals	***$41,500,000***	***$27,203,851***	***$2,367,441***	***$14,296,149***	***$17,668,105***	***$2,606,357***	***$17,951,870***

*$55,693 will be reallocated to other budgets line items in the future.

FY 23-24 Revenue Summary

Revenue Received	
Revenue Received To Date (October 2023 to January 2024)	$3,656,564
Last Meeting (January 9, 2024) Revenue Received to Date	$1,846,580
Increased from last meeting to current	$1,809,984

FY 23-24 Carton Comparison

FY23/24 Projected Cartons	FY23/24 Projected Cartons (NASS)	FY22/23 Projected Cartons (CPDPC)
180,000,000 Cartons	180,400,000 Cartons	188,400,000 Cartons
$0.09/per carton $16,200,000	$0.09/per carton $16,236,000	$0.07/per carton $13,188,000

FY22/23 collected 186,041,257 cartons at $0.07/ per carton, which was 98% of the projected cartons received

Year to Date Revenue Received	Revenue Amount	Cartons
Current YTD ($0.09/per carton)	$3,656,564	40,628,488
Prior Year FY22-23 YTD ($0.07/per carton)	$2,773,850	39,626,429

Converted assessment amounts to cartons for comparison

FY 23-24 Clean Citrus Nursery Stock Program Summary

Budget Summary	
Fund Balance	$255,036
Revenue Received To Date (July 2023 to January 2024)	$15,931
Expenditures to Date (July 2023 to January 2024)	$24,485
Reimbursements Received To Date (July 2023 to January 2024)	$25,564
Net Balance	$272,047

QUESTIONS?

Citrus Pest and Disease Prevention Division

FY 2023-24 Proposed Budget Revision
July 1, 2023 - June 30, 2024

New Budgets

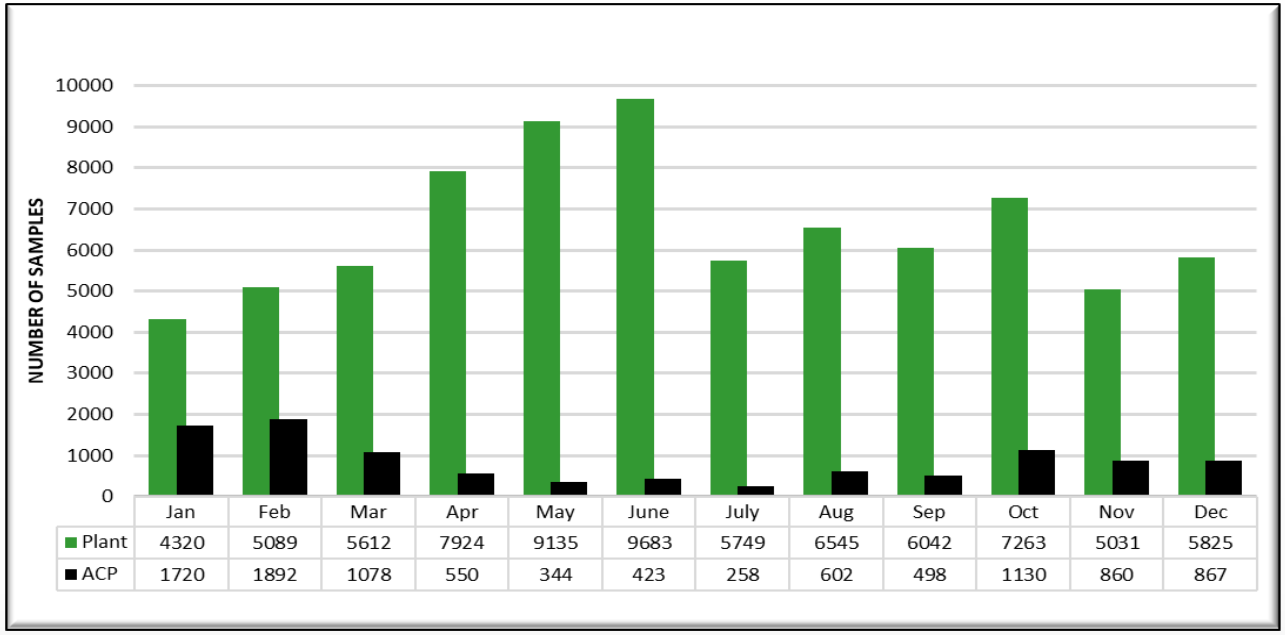
Budget	% Division Budget	Total Proposed Budget	Total Indirect	Total Personnel Services	Total Reimbursements	Total OE&E	Total Contracts
HLB Central District (E-Fund)	3.93%	1,627,235		179,535		772,700	675,000
CYCVC - Southern District (USDA)	0.60%	250,000	57,056	153,665		39,279	
Committee Approved Division Totals:		**41,444,305**	**4,465,004**	**18,164,724**	**(255,036)**	**4,940,268**	**13,874,309**
Requested Increase:		**1,877,235**	**57,056**	**333,200**	**0**	**811,979**	**675,000**
New Division Totals:		**43,321,540**	**4,522,060**	**18,497,924**	**(255,036)**	**5,752,247**	**14,549,309**

Increased Spending Funding Breakdown	
E-Fund (Approved)	**1,627,235**
USDA (Pending)	**250,000**
Total New Funding:	**1,877,235**
(-) Requested Increase:	**(1,877,235)**
Impact to Agriculture Fund:	**0**

California Department of Food & Agriculture
Plant Pest Diagnostics Center
HLB Testing Program
2024

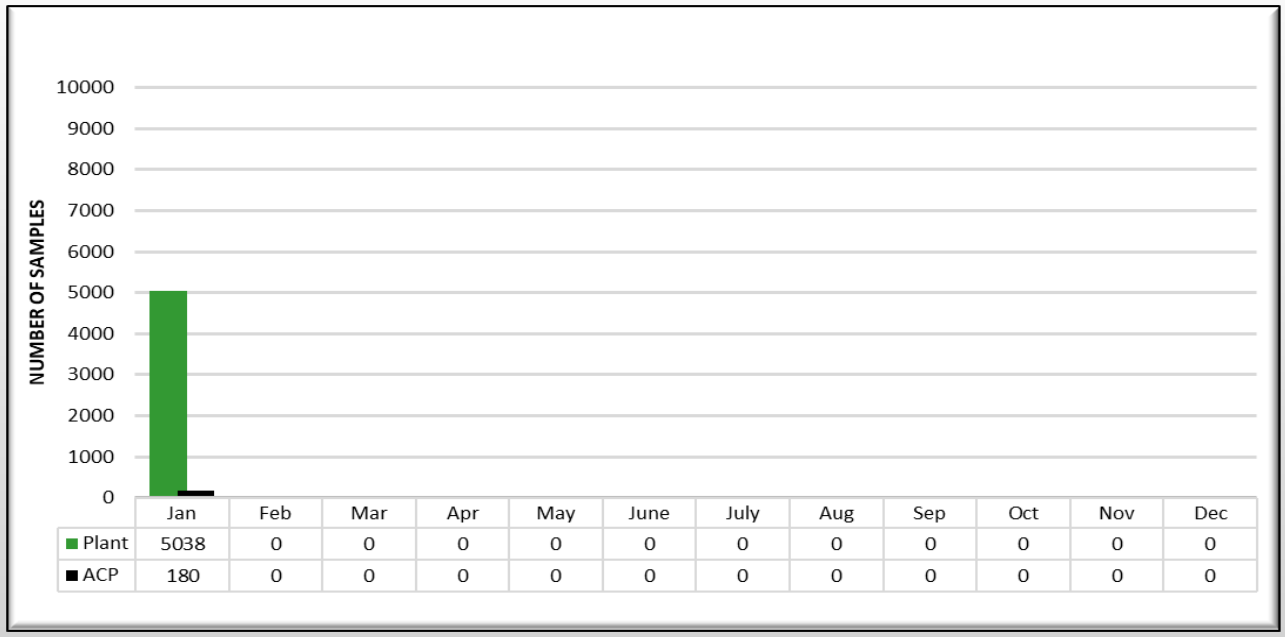
Total number of plant and ACP samples per month – Fig. 1a, Fig1b
Number of samples tested for HLB per year from 2008 –2023 – Fig. 2
Tally of positive detections by county and city – Tables 1-3
Number of detections from 2012-2024 for each county – Fig. 3
If you have any questions, please call or email me at 916-738-6710 lucita.kumagai@cdfa.ca.gov.

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



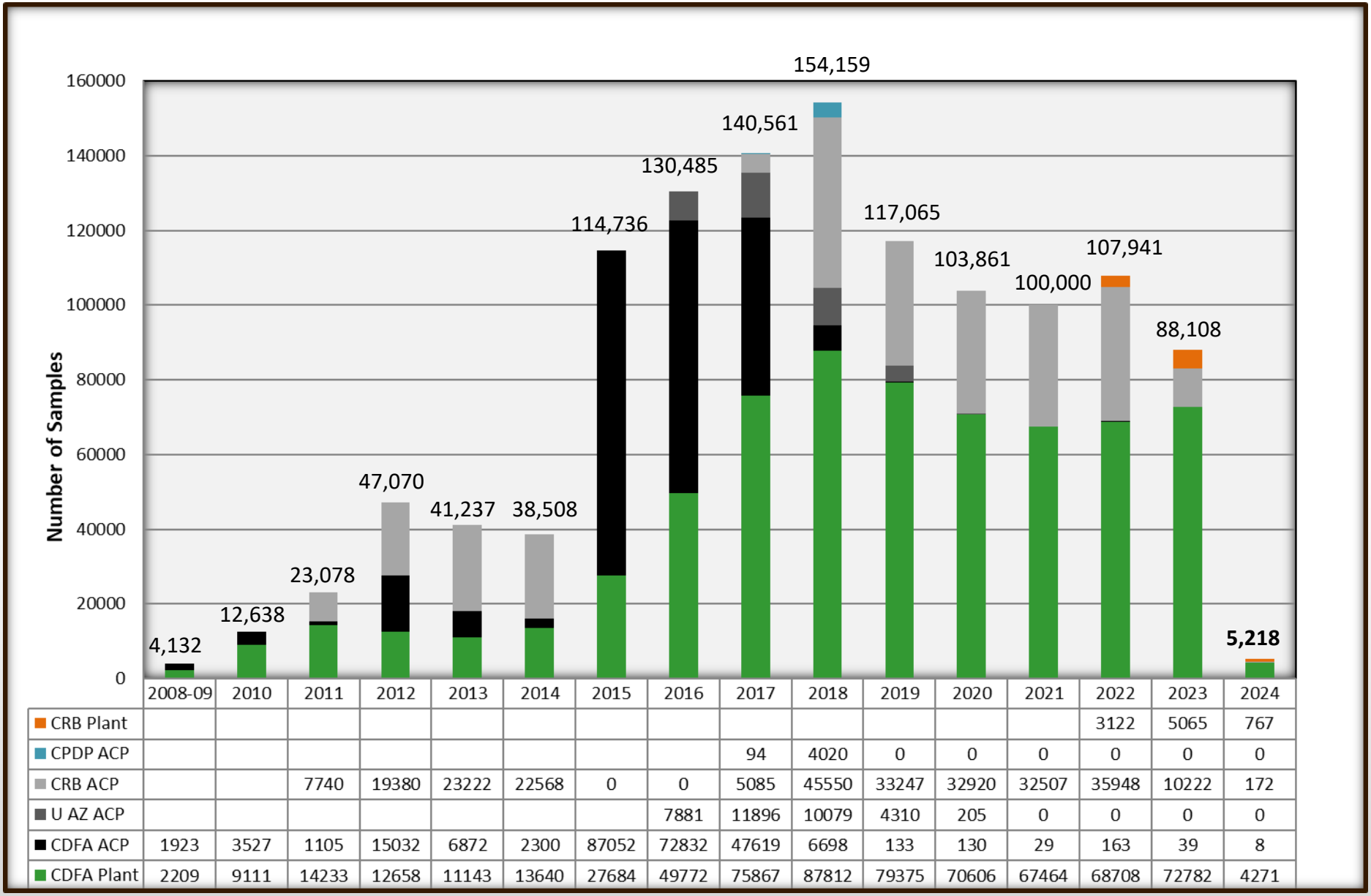
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Plant	4320	5089	5612	7924	9135	9683	5749	6545	6042	7263	5031	5825
ACP	1720	1892	1078	550	344	423	258	602	498	1130	860	867

Fig 1b. 2024 - Total number of plant and ACP samples submitted per month.



	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Plant	5038	0	0	0	0	0	0	0	0	0	0	0
ACP	180	0	0	0	0	0	0	0	0	0	0	0

Fig 2. Number of samples tested for HLB per year from 2008 – 2024.



	2008-09	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
CRB Plant														3122	5065	767
CPDP ACP									94	4020	0	0	0	0	0	0
CRB ACP			7740	19380	23222	22568	0	0	5085	45550	33247	32920	32507	35948	10222	172
U AZ ACP								7881	11896	10079	4310	205	0	0	0	0
CDFA ACP	1923	3527	1105	15032	6872	2300	87052	72832	47619	6698	133	130	29	163	39	8
CDFA Plant	2209	9111	14233	12658	11143	13640	27684	49772	75867	87812	79375	70606	67464	68708	72782	4271

Combined total of plant and ACP samples tested from 2008 – 2023 is 1,228,797

Table 1. Tally of positive sites, positive trees, and CLas+ ACP samples. 2/16/2024

HLB Positive Detections			
City	# Sites	# Trees	# ACP samples
Orange County			
Garden Grove	701	1154	122
Santa Ana	681	1079	94
Anaheim	878	1481	160
Westminster	369	625	22
Orange	295	418	42
Tustin	52	64	10
Fountain Valley	15	22	3
Huntington Beach	27	30	2
Placentia	87	121	15
La Habra	5	6	1
Fullerton	17	22	8
Yorba Linda	34	33	7
Irvine	43	58	3
Costa Mesa	38	55	3
Brea	6	8	0
Buena Park	9	16	2
Cypress	5	1	5
Stanton	5	6	1
Midway City	7	13	0
Los Alamitos	1	0	1
Total	**3275**	**5212**	**501**
Los Angeles County			
Whittier	205	251	45
Pico Rivera	177	246	64
Montebello	80	111	2
San Gabriel	83	102	7
Rosemead	50	69	7
Paramount	29	35	5
La Mirada	53	72	6
La Puente	40	42	9
Norwalk	15	12	5
Cerritos	7	9	5
Hacienda Heights	5	5	1
Lakewood	5	6	0
Duarte	93	142	3
El Monte	74	106	8
South El Monte	23	43	4
Alhambra	3	4	0
Temple City	12	11	2
Compton	1	1	0
Glendora	1	0	1
South Gate	10	10	6
Long Beach	8	8	3
Los Angeles	7	6	1
Downey	28	35	5
Carson	4	3	1
Monrovia	20	28	0
Rowland Heights	2	0	2
Pomona	10	13	2
Artesia	7	8	0
Bellflower	5	5	0
Monterey Park	1	1	0
West Covina	1	0	1
City of Industry	1	2	0
Claremont	1	0	1
Santa Fe Springs	2	1	1
Azusa	6	14	1
Covina	1	0	1
Total	**1070**	**1401**	**199**
Riverside County			
Corona	122	172	28
Riverside	27	29	5
Eastvale	2	2	0
Jurupa Valley	29	46	4
Moreno Valley	1	1	0
Norco	2	4	0
Total	**183**	**254**	**37**
San Bernardino County			
Rancho Cucamonga	3	7	2
Montclair	8	7	1
Colton	6	11	3
San Bernardino	2	1	1
Ontario	188	313	21
Fontana	30	41	9
Chino	18	28	2
Total	**255**	**408**	**39**
San Diego			
Fallbrook	1	0	1
Oceanside	4	9	4
Pauma Valley	1	0	1
Vista	1	0	1
San Diego	26	42	0
Valley Center	2	16	2
Total	**35**	**67**	**9**
Ventura			
Santa Paula	45	71	5
Total	**45**	**71**	**5**
Grand Total	**4863**	**7413**	**790**

Table 2. Percent positives per county

County	Sites	Trees	ACP
Orange	67.3%	70.31%	63.4%
LA	22.0%	18.90%	25.2%
Riverside	3.8%	3.43%	4.7%
San Bernardino	5.2%	5.50%	4.9%
San Diego	0.7%	0.90%	1.1%
Ventura	0.9%	1.0%	0.6%
Total	100%	100%	100%

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

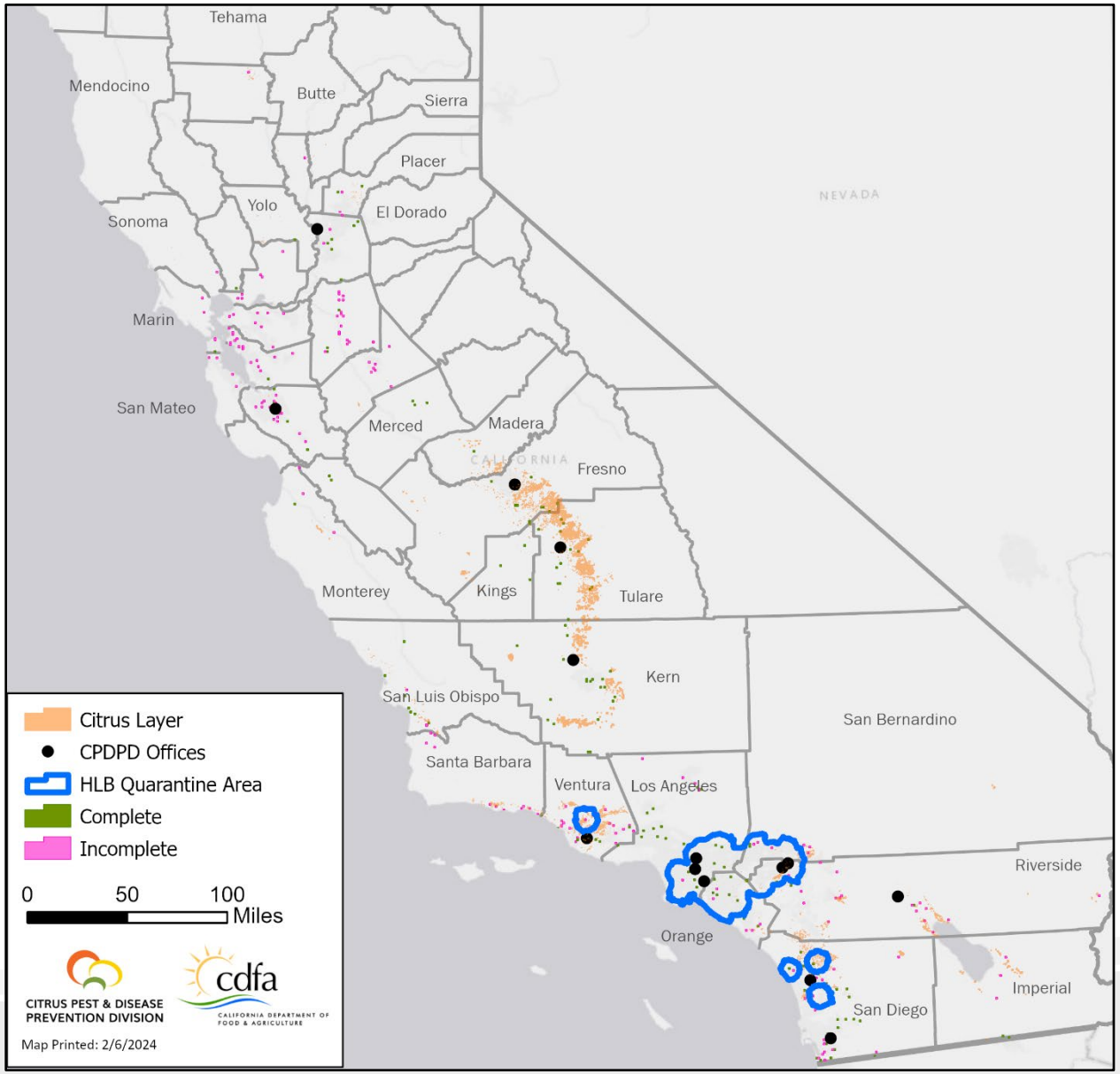
Sample type	Trees		ACP	
Risk-based Survey	492	7%	498	63%
HLB Response	6921	93%	292	37%
Total	**7413**	**100%**	**790**	**100%**

Fig 3. Number of positive detections from 2012 – 2024 for each county

	2012		2015		2016		2017		2018		2019		2020		2021		2022		2023		2024		Total	
County	**Plant**	**ACP**	**Plant**	**ACP**	**Plant**	**ACP**	**Plant**	**ACP**	**Plant**	**ACP**	**Plant**	**ACP**	**Plant**	**ACP**	**Plant**	**ACP**	**Plant**	**ACP**	**Plant**	**ACP**	**Plant**	**ACP**	**Plant**	**ACP**
Orange	-	-	-	-	-	-	147	66	553	69	585	55	407	24	434	38	849	47	2031	197	206	5	**5212**	**501**
Los Angeles	1	1	10	3	19	3	119	47	146	12	150	9	56	10	60	7	314	89	507	12	19	6	**1401**	**199**
San Bernardino	-	-	-	-	-	-	-	-	0	1	2	2	13	7	75	10	91	14	211	5	16	0	**408**	**39**
Riverside	-	-	-	-	-	-	3	3	0	0	19	9	12	2	20	0	88	14	92	8	20	1	**254**	**37**
San Diego	-	-	-	-	-	-	-	-	-	-	-	-	0	1	9	4	0	2	57	2	1	0	**67**	**9**
Ventura	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	67	5	4	0	**71**	**5**
TOTAL	**1**	**1**	**10**	**3**	**19**	**3**	**269**	**116**	**699**	**82**	**756**	**75**	**488**	**44**	**598**	**59**	**1342**	**166**	**2965**	**229**	**266**	**12**	**7413**	**790**

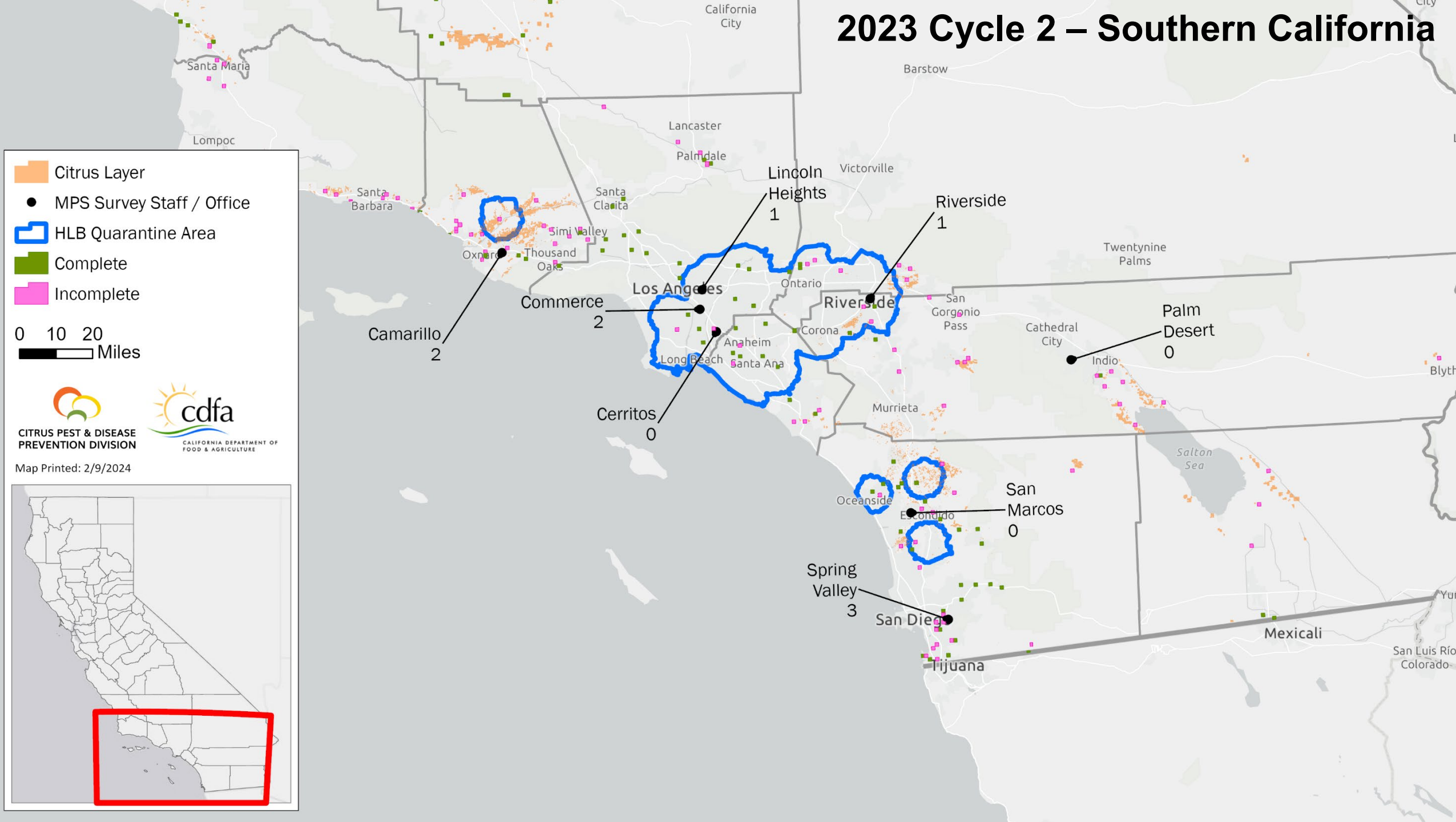
Multi-Pest Survey Update
Full Committee Meeting
February 21, 2024

2023 Cycle 2



- Began August 2023
- 46% Complete
- Survey Complete in 9 of 34 Allocated Counties
- 5,747 Properties Surveyed
- 1,649 Properties Sampled
- 679 Entomology PDRs
- 1,185 Plant PDRs

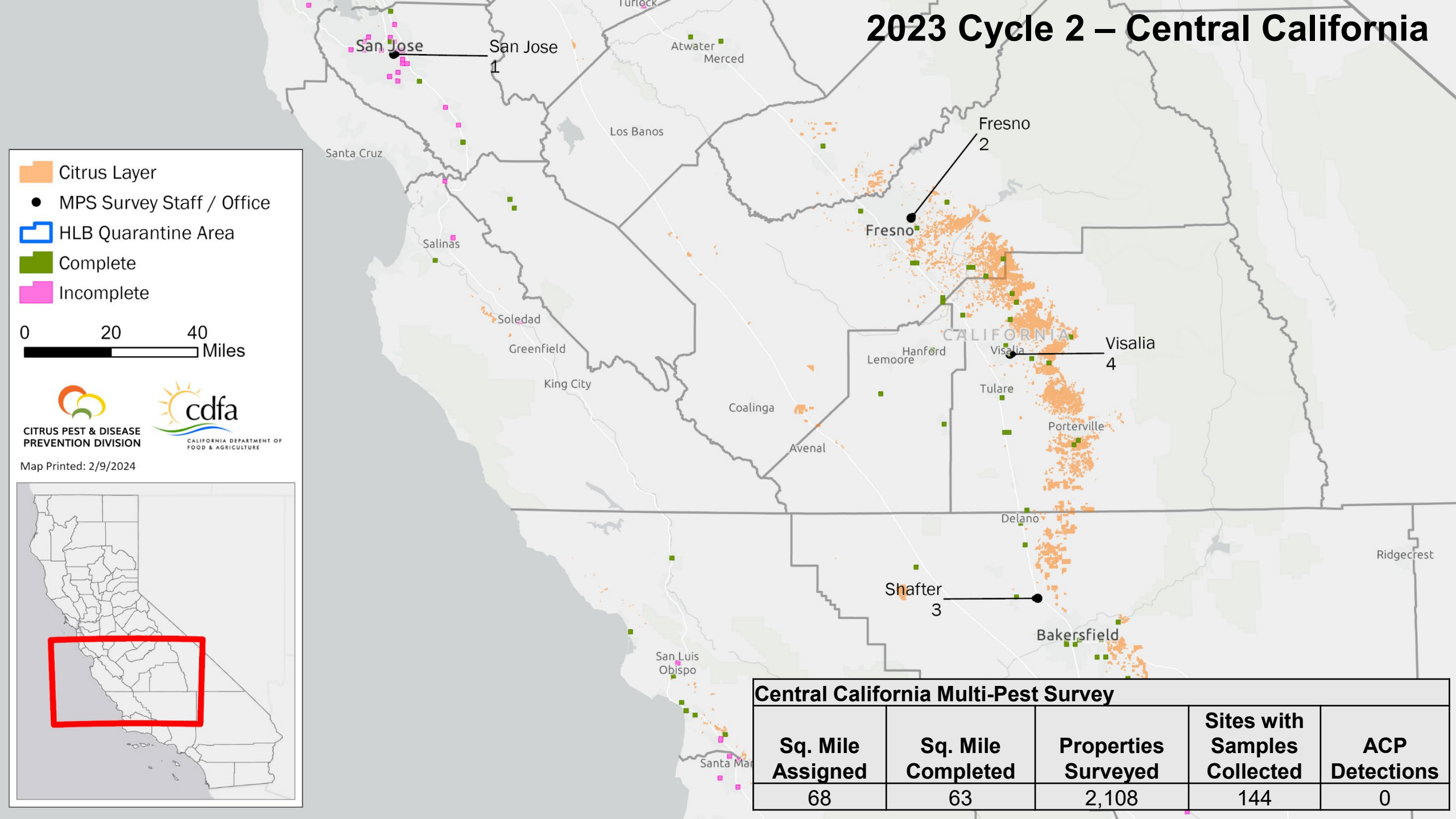
2023 Cycle 2 – Southern California



2023 Cycle 2 – Southern California

Southern California Multi-Pest Survey					
Areas	**Sq. Mile Assigned**	**Sq. Mile Completed**	**Properties Surveyed**	**Sites with Samples Collected**	**CLas+ ACP and HLB Detections**
Quarantine Edge	5	4	153	88	0
Grove Buffer	80	26	773	449	12
Outside Quarantine[1]	54	27	1,003	423	0
Within Quarantine[1]	17	12	761	532	45
Total	**156**	**69**	**2,690**	**1,492**	**57**
1. Do not include areas already counted under the “quarantine edge" and "grove buffer" categories.					

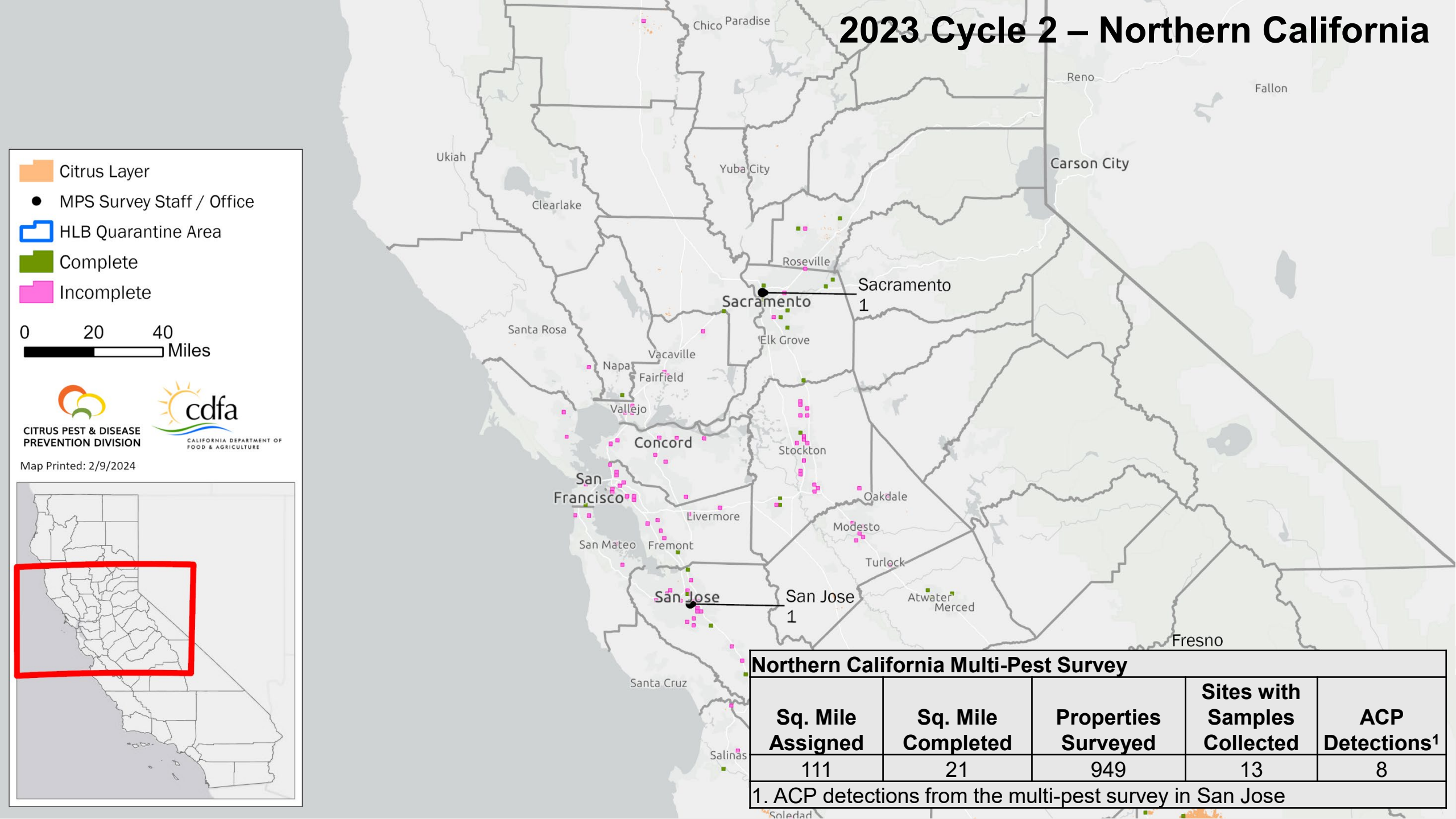
2023 Cycle 2 – Central California



Central California Multi-Pest Survey

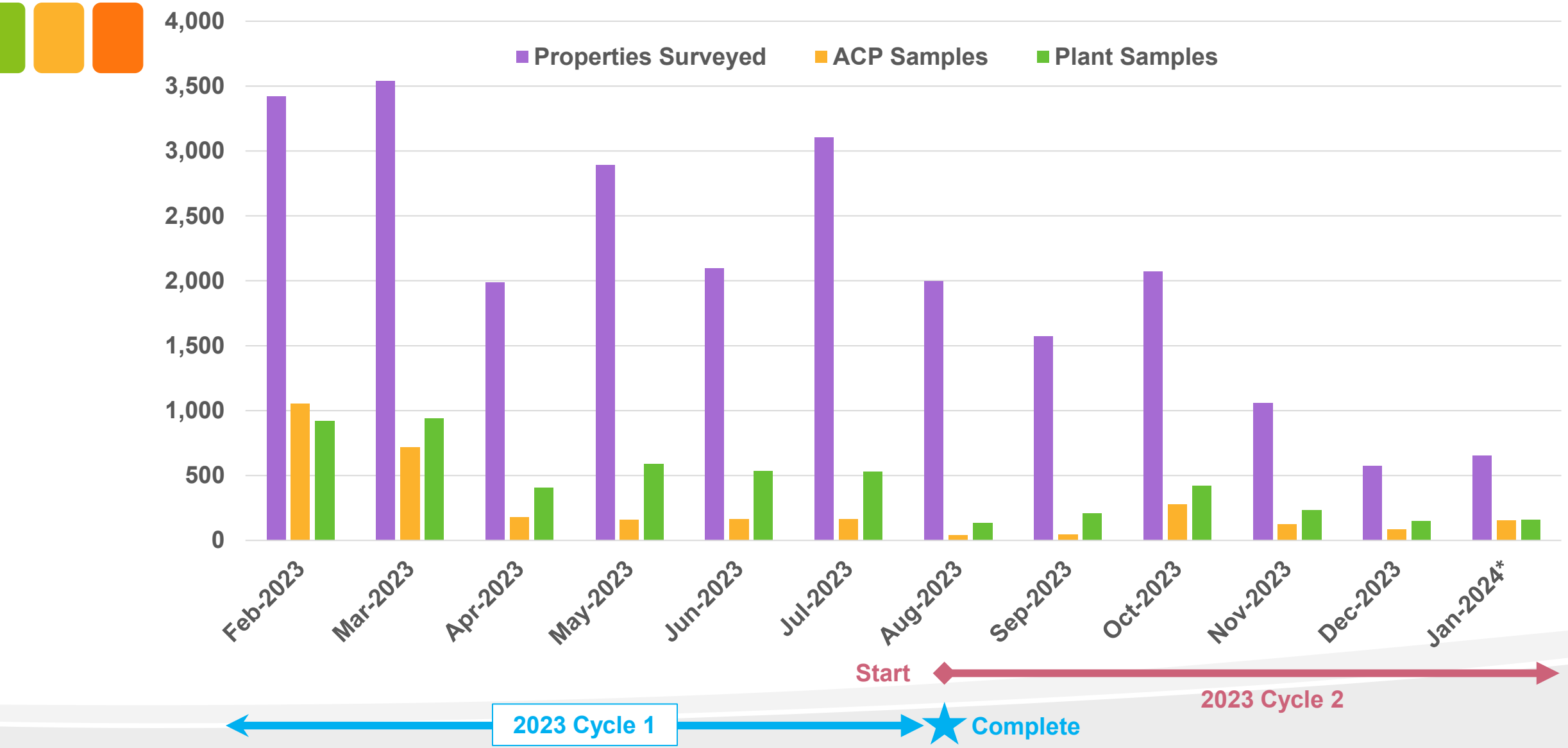
Sq. Mile Assigned	Sq. Mile Completed	Properties Surveyed	Sites with Samples Collected	ACP Detections
68	63	2,108	144	0

2023 Cycle 2 – Northern California



Northern California Multi-Pest Survey				
Sq. Mile Assigned	Sq. Mile Completed	Properties Surveyed	Sites with Samples Collected	ACP Detections[1]
111	21	949	13	8
1. ACP detections from the multi-pest survey in San Jose				

Statewide Trends (All Cycles)

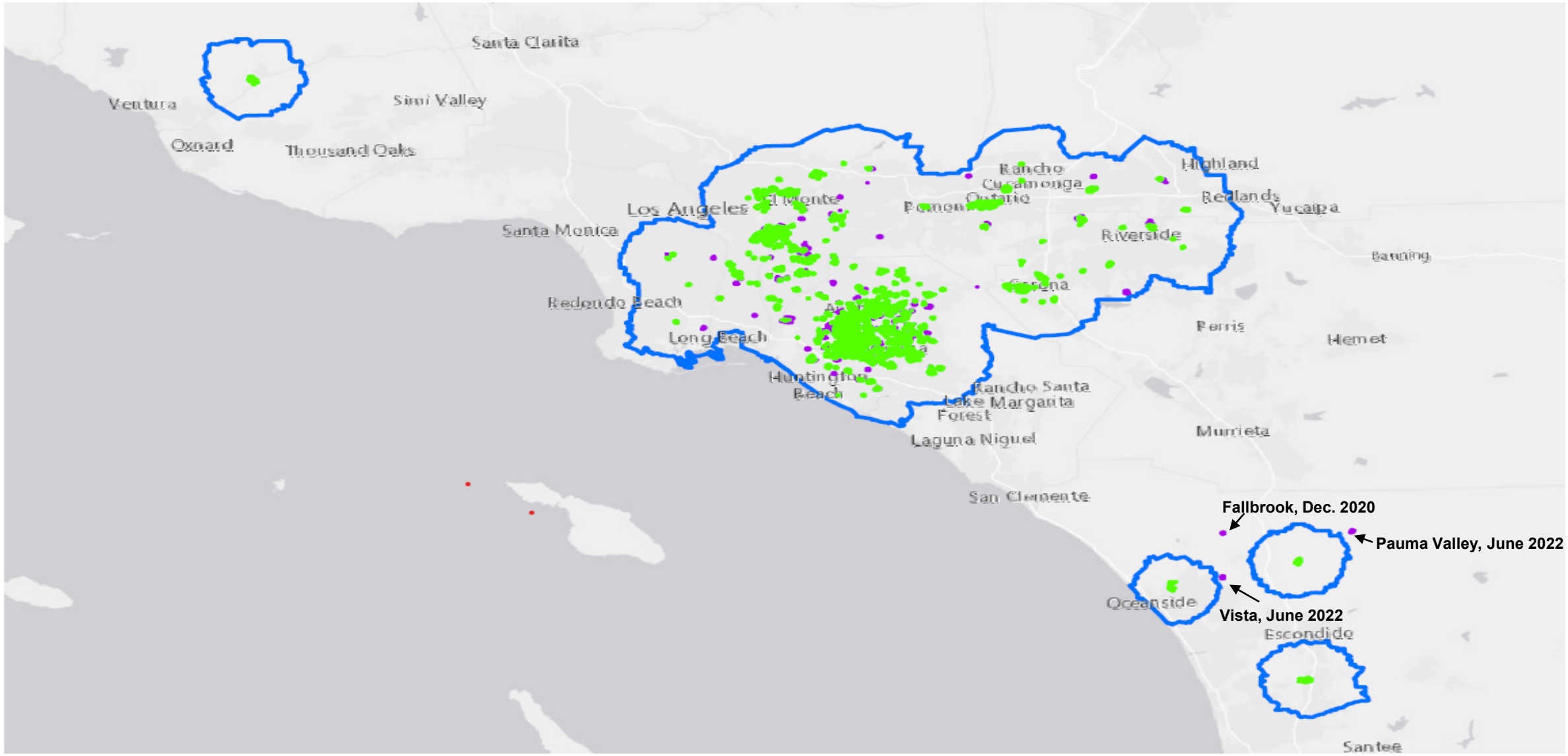


*January data is being finalized

Operational Update

CPDPC Meeting

February 21, 2024



HLB Quarantine and Treatment Area

2/2/2024

HLB Quarantine Area

HLB Treatment Area

Mandatory

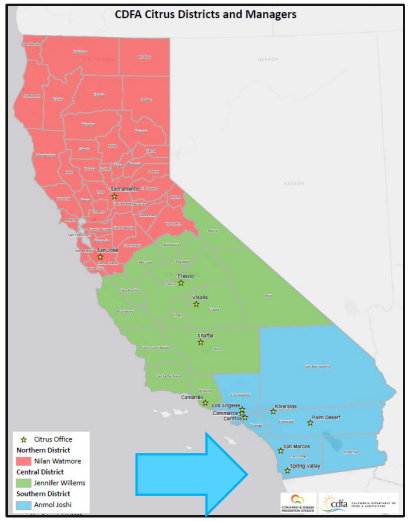
Non-mandatory

0 5 10 Miles

CITRUS PEST & DISEASE PREVENTION DIVISION

cdfa CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE

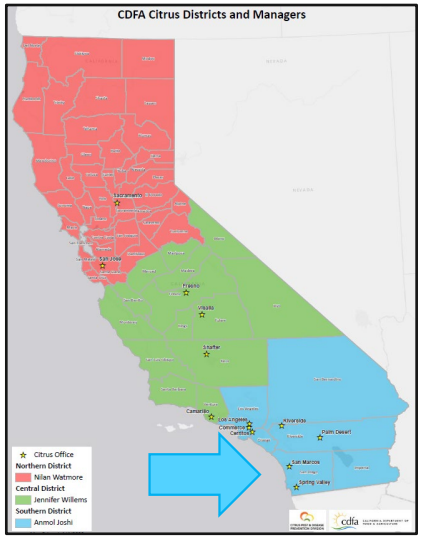
Southern District



HLB Detection Updates

- A total of 212 positive trees detected since January 2024.
  - Majority of the detections were in Anaheim, Corona, Costa Mesa, Duarte, Garden Grove, Jurupa Valley, La Puente, Ontario, Orange, Santa Ana, and Yorba Linda.
- **Valley Center, San Diego County**
  - A total of 16 trees detected.
    - 15 were at a residential parcel with 25+ host trees and one at a stump grove.
    - The resident conducted the treatment of all the host plants on their property.
    - All trees were removed and disposed of.
  - Delimitation survey and treatment in the original 250m area was completed.
    - The expanded area has three large parcels:
      - Surveyed two properties each with 12 acres of citrus on it and survey of the third property with 10 acres of abandoned citrus is continuing.
    - There are still 205 plant samples pending results.

Southern District

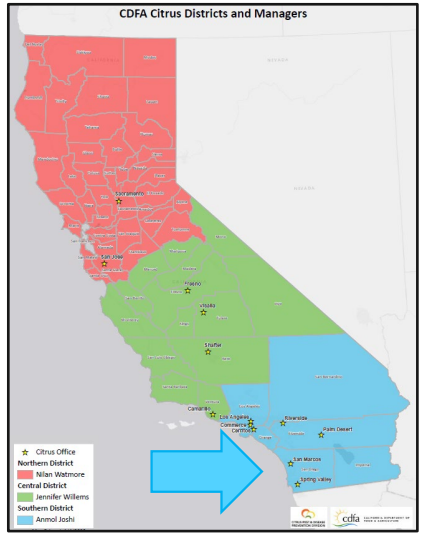


Delimitation Survey and Treatments

County	Areas
Los Angeles	Artesia, Bellflower, Duarte, El Monte, La Puente, Los Angeles, Pico Rivera, San Gabriel and Temple City
Orange	Anaheim, Brea, Costa Mesa, Fountain Valley, Garden Grove, Irvine, Orange, Placentia, Santa Ana, Yorba Linda and Westminster
Riverside	Corona, Jurupa Valley and Riverside
San Bernardino	Fontana and Ontario
San Diego	Valley Center

- Five public meetings were conducted to treat delimitation areas in Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties.

Southern District

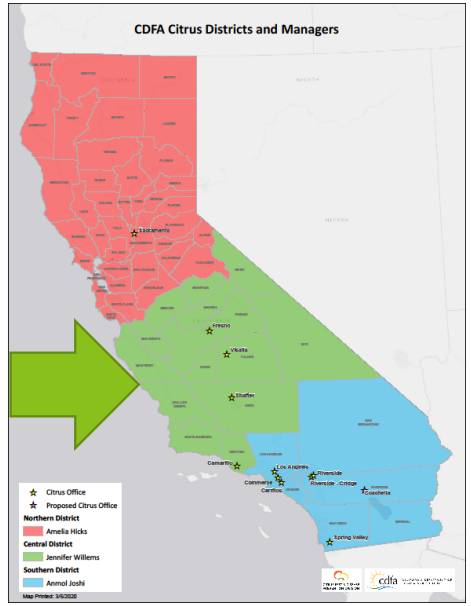


HLB Positive Trees

County	Trees Removed (Nov - Jan)	Cumulative Pending Trees
Los Angeles	55	5
Orange	711	322
Riverside	14	25
San Bernardino	36	23
San Diego	16	0
Total	**832**	**375**

Quadrant Samples – Find Site, Adjacent, Inconclusive (Nov- Jan)	
Los Angeles	511
Orange	492
Riverside	134
San Bernardino	139
Imperial	7
San Diego	86
Total	**1,369**

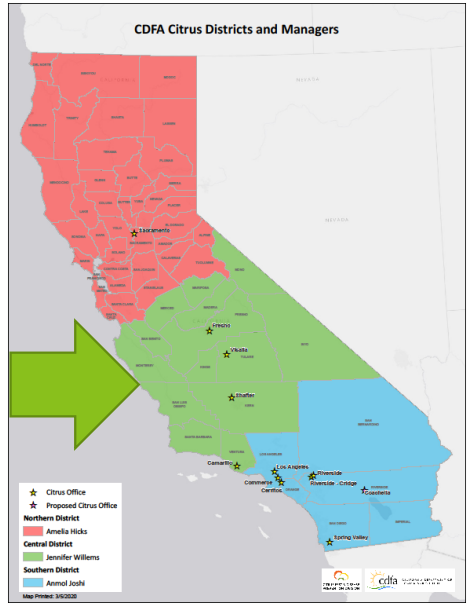
Central District



- **County ACP Detections**
- **Kern County**
  - One residential detection confirmed on January 31. No additional ACP observed.
  - Treatment was completed February 13.
- **Trapping Activities**
- ACP delimitation, detection, grove trapping activities are on-going.
- **Biocontrol**
- Releases will be conducted near the recent Kern County detection, in Ventura County and Santa Barbara County at the end of February.
- **Survey Activities**
- Multi-pest/risk surveys are on-going.

*Detections = PDRs, not individual ACP counts

Central District



- **HLB+ Delimitation Activities – Santa Paula**
- Two HLB+ trees were reported February 9.
- The delimitation area expanded slightly with the January detections.
  - Public meeting was held February 6.
  - Treatment and tree removal will be scheduled after the public meeting and as weather permits.
  - There are 59 properties pending treatment.
- The tree removal contract was executed and began using their services.
  - 58 HLB+ trees removed and 12 pending removal.
- 32 refusal properties were sent outreach letters in January. No responses thus continuing with the warrant process.

Northern District

➢ ACP Detection Trapping

- Ongoing trapping in Placer, San Joaquin, and Stanislaus Counties.
- Recommendation to optimize winter trapping activities conducted by CDFA staff in Marin, San Francisco, Santa Clara, Yolo and Yuba Counties.

➢ ACP Delimitation Trapping

- San Joaquin County – no detections in delimitation area for 1 year.
  - 43 delimitation traps were converted to winter traps.
- Sonoma County – no detections in delimitation area for 1 year.
  - 55 delimitation traps were converted to winter traps.
- Santa Clara County – 720 delimitation traps.
  - 2 delimitation area expansions in Los Arboles (addition of 7 new grids).

➢ County ACP Detections

- Santa Clara County – 31 new detections since October 11, 2023.

Northern District

- **ACP Treatment**
  - No new treatments since December 2022.
  - Recommendation for Spot Treatment in Santa Clara County.

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

- **HLB Risk-Basked / Multi-Pest Survey**
  - Risk Survey 2023 Cycle 2
    - Currently 19% of grids completed.
    - 2 of 17 counties completed.

Regulatory Update

Citrus Pest and Disease Prevention Committee

February 21, 2024

CITRUS PEST & DISEASE PREVENTION PROGRAM

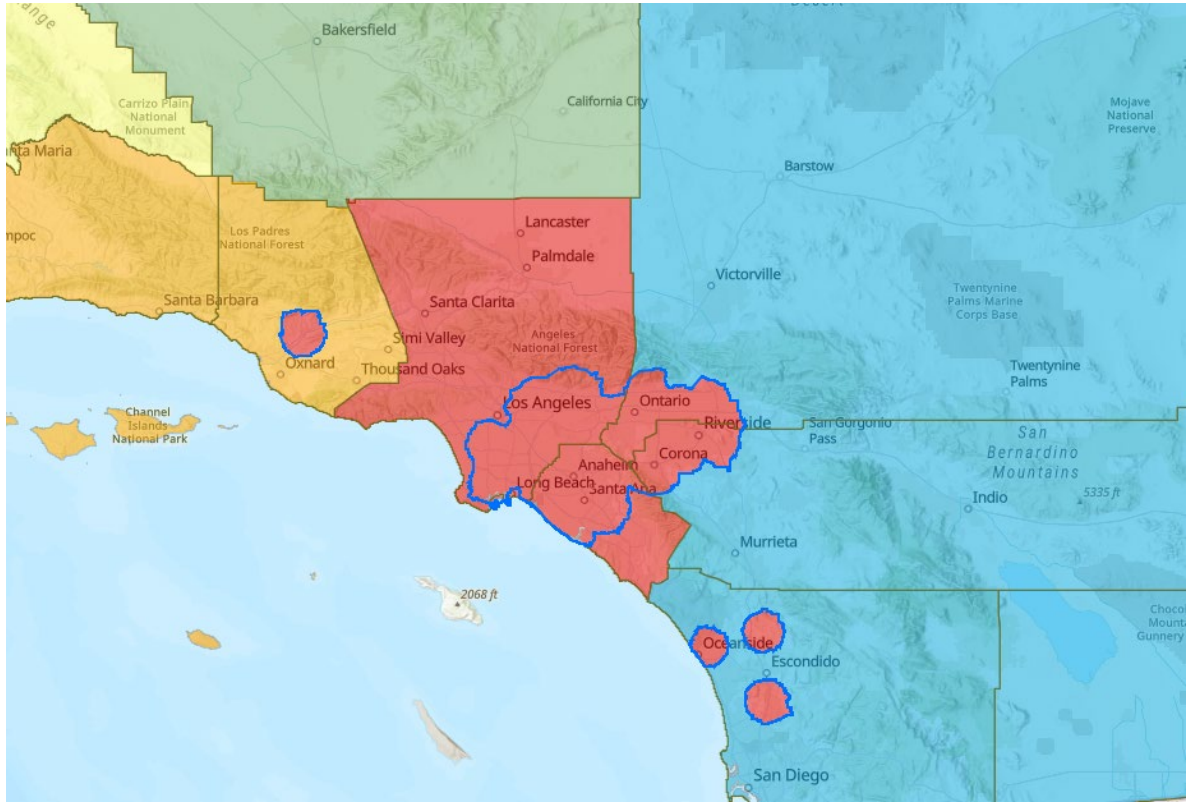
County Monthly Activity Report
October - December 2023

County	FY 2023 24 Budget	Percent Expended	CAs Issued	Grower Inspections	Transporter Inspections	Packer/Processor Inspections	Fruit Seller Inspections	FLC Inspections	Regulatory Incidents	NOVs Issued	NOPAs Issued
Fresno	$105,077.25	0%	0	0	0	0	0	0	0	0	0
Imperial	$57,684.66	35%	6	35	10	1	0	0	0	0	0
Kern	$80,000.00	17%	49	4	118	4	0	1	0	0	0
Kings	$19,602.20	12%	0	0	0	17	0	0	0	0	0
Los Angeles	$291,633.41	17%	0	15	0	0	107	0	0	0	0
Monterey	$15,760.55	12%	0	2	0	0	0	0	0	0	0
Orange (*2)	$88,048.50	2%	0	6	0	0	0	0	0	0	0
Riverside (*1)	$751,593.75	20%	0	21	140	0	1	0	0	4	0
San Bernardino (*1)	$18,674.83	1%	0	0	0	0	0	0	0	0	0
San Diego (*1)	$612,471.94	19%	4	30	27	10	36	0	0	5	0
San Luis Obispo (*1)	$8,676.04	16%	2	0	0	0	0	0	0	0	0
Santa Barbara	$12,785.73	52%	1	0	0	0	3	0	0	0	0
Tulare	$410,044.56	23%	92	0	824	1	7	0	2	16	0
Ventura (*3)	$284,784.70	0%	0	0	0	0	0	0	0	0	0
Total	**$2,756,838.12**	**17%**	**154**	**113**	**1,119**	**33**	**154**	**1**	**2**	**25**	**0**

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

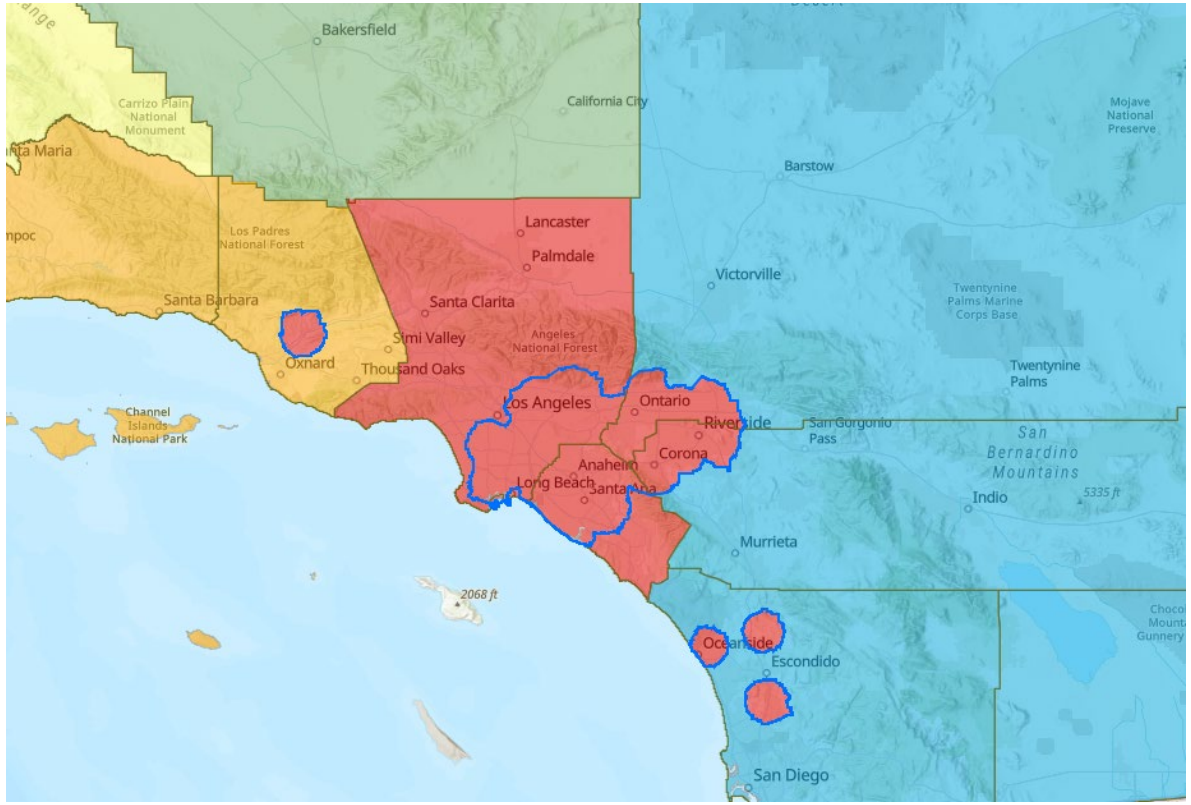
Shipping Fruit into HLBQ – Current Rule

- Only from the adjacent, surrounding ACPQ to HLBQ – no mitigation other than safeguarding
- Implemented in 2020 to prevent long distance spread of ACP
- Examples
  - Ventura to Santa Paula HLB
  - Imperial to Riverside HLB



Shipping Fruit into HLBQ – Current Rule

- From any ACPQ to HLBQ for packing – no mitigation other than safeguarding
- Achieved through permit. Revoked and amended based on risk
- Examples
  - Tulare to Ventura HLBQ
  - Ventura to Riverside HLBQ



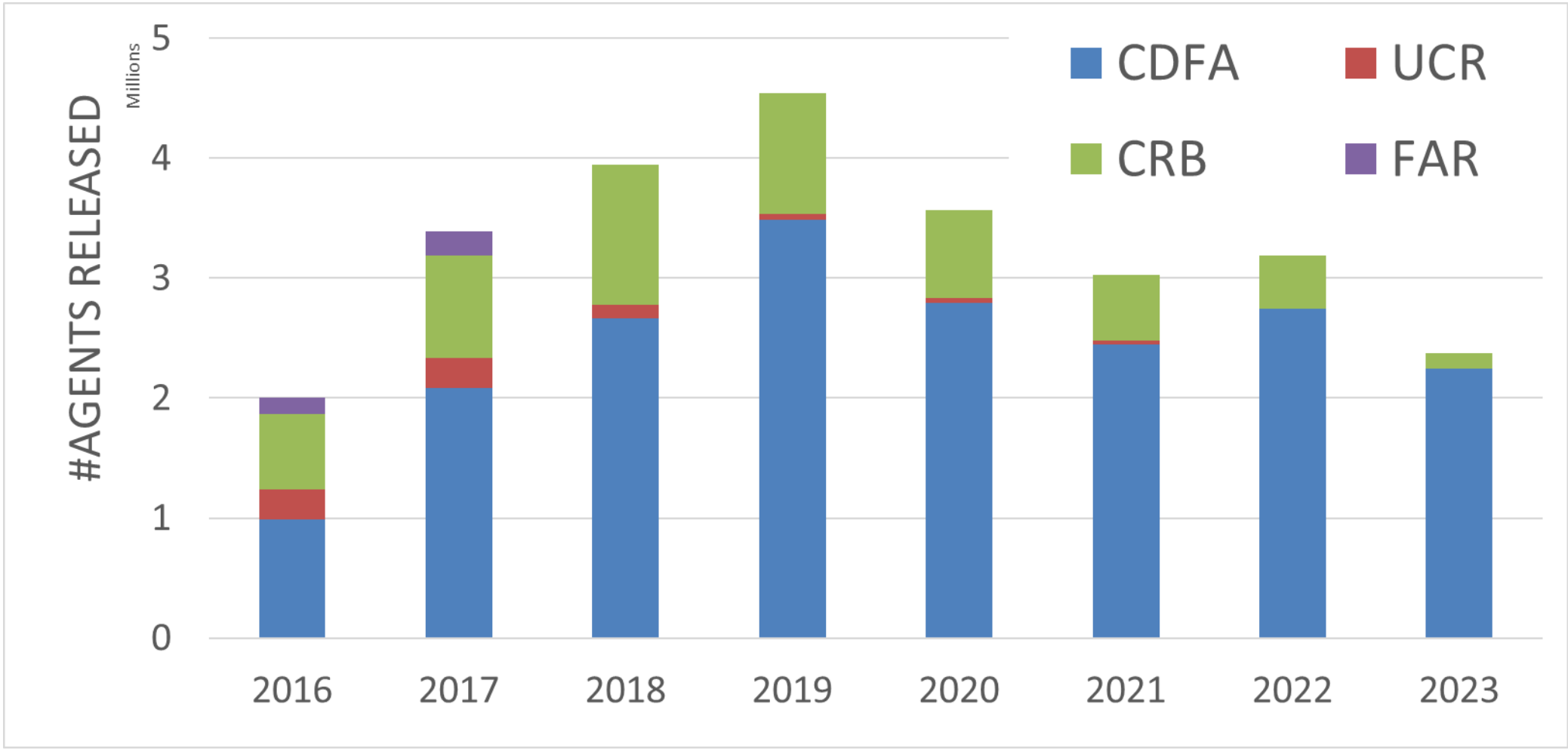
Asian Citrus Psyllid Biocontrol Update

January
2024

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

County	Releases Previous Month	Releases, 2023	Releases 2011-2023	
	January 2024	*T. radiata* Released	*T. radiata* Released	*D. aligarhensis* Released
Imperial	0	67,800	655,543	10,295
Los Angeles	58,600	646,015	8,091,924	107,734
Orange	48,700	597,340	6,365,216	71,179
Riverside	17,400	243,300	4,117,802	127,739
San Bernardino	20,000	210,460	2,280,715	57,252
San Diego	19,800	192,500	3,214,664	86,403
Ventura	14,600	177,600	2,434,306	16,830
Santa Barbara	3,600	54,700	409,782	12,012
Kern	0	47,800	404,464	0
Santa Clara	6,000	64,000	296,037	0
Placer	0	0	3,400	0
San Luis Obispo	0	8,900	139,200	0
Tulare	0	9,600	63,400	0
Fresno	0	1,800	27,000	0
Monterey	0	14,600	29,000	0
Madera	0	1,200	5,600	0
Arizona	0	32,000	253,500	0
Mexico	0	0	306,000	0
TOTAL	188,700	2,369,615	29,097,553	489,444
	TOTAL (2011-2021):			29,586,997

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

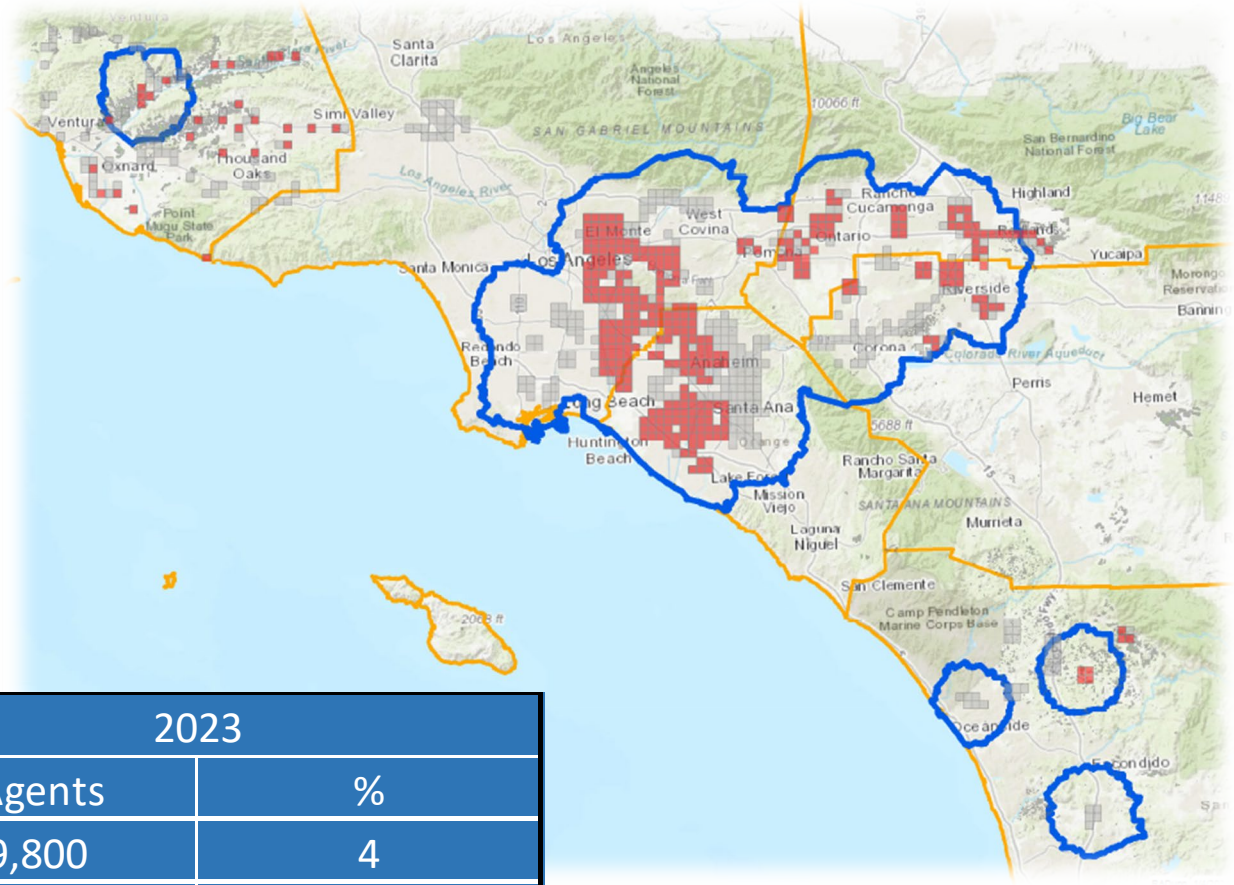
Biological Control Agent Releases Areas

Releases in:

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

Changes 2023:

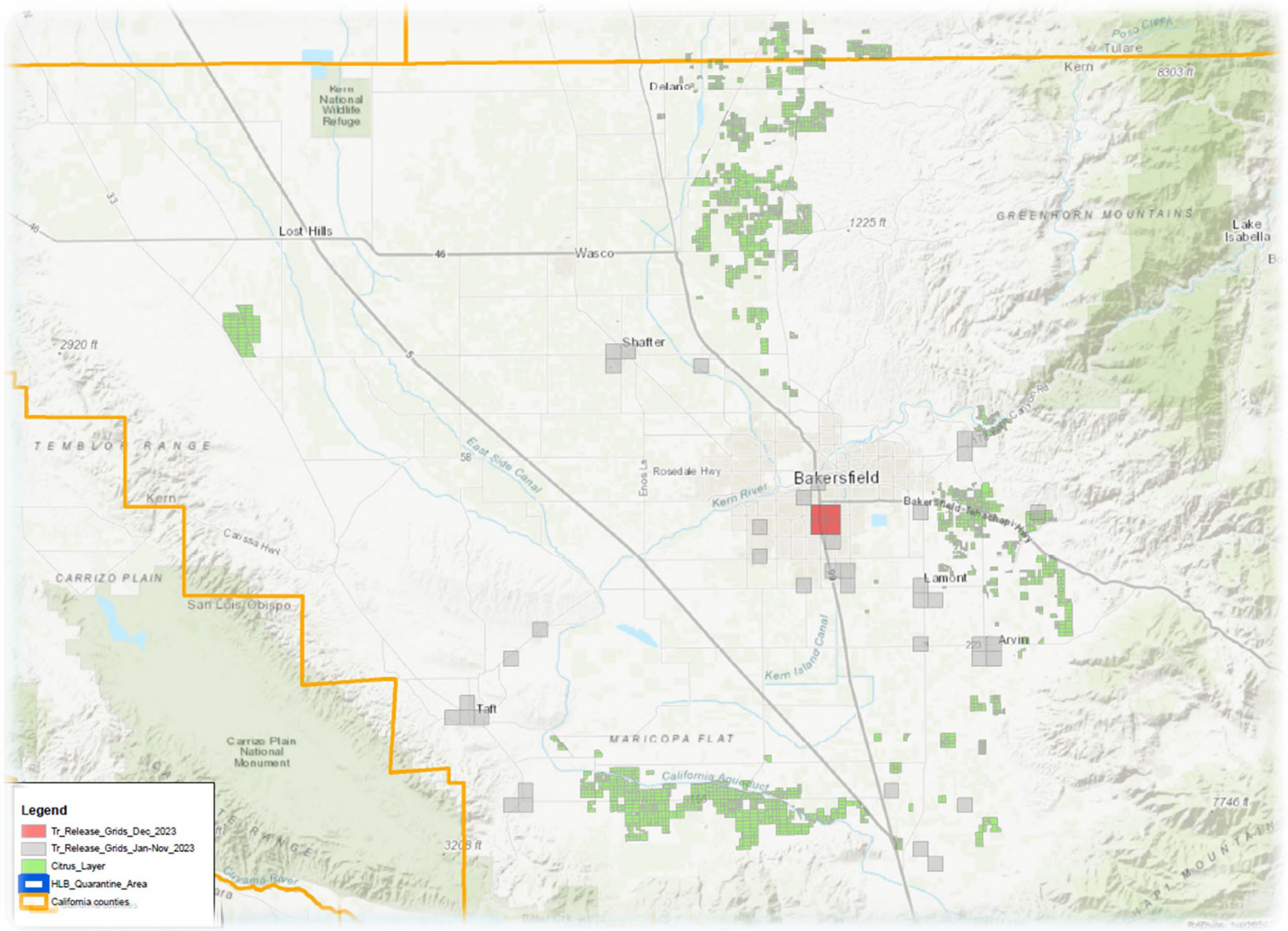
- Fewer releases, larger numbers
- Rapid response:
  - Canine Alerts
  - PDR clusters
  - New cities



Release Type	2022		2023	
	# Agents	%	# Agents	%
Borders	129,600	4	99,800	4
HLB	2,406,050	76	1,889,615	80
New	291,600	9	147,900	6
Routes	333,050	11	232,300	10

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

Biological Control Agent Release Areas



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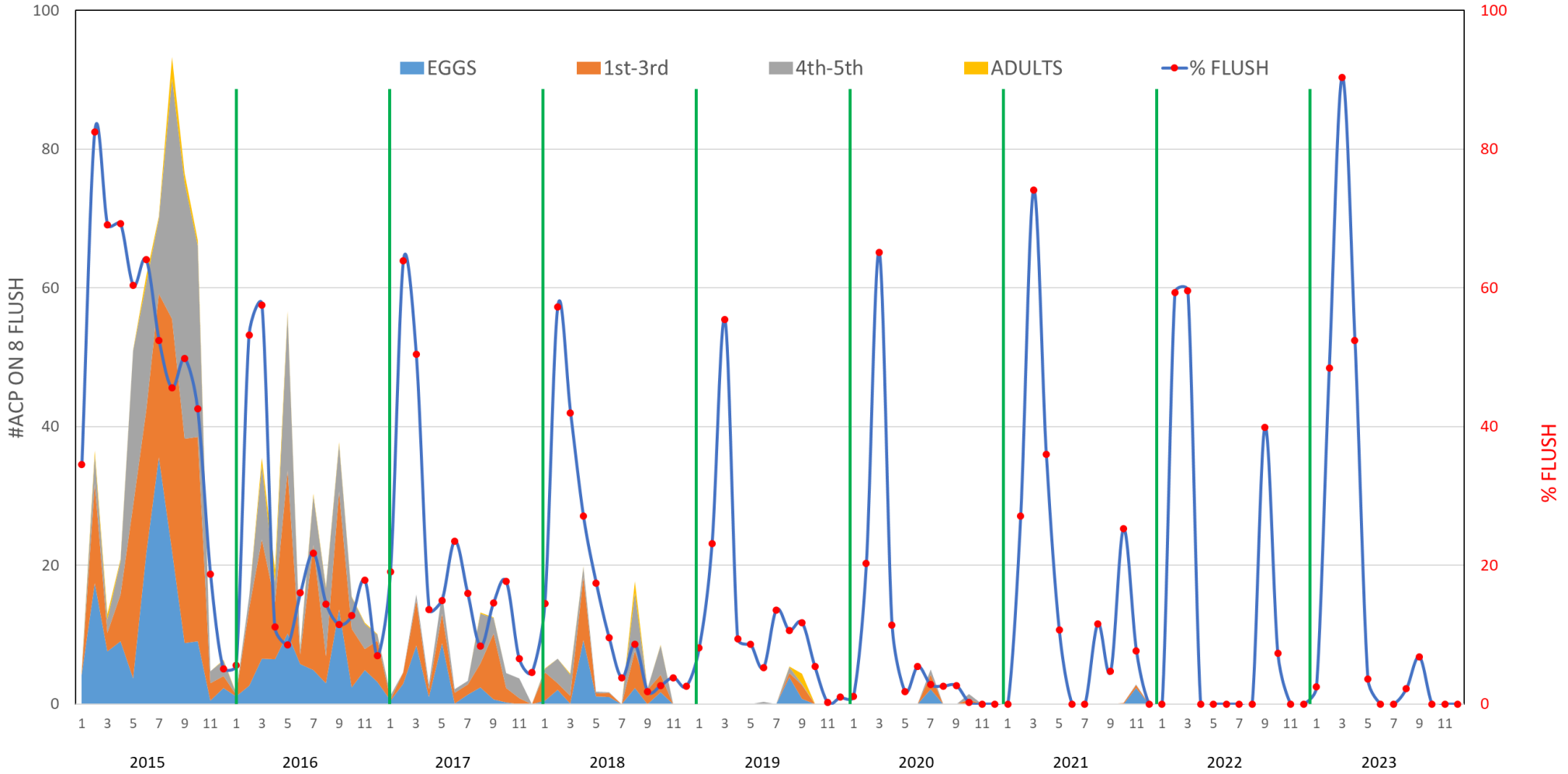
Region-Wide Urban Monitoring 2015 - Present



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CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

CDFA Winter Trapping Optimization

Sandra Olkowski, PhD

Victor Alves

David Phong

Marina Kaiser

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

Goal:

Optimizing CDFA's winter ACP trapping in: Marin, San Francisco, Santa Clara, Yolo, and Yuba

- ✓ Data-driven / evidence-based
- ✓ Objective
- ✓ Transparent
- ✓ Generalizable to other locations

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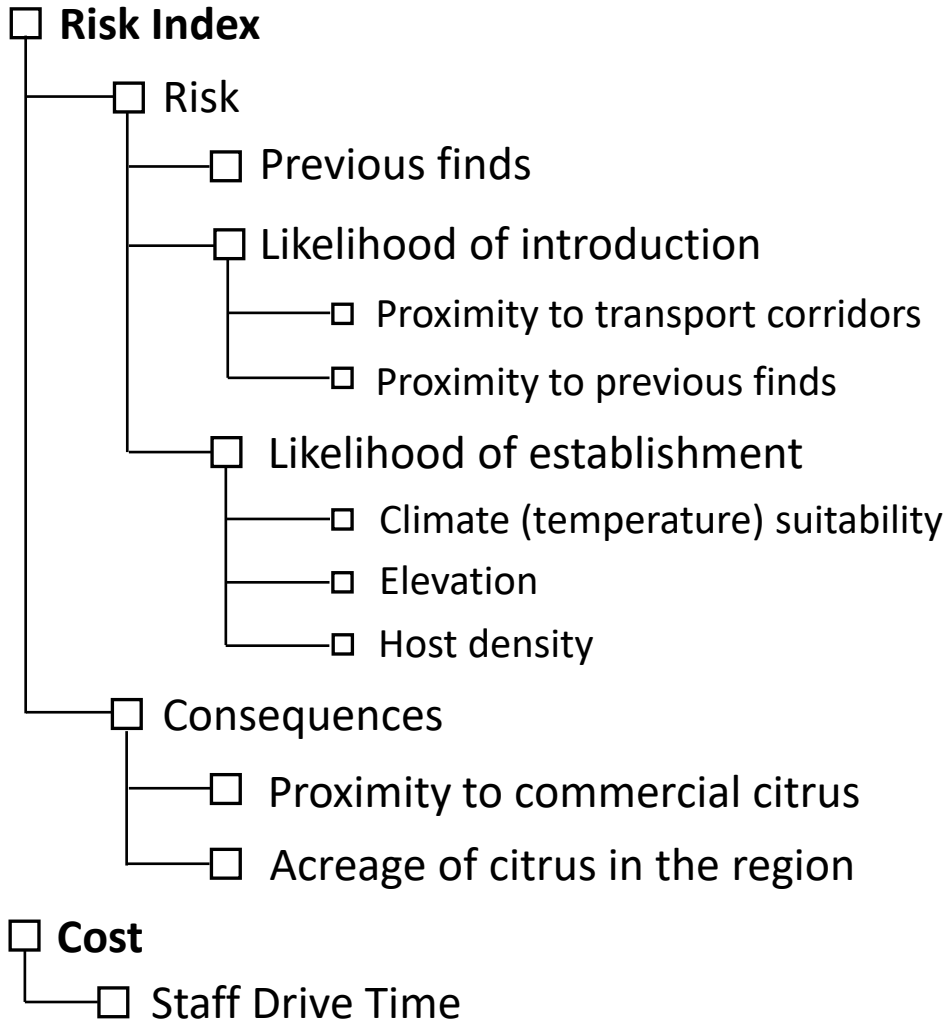
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

Method:

Balancing ACP Risk versus Trapping Cost



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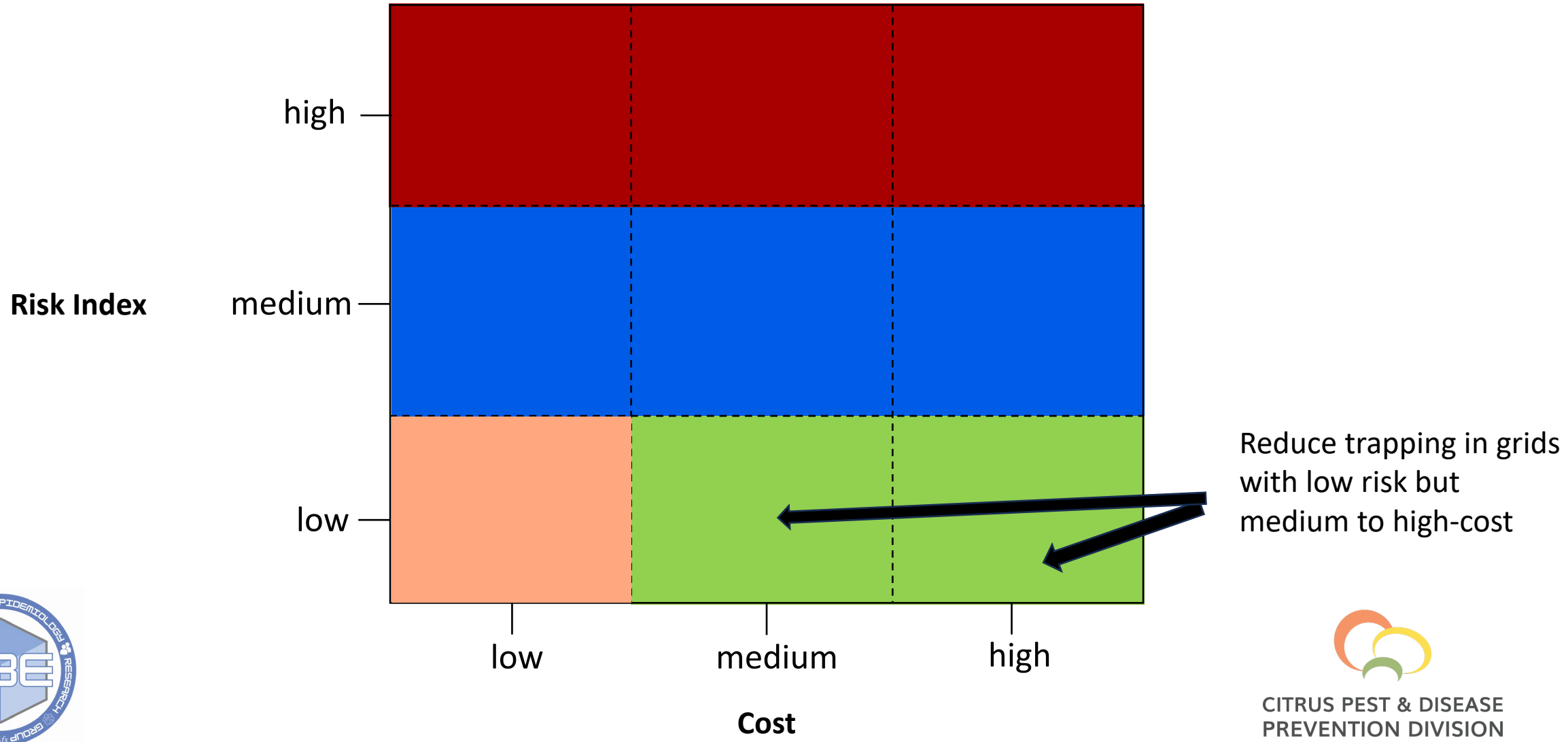
Method (Continued):



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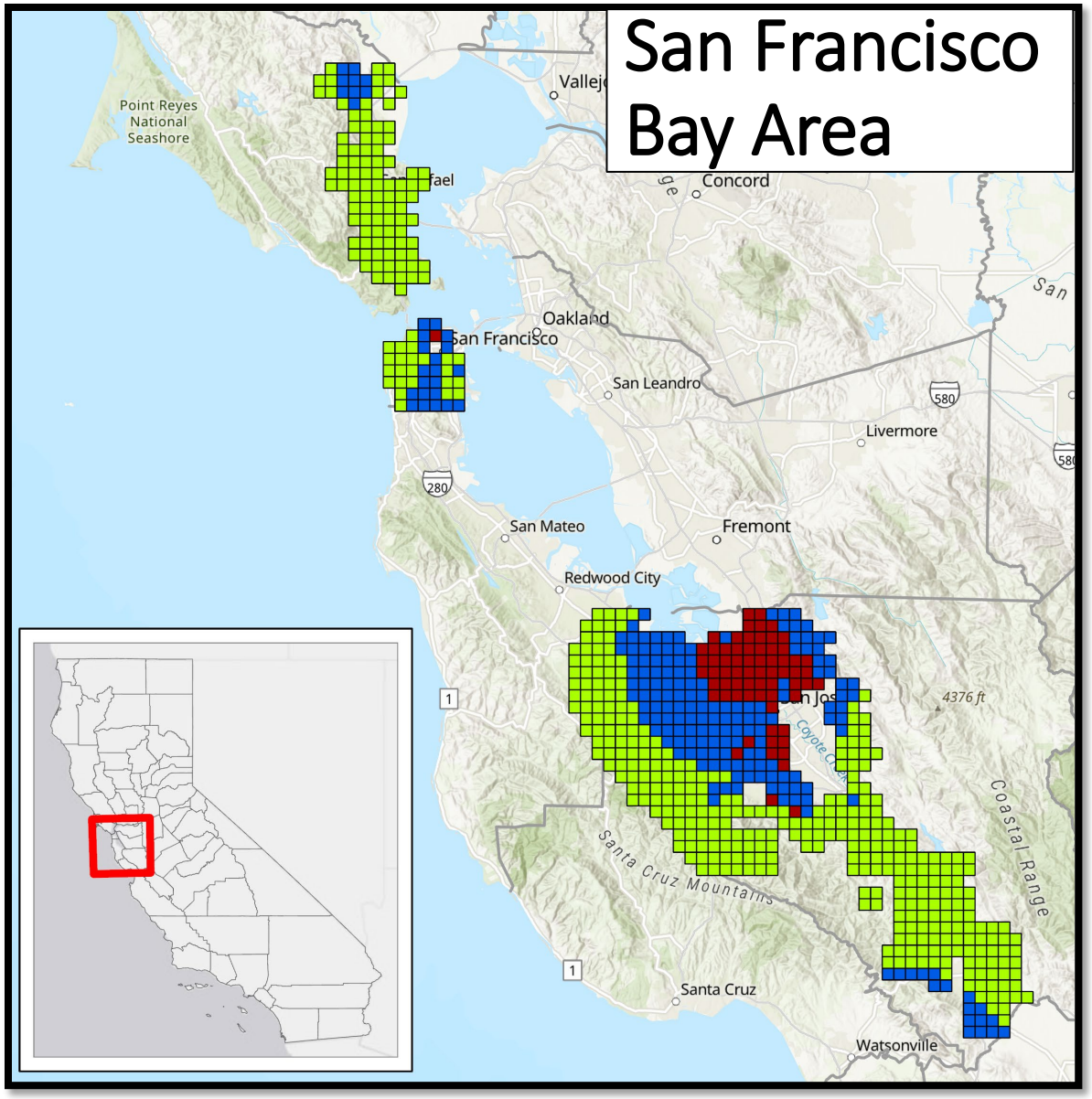
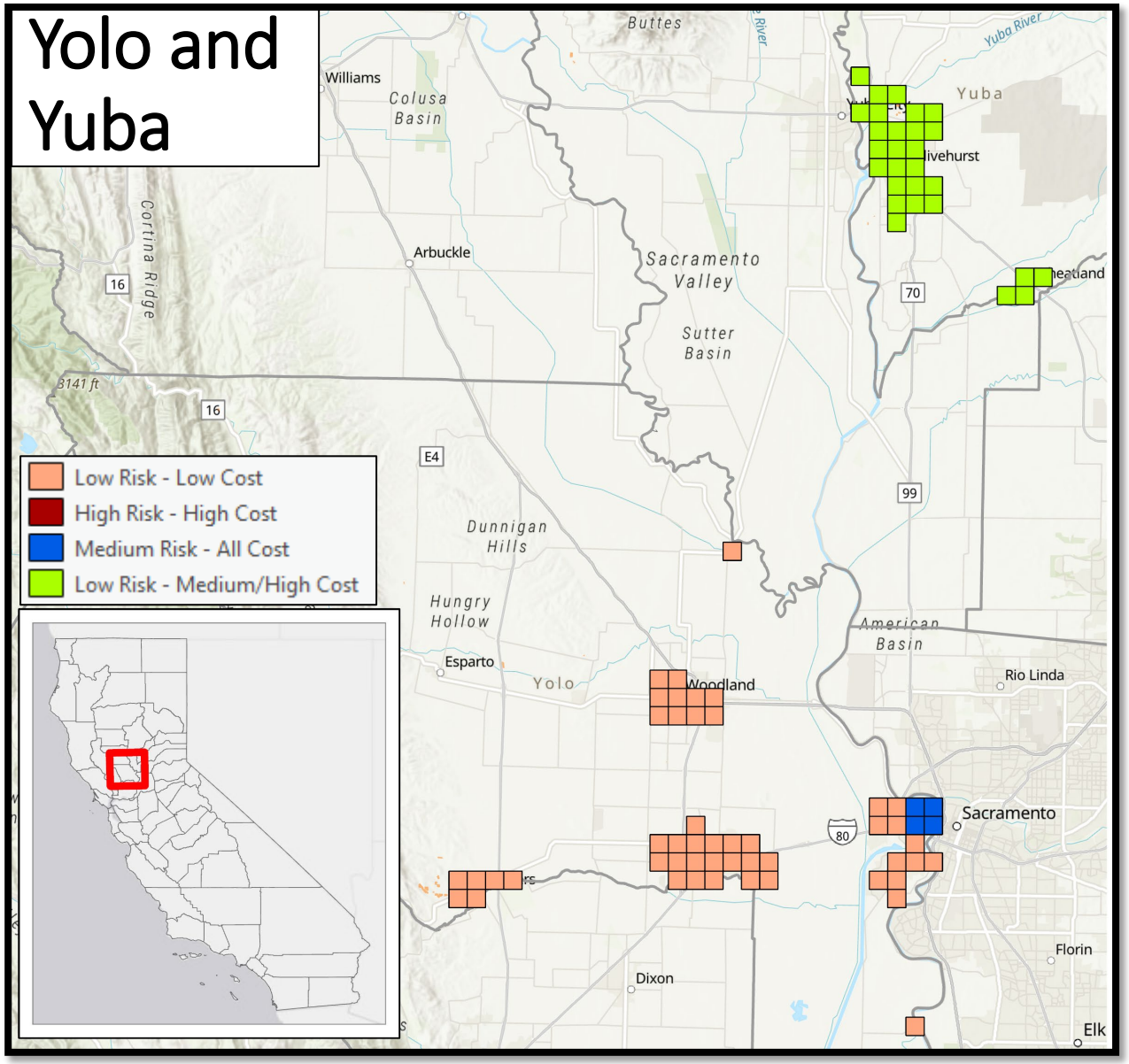
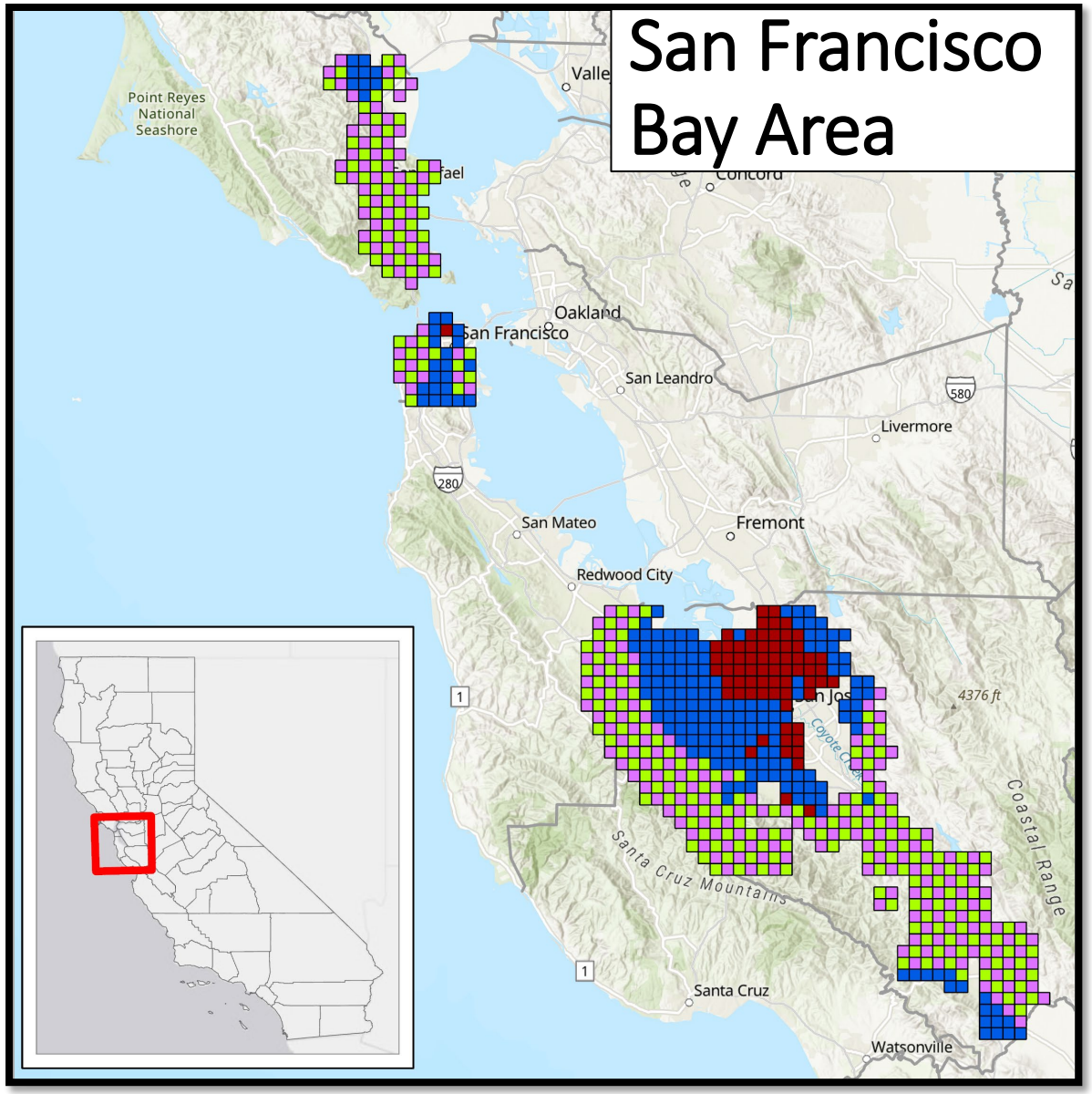
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

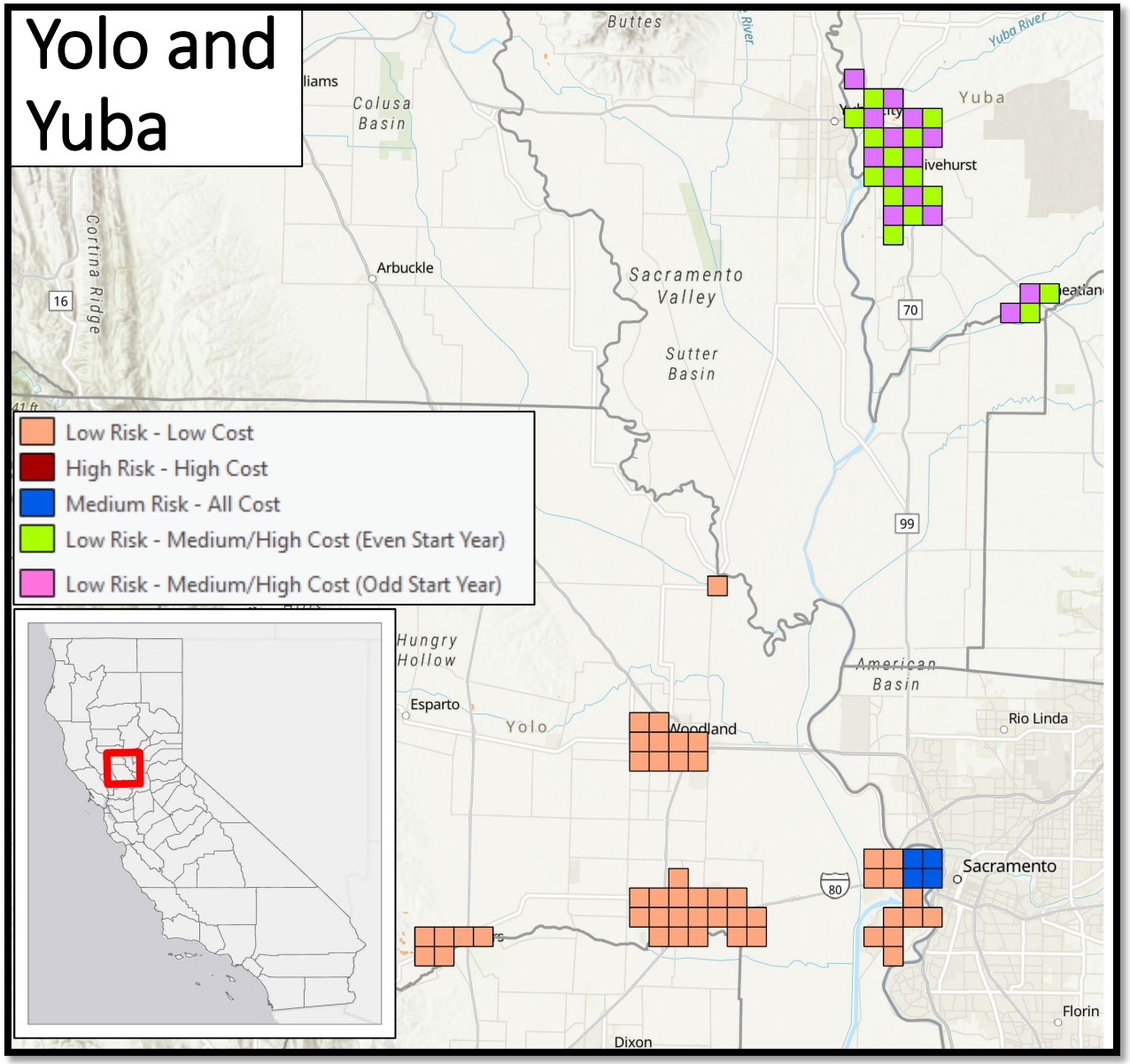
Results:


San Francisco Bay Area
Point Reyes National Seashore
Concord
Oakland
San Francisco
San Leandro
Livermore
San Mateo
Fremont
Redwood City
Santa Cruz Mountains
Coastal Range
Santa Cruz
Watsonville
4376 ft
280
580
1


Yolo and Yuba
Low Risk - Low Cost
High Risk - High Cost
Medium Risk - All Cost
Low Risk - Medium/High Cost
Williams
Colusa Basin
Buttes
Yuba River
Yuba
Arbuckle
Cortina Ridge
Sacramento Valley
Sutter Basin
3141 ft
Dunnigan Hills
Hungry Hollow
American Basin
Esparto
Yolo
Woodland
Rio Linda
Sacramento
Dixon
Florin
Elk
16
E4
99
70
80

Application:





Recommendation:

- Adopt a rotating year trapping strategy in low-risk grids with more than two hours per day of driving time.
- This strategy reduces CDFA winter trapping effort by up to 30%.

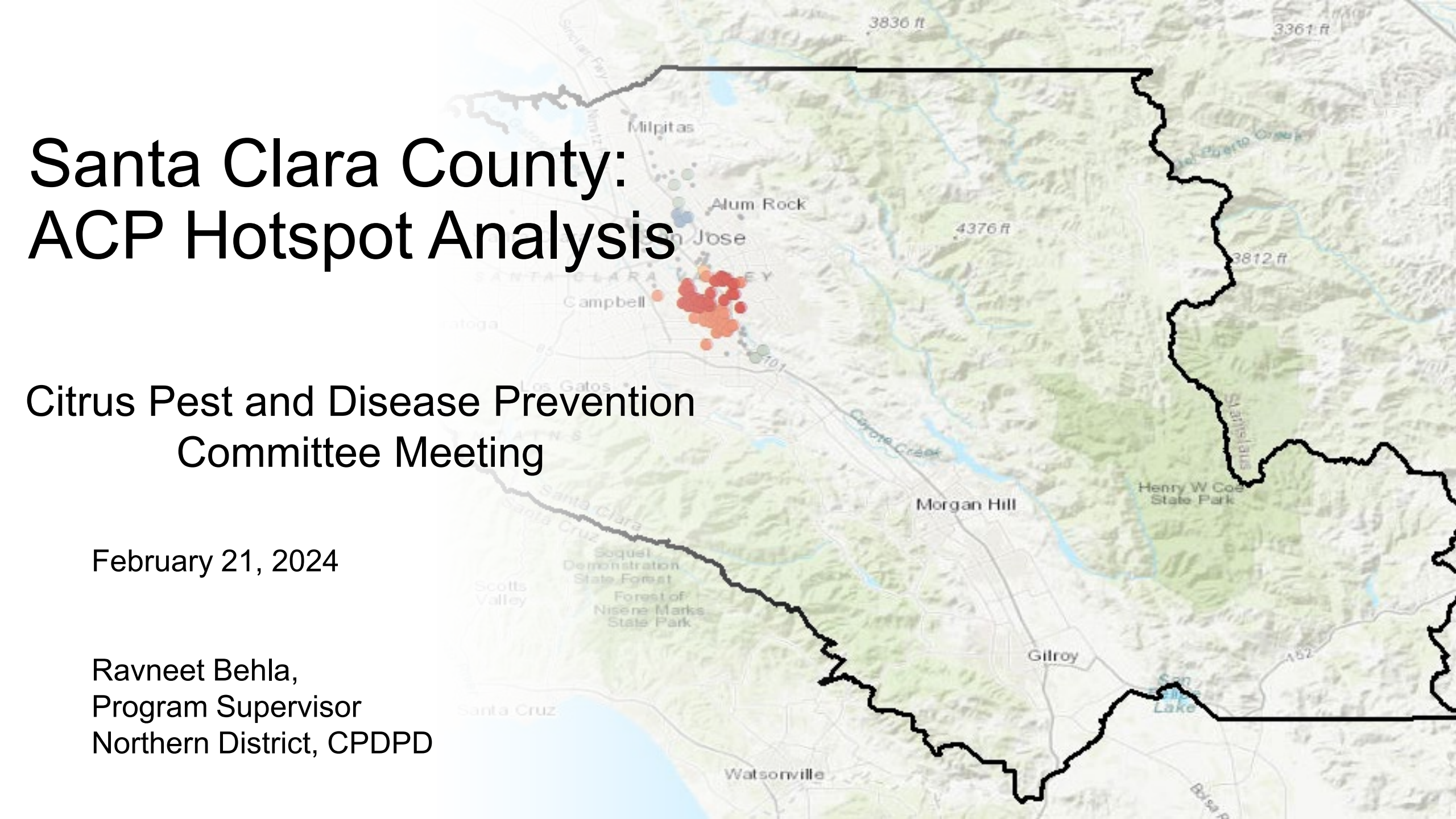
CITRUS PEST & DISEASE PREVENTION DIVISION
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

Santa Clara County: ACP Hotspot Analysis

Citrus Pest and Disease Prevention Committee Meeting

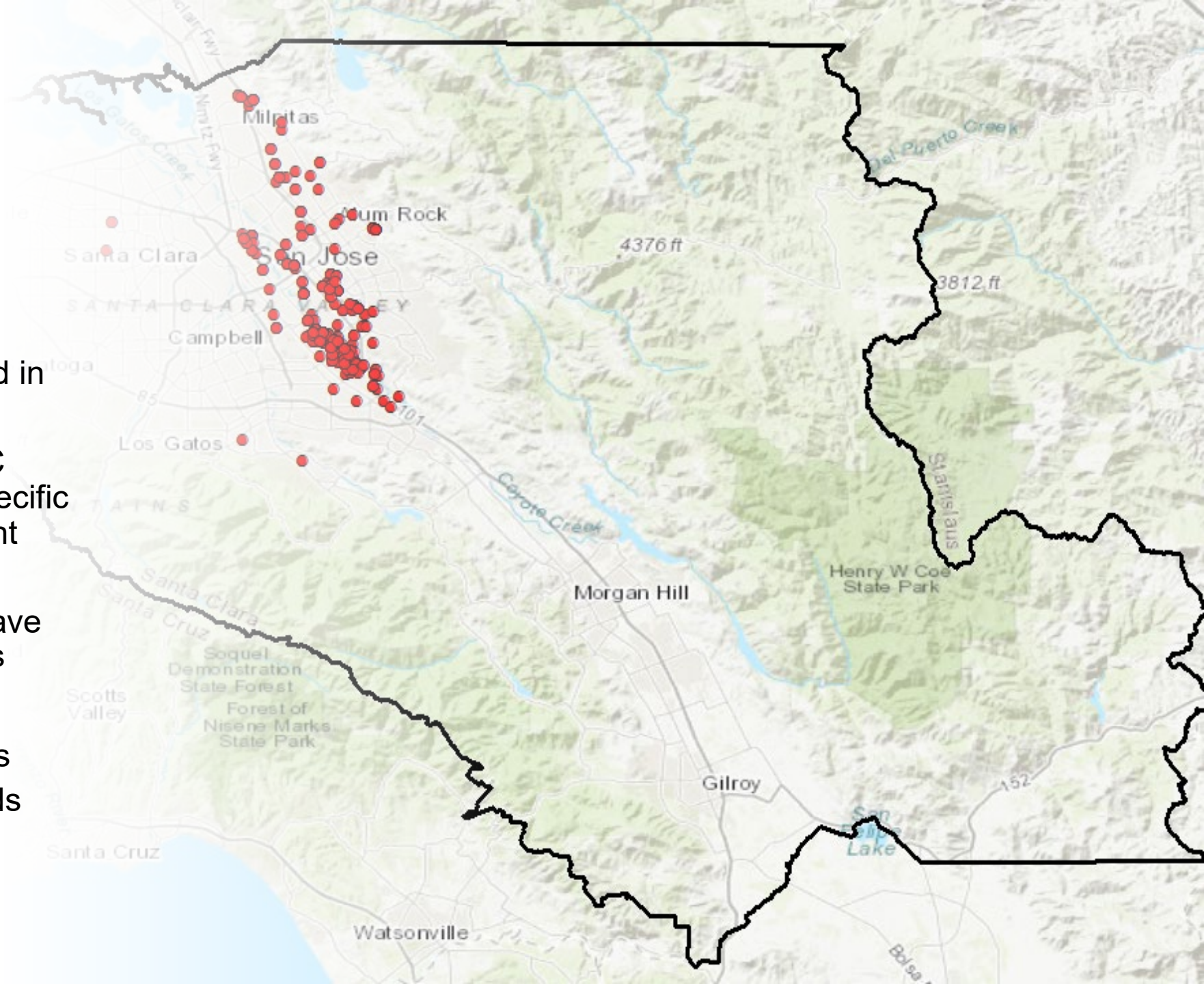
February 21, 2024

Ravneet Behla,
Program Supervisor
Northern District, CPDPD

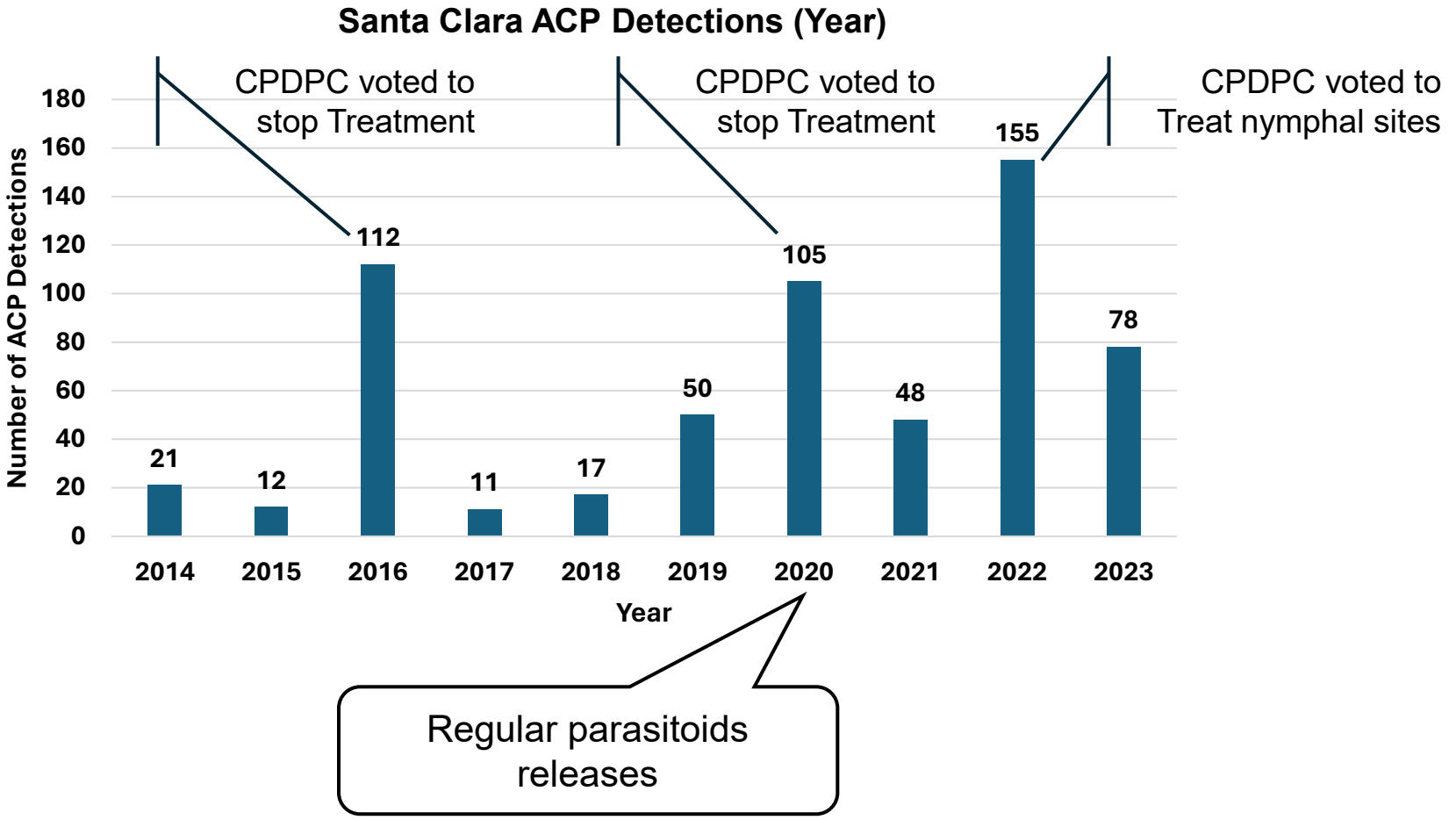


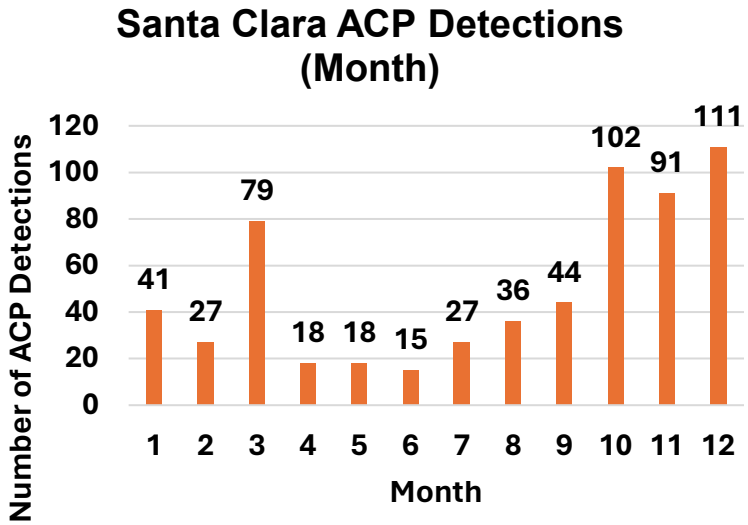
Background

- 2014 – first ACP confirmed in Santa Clara County
- December 2022 – CPDPC approved treatment on specific nymphal sites and adjacent properties
- As of 12/18/2023, there have been 609 confirmed PDRs
- Two Active Delimitations:
  - Los Arboles – 39 grids
  - Clayton North – 4 grids



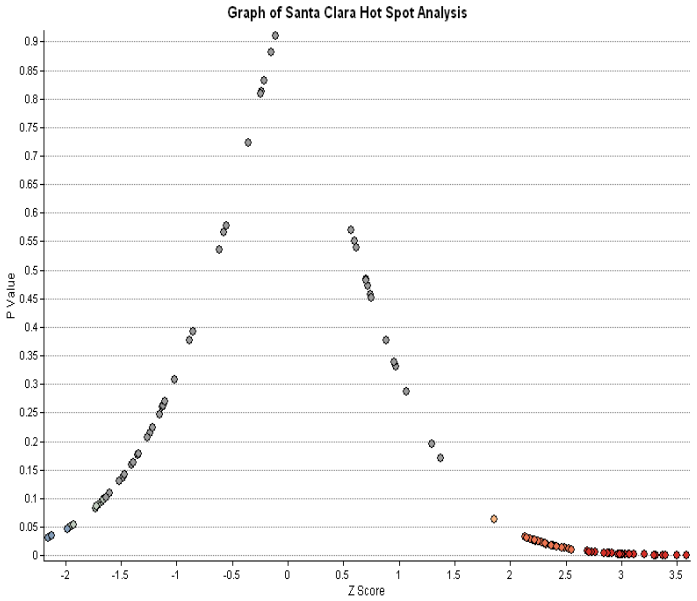
ACP - Temporal Distribution





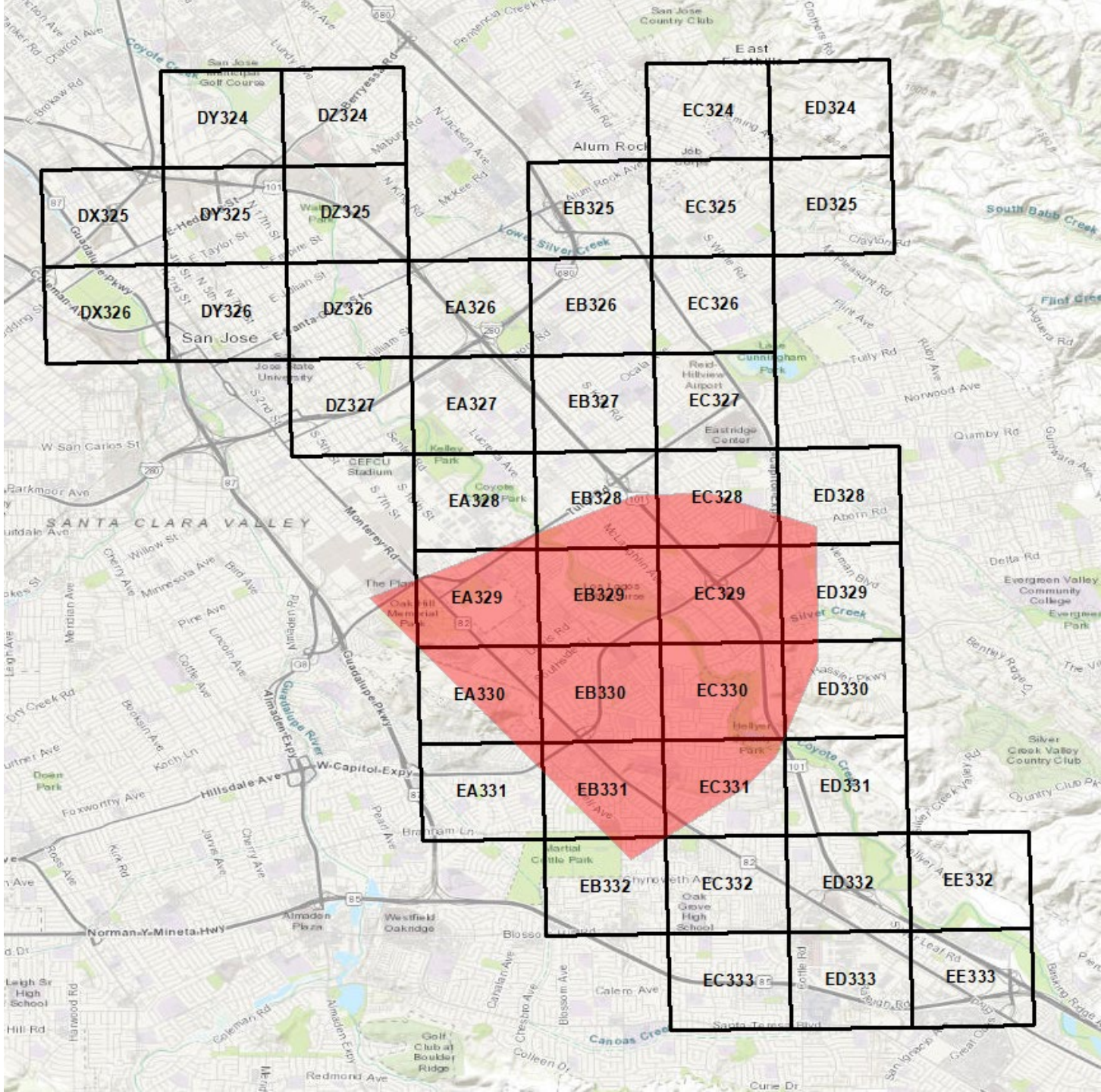
Credit: CPDPD Data Analytics and Visualization Unit (DAVU)

ACP - Spatial Distribution and Hotspot



Credit: DAVU

Trapping Grids & Hotspot



Credit: DAVU

Locations and Frequency

Grid-Street	Frequency	Latest Year (#)	Grid-Street	Frequency	Latest Year (#)
EB329-Street 1	56	2023 (3)	EC331-Street 2	9	2023 (1)
EB327-Street 1	19	2021 (2)	EA328-Street 2	9	2014 (9)
EB329-Street 2	17	2023 (1)	EC330-Street 1	9	2023 (2)
ED325 -Street 1	15	2023 (2)	EB330-Street 2	8	2022 (4)
EB331-Street 1	14	2023 (1)	EC330-Street 2	8	2023 (1)
EC328-Street 1	14	2023 (2)	EC330-Street 3	7	2023 (3)
EB329 -Street 3	14	2020 (4)	EC330-Street 4	7	2022 (6)
EC331-Street 1	12	2023 (2)	EC330-Street 5	7	2022 (6)
DZ322-Street 1	11	2015 (4)	EC330-Street 6	6	2023 (3)
EB330-Street 1	11	2023 (1)	EB329 -Street 5	5	2023 (2)
EA329 -Street 4	10	2022 (1)	EB330-Street 2	5	2023 (1)
EB331-Street 2	9	2023 (2)	EA326-Street 1	4	2023 (2)

CPDPD Activities

- Hotspot analysis
- Performing visual surveys
  - Hotspot grids, frequent find sites and adjacent properties
  - Requesting access to backyards, where possible
  - Interviewing homeowners
  - Using TAP method as part of visual survey
- Conducting regular web searches for unregulated points of sale
- Coordinating with the county

Recommendation

- Program recommends approval of a recurring spot treatments at find sites in Santa Clara County
  - Northern District has a treatment truck and can perform treatments with almost no additional cost to the program
  - The county is supportive of spot treatments
- Spot treatment sites
  - Find sites and adjacent with hosts
- Upon ACP confirmation, CDFA staff will conduct survey of find sites and adjacent to evaluate if spot treatment is warranted
  - Repeat find sites
  - Properties with breeding populations
- Program will provide updates to Operations Sub-committee, if treatments are performed

Importance

- Bay Area is a busy transportation corridor connecting Sacramento and San Joaquin Valley
- Busy international ports
- Milder winter as compared to the valley
- Diverse residential plant species
- Spot treatments provide an additional tool to reduce ACP population build up
- Efficient use of CPDPD resources

Cost Analysis

- Assumptions
  - 12 properties treated per day
    - Maximum of 180 treatments based on 60 properties with 3+ interceptions
  - 2 staff (Pest Prevention Assistant I)
    - Salaries for 3 weeks = **$5,717.90**
  - 1 treatment truck
    - Pesticide cost = **$573.47**
    - Fuel cost = **$ 750.00**
- Annual Total Cost (Upper Limit)
  - **$7,041.37**
  - 81% cost is staff salary

- Questions?
- Thank You!

Outreach Update

February 21, 2024

CITRUS PEST & DISEASE PREVENTION PROGRAM

Welcome
Makayla Thompson

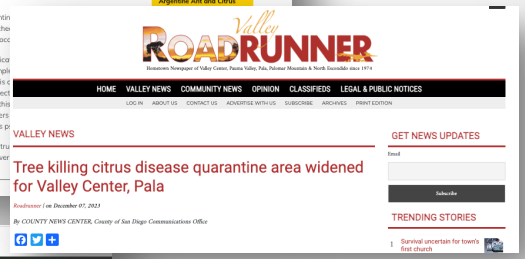
Recent Outreach Activities

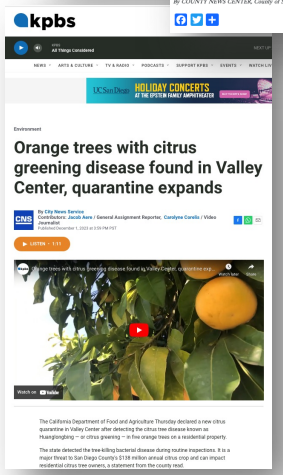
CITRUS PEST & DISEASE PREVENTION PROGRAM

Valley Center HLB+ Detections

Crisis Communications and Outreach Activities

- Crisis Communication Management Team
- Key message development
- Citrus Insider notification on quarantine expansion
- Industry partner outreach and notification
- Media outreach and interview coordination on new HLB+ detections, including what it means for homeowners and the current state of the ACP and HLB in California.
  - **37+ stories** placed in San Diego market
  - Three-part interview with ABC 10
  - Interview with the Valley Roadrunner
- Supported Dec. 28th grower meeting





Connecting with Residents

Ventura County Outreach

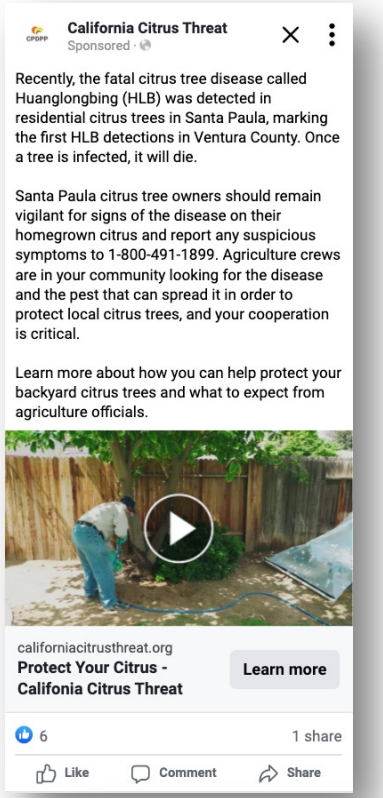
- Continuing hyperlocal outreach to encourage residents to cooperate with agricultural officials and be vigilant when inspecting their trees.
  - Targeted Facebook ads
- Coordinated interview opportunity with Ventura County Star.

Citrus Display for San Bernardino County Museum

- Overview of ACP and HLB in California
  - English and Spanish

Statewide PSA Distribution

- Distribution of the CPDPP PSA to broadcast outlets throughout the state.



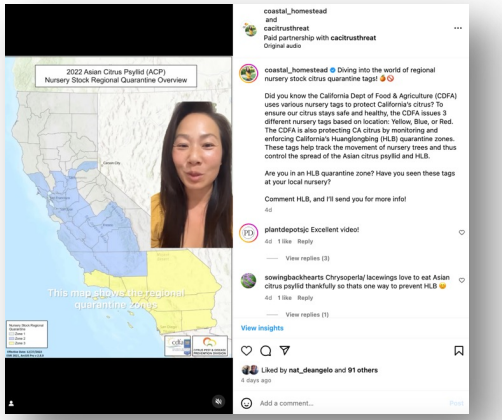
Connecting with Residents

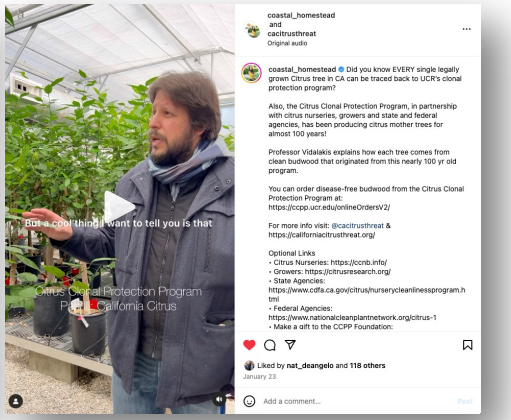
Lunar New Year Campaign

- In-language advertorial placements in Vietnamese and Chinese publications throughout the state encouraging residents to celebrate with citrus safely.

Influencer Partnership with Coastal Homestead

- Content series sharing information about the Citrus Clonal Protection Program and the importance of using disease-free budwood when propagating citrus plants.
- Content sharing information regarding nursery stock regional quarantines and what residents should look for when buying citrus trees from reputable nurseries.





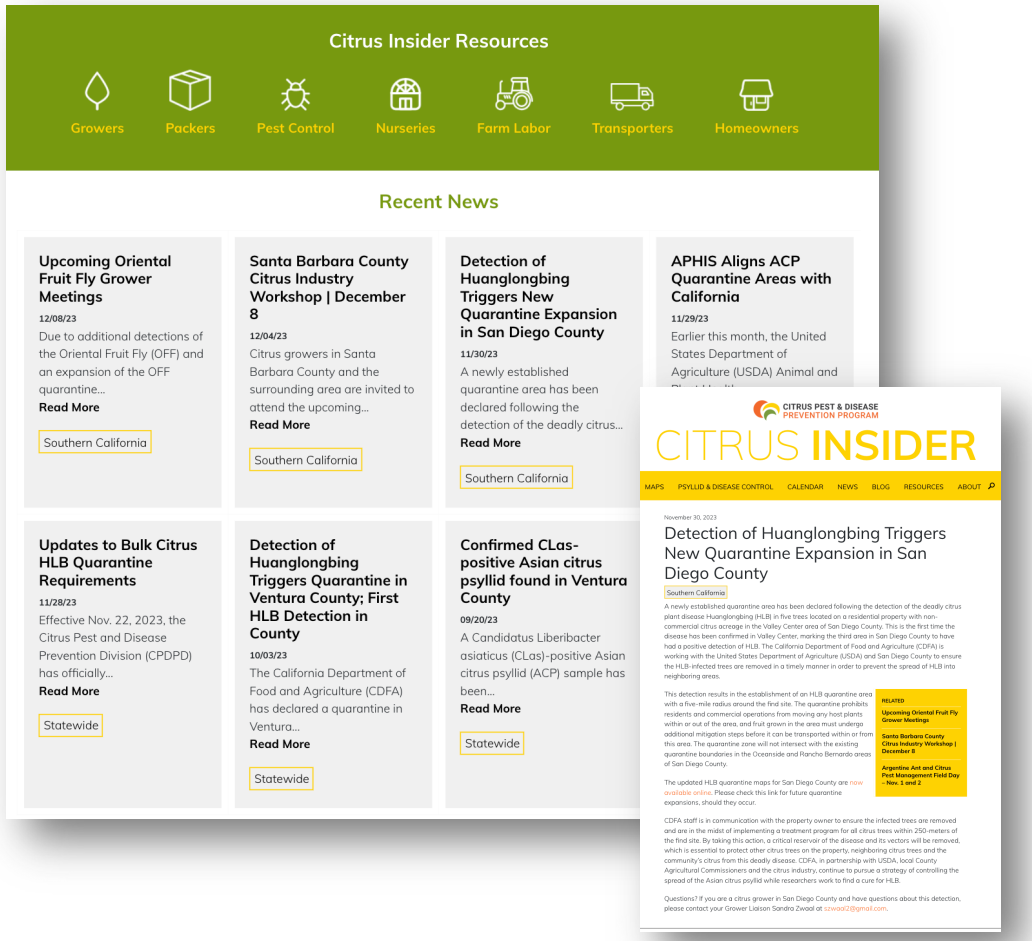
Industry Outreach Activities

Citrus Insider Updates

- Bulk Citrus Quarantine Requirement Updates
- APHIS Quarantine Expansion Notification
- Valley Center HLB Quarantine Expansion
- Santa Barbara County Citrus Workshop
- Oriental Fruit Fly Meetings
- Valley Center Grower Meeting
- Fruit Fly Guide for Industry Members

Los Angeles County CYVCV Detection

- Crisis Communication Management Team facilitation
  - Flyer development
  - FAQs and media statement
  - Citrus Insider post



CITRUS PEST & DISEASE PREVENTION PROGRAM

Industry Outreach Activities

Engaging with Industry Members

- Coordinated the development of two Citrograph articles for the spring 2024 issue.
  - Outreach update focused on the program's multicultural outreach efforts and successes.
  - Operations-focused article on behalf of Ops Subcommittee.

- Coordinated with Keith Okasaki on the development of a letter to distribute to nurseries as CDFA staff conduct inspections.
  - Pre-quarantine options
  - Regulatory overview for nursery stock inside of an active HLB quarantine zone

- Helped coordinate CPDPP's presence at:
  - CAPCA Spring Summit
  - South Orange County Rare Fruit Growers

CITRUS PEST & DISEASE PREVENTION PROGRAM

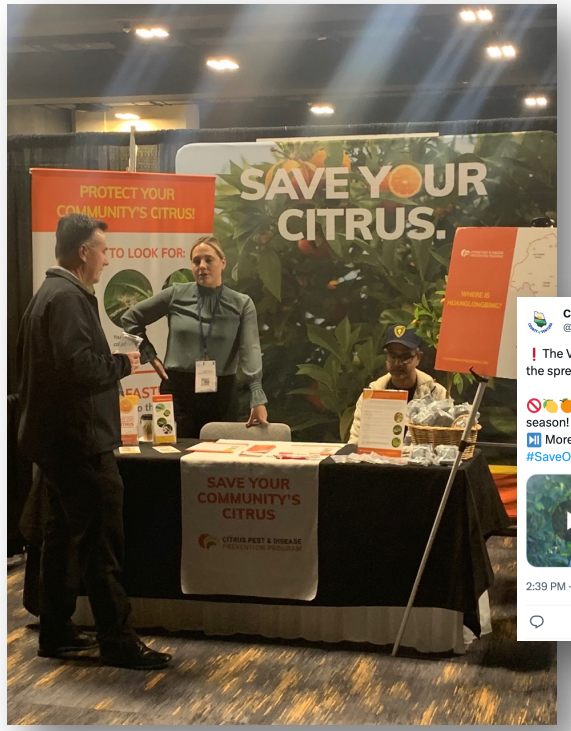
Elected Official Outreach Activities

California State Association of Counties (CSAC)

- Connected with over 100 elected officials representing various counties across California on the issue of ACP/HLB.

HLB Detection Outreach

- Outreach to the cities of Norco and Azusa's elected officials.
- Outreach to the city of Santa Paula and Ventura County elected officials.
    - HLB awareness outreach to adjacent counties and cities:
        - 50 elected officials in total.
- Outreach to the city of Escondido elected officials, as new parts of the city are now in the HLB quarantine zone near Valley Center.



Elected Official Outreach Activities

Briefing with Citrus Heights

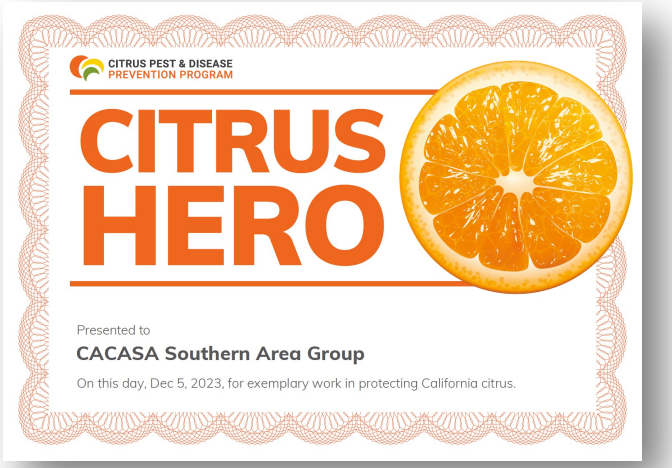
- Coordinated briefing with city officials from Citrus Heights on ACP and HLB.

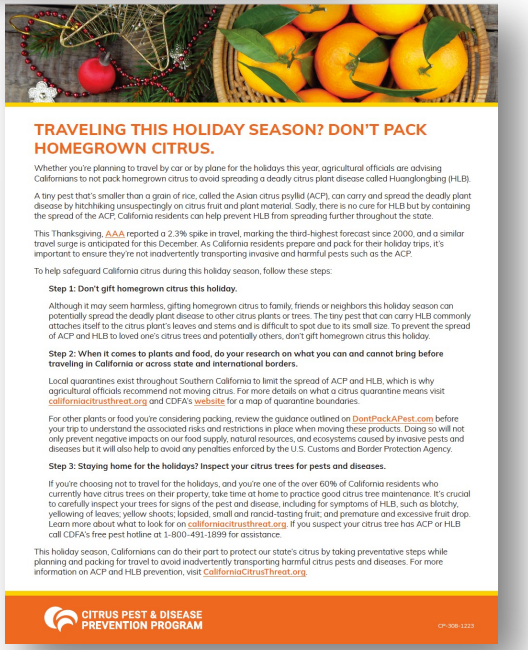
Quarterly Content Distribution

- Provided blog, newsletter and social media content to 307 elected official contacts focused on urging their residents to not move citrus during the holiday season.

Citrus Hero Award

- Recognizing the CACASA Southern Area Group for their partnership with CPDPP.





TRAVELING THIS HOLIDAY SEASON? DON'T PACK HOMEGROWN CITRUS.

Whether you're planning to travel by car or by plane for the holidays this year, agricultural officials are advising Californians to not pack homegrown citrus to avoid spreading a deadly citrus plant disease called Huanglongbing (HLB).

A tiny pest that's smaller than a grain of rice, called the Asian citrus psyllid (ACP), can carry and spread the deadly plant disease by hitchhiking unsuspectingly on citrus fruit and plant material. Sadly, there is no cure for HLB but by containing the spread of the ACP, California residents can help prevent HLB from spreading further throughout the state.

This Thanksgiving, AAA reported a 2.3% spike in travel, marking the third-highest forecast since 2000, and a similar travel surge is anticipated for this December. As California residents prepare and pack for their holiday trips, it's important to ensure they're not inadvertently transporting invasive and harmful pests such as the ACP.

To help safeguard California citrus during this holiday season, follow these steps:

Step 1: Don't gift homegrown citrus this holiday.

Although it may seem harmless, gifting homegrown citrus to family, friends or neighbors this holiday season can potentially spread the deadly plant disease to other citrus plants or trees. The tiny pest that can carry HLB commonly attaches itself to the citrus plant's leaves and stems and is difficult to spot due to its small size. To prevent the spread of ACP and HLB to loved one's citrus trees and potentially others, don't gift homegrown citrus this holiday.

Step 2: When it comes to plants and food, do your research on what you can and cannot bring before traveling in California or across state and international borders.

Local quarantines exist throughout Southern California to limit the spread of ACP and HLB, which is why agricultural officials recommend not moving citrus. For more details on what a citrus quarantine means visit californiacitrusthreat.org and CDFA's website for a map of quarantine boundaries.

For other plants or food you're considering packing, review the guidance outlined on DontPackAPest.com before your trip to understand the associated risks and restrictions in place when moving these products. Doing so will not only prevent negative impacts on our food supply, natural resources, and ecosystems caused by invasive pests and diseases but it will also help to avoid any penalties enforced by the U.S. Customs and Border Protection Agency.

Step 3: Staying home for the holidays? Inspect your citrus trees for pests and diseases.

If you're choosing not to travel for the holidays, and you're one of the over 60% of California residents who currently have citrus trees on their property, take time at home to practice good citrus tree maintenance. It's crucial to carefully inspect your trees for signs of the pest and disease, including for symptoms of HLB, such as blotchy, yellowing of leaves; yellow shoots; lopsided, small and rancid-tasting fruit; and premature and excessive fruit drop. Learn more about what to look for on californiacitrusthreat.org. If you suspect your citrus tree has ACP or HLB call CDFA's free pest hotline at 1-800-491-1899 for assistance.

This holiday season, Californians can do their part to protect our state's citrus by taking preventative steps while planning and packing for travel to avoid inadvertently transporting harmful citrus pests and diseases. For more information on ACP and HLB prevention, visit CaliforniaCitrusThreat.org.

CITRUS PEST & DISEASE PREVENTION PROGRAM

CP-308-1223

Upcoming Outreach Activities:

- Highland Citrus Harvest Festival
- CCM's Citrus Showcase
- City Developers/planners outreach in HLB quarantine areas
- Food bank donations blog and infographic for elected official partners
- Ag Day at the Capitol
- National Gardening Month outreach to Spanish publications
- California Rare Fruit Grower Associations outreach

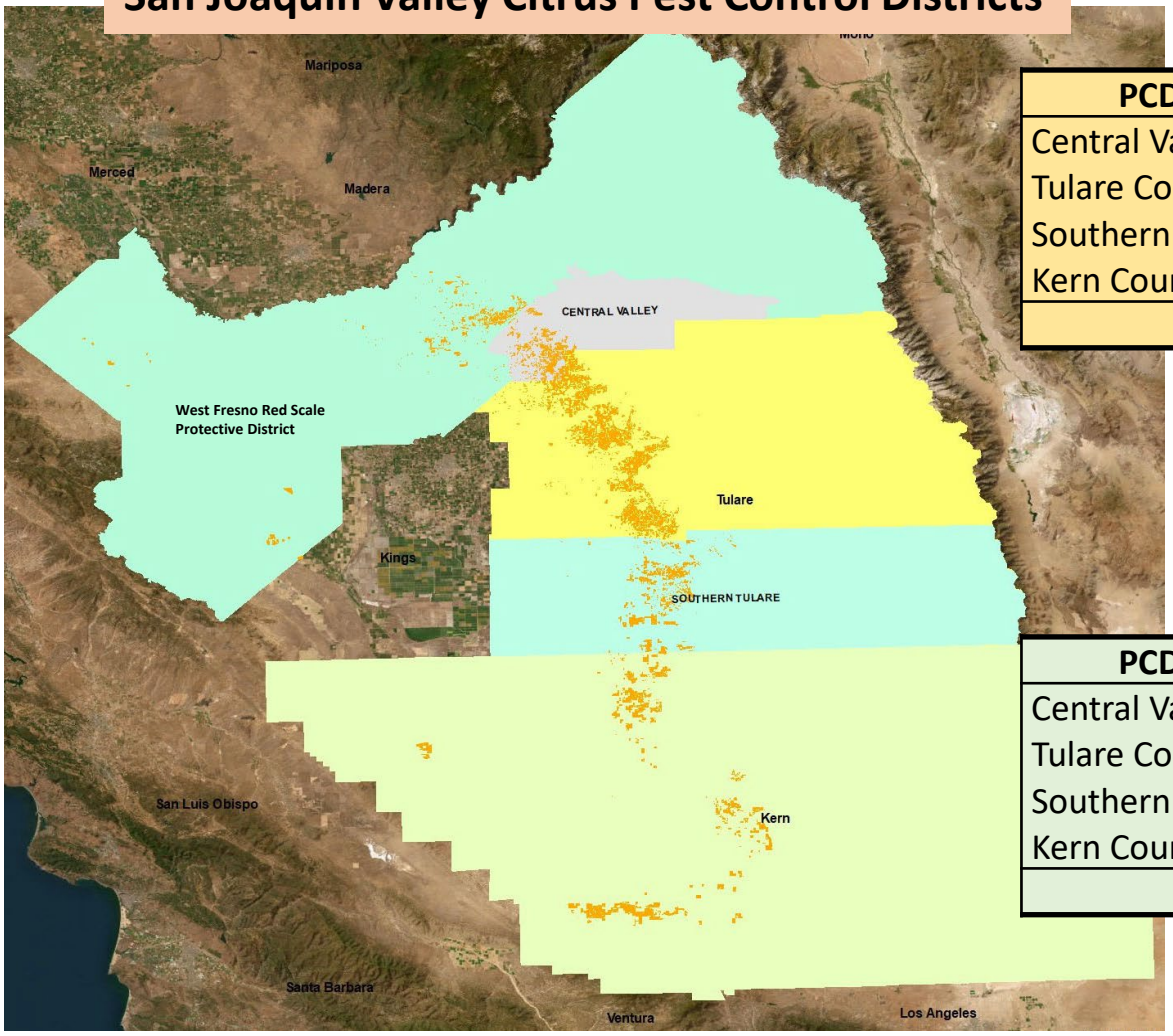
CITRUS PEST & DISEASE PREVENTION PROGRAM


Thank You
CITRUS PEST & DISEASE
PREVENTION PROGRAM

ALLIANCE OF PEST CONTROL DISTRICTS
FOR CITRUS PESTS AND DISEASES

ACP Trapping

San Joaquin Valley Citrus Pest Control Districts



Trapping - Fall 2023
(Mid-Sept to Mid-Dec)

PCDs	No. of Locations	No. of Traps
Central Valley	400	1,220
Tulare County	800	2,767
Southern Tulare	400	1,662
Kern County	800	2,440
	2,400	**8,089**

3 weeks turnaround

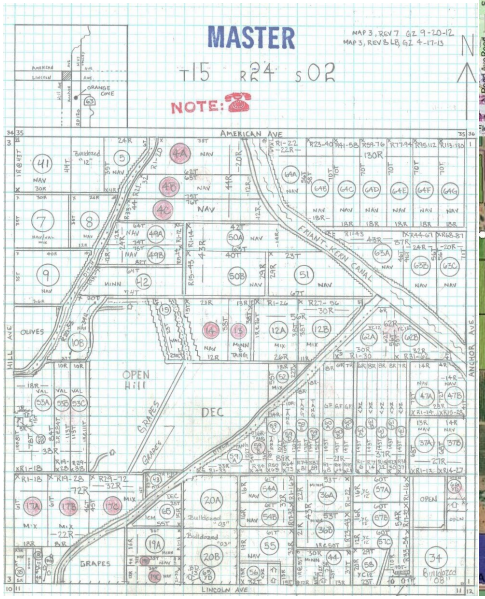
Trapping - Spring 2024
(April to June)

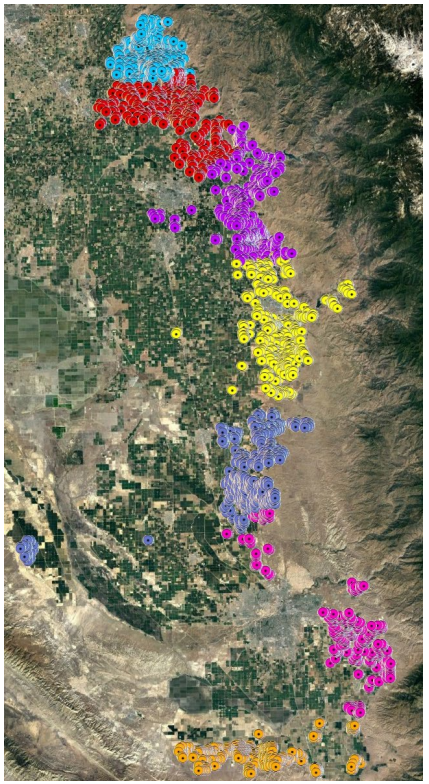
PCDs	No. of Locations	No. of Traps
Central Valley	444	2,664
Tulare County	931	5,586
Southern Tulare	475	2,850
Kern County	1,344	8,064
	3,194	**19,164**

2 weeks turnaround

ALLIANCE OF PEST CONTROL DISTRICTS
FOR CITRUS PESTS AND DISEASES

Mapping





CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

Action Plan for Sweet Orange Scab in California

December 2023

This document sets forth the California Department of Food and Agriculture (CDFA), Citrus Pest and Disease Prevention Division (CPDPD) statewide Action Plan for sweet orange scab (SOS). This document details the program implemented by CPDPD to sustain and protect California's commercial citrus production, residential citrus plantings, and natural resources.

Contents

I. Action Statement

CDFA established the Citrus Pest and Disease Prevention Program (CPDPP) in 2009 to sustain and protect citrus in the state of California through the implementation of this Action Plan for SOS. CDFA's Citrus Pest and Disease Prevention Division (CPDPD) in collaboration with the United States Department of Agriculture (USDA), California County Agricultural Commissioners (CACs), and Citrus Pest and Disease Prevention Committee (CPDPC) administers the CPDPP.

Sweet orange scab (SOS) is a federally actionable fungal plant pathogen that threatens all *Citrus* and *Fortunella* species and hybrids. Fruit afflicted with SOS can be severely blemished, rendering them unfit for sale in the fresh produce market. Additionally, the disease can cause premature fruit drop, and stunt young nursery trees and new field plantings. SOS presents an imminent and ongoing threat to California's $7.1 billion citrus industry.

In response to an increasing number of SOS detections, the CPDPC recommended that CDFA establish a state interior quarantine to regulate the movement of regulated host material from areas around SOS detections.

CPDPD reviews this plan on at least a quarterly basis to ensure all actions are consistent with identified program goals and objectives and will consider adjustments in response to new and relevant information, technologies, pest pressures, or other developments. Current scientific findings and recommendations, as well as updated federal and state regulations, policies, and/or industry practices, are reviewed to ensure CPDPD's actions are coordinated, scientifically based, transparent, and consistent with the goal of protecting California's commercial citrus production, residential citrus plantings, and natural resources.

II. Pest Profile

SOS is a plant disease caused by the fungal pathogen *Elsinoë australis*, which results in the formation of pustules (small, raised spots or rounded swelling) and lesions on the skin or rind of citrus fruit.

Two scab diseases on citrus are now common in many humid citrus growing areas worldwide: sour citrus scab, caused by *Elsinoë fawcettii*, and SOS, caused by *Elsinoë australis*. Multiple pathotypes have been identified for both species. Sour citrus scab has already been widely distributed around the world, whereas sweet orange scab was limited mostly to southern South America, until it was detected in the United States for the first time in Texas in 2010 in residential lemon and tangerine trees.

SOS is a common disease in South America, mainly Argentina, Brazil, and Paraguay. SOS has now been confirmed in Alabama, Arizona, California, Florida, Louisiana, Mississippi, Puerto Rico, and Texas. Beginning in 2013 to present day in California, SOS

has been found in the Calipatria and Winterhaven areas of Imperial County, in the Pomona, San Gabriel, and Whittier areas of Los Angeles County, in the Orange and Santa Ana areas of Orange County, and in the Blythe and Riverside areas of Riverside County.

The initial scab or lesion forms on very young fruit, is slightly raised, and pink to light brown in color. As the lesion expands, it appears cracked or warty and may change color to yellowish brown and eventually dark gray. The scabs typically form a pattern on the fruit that resembles water splashes. The central area of the fungal growth is depressed and becomes drab, greyish, and velvety when the pathogen is producing spores. Old scab lesions have a rough surface, are dusk colored, cracked, and fissured. Fruits are infected in the early stages of their development, grow misshapen, and are subject to premature drop. On the rind of developed fruits, raised lesions are formed with different shapes, sizes, and colors depending on citrus species and cultivar affected. These lesions can appear as scattered protuberances, conical projections, craters, extensive areas of fine eruptions, or they can coalesce to give scabby patches.

Similar warty lesions and corky eruptions are formed on young twigs, shoots, and stems of nursery plants, which can grow bushy and stunted. On young stems, the lesions resemble an area of scabbed over dieback. Lesions begin on the underside of leaves as water-soaked spots and typically form along the edge of the leaf or the mid-vein.

Hosts for *Elsinoë australis* include fruit and propagative parts of all Citrus and *Fortunella* species and hybrids and *Simmondsia chinensis* (jojoba). The most susceptible hosts are sweet orange and tangerine.

Although there is minimal effect on internal fruit quality and taste, fruit afflicted with SOS can be severely blemished, rendering them unfit for sale in the fresh produce market and subject to export quarantines. Additionally, the disease can cause premature fruit drop, and stunt young nursery trees and new field plantings. SOS is a serious and ongoing threat to California's commercial and residential citrus. Physical movement of infected host fruit is a recognized channel for the spread of SOS from an established area to a new location. Spores may also be spread by wind and rain dispersal. Fruit from regulated areas must be washed, brushed, disinfested, treated, and waxed prior to shipment to help prevent the spread of this fungal pathogen.

III. Current Status of SOS

SOS is an actionable, quarantine plant disease in California and is regulated under Federal Quarantine Order DA-2022-18. On February 1, 2022, SOS, an "A-rated" and federally actionable fungal plant pathogen, was detected in a residential citrus tree in the City of Santa Ana, Orange County. The USDA Detection and Delimitation Survey Methods for *Elsinoë australis* (the fungal causal agent of sweet orange scab) requires a delimitation survey of all citrus hosts within an 800-meter radius from the site of confirmed positive fruit, leaves, and/or twigs.

SOS has been detected in California citrus groves on multiple occasions since the initial detection in California in 2013. These detections occurred only in southern California (Imperial, Los Angeles, Orange, and Riverside). Effective October 1, 2023, Section 3443 of Title 3 of the California Code of Regulations (CCR), Sweet Orange Scab Interior Quarantine, was adopted and established a five-mile radius quarantine area around SOS detections.

Table 1. SOS Positive Samples

SOS Positive Samples		
Imperial County		# of PDRs
	Calipatria	2
	Winterhaven	11
Imperial County Total		13
Los Angeles County		
	Pomona	1
	San Gabriel	2
	Whittier	1
Los Angeles County Total		4
Orange County		
	Orange	4
	Santa Ana	36
Orange County Total		40
Riverside County		
	Blythe	2
	Riverside	4
Riverside County Total		6
Grand Total		**63**

As of 10/20/2023

IV. Organization, Responsibilities, and Staffing

The Incident Command System (ICS)

Managing SOS in California is a coordinated, interagency effort between USDA – Animal and Plant Health Inspection Services (APHIS), CDFA's CPDPD, and CACs, and requires the participation of multiple non-governmental entities (industry members, university researchers, technical specialists, etc.).

The presence of SOS in California constitutes an "incident" per the Federal Emergency Management Agency and represents a threat to the environment and property. Responding to these pests is required to ensure protection of valuable resources. Because federal funding is expended to implement the response, ICS management is used.

The ICS is an action planning process which ensures that all SOS-related activities are coordinated and communicated to all partners involved and that all activities support identified objectives. The ICS process ensures integration of all program elements including planning, operations, communication, outreach, equipment needs, and financial management. Using the ICS process facilitates a standardized system of communication, collaborative decision-making, and cost-effective resource utilization.

Representatives from CDFA, CPDPD, USDA, and affected CACs convene regularly (daily, weekly, or other frequency as determined necessary) to plan, communicate, and act on the SOS response in California.

United States Department of Agriculture (USDA)

USDA-APHIS, Plant Protection and Quarantine (PPQ) program is responsible for administering the Citrus Health Response Program (CHRP). The goal of CHRP is to sustain the United States' citrus industry, maintain growers' continued access to export markets, and safeguard the other citrus growing states against a variety of citrus diseases and pests, including Asian citrus psyllid (ACP), huanglongbing (HLB), and SOS. CHRP provides guidelines for nursery stock production, fruit inspection, treatment, and certification.

PPQ, Science and Technology (S&T) provides scientific support for PPQ regulatory decisions and operations. S&T is responsible for ensuring that PPQ has the information, tools, and technology to make science-based regulatory and policy decisions. In addition, S&T ensures PPQ's operations have the most scientifically viable and practical tools for pest exclusion, detection, and management.

The National Plant Protection Laboratory Accreditation Program (NPPLAP) evaluates laboratories that conduct molecular diagnostics for USDA-APHIS. NPPLAP accreditation process ensures accuracy and credibility in the diagnostic determinations that inform

regulatory actions.

USDA Agricultural Research Service (ARS) is the chief scientific in-house research agency for the USDA. ARS conducts research to develop and transfer solutions to agricultural problems of high national priority. ARS disseminates information to ensure production of high-quality, safe food, and other agricultural products. ARS also works to assess the nutritional needs of Americans, sustain a competitive agricultural economy, enhance the natural resource base and the environment, and provide economic opportunities for rural citizens, communities, and society.

The Department of Homeland Security, Customs and Border Protection (CBP) employs agriculture specialists at United States ports of entry and international mail facilities to target, detect, intercept, and thereby prevent the entry of invasive pest and disease threats before they have a chance to do any harm. The CBP agriculture specialists work with specialized x-ray machines that detect organic materials. They utilize agricultural canines specifically trained to sniff out meat and plant material at international ports of entry.

California Department of Food and Agriculture (CDFA)
CDFA's CPDPD develops, administers, manages, and implements the SOS response program. Program elements include:

- Administration of Federal CHRP Agreements
- Visual Survey
- Delimitation
- Regulatory Quarantines
- Public Outreach and Messaging

CPDPD and the Plant Pest Diagnostics Center (PPDC) provide different services in support of SOS detection and response activities. CPDPD conducts all aspects of SOS survey and rulemaking while PPDC conducts diagnostics of symptomatic SOS plant samples.

Citrus Pest and Disease Prevention Committee (CPDPC)
Food and Agricultural Code (FAC) section 5914 created the CPDPC. CPDPC is comprised of Secretary-appointed members of the California citrus industry and the public. FAC section 5915 authorizes CPDPC to develop, subject to Secretary approval, a statewide citrus specific pest and disease work plan that includes, but is not limited to the following:

- Informational programs to educate and train residential owners of citrus fruit, local communities, groups, and individuals on the prevention of pests and diseases and their vectors, specific to citrus.
- Programs for surveying, detecting, analyzing, and treating pests and diseases

specific to citrus involving producers of citrus and residential owners of citrus fruit and host materials, except as provided in FAC section 5930.

In addition, CPDPC submits recommendations to the Secretary on, but not limited to, the following:

- Annual assessment rate.
- Annual budget.
- Expenditures necessary to implement the statewide work plan.
- The amount of fees to be levied, as provided in FAC section 5919.
- The receipt of money from other sources to pay any obligation of the committee and to accomplish the purposes and objectives of the committee.
- The adoption of regulations consistent with the powers and duties of the committee.

California County Agricultural Commissioner (CAC)
CACs implement federal, state, and local regulatory programs designed to promote agriculture and protect people, the environment, and marketplace equity. CACs conduct regulatory activities in coordination with the USDA-APHIS, CDFA, CPDPD, and the California Department of Pesticide Regulation (CDPR). Each CAC is licensed by CDFA and appointed by the respective county's Board of Supervisors.

Pesticide Use Enforcement
Enforcement of pesticide safety regulations; issuance of restricted material permits; on-site inspection of pesticide applicators; administration of pesticide use reporting; surveillance of dealers, pest control advisors, and pest control operators (PCO); and investigate pesticide incidents. CACs enforce regulations to protect ground and surface water from pesticide contamination.

Pest Exclusion/Quarantine/Phytosanitary Certification
In conjunction with CDFA, CPDPD, and USDA-APHIS, the CACs enforce the State Interior Quarantine for SOS which is set forth in California Code of Regulations (CCR), title 3, section 3443. Enforcement actions include, where applicable, the inspection of bulk citrus shipments from areas affected by the quarantine to ensure compliance and enforce the terms of Master Permits. Master Permits issued by CDFA enable movement of agricultural commodities where otherwise prohibited by quarantines. CACs also oversee licensed PCOs to ensure that pesticide use is properly reported.

CACs provide training and technical resources to citrus production nurseries statewide regarding the implementation of the federally approved insect-resistant screen house program, issue compliance agreements, conduct on-site inspections, procure plant samples, and monitor approved, insect-resistant growing structures.

CACs provide phytosanitary certification services, including inspection, sampling, and issuance of compliance agreements and/or certificates to facilitate movement of

regulated commodities from the affected SOS quarantine area. Phytosanitary certification is provided to meet state, federal, and international plant quarantine regulations pertaining to SOS.

V. Technical Advisors and Support

Science and Technology (S&T)

Scientists with the USDA-S&T are consulted on all program elements, including detection techniques, diagnostic tools, and exclusion policies. Scientists with S&T are typically included in the Technical Working Group (TWG). S&T also develops and validates new molecular diagnostic tools and provides diagnostician training.

Agricultural Research Services (ARS)

Scientists with the USDA-ARS conduct research to develop and transfer solutions to agricultural problems of high national priority and provide information access and dissemination to CDFA. Scientists with ARS are typically included in the TWG. ARS scientists are actively engaged in the development of survey programs implemented in California.

University of California, Division of Agriculture and Natural Resources (UC ANR), Cooperative Extension

Citrus Clonal Protection Program (CCPP)

CCPP is a cooperative program among the UC Riverside Department of Plant Pathology and Microbiology, CDFA, CPDPD, USDA-APHIS, the citrus industry of the state of California, and the Citrus Research Board (CRB). Since 2009, the CCPP has been a part of the National Clean Plant Network for specialty crops. CCPP provides a safe mechanism for the introduction into California of citrus varieties from any citrus-growing area of the world for research, variety improvement, or for use by the commercial industry of the state. This mechanism includes disease diagnosis and pathogen elimination followed by maintenance and distribution of true-to-type, primary citrus propagative material of the important fruit and rootstock varieties. CCPP provides support to the citrus industry and CPDPD by ensuring, through quarantine and disease testing, that citrus material entering California regardless of its point of origin, foreign or domestic, is free from bud-transmissible diseases.

CDFA Primary Plant Pathologist

CDFA Primary Plant Pathologist provides scientific input to CDFA Executive staff and program managers to ensure science-based policy development and decision-making.

Industry Representatives

Industry representatives are knowledgeable about existing production practices including chemical and cultural insect control practices and harvesting and handling practices. Industry representatives provide information used in the development of regulatory policies and procedures and are queried for input on the practicality and feasibility of

proposed policies and procedures.

Citrus Research Board (CRB)
CRB administers the California Citrus Research Program, the grower-funded and grower-directed program established under the California Marketing Act as the mechanism enabling the state's citrus producers to sponsor and support needed research. The priorities for the Citrus Research Program have been realigned to meet the challenges facing citrus growers in California. The objective of the program is to be reactive to immediate threats and plan for future threats to the economic production of citrus. CRB partners with CPDPD on several projects, including biocontrol activities of ACP and research projects on early detection technologies.

California Citrus Quality Council (CCQC)
CCQC's primary objective is to ensure that California citrus production meets domestic and international regulatory standards. CCQC works with government agencies, international standards setting organizations, the UC, the California citrus industry, and trading partners to help the California industry meet domestic and international phytosanitary, food safety, food additive, and pesticide residue regulations. The CCQC provides CDFA with input and updates on trade impacts associated with SOS.

Trade Associations
California Citrus Mutual (CCM) and Sunkist are both trade associations that work with citrus growers to market fruit nationally and internationally. CCM represents its members on matters that affect economic livelihood and provides necessary information to enhance the ability to profit from their work. CCM closely monitors and becomes involved, as needed, in regulatory and legislative processes which may result in an economic impact to growers. Sunkist is a grower cooperative that works to develop a worldwide market, promote a brand name, access a global transportation system, develop comprehensive research capabilities, and gain governmental access to overseas markets. Like other citrus trade associations, CCM and Sunkist partner with CPDPD to ensure grower's needs are being met by the program.

Nursery Industry Groups
The nursery industry has several groups that engage in activities to support citrus nurseries in California, including Plant California Alliance, California Citrus Nursery Society (CCNS), the California Citrus Nursery Board (CCNB), and the California Nursery Advisory Board (NAB). Plant California Alliance is a trade organization, focusing on retail nurseries and garden centers, which works to promote and protect the California nursery industry.

CCNS is a non-profit industry association helping the citrus nursery industry of California become more successful. CCNS provides an exchange for information useful to the citrus nursery industry. It holds an annual conference and several single-purpose meetings each year to disseminate information and/or to serve as forums for industry representatives to develop positions on matters of interest to the industry.

CCNB, also known as the California Citrus Nursery Research and Education Program, is an industry-funded and directed program established under the California Marketing Act to enable the State's citrus nurseries to sponsor and support needed research. NAB is a group appointed by the Secretary to advise CDFA on matters affecting and pertaining to nurseries in California.

NAB is comprised of representatives from a wide spectrum of the nursery industry. The mission of the NAB is to grow and maintain a strong relationship between CDFA and the nursery industry to secure the industry's future. All these entities work collaboratively with CPDPD to ensure that the citrus nursery industry needs are represented and are being met by the program.

VI. Administrative Activities

Public and Stakeholder Notification

Information concerning SOS detections and regulation is conveyed directly to concerned local and state political representatives and authorities via letters, emails, and/or faxes. Press releases, if issued, will be prepared by CDFA's public information officer and the CAC, in close coordination with the project leader responsible for treatment. Either the CAC or CDFA's public information officer serves as the primary contact to the media.

Data Analysis and Visualization Unit

CPDPD's Data Analysis and Visualization Unit (DAVU) conducts extensive data analysis and generates a variety of static and web-based maps to advance the goals and objectives of the program. On a routine basis, DAVU receives data from field staff conducting detection, survey, and regulatory activities. The data is used to inform internal and external stakeholders of the status of the program activities and to illustrate the distribution of citrus pests and diseases throughout California. DAVU's principal tasks include generating maps to guide field staff in their prevention and eradication efforts and developing and managing a streamlined process for effective data management. DAVU also conducts the environmental analysis required prior to commencing field activities to ensure the protection of rare and sensitive species, habitats, and protected waterways.

VII. Detection and Survey Activities for SOS

Multi-Pest Survey

On October 1, 2021, the CDFA, at the direction of the USDA implemented a multiple pest survey as part of the CHRP agreement. Previously the CHRP agreement had been focused solely on ACP and HLB activities. The expanded survey includes diseases such as SOS, citrus canker (CC), citrus black spot (CBS), citrus variegated chlorosis (CVC), citrus leprosis (CL), citrus yellow vein clearing virus (CYVCV), and citrus yellow mosaic virus (CYMV). Field staff survey for these pests and diseases during routine residential HLB risk-based surveys. However, the primary focus of this section is to document CPDPD's methodology for surveying of SOS.

USDA ARS HLB Risk Model is used as a guide to identify survey sites and sampling densities for the multi-pest survey. The following factors are considered when determining risk associated with HLB:

- Census Travel
- ACP Density
- CLas+ ACP
- Potential ACP Source
- Major Citrus Transportation Corridor
- Packinghouses
- Farmer's Markets
- Military Installations and Sovereign Lands
- Organic Citrus
- Weather Suitability

Using these risk factors, total risk is determined for each square mile grid, resulting in a recommended sampling density as shown in Table 2. Each square mile is mapped, and identified by the section, township, range (STR) identification (ID) (the unique index). Each STR ID is assigned a Sample Density from Table 2, which is used to determine the number of sites to survey per square mile.

Table 2. Example of Recommended Sampling Density and Number of Survey Sites for Citrus Pests and Diseases in California

Recommended Sampling Density	Actual Number of Sites to Survey	Square Miles with the Recommended Density	Total Number of Sites to Survey
0 – 5	5	260	1,300
6 – 20	10	239	2,390
21 – 40	25	209	5,225
41 – 80	50	497	24,850
81 – 160	100	648	64,800
161 +	200	291	58,200

The CPDPD uses this method to determine the number of sites to sample for each survey cycle. Data obtained from the survey is submitted to USDA to verify that the Global Position System points are within the assigned STR and then forwarded to USDA ARS. In subsequent survey cycles, USDA ARS may recommend additional or fewer sites or STR's to survey so that the recommended sampling density is achieved. Although the survey sites and sampling densities are primarily selected based on modeled HLB risks, staff will inspect all host trees for symptoms of other citrus diseases.

Inspection of Hosts at Survey Site

- All members of the plant family Rutaceae at the site, primarily *Citrus* species, and other hosts of SOS are identified.

- All hosts at the site are inspected for symptoms of SOS and other pests and diseases. The most common SOS symptoms are pink to light brown scab or lesions forming on young fruit.
- Plant material is collected from all hosts displaying disease symptoms.

Submission of Plant Parts for SOS Analysis

- Collect symptomatic leaves and small fruit. Leaf samples are not collected from all trees on the property, only from trees exhibiting SOS symptoms.
- Clippers, if used, are disinfected with 70 percent non-denatured ethanol or cleaned with disinfecting wipes (containing 10% bleach, or alkyl dimethyl benzyl ammonium chloride, or alkyl dimethyl ethyl benzyl ammonium chloride) after every sample collection.
- Thorns are cut off leaves. Leaves are subsequently cleaned with a paint brush to remove any debris, including any ACP life stages present and any other insects.
- Leaves are placed on a paper towel and thoroughly checked to ensure all insects (including ACP) and their life stages are removed. Staff ensure that all plant samples submitted to the PPDC are free of all insects.
- Plant samples are wrapped in a paper towel. Towel(s) with samples are placed in a sealable, plastic bag. When multiple hosts are sampled at a single property, the individual bags are placed inside a larger sealable, plastic bag.
- Using a permanent marker, the bag is labeled with the host tag number, host type, sampling date, address of the property, and GPS coordinates of the tree. A copy of the PDR is placed inside the bag.
- A PDR sticker is placed on the bag, or the PDR number is written directly on the bag. A PDR number is assigned to each bag containing a sample.
- The sealable plastic bag is stored in a cooler with ice packs and a paper towel is placed between the ice packs and the samples to ensure that the samples stay dry but cool.
- One PDR (Plant Pathology) is completed for each site. Samples from each site are numbered. If the detection site has multiple trees, one PDR with multiple samples is created.
- In the “Remarks” section, information on the host from which the sample was taken is recorded and describe the type of plant part(s) taken as a sample. Examples:
  - T #1 = lemon (leaves);
  - T #2 = grapefruit (fruit); and
  - T #3 = Mexican lime (leaves & fruit).
- Host information is entered in the host section of the PDR.

Figure 1: PDR Hosts

- Samples collected from CPDPD's Northern District are hand-delivered to the PPDC, whereas samples collected from CPDPD's Southern and Central districts are shipped to the PPDC. PPDC confirms that the contents of the cooler are accurately reflected on the chain of custody and the samples are analyzed per the appropriate protocol.

Delimitation Survey Following an SOS Detection

An SOS detection triggers an 800-meter radius delimitation area. The delimitation area is created from the location of the positive tree. A new 800-meter radius delimitation area is created with each subsequent find.

- All host plants are surveyed. Plant samples are collected from symptomatic trees only.
- If the detection is in an area not quarantined for SOS, a five-mile radius quarantine is established with CAC concurrence. If an SOS quarantine already exists but does not include all areas within the five-mile radius, the existing quarantine is expanded.
- All trace back information is collected on the source of the diseased plant if available.

VIII. Diagnostics

Plant Pest Diagnostics Center (PPDC)

CDFA's PPDC Plant Pathology Laboratory tests citrus fruit and leaves for *Elsinoë australis*, the fungus that causes SOS, using a polymerase chain reaction (PCR) test. There are five pathotypes of SOS which are detected by this test. The sweet orange pathotype primarily affects the fruit of sweet orange and mandarins, but also infects lemon, sour orange, tangerine, kumquat, lime, grapefruit, calamondin, and *Fortunella* sp. Other pathotypes infect natsudaidai, jojoba (Ash et al. 2012), and *Populus* sp. (Zhao et al., 2020, EPPO 2021). Leaves of citrus are rarely affected. Samples scraped from lesions are pooled from fruit sampled from the same trees. A USDA-validated conventional multiplex PCR protocol is used to test plant samples for the presence of *Elsinoë australis*: This test uses the detection primers designed by Hyun et al. (2007 and 2009) from the intergenic spacer region of the ribosomal DNA and will not amplify *Elsinoë fawcettii*, the causal agent of SOS, which is common in Florida. The primers used for the internal controls are NS1 and NS2 (Dams et al. 1988) which amplify a product from all plant samples tested to date. For a sample to be called positive by the lab it must be tested twice and both samples must test positive. Confirmation by sequence analysis that the amplicon is from *Elsinoë australis* is also performed. If a sample tests positive from a county with no previous detections, or a new host is detected, samples will be sent to the USDA-S&T lab in Laurel, Maryland for confirmation. Their tests include PCR and sequence analysis.

IX. Regulatory Activities

General

CDFA regulates the intrastate movement of SOS host material pursuant to 3 CCR § 3443, Sweet Orange Scab State Interior Quarantine. The USDA regulates the interstate movement of SOS host material pursuant to Federal Order DA-2022-18 for SOS. This federal order establishes quarantine areas, hosts and possible carriers of the pest and disease, and the prohibitions or conditions which enable movement of hosts within or from a quarantine area.

In conjunction with USDA and the CACs, CPDPD enforces all provisions of the regulation and provides guidance to affected industry representatives of the conditions and actions which would make regulated products eligible to move within and from the quarantine areas.

CDFA conducts regulatory activities and enforces the regulations to prevent the artificial spread of SOS by restricting the movement of host material from the quarantine area. Regulatory activities include creating and issuing compliance agreements, publishing Citrus Division and Phytosanitary Advisories to provide detailed information on regulations and enforcement policies, developing and sharing educational material, and consistently communicating with and inspecting regulated establishments to ensure compliance with the regulations.

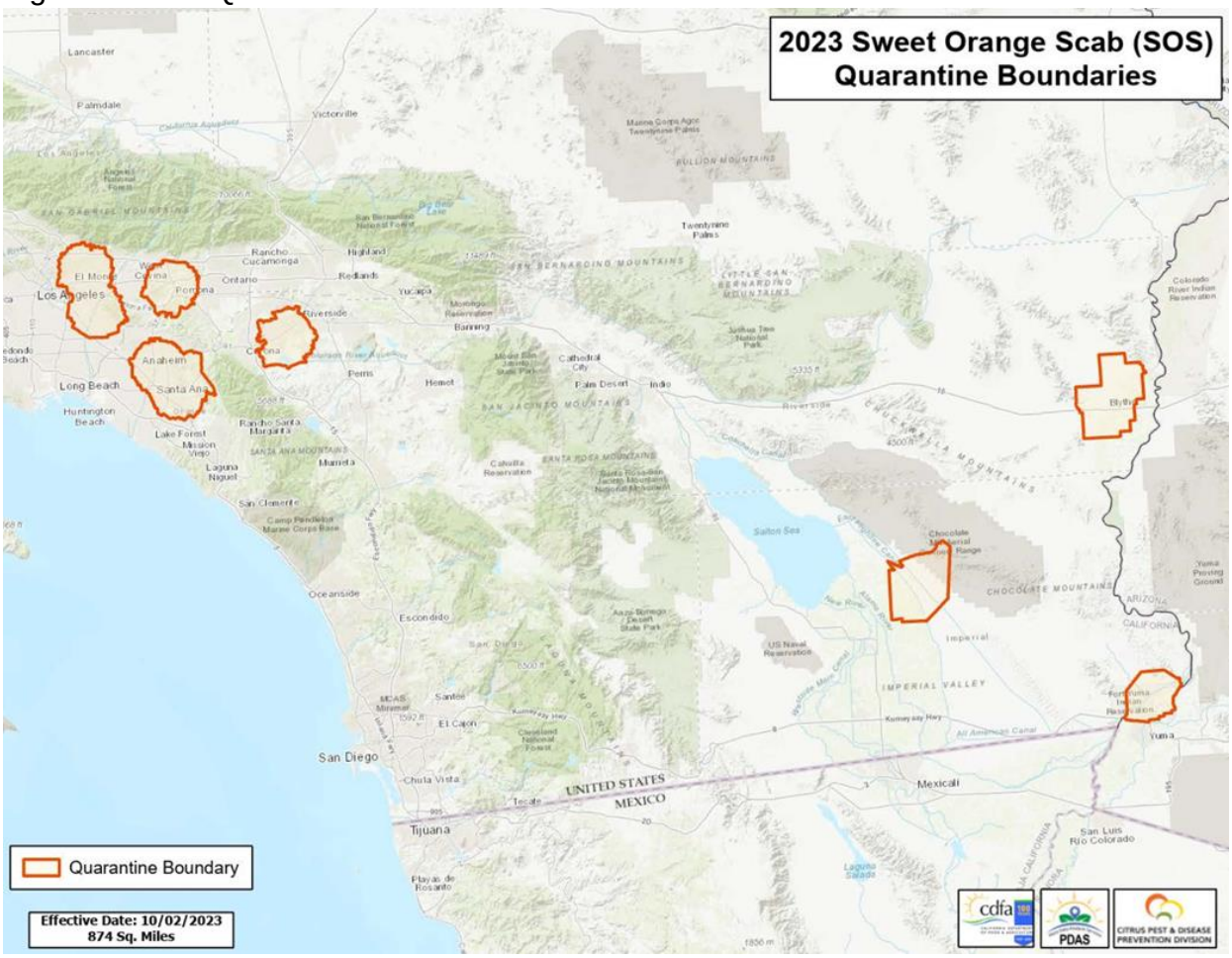
In addition to the requirements regarding SOS, all citrus nursery stock produced and/or sold in California must meet the requirements found in 3 CCR § 3701, Citrus Nursery Stock Pest Cleanliness Program (NSPCP). All source trees for citrus nursery stock propagative materials are registered with the Citrus NSPCP and must meet testing and maintenance requirements.

SOS Quarantine

Pursuant to 3 CCR § 3443, CDFA will establish a quarantine area with a five-mile radius from each SOS-positive detection. Quarantine borders follow physical boundaries such as roads, rivers, or railways. All establishments growing, transporting, selling, or packing SOS host material within the established SOS quarantine area are regulated under a signed compliance agreement.

SOS host nursery stock, propagative plant parts (except seed extracted from fruit), and fruit are prohibited from moving out of the SOS quarantine area unless they meet the requirements outlined in Federal Order DA-2022-18 for SOS.

Figure 2. SOS Quarantine Areas



Compliance Agreements

Compliance agreements convey the quarantine restrictions and requirements to affected businesses located within a regulated area. Under the authority provided in FAC § 5705, CDFA issues compliance agreements to all citrus growers, transporters, packers, and wholesale nurseries. Under a signed compliance agreement, regulated establishments are permitted to move host material while adhering to the terms of the agreement and with general CPDPD oversight. While the signed agreements are self-executing, CPDPD conducts periodic inspections to ensure quarantine compliance.

Safeguarding Requirement

All citrus transporters/haulers are required to completely safeguard citrus fruit while in transit from the SOS quarantine area. Safeguarding of fruit can be accomplished in any manner that prevents the fruit from being exposed to SOS and stops the loss of fruit, leaves, stems, branches, or plant debris while in transit. The safeguards are secured prior to the vehicle departing with fruit and must remain in place until the vehicle reaches its destination for offloading.

Nurseries within the SOS Quarantine

SOS host nursery stock is restricted to shipments within the contiguous SOS quarantine area to non-commercial citrus-producing states, or to states regulated for SOS and contiguous to California's interior quarantine area. Movement of SOS host nursery stock from an area under quarantine is prohibited unless produced and continuously maintained in a USDA-approved structure pursuant to the requirements outlined in Federal Order DA-2022-18 for SOS.

Interstate Movement

USDA regulates interstate movement of SOS host material and nursery stock. Under a permit issued by USDA, entities in California may ship these commodities interstate and must also sign a compliance agreement with CDFA. Shipments from a USDA-approved structure may be shipped to a citrus producing or non-citrus producing state, subject to local restrictions. Shipments of commodities maintained outdoors may only be shipped to non-citrus producing states under a Limited Permit issued by USDA, in addition to the compliance agreement.

SOS Quarantine Enforcement

In cooperation with USDA and the CACs, CDFA enforces the quarantine requirements to help ensure SOS is not artificially spread throughout the state. Enforcement activities include conducting inspections at nurseries, monitoring regulatory fungicide treatments, checking treatment and sales records, and inspecting citrus fruit growers, packers, and transporters.

Quarantine enforcement activities also include responding to SOS detections in new quarantine areas. Compliance agreements are signed with all regulated establishments to ensure quarantine requirements are met.

Special Permits

Under authority provided in 3 CCR § 3154, the Secretary may issue special permits pertaining to the movement of regulated articles and commodities which would otherwise be prohibited by a regulation. This may occur when there is a specific demonstrated need and the terms and conditions of the permit adequately mitigate the biological risk of spreading a pest. These special permits are called Quarantine Commodity (QC) permits and may be issued to individuals, businesses, researchers, or to CDFA program staff. The permit may be self-executing with all the terms and conditions listed in the permit or may require the permit participants to enter into compliance agreements.

Additionally, special permits are issued by the state and federal government to support research activities related to SOS. State permits are required for the intrastate movement and use of such organisms and their hosts. Federal permits are issued to researchers for the interstate movement of regulated organisms.

X. Outreach and Education Program

The CPDPD engages the services of a professional outreach contractor to oversee a statewide outreach and education program. The program is designed to conduct concise and focused outreach to various audiences, including homeowners, citrus industry members, and elected officials, about the threat that SOS poses to residential and commercial citrus trees. Additionally, the contractor keeps growers informed of the status of SOS, as well as other citrus pests and diseases. The outreach and education program includes, but is not limited to, the following items:

- A work plan including all deliverables and completion dates for all components.
- Messaging that creates an environment of cooperation and support for controlling SOS among residents, industry members, legislators, and stakeholders.
- Cohesive, distinctive artwork and graphics to be used on all printed and electronic materials associated with the CPDPD and CPDPC outreach and education program.
- Quarterly newsletters and articles distributed in existing publications, i.e., *Citrograph*, regional associations, trade press, on the CDFA's and CPDPC's websites, and via postal mail.
- A media update guide, including press releases for distribution to local papers, trade press, print media, television, and radio in citrus growing regions.
- Handouts and complementary materials that can be easily updated and produced in short runs for use in trade shows and repurposed for electronic distribution via email, on websites, etc., to provide relevant updates on the CPDPP.
- A program that provides regular updates to regional citrus growers, CACs and Farm Bureau chapters, and that provides materials and information for use in local grower meetings, field day activities and trade shows.
- A program to identify candidates among California's citrus growers for education and deployment as local experts available or media interviews and public meetings in areas, such as their local communities, where citrus trees are newly infested with SOS.
- Speaker kits, including talking points, handouts, and visuals, for use in providing presentations on SOS.
- A media outreach strategy that can reach reporters with breaking news in a timely fashion.
- Social medial outreach (Twitter, Facebook, etc.), upon approval of the CPDPD and CDFA.
- Provide program's outreach materials in multiple languages for distribution via multiple media channels to reach the largest audience.
- Paid media advertising strategies in key regions, including paid placements of a public service announcement and/or other advertisements.
- A program that participates in select public events in areas where support of treatment is critical.
- Ongoing management and programming of the existing homeowner (CaliforniaCitrusThreat.org) and industry (CitrusInsider.org) websites.
- Working collaboratively with the regional Grower Liaisons to support outreach and develop a campaign to encourage grower participation in the area-wide treatment program.

- Supporting industry outreach if/when SOS arises or regulatory changes take place, or in other situations requiring immediate, focused attention on growers, packinghouses, field workers, haulers, pesticide applicators, etc.
- A program that provides ongoing educational information and resources to elected officials and local governmental groups, so they are informed on the issue and can share program messaging with their constituents.
- Building and reinforcing relationships with CACs, city officials and their staff for long-term partnership in combating SOS in their districts and counties, through engagement at conferences, city council meetings, and relevant trade associations elected officials are members of.
- An outreach plan to connect with elected officials in areas where there is a need to remove abandoned groves and/or a need for homeowner associations, and city- and county-owned properties to adequately treat citrus trees, including potentially participating in area-wide management.

Residential Messaging

When conducting outreach to residential homeowners throughout the state, messaging is tailored to reflect the specific behaviors the CPDPD is seeking of residents with a citrus tree on their private property. In all areas, public messaging encourages residents to inspect their trees for signs of SOS and emphasizes residents' cooperation with CPDPD survey crews.

Grower Messaging

In some citrus growing areas, commercial groves are separated by substantial distances, making open communication and coordination between growers difficult. Individual growers may have implemented pest management strategies for SOS, but experience has shown that a successful control program must be coordinated among all growers in an area to maximize the effect of treatments. It is imperative in managing this disease that outreach messaging directed toward growers emphasizes grower participation in an area-wide pest management strategy to protect commercial citrus as well as individual growers.

To accomplish the timely application of treatments over large geographical areas in a coordinated manner, the program's outreach materials are distributed in various ways, including by the contractor, CDFA, CPDPD, and Grower Liaisons. Recognizing that the cost of treatments is borne by the citrus growers, it is imperative to have a robust grower outreach program that reaches as many growers as possible to ensure effective treatments are conducted in a timely manner.

XI. Facilitating Research

The CPDPD periodically receives requests to facilitate research and is willing to participate if feasible. If a research opportunity arises, the CPDPD requests a one- page concept proposal from the requestor. The proposal shall include a brief background of the research, the name of the principal investigator and the number of additional research staff that will be involved in the project. For the description of the project, certain criteria

must be met. This includes: the project timeline, the anticipated deliverable, and sample collection needs. If samples are to be collected, the proposal must describe what and where the samples will be collected, where the samples will be moved to, what safeguarding methods are being used, and the final disposition of the samples. The anticipated area for the project, the number of field research staff and the frequency of the visits also must be described. Additionally, the proposal shall include the funding source, and if the research project is a new or existing project. Proposals are reviewed for scientific validity and to assess impacts to the CPDPD's SOS response program.

California Department of Food and Agriculture
CYVCV Regulatory Response
(DRAFT)

As of April 2023, all delimitation and arc surveys for citrus yellow vein clearing virus (CYVCV) are complete. 579 trees in the city of Tulare, as well as two trees in the city of Visalia, tested positive for the virus. All positive trees were found on residential properties where hold notices have been issued. Multi-pest risk-based survey on residential properties, and commodity survey of citrus groves, will continue statewide where CDFA staff will look for symptoms of CYVCV and sample as appropriate.

Actionable plant pests are individually regulated through quarantine. Quarantines identify the target pest, host articles and commodities, and establish restrictions on moving host articles and commodities to prevent the artificial spread of the target pest.

State interior quarantine
Manage virus vectors and pathways through quarantine regulation to limit the spread of the virus within California until more research is conducted and information is available.

1. Identify articles and commodities that are hosts of the virus. The main host commodities are grape and citrus plants and plant parts. Movement of hosts would be regulated as pathways for spreading the virus.

2. Removal of infected trees is not required. Treatment for vectors around tree detections is not required.

3. Establish a quarantine through California Code of Regulations and Federal Order with ½-mile radius from a positive tree detection. Quarantine area may be expanded administratively following subsequent detections like the huanglongbing state interior quarantine.

4. Enforce quarantine restrictions through compliance agreements.
    a. Nursery requirements
        i. Host plants must be treated with systemic and foliar application effective against CYVCV insect vectors within 90 days prior to shipment. Production and wholesale nurseries currently treat Asian citrus psyllid (ACP) host plants every 90 days. Treatments for ACP with products effective against CYVCV insect vectors may count so additional treatments may be avoided.
        ii. Nurseries with an APHIS-approved structure may ship plants from a quarantine area and interstate. California nurseries already follow these guidelines to ship citrus plants intra and interstate.
    b. Quarantine Commodity (QC) permits would be created and issued for specific, low-risk movement that is exempt from sections of the regulation. Examples of types of movement that may qualify under a QC permit are plants moved from one approved structure to another and plants sold for farm direct planting within the same quarantine zone. In both examples, plants could be moved or shipped without treatment.

c. Retail nurseries would not sign a compliance agreement. Production/wholesale nurseries would supply treated trees to retail establishments. Retail nurseries often do not have the ability to apply pesticides. Under the ACP quarantine, treatment is done at the production/wholesale level and retail trees are generally sold locally and within a few months.
d. Citrus fruit requirements
    i. Fruit that is free from extraneous plant material is not proven to be a host of CYVCV. Growers would follow a performance standard to ship fruit from a quarantine area. The performance standard is to ship fruit free from plant material and insects to avoid spreading CYVCV on fruit.
    ii. Mitigation measures that may be used to achieve the performance standard are:
        1. Preharvest treatment to knock down insect vectors that may be on the fruit,
        2. Field cleaning by machine to remove stems and leaves and manipulate the fruit to dislodge insect vectors, and
        3. Any additional mitigation measure scientifically and/or field proven to effectively meet the performance standard as agreed upon by CDFA and the county agricultural commissioners.
    iii. Harvesters must disinfect tools and equipment before leaving a grove. As the CYVCV may be mechanically transmitted, harvesting tools would be identified as a host article.
        1. Landscapers – disinfect between properties and handle green waste.
        2. Standard packing procedure will mitigate the pest risk once fruit is washed and packed. Fruit that is washed, waxed, and packed would be exempt from any further California CYVCV regulation.
        3. Bins must be disinfected at a packinghouse before returning to groves.
    iv. Green waste requirements
        1. CYVCV-host green waste produced in a quarantine area must remain within the quarantine, be placed into the green waste stream, and/or be moved to a receiver operating under a compliance agreement.
        2. Green waste from groves may be chipped or burned on site.
e. Explore including a quarantine exit strategy in the regulation. In the absence of the target pest, an area may be removed from quarantine.