

CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

CALIFORNIA DETECTOR DOG TEAM PROGRAM

Annual Report

July 1, 2020 - June 30, 2021



Picture: Fresno County canine Soya at the Tulare County Agricultural Exposition. Photo courtesy of Soya's handler, Samantha Tomlinson.

CONTENTS

Purpose of Cooperative Agreement #20-8506-1165-CA	3
Work Plan Activities Performed by the CDFA	3
Work Plan Activities Performed by County Agricultural Commissioners.....	3
Audits Performed by the CDFA	3
Replacements and Additions	4
COVID 19.....	4
Summary of Dog Team Interceptions at Parcel Facilities	5
USPS Progress.....	6
Significant Pest Interceptions	7
Highlights of County Dog Team Interceptions.....	11
Examples of Alameda Team Interceptions	12
Examples of Contra Costa County Dog Team Interceptions	14
Example of Fresno County Dog Team Interception.....	15
Examples of Sacramento County Dog Team Interceptions.....	15
Examples of San Bernardino County Dog Team Interceptions	19
Examples of San Diego County Dog Team Interceptions.....	21
Examples of Santa Barbara County Dog Team Interceptions	233

PURPOSE OF COOPERATIVE AGREEMENT #20-8506-1165-CA

The purpose of cooperative agreement #20-8506-1165-CA is to implement the use of the California Detector Dog Teams (herein referenced as California Dog Teams) to enhance the inspection and detection of pests associated with plant products entering California via parcel delivery facilities and Airfreight terminals. By preventing the introduction of pests, the California Dog Teams play an important role in protecting agriculture, natural habitats, and the economy.

WORK PLAN ACTIVITIES PERFORMED BY THE CDFA

The California Department of Food and Agriculture (CDFA) oversaw and provided guidance for the statewide California Dog Team program and distributed funds through cooperative agreements to county agricultural commissioners (CAC) for the purposes of fulfilling California Dog Team activities as outlined in the CDFA/CAC cooperative agreement. The CDFA verified that all expenses approved for payment to the CAC cooperators were legitimate expenses as outlined in the CDFA/CAC cooperative agreement. The CDFA acted as the liaison between the CAC and the National Detector Dog Training Center (NDDTC) and was responsible for communicating significant pest finds and smuggling information to the United States Department of Agriculture (USDA)/Smuggling Interdiction and Trade Compliance (SITC).

AUDITS PERFORMED BY THE CDFA

The CDFA conducted six CAC audits in 2021. Out of the six, two included audits for the Dog Program (Fresno and San Diego). The CDFA audit department is currently writing the results and the findings will be included in the next report.

WORK PLAN ACTIVITIES PERFORMED BY COUNTY AGRICULTURAL COMMISSIONERS

The California Dog Teams and inspectors were distributed as described in Table 1 and in the map below. Twelve of the 13 California Dog Teams worked at parcel facilities for the entire reporting period (July 1, 2020 – June 31, 2021): Alameda (one team), Contra Costa (one team), Fresno (one team), Los Angeles (two teams), Sacramento (two teams), San Bernardino (one team), San Diego (two teams), Santa Barbara (one team), Santa Clara (one team), and Yolo (inspectors only). One canine in Los Angeles county was retired late May 2021 due to health reasons. Additionally, the Program has one open dog team position in Los Angeles pending when the NDDTC can hold classes again due to COVID restrictions. Teams are based in a single county. The teams, however, work regionally to cover over 200 facilities in 32 of 58 California counties. This encompasses a total population of 23,869,967 people within 92,488 square miles.

TABLE 1: Distribution of California Dog Teams

County	Area Covered	# of Teams
Alameda	Alameda County	1
Contra Costa	San Francisco Bay Area	2
Fresno	Fresno County	1
Los Angeles	Los Angeles County	2
Sacramento	Sacramento Valley	2
San Bernardino	Inland Empire Area	1
San Diego	San Diego County	2
Santa Barbara	Santa Barbara County	1
Santa Clara	South Bay Area	1
Yolo	Sacramento Valley	0



REPLACEMENTS AND ADDITIONS

This fiscal year (FY) the USPS coverage was limited to only two teams meeting the Memorandum of Understanding (MOU) proficiency and field experience requirements. Typically, it takes at least one full year for a team to meet the USPS MOU standards.

Last FY, two handlers (Sacramento and Santa Clara) unexpectedly left the Program. The positions were filled this reporting period in September 2019. The new handlers graduated with their canine partners from the National Detector Dog Training Center (NDDTC) 10-week class in October 2019.

Additionally, the Program lost two of the four canines replaced last FY. Two of the four canines provided by the NDDTC were discharged. The San Diego County canine was discharged due to lack of working drive and low energy level. The handler received a replacement canine in June 2019. The Alameda County canine was released due to aggression. The handler was finally assigned a replacement canine, six months later, when the Farm Bill was passed.

The Program was also slated to send a new handler back to the NDDTC in April. Again, since the Farm Bill was not passed on time, the class was canceled due to the COVID stay in place federal orders. The position remains open.

Due to these reasons, the program only had two California Dog Teams certified to work in the USPS facilities for the entire FY (Santa Barbara and Los Angeles counties). Additional teams started to work in the USPS by spring 2021 when Covid-19 restrictions were modified, field experience time requirements were met, and the teams passed the NDDTC certification.

COVID 19

By the end of March 2020, all California counties were placed under mandatory COVID 19 Shelter in Place orders by the Governor.

The COVID 19 restrictions greatly impacted the Dog Program. All parcel visits ceased in every county for at least two months, from March to June 30, 2020, prime pest interception time. Gradually, permitted work for

each county was modified over time and varied due to each county's circumstance throughout this reporting period.

Additionally, Los Angeles county has not been able to send back a new handler for the NDDTC class and all six new canines were required to extend their acclimation phase for lost field training time.

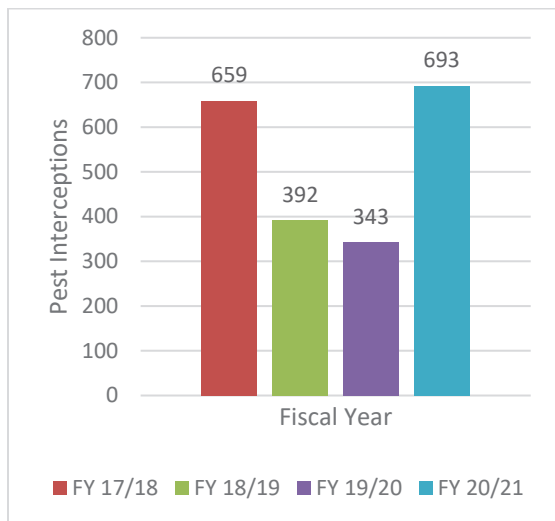
In the past, the NDDTC traveled to California to provide training and the required annual USDA certifications. Since travel was banned, both for the NDDTC and county dog teams, the NDDTC and CDFA worked cooperatively to ensure the teams certified virtually. Planning began in June 2020, which included teaching county supervisors to plan, set up, host the tests, operate video equipment, and understand NDDTC documentation and testing forms. The dog teams were broken into five regional groups and tutorial meetings were held for each group prior to certification. A minimum of 54 county meetings were held before each group's certification in September 2020 by the NDDTC.

SUMMARY OF DOG TEAM INTERCEPTIONS AT PARCEL FACILITIES

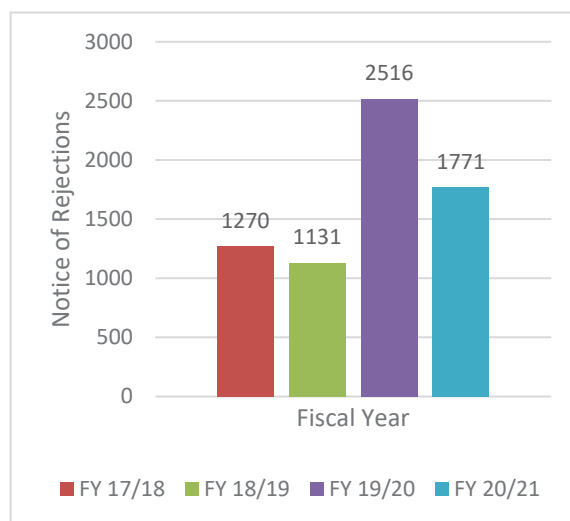
The California Dog Teams continue to demonstrate that unmarked parcels present a high-risk pathway for significant agricultural pests to enter California. During this agreement period, a total of 693 significant pests were intercepted by California Dog Teams (Graph 1). Some of these interceptions involved multiple pest specimen in a single package. Our detector dogs alerted on parcels that yielded pests that are known to cause serious agricultural and economic impacts such as Caribbean fruit fly, Japanese apple rusts, Huanglongbing, federally actionable weed species including Hydrilla, and several first-detected noxious weeds not known to occur in California and the United States.

The California Dog Teams alerted on 62,761 marked and unmarked parcels containing agricultural products during this agreement. Of the total alerted parcels, 4,189 were intercepted at USPS facilities and 2,117 of these packages were unmarked per the USPS requirements. Due to the efforts of the California Dog Teams during this reporting period, 1,771 rejections have been issued for violation of state and federal plant quarantine laws and regulations (Graph 2).

Graph 1: Pest Interceptions



Graph 2: Violation of Plant Laws & Regulations

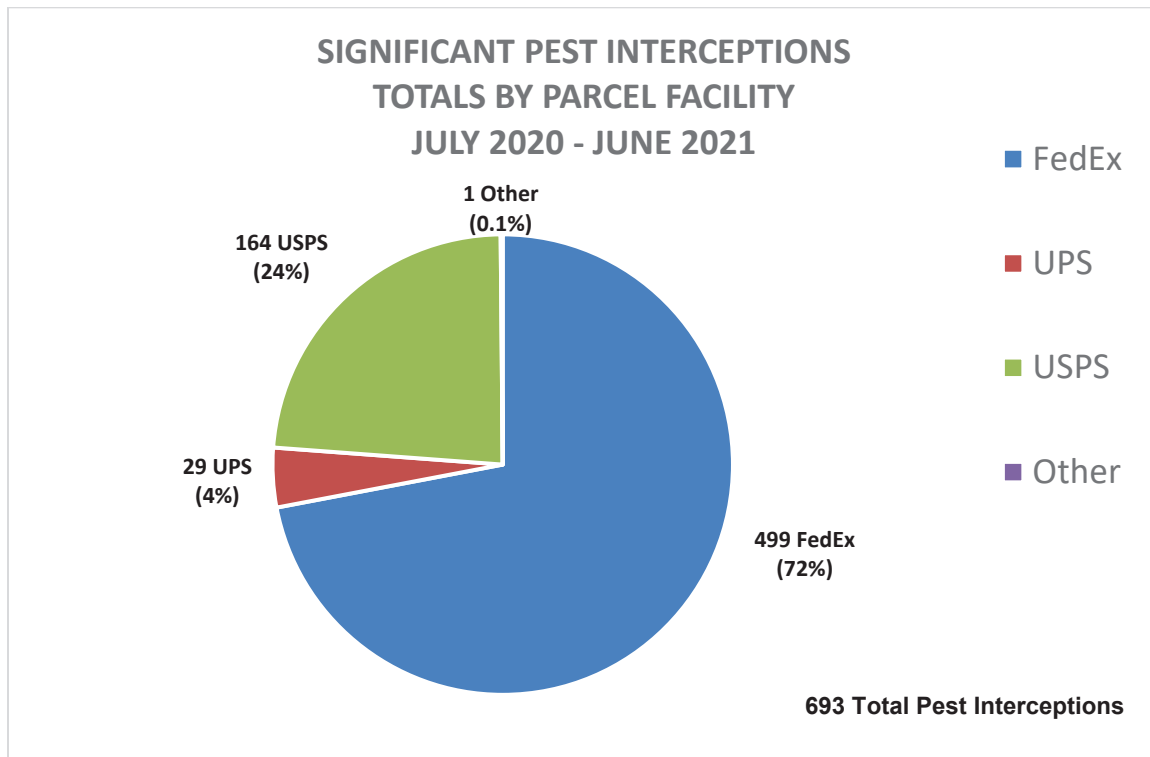


The California Dog Teams continued working at the USPS processing and distribution centers. This work is conducted under a multiagency Memorandum of Understanding (MOU). This MOU requires inspectors to contact either the shipper or receiver within 24 hours to gain consent to open a parcel that the dog alerted on. Although this process is resource-intensive, data collected over the past years demonstrate that the USPS is the highest risk parcel pathway based on the quantity of pest interceptions (Graph 3) and number of unmarked parcels intercepted.

Because of the risks associated with the USPS, California Dog Teams concentrate their efforts on processing and distribution systems. However, this FY the program has three fourths of the California Dog Teams training in private parcel facilities to obtain and document working at a consistent 90 percent accuracy rate. This is a baseline requirement of the USPS MOU and takes a minimum of one year of training a new dog.

Graph 3 illustrates the distribution of pest interceptions by the California Dog Teams at different parcel facilities. This reporting period, we had a great reduction of dog teams working in USPS facilities on a limited schedule due to Covid-19. Typically, the Program’s majority of pest interceptions are at the USPS. This FY work was primarily conducted in FedEx and UPS facilities since most dog teams were waiting to meet the USPS MOU requirements.

Graph 3: Pest Interceptions Totals by Parcel Facility



The pursuit of search warrants to open parcels when inspectors are unable to gain consent began in FY 14-15 as a pilot program in Santa Clara County (San Jose USPS). All parcels opened with a search warrant contained agricultural material. The CDFA continues to work with the USDA on expanding the ability to seek search warrants at all USPS locations when inspectors are unable to gain consent.

A new call center pilot program was developed and operated in four counties beginning at the end of FY 17-18. The call center supported the California Dog Teams USPS package permissions task. The purpose of the call center was to provide a centralized call center team that efficiently and cost-effectively lessened the burden for individual counties without any loss in customer service or rates of consent. The call center was meant to supplement county efforts to locate individuals and acquire permissions. The call center was staffed by individuals that were hand-picked for the specific task and seasonally employed by the Sacramento County Department of Agriculture.

The call center pilot program was highly successful and increased the percentage of consent rates from two years prior (Table 2).

The call center pilot program ceased in November 2018 due to funding and number of retired dogs that reduced USPS coverage. The call center was implemented again July 2021, the next FY reporting period. Yolo County is operating the Call Center and all counties are participating.

TABLE 2: Call Center Consent Percentage Rate Increase

County	FY 15-16 (before the call center pilot program)	FY 17-18 (during the call center pilot program)
Alameda	56%	91.2%
San Diego	34%	92.3%
Santa Clara	48%	87.6%
Yolo	71%	91%

Additionally, a statewide USPS consent list was developed and established in FY 17-18. The list provides repeat shippers/businesses the option to sign a “blanket permission” form for any future shipments that counties may encounter. The consent list is updated as needed, and more shippers continue to provide their consent to open all intercepted packages.

SIGNIFICANT PEST INTERCEPTIONS

During this agreement period, California Dog Teams were extremely successful at protecting California’s agriculture by intercepting significant agricultural pests before they could be introduced into California. Table 3 below lists the number and type of actionable pests which includes 267 actionable A-rated pests, 420 actionable Q-rated pests, and 6 actionable W-rated pests. Of note, our agricultural detector dogs alerted on parcels that yielded pests that are known to cause serious agricultural and economic impacts such as Caribbean fruit fly, Japanese apple rusts, Huanglongbing, federally actionable weed species including Hydrilla, and several first-detected noxious weeds not known to occur in California and the United States.



Table 3: Significant Pest Interceptions

July 1, 2020 – June 31, 2021

Scientific Name	Common Name	Rating ID	Origin
Acari	mite	Q	HI
Acrididae	hopper	Q	HI
Aleurodicus/pseudugesii	whitefly	Q	EC
Aleurotrachelus/anonae	whitefly	A	SC (2)
Aleurotrachelus/sp.	whitefly	Q	FL (2), NY
Aleyrodidae	whitefly	Q	CA, EC (2), FL (2), LA, SC, TX (2)
Anastrepha/sp.	exotic fruit fly	A	FL
Anastrepha/suspensa	caribbean fruit fly	A	FL
Andropogon/virginicus	broomsedge bluestem	Q	AL
Anoplolepis/longipes	longlegged ant	Q	HI
Aonidiella/comperei	scale	Q	PR
Aonidiella/orientalis	oriental scale	A	FL (4), PR, SC
Aphididae	aphid	Q	CO, (EC (2), FL (3), GA, HI (4), KY, NC
Arvelius/albopunctatus	stink bug	Q	FL
Asiothrixus/antidesmae	whitefly	A	CA, HI
Aspidiella/sacchari	armored scale	Q	FL (2)
Aspidiotus/destructor	coconut scale	A	EC (3), FL, IL
Aulacaspis/tubercularis	armored scale	A	FL (14), PR (2)
Brachyponera/chinensis	ant	A	SC
Bucculatrix/sp.	ribbed cocoon maker	Q	FL
Caloptilia/sp.	gracillariid miner	Q	PR
Camponotus/sp.	carpenter ant	Q	EC, FL
Candidatus Liberibacter/asiaticus	Huanglongbing	A	FL
Ceroplastes/floridensis	florida wax scale	A	FL, SC (3)
Ceroplastes/rubens	red wax scale	A	EC, FL
Ceroplastes/rusci	fig wax scale	A	EC, FL, TX
Ceroplastes/sp.	wax scale	Q	HI (3)
Ceroplastes/stellifer	stellate scale	A	CA, FL, HI (3), PR (2)
Cicadellidae	hopper	Q	EC, HI
Coccidae	scale	Q	CA (2), EC (6), FL (5), HI (9), NY
Coccoiddea	scale	Q	NC

Scientific Name	Common Name	Rating ID	Origin
Coccus/viridis	green scale	A	FL, TX
Crambidae	moth	Q	TX
Crematogaster/sp.	ant	Q	EC
Curculionidae	moth	Q	HI
Cyperus/croceus	Baldwin sedge	Q	AL
Cyperus/esculentus	yellow nutsedge	W	TX
Darna/pallivitta	limacodid moth	A	HI
Delphacidae	hopper	Q	HI
			CA (3), EC (35), FL (36), HI (3), LA, OR, PR (3), SC (3), unknown
Diaspididae	amored scale	Q	
Diodia/virginiana	Virginia buttonweed	W	AL (2)
Dysdercus/sp.	true bug	Q	PR
Dysmicoccus/grassii	mealybug	A	CA (4), FL (8)
Dysmicoccus/neobrevipes	gray pineapple mealybug	A	FL (3), HI
Dysmicoccus/texensis	mealybug	A	EC
Empoasca/sp.	leafhopper	Q	FL, HI
Erythroneura/sp.	leafhopper	Q	AL
Euphorbia/hypericifolia	chickenweed	A	FL
Fatoua/villosa	hairy crabweed	W	FL (2)
Ferrisia/sp.	mealybug	Q	FL (3)
Ferrisia/virgata	striped mealybug	A	FL (3)
Fiorinia/externa	diaspidid scale	A	MS (2), NC
Fiorinia/theae	tea scale	A	LA, SC (4)
Formicidae	ant	Q	FL
Frankliniella/schultzei	cotton bud thrips	A	FL
Gastropoda	snail	Q	AL, HI, WI (2)
Geophilomorpha	centipede	Q	FL
Gracillariidae	leaf miner	Q	WA (2)
Gymnosporangium/yamadae	Japanese apple rust	A	MA
Hemiberlesia/palmae	scale	A	EC
Hemiptera	true bug	Q	FL (7)
Hemiptera	true bug	Q	HI
Hydrilla/verticillata dioecious	Hydrilla	W	TX
			AL, CA, EC (7), FL (8), HI (6), NC, SC
Insecta	Insect eggs	Q	
Ischnaspis/longirostris	black thread scale	A	EC (4), FL (2)
Kyllinga/brevifolia	shortleaf spikesedge	Q	AL
Lepidoptera	moth	Q	FL (3), PR
Limacodidae	moth	Q	HI
Lonchaeidae	lance fly	Q	FL

Scientific Name	Common Name	Rating ID	Origin
Maconellicoccus/hirsutus	pink hibiscus mealybug	A	FL (8)
Megascolecidae	worm	Q	AL, FL (2), LA, NC, TX (3)
Meloidogyne/paranaensis	Parana coffee root knot nematode	Q	TX
Monomorium/sp.	ant	Q	EC
Mycetaspis/personata	masked scale	A	FL (4), PR
Neosilba/sp	fruit fly	Q	FL
Nipaecoccus/sp.	mealybug	Q	FL (2), HI
Nipaecoccus/viridis	mealybug	Q	FL, HI
Noctuidae	moth	Q	FL (2), HI
Notodontidae	moth	Q	FL
Nylanderia/sp	ant	Q	EC (3), HI (2)
Nysius/sp	ant	Q	HI
Ochetellus/glaber	ant	A	HI
Octaleurodicus/nitidus	whitefly	Q	FL
Octaleurodicus/sp	whitefly	Q	EC (2)
Oecophoridae	concealer moth	Q	NY
Ortheziidae	ensign scale	Q	EC (2), FL
Palmicultor/palmarum	palm mealybug	A	FL (4)
Parmarion/martensi	slug	A	HI (2)
Persicaria/longiseta	bristly ladysthumb	Q	TX (2)
Phakopsora/cherimoliae	rust	Q	TX
Pheidole/sp.	ant	Q	FL (5), HI (8), TX
Pilea/microphylla	artilleryweed	Q	FL (2)
Pinnaspis/buxi	boxwood scale	A	CA, EC (36), FL (7), HI (2)
Pinnaspis/strachani	lesser snow scale	A	CA (3), EC (31), FL (19), HI, IL, unknown
Pinnaspis/uniloba	unilobed scale	A	HI
Planococcus/minor	pacific mealybug	A	EC, HI (8)
Plutellidae	diamondback moth	Q	SC
Praelongorthezia/praelonga	scale	Q	EC
Pseudaonidus/trilobitiformis	trilobe scale	A	EC, HI
Pseudaulacaspis/cockerelli	magnolia white scale	A	FL (5), HI (4), SC (2)
Pseudaulacaspis/pentagona	white peach scale	A	FL
Pseudaulacaspis/pentagona	white peach scale	A	FL
Pseudaulacaspis/pentagona	white peach scale	A	FL
Pseudaulacaspis/pentagona	white peach scale	A	HI
Pseudischnaspis/bowreyi	scale	Q	FL

Scientific Name	Common Name	Rating ID	Origin
Pseudococcidae	mealybug	Q	CA, EC (33), FL (57), HI (23), ID, PR (3), SC (4), unknown (2)
Pseudococcus/landoi	mealybug	Q	HI
Pseudococcus/sp.	mealybug	Q	FL
Pseudoparlatoria/parlatorioides	false parlatoria scale	A	EC
Psychidae	bagworm moth	A	FL, HI
Psyllidae	psyllid	Q	PR
Pyralidae	grass moth	Q	FL
Saccharicoccus/sacchari	pink sugarcane mealybug	A	FL (2)
Selenaspidus/articulatus	rufous scale	A	EC (13), FL (3), unknown
Selenothrips/rubrocinctus	redbanded thrips	A	FL
Solenopsis/sp.	ant	Q	EC
Spodoptera/dolichos	armyworm	A	FL
Spodoptera/sp.	armyworm	Q	TX
Subulinidae	snail	Q	FL (2)
Technomyrmex/sp.	ant	Q	HI (7)
Tetranychus/sp.	tetranychid mite	Q	FL, NC, TX
Thrips/maculicollis	thrip	Q	HI (2)
Thrips/parvispinus	thrip	Q	HI
Thrips/sp.	thrip	Q	NJ
Thysanoptera	thrip	Q	FL, LA
Tortricidae	moth	Q	FL (5), OR
Trionymus/boninsis	sugarcane mealybug	A	FL
Tuckerella/sp.	peacock mite	A	FL, PR

693 Total Interceptions

HIGHLIGHTS OF COUNTY DOG TEAM INTERCEPTIONS

California Dog Team interceptions from July 1, 2020 to June 31, 2021 resulted in the interception of 267 A-rated pests, 420 Q-rated pests, and 6 W-rated pests. These quarantine pests are not known to occur in California. The California Dog Team interceptions were critical in preventing the establishment of these detrimental pests in California. The following narratives detail examples of interesting interceptions during the reporting period.

EXAMPLES OF ALAMEDA TEAM INTERCEPTIONS

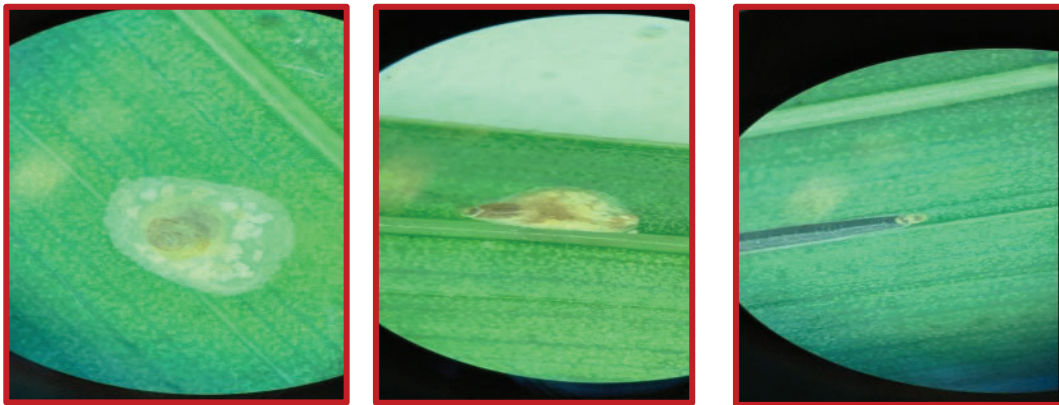
Summary of Interception Highlights:

1. *Ischnaspis longirostris* (black thread scale)
2. Unmarked package from Florida
3. *Anastrepha suspensa* (Caribbean fruit fly)

***Ischnaspis longirostris* (black thread scale)**

On September 10, 2020, Alameda County Dog Team Inspector/Handler Lisa Sampson accompanied by canine Zena, and Contra Costa County Agricultural Biologists Omar Luna and Keri Brumfield intercepted a properly marked package at a FedEx facility in Concord. The package was shipped from The Bouqs Company in Marina Del Rey, CA, and contained Ecuadorian *Chrysalidocarpus lutescens* (areca palm) cut foliage.

Upon closer inspection, Inspector Luna found several live suspect insects on the lower surface of the *Chrysalidocarpus lutescens* palm fronds. Pest samples were collected and submitted to the PPDB Entomology Laboratory where they were identified as A-rated *Ischnaspis longirostris* (black thread scale).



A shipment of Ecuadorian *Chrysalidocarpus lutescens* (areca palm) fronds infested with *Ischnaspis longirostris* (black thread scale). (Photos courtesy of Contra Costa County.)

Unmarked package from Florida

On December 23, 2020, Alameda County Dog Team Inspector/Handler Lisa Sampson accompanied by Detector Dog Zenna and Inspector Saron Debessai intercepted an unmarked and uncertified parcel from a Florida resident, at a FedEx facility in Oakland.

The parcel was alerted by Detector Dog Zenna and on inspection by Inspector Debessai was found to contain *Annona* sp. (sugar apple) fruit along with other non-agricultural items.

On further inspection, Inspectors Sampson and Debessai found suspect pests on the surface of the fruit. Pest samples were collected and submitted to the PPD Entomology Laboratory where they were identified as A-rated *Dysmicoccus neobrevipes* (gray pineapple mealybug).



A shipment of *Annona* sp. (sugar apple) fruit and non-agricultural items from Florida infested with *Dysmicoccus neobrevipes* (gray pineapple mealybug). (Photos courtesy of Alameda County.)

***Anastrepha suspensa* (Caribbean fruit fly)**

On March 24, 2021, Alameda County Dog Team Inspector/Handler Lisa Sampson accompanied by Detector Dog Zenna and Inspector Ashenafi Tadesse intercepted an unmarked and uncertified parcel from Florida at a FedEx facility in Pleasanton. The parcel contained 20 lbs. of mixed fruit including mango, cherimoya, and star apple. The mango fruit was stickered as a product of Vietnam, but the other fruit was of unknown origin and appeared to be non-commercial.

The parcel was placed on hold at the terminal and a notice was sent to the shipper to provide growing origin information and proper certification for the remaining cherimoya and star apple fruit.

Upon inspection, Inspector Sampson found a larva inside a star apple. A pest sample was collected and submitted to the PPD Entomology Laboratory where it was identified as A-rated *Anastrepha suspensa* (Caribbean fruit fly).



EXAMPLES OF CONTRA COSTA COUNTY DOG TEAM INTERCEPTIONS

Summary of Interception Highlights:

1. Unmarked Florida package with logans
2. *Paracoccus marginatus* (papaya mealybug)

Unmarked Florida package with longans

A shipment of mixed fruit from Florida infested with *Anastrepha suspensa* (Caribbean fruit fly). (Photos courtesy of Alameda County.)

On July 7, 2020, Contra Costa County Dog Team Inspector/Handler Simone Ackermann with Detector Dog Major and Alameda County Inspector Ashenafi Tadesse intercepted an unmarked and uncertified package at a FedEx facility in Pleasanton. The package contained 20 lbs. of *Dimocarpus longan* (longan) fruit from a Florida resident. The longans were shipped with stems and leaves attached.

Upon closer inspection, Alameda County Inspector/Handler Lisa Sampson found live insect pests on the fruit and stems. Pest samples were collected and submitted to the PPD Entomology Laboratory where they were identified as the following:

- Q-rated Tortricidae larva
- A-rated *Pseudaulacaspis pentagona* (white peach scale)
- Q-rated insect eggs



A shipment of *Dimocarpus longan* (longan) fruit from Florida, infested with multiple pests intercepted by Contra Costa County Detector Dog Major. (Photos courtesy of Alameda County.)

***Paracoccus marginatus* (papaya mealybug)**

On April 9, 2021, Contra Costa County Dog Team Handler Simone Ackerman with Detector Dog Major and Santa Clara County Agricultural Biologist Paulo Philippidis intercepted an unmarked package at a USPS distribution center in San Jose. The package arrived from Florida without certification. The sender gave permission to open the package. The package contained cut foliage of a *Carica papaya* (papaya) tree.

Upon closer inspection, Inspector Philippidis found several live suspect pests on the lower surface of the papaya leaves. Pest samples were collected and sent to the PPD Entomology Laboratory where they were identified as A-rated *Paracoccus marginatus* (papaya mealybug).



Infested papaya leaves. Photo courtesy of Santa Clara County.

EXAMPLE OF FRESNO COUNTY DOG TEAM INTERCEPTION

Summary of Interception Highlights:

1. Infested plant material from Hawaii

Infested plant material from Hawaii

On July 28, 2020, Fresno County Dog Team Inspector/Handler Samantha Tomlinson accompanied by Detector Dog Soya and Inspectors Tegan Turner and Heavenie Xiong intercepted a properly marked and certified box from Hawaii shipper Marsdan Tropicals at a FedEx facility in Clovis. The box contained cut flowers with *Phoenix canariensis* (phoenix palm), *Heliconia chartacea* (heliconia), and *Heliconia* sp. plant material. The parcel arrived with a USDA-APHIS-PPQ Limited Permit #873.

Upon inspection of the cut flowers/foilage, Inspectors Turner and Xiong found multiple suspect pests on the cut flowers and foliage. Pest samples were collected and submitted to the PPD Entomology Laboratory where they were identified as Q-rated *Technomyrmex* sp. (ant) and Q-rated Pseudococcidae (mealybug).

EXAMPLES OF SACRAMENTO COUNTY DOG TEAM INTERCEPTIONS

Summary of Interception Highlights:

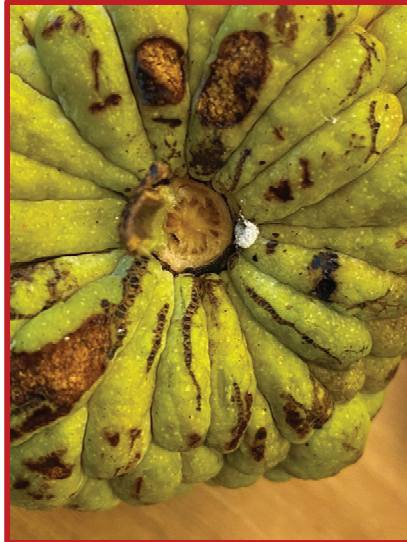
1. Unmarked sugar apples from Florida
2. Citrus Orthezia in Ecuadorian Cut Flowers
3. *Ceroplastes* sp. (wax scale)
4. Infested sugar cane plant
5. Infested unmarked Puerto Rico packages

Unmarked sugar apples from Florida

On July 30, 2020, Sacramento County Dog Team Inspector/Handler Michelle King along with Detector Dog Kernul and Inspector Joshua Kelley intercepted an unmarked and uncertified package at a FedEx facility in Rancho Cordova. The package was shipped from a Florida resident and contained roughly 35 *Annona squamosa* (sugar apple) fruit.

Upon closer inspection of the fruit, Inspector Kelley found several live suspect insects on the surface of several fruits. Pest samples were collected and submitted to the PPD Entomology Laboratory where they were identified as A-rated *Dysmicoccus grassii* (mealybug).

A shipment of *Annona squamosa* (sugar apple) fruit from Florida infested with *Dysmicoccus grassii* (mealybug). (Photos courtesy of Sacramento County.)

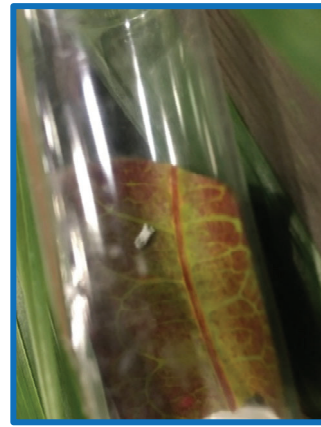
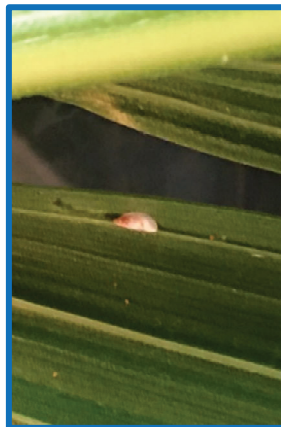
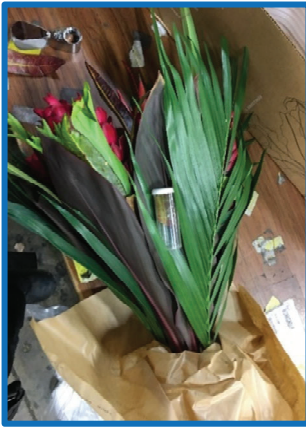


Citrus Orthezia in Ecuadorian Cut Flowers

On September 9, 2020, Sacramento County Dog Team Inspector/Handler Michelle King along with canine Kernul, intercepted a properly marked and certified package at the Rancho Cordova FedEx facility. The package was shipped by Flowernet.com (an Ecuamagic/Magic Flowers vendor) and contained a tropical bouquet of cut flowers and foliage. The bouquet included *Dypsis lutescens* (areca palm) fronds and *Codiaeum variegatum* (croton petra) leaves originating from Ecuador.

Upon closer inspection, the cut foliage was found to be infested with multiple insect pests. Pest samples were collected and sent to the PPD Entomology Laboratory where they were identified as Q-rated *Praelongorthezia praelonga* (citrus orthezia) and Q-rated Diaspididae (armored scale).

Smuggling Interdiction and Trade Compliance (SITC) was notified.



Left: A bouquet of cut flowers and foliage from Ecuador. Center: Q-rated Diaspididae (armored scale) on *Dypsis lutescens* (areca palm). Right: Q-rated *Praelongorthezia praelonga* (citrus orthezia) in a vial. (All Photos courtesy of Sacramento County.)

***Ceroplastes* sp. (wax scale)**

On February 23, 2021, Sacramento County Dog Team Inspector/Handler Michelle King along with Detector Dog Kernul conducted an inspection of packages at the FedEx facility in Rancho Cordova. During the inspection, Detector Dog Kernul alerted on a properly marked box that contained a variety of cut flowers and foliage, including orchid flowers, *Alpinia purpurata* (Hawaiian red ginger), and ti leaves with the signs of pest infestations. The shipment arrived from Honolulu, Hawaii, with a USDA Limited Permit Stamp on it.

Upon inspection of the box, Inspector Michelle King found several live insects attached to the petals of the red ginger flowers. Pest samples were collected and sent to the PPD Entomology Laboratory where they were identified as Q-rated Coccidae family scales and Q-rated *Ceroplastes* sp. (wax scale).

***Ceroplastes* sp. (Wax scale)**

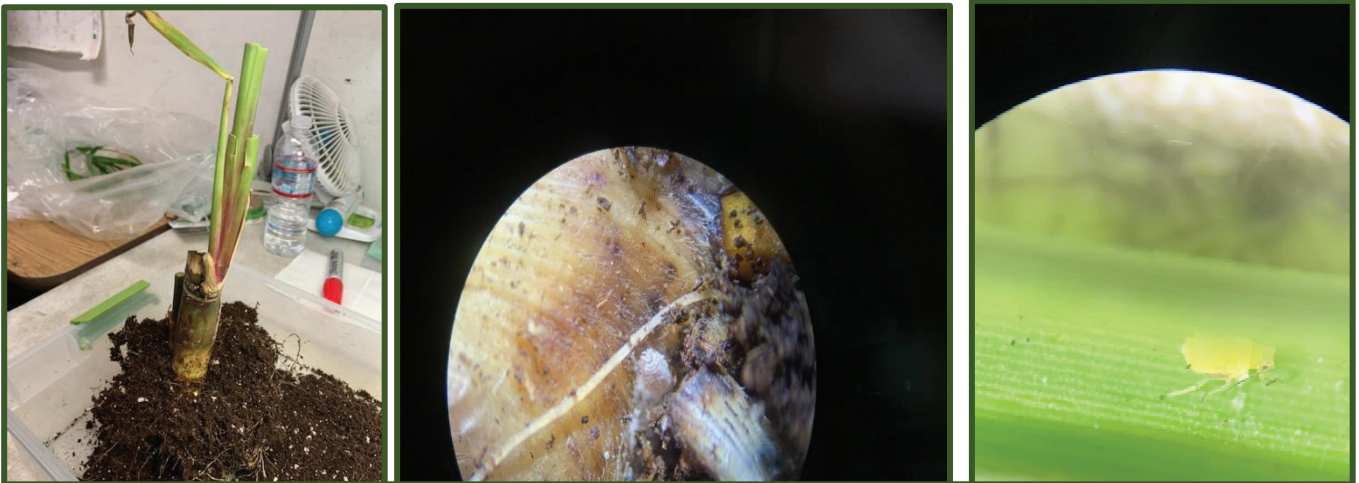


Photo courtesy of Sacramento County.

Infested sugar cane plant

On March 25, 2021, Sacramento Dog Team Inspector/Handler Mariah Denijs with Detector Dog Taz and Yolo County Inspectors Michelle Lawson and Chase Granum intercepted a package from Florida at a USPS distribution center in West Sacramento. Permission was obtained from the shipper to open the package for inspection. The package contained two *Moringa oleifera* (moringa) plants, one *Saccharum officinarum* (sugar cane) plant, and *Curcuma aromatica* (turmeric) rhizomes in potting soil. The shipment was properly marked and certified to cover the burrowing and reniform nematode and red imported fire ant quarantines.

Upon inspection of the plants and turmeric rhizomes, Inspectors Lawson and Granum found suspect pests at the base of the sugar cane plant. Pest samples were collected and submitted to the PPD Entomology Laboratory where they were identified as A-rated *Trionymus boninsis* (sugarcane mealybug) and Q-rated Pseudococcidae.



Saccharum officinarum (sugar cane) plant from Florida infested with *Trionymus boninsis* (sugarcane mealybug) and Q-rated Pseudococcidae. (Photos courtesy of Yolo County.)

Infested unmarked Puerto Rico packages

On April 22, 2021, Sacramento Dog Team Inspector/Handler Mariah Denijs with Detector Dog Taz and Dog Team Inspector/Handler Michelle King with Detector Dog Kernul accompanied Yolo County Inspectors Dennis Chambers, Chase Granum, and assistant Alicia Tinsley on a parcel inspection at a USPS facility in West Sacramento. An unmarked and uncertified package from Puerto Rico was intercepted and pulled for further inspection.

Permission was obtained from the receiver with the help of Sacramento County Inspector Rishi Avila to open the package for inspection. The package contained *Tamarindus indica* (tamarind) pods, *Moringa oleifera* (moringa) leaves, and other unidentified leaves.

On April 23, 2021, Sacramento Dog Team Inspector/Handler Mariah Denijs with Detector Dog Taz accompanied Yolo County Inspector Greg Peters and assistant Alicia Tinsley on another parcel inspection at the same USPS facility in West Sacramento. The county inspectors intercepted an unmarked and certified package with a USDA stamp from the same shipper in Puerto Rico. The USDA stamp gave valid authorization to open and inspect the package.

This package contained multiple small fruit trees in soil, including two soursop trees, a loquat tree, and three unidentified trees.

During inspection of both shipments, county staff found suspect pests on the tamarind pods, and on the stems and leaves of the plants. Pest samples were collected and submitted to the PPD Entomology Laboratory where they were identified as the following:

Pests Intercepted on Packages from Puerto Rico

Host	Pest	Rating
<i>Tamarindus indica</i>	Lepidoptera	Q
Unidentified leaves	Diaspididae	Q
Unidentified leaves	Psyllidae	Q
Unidentified leaves	<i>Aonidiella comperei</i>	Q
Unidentified leaves	<i>Dysdercus</i> sp. (dead)	Q
Unidentified tree	<i>Aulacaspis tubercularis</i>	A
	<i>Ceroplastes stellifer</i>	A
Unidentified plants	Diaspididae	Q
Unidentified plants	<i>Aulacaspis tubercularis</i>	A
Unidentified plants	<i>Ceroplastes stellifer</i>	A
<i>Tamarindus indica</i>	<i>Tuckerella</i> sp.	A



A- and Q-rated pests intercepted on shipments from Puerto Rico. (Photos courtesy of Sacramento and Yolo Counties.)

EXAMPLES OF SAN BERNARDINO COUNTY DOG TEAM INTERCEPTIONS

Summary of Interception Highlights:

1. Infested Honduran rambutans
2. Infested Hawaii flowers
3. *Darna pallivitta* (limacodid moth)

Infested Honduran rambutans

On October 16, 2020, San Bernardino County Dog Team Inspector/Handler Kristina Cummings along with Detector Dog Macey intercepted a properly marked and certified package of fruit at a FedEx facility in Ontario. The package was shipped from Florida shipper Fruits N' Rootz. The package contained *Nephelium lappaceum* (rambutans) of Honduran origin and Florida origin *Hylocereus cacti* (dragon fruit).

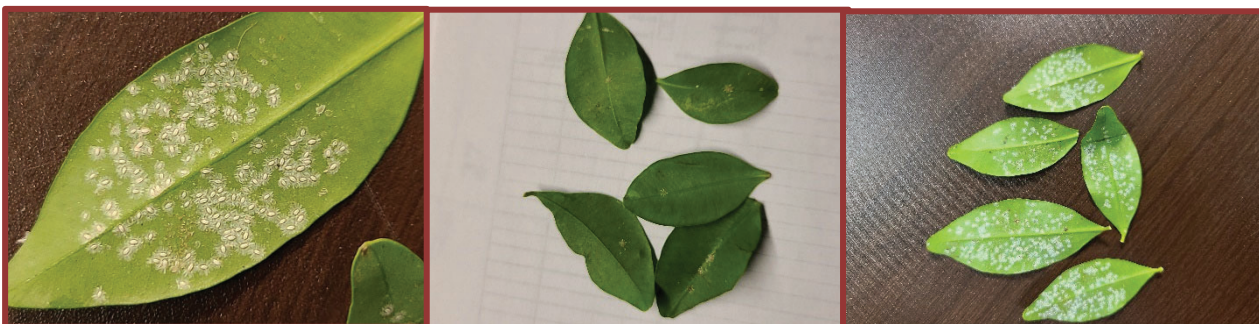
Upon closer inspection of the fruit, Inspector Cummings found several live suspect insects on the surface of the rambutan fruit. Pest samples were collected and submitted to the PPD Entomology Laboratory where they were identified as A-rated *Ferrisia virgata* (striped mealybug).

Infested Hawaii flowers

On October 30, 2020, San Bernardino County Dog Team Inspector/Handler Kristina Cummings along with Detector Dog Macey intercepted an unmarked box with a USDA Hawaii release stamp at a FedEx facility in Ontario. The box contained maile leaf leis, cut flowers, cut foliage, and some non-agricultural items.

Upon inspection of the agricultural items, Inspector Cummings found suspect pests on the maile leaf leis and cut foliage. Pest samples were collected and submitted to the PPD Entomology Laboratory where they were identified as the following:

- A-rated *Asiothrixus antidesmae* (whitefly)
- A-rated *Ceroplastes stellifer* (stellate scale)
- A-rated *Pinnaspis strachani* (lesser snow scale)



A shipment of cut flowers and foliage from Hawaii infested with *Asiothrixus antidesmae* (whitefly), *Ceroplastes stellifer* (stellate scale), and *Pinnaspis strachani* (lesser snow scale). (Photos courtesy of San Bernardino County.)

Darna pallivitta (limacodid moth)

On February 18, 2021, San Bernardino County Dog Team Inspector/Handler Kristina Cummings with Detector Dog Macey intercepted an unmarked parcel from Hawaii at a FedEx facility in Ontario. The parcel had a "USDA Release OGG" stamp and contained 4lbs. of *Alyxia stellata* (maile vine leis).

Upon inspection of the parcel, Inspector/Handler Cummings found several suspect pests on the leaves of the leis. Pest samples were collected and submitted to the PPD Entomology Laboratory where they were identified as A-rated *Darna pallivitta* (limacodid moth), Q-rated Psychidae, and Q-rated Diaspididae.

Darna pallivitta is a federally actionable pest.



A shipment of *Alyxia stellata* (maile vine leis) from Hawaii infested with A-rated *Darna pallivitta* (limacodid moth) Q-rated Psychidae, and Diaspididae pests. (Photos courtesy of San Bernardino County.)

EXAMPLES OF SAN DIEGO COUNTY DOG TEAM INTERCEPTIONS

Summary of Interception Highlights:

1. Hawaii pests
2. *Pseudoparlatoria parlatorioides*, (false parlatoria scale)
3. Hydrilla in unmarked package

Q-Rated Pests on Hawaiian Cut Flowers

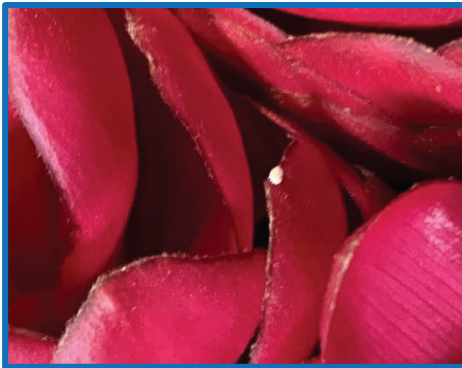
On July 2, 2020, San Diego County Dog Team Inspector /Handler Jeremy Partch with Detector Dog Yeti and Senior Agricultural Standards Inspector (Sr. ASI) Justin Aquino conducted a routine inspection at a FedEx facility in San Diego. During the inspection, a commercial shipment of cut flowers with foliage from Hawaiian shipper Head High Tropicals was intercepted. The flowers with foliage were properly marked and certified with Maui Cut Flowers Limited Permit #445.

Upon closer inspection of the shipment, Sr. ASI Aquino found live pests on the leaves of *Alpinia purpurata* (red ginger) flowers and *Monstera* sp. (monstera) leaves. Samples were collected and sent to the PPD Entomology Laboratory where they were identified as the following:

- Q-rated *Pheidole* sp. (ant)
- Q-rated Pseudococcidae (mealybug)



A shipment from Hawaii included *Alpinia purpurata* (red ginger) flowers. (Photos courtesy of San Diego County.)



Left: Q-rated Pseudococcidae (mealybug) on *Monstera* sp. (*monstera*) foliage. Right: Q-rated Pseudococcidae (mealybug) on *Alpinia purpurata* (red ginger) flowers. (Photos courtesy of San Diego County.)

***Pseudoparlatoria parlatorioides*, (false paralatoria scale)**

On April 22, 2021, San Diego County Dog Team Inspector/Handler Jeremy Partch with Detector Dog Yeti and San Diego County Insect Detection Specialist II (IDS II) Fran Wade intercepted a properly marked package at a FedEx facility in San Diego. The package contained cut flowers and foliage from Ecuador with a phytosanitary certificate attached to the package.

On closer inspection of the package, IDS II Wade found suspect scales on a *Phoenix roebelenii* palm frond. A pest sample was collected and delivered to the San Diego County Entomology Laboratory, and afterwards submitted to PPD Entomology Laboratory for identification. The sample was identified as A-rated *Pseudoparlatoria parlatorioides*, (false paralatoria scale). This pest is considered either not known to occur in California or is of limited distribution and prohibited entry.

Hydrilla in unmarked package

On May 14, 2021, San Diego County Dog Team Inspector/Handler Jeremy Partch, Detector Dog Yeti, and Agricultural Standards Inspector Camthao Ho intercepted an unmarked parcel shipment containing water hyacinth bulbs from Texas at the USPS Distribution Center in San Diego county.

The contents of the parcel were submitted as samples to the San Diego Entomology lab for live pests. Upon inspection of the water hyacinth bulbs, the lab found what appeared to be suspect hydrilla and other live pests. The San Diego Entomology Lab then turned the samples over to PPD Laboratory for further identification.

The PPD Laboratory identified the samples as A-rated (and W-rated) hydrilla, *hydrilla verticillata* Q-rated Spodoptera sp., and Q-rated Crambidae moth.

SITC was notified and provided information for federal follow up.

Water hyacinth bulbs found infested with several pests including hydrilla. (Photo courtesy of San Diego County.)



EXAMPLES OF SANTA BARBARA COUNTY DOG TEAM INTERCEPTIONS

Summary of the Interception Highlights

1. Plant pathogens have not been previously detected in California.
2. *Garcinia mangostana* (mangosteen) fruit.
3. Pests on Palm Fronds from Ecuador

Anthracnose causing fungal pathogens

On June 17, 2020, Santa Barbara County Dog Team Inspector/Handler Chris Tyler with Detector Dog Doomis and Agricultural Inspector Shawn Jensen intercepted four properly marked and certified agricultural parcels at a FedEx facility in Santa Maria. Each box contained a 3-gallon *Osmanthus fragrans* (fragrant olive) shrubs from South Carolina shipper Brighter Blooms.

Upon inspection of the shrubs, Inspectors Tyler and Jensen noticed black circular spots on both sides of the leaves of all four plants. Infested leaf samples were collected and submitted to the PPD Plant Pathology Laboratory for identification. The Plant Pathology Laboratory detected two types of anthracnose causing fungal pathogens, Q-rated *Neopestalotiopsis brasiliensis* and B-rated *Colletotrichum theobromicola*. These plant pathogens have not been previously detected in California.



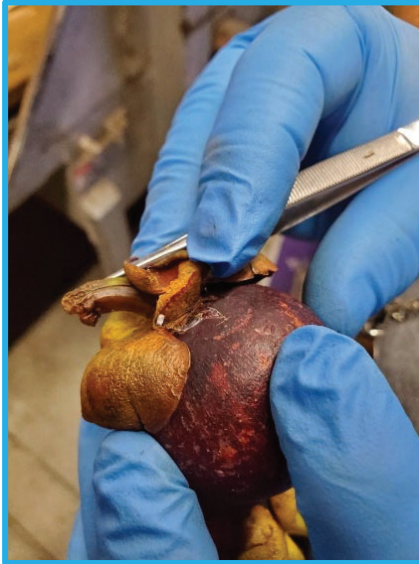
Left: A shipment of *Osmanthus fragrans* (fragrant olive) shrubs infested with *Neopestalotiopsis brasiliensis* and *Colletotrichum theobromicola*. Right: Santa Barbara County Detector Dog Doomis with Santa Barbara County Inspector/Handler Chris Tyler. (Photos courtesy of Santa Barbara County.)

Garcinia mangostana (mangosteen) fruit from Florida

On July 17, 2020, Santa Barbara County Dog Team Inspector/Handler Chris Tyler accompanied by Detector Dog Doomis and Inspector Shawn Jensen intercepted an uncertified and properly marked box from Florida shipper Tropical Fruit at a UPS facility in Santa Maria. The box contained 5 lbs. of *Garcinia mangostana* (mangosteen) fruit.

Upon inspection of the fruit, Inspectors Jensen and Tyler found suspect pests under the caps at the top of the fruit. Pest samples were collected and submitted to the PPD Entomology Laboratory where they were identified as the following:

- Q-rated Formicidae (larva)
- Q-rated *Camponotus* sp. (carpenter ant)
- Q-rated *Pseudococcus* sp. (mealybug)



A box of *Garcinia mangostana* (mangosteen) fruit from Florida infested with Q-rated Formicidae, Q-rated *Camponotus* sp. (carpenter ant), and Q-rated *Pseudococcus* sp. (mealybug). (Photos courtesy of Santa Barbara County.)

Pests on Palm Fronds from Ecuador

On July 18, 2020, Santa Barbara County Dog Team Inspector/Handler Chris Tyler with Detector Dog Doomis and Agricultural Biologist Andrew Schaeffer conducted a routine inspection at a FedEx facility in Santa Maria. During the inspection, a properly marked and certified commercial shipment of cut flowers with foliage was intercepted. The plant material originated from grower 'Ecuamagic' in Ecuador but was shipped by a California company, 'The Bouqs'.

Upon closer inspection of the shipment, Inspectors Tyler and Schaeffer found live insect pests on the leaves of three palm fronds. Pest samples were collected and sent to the PPD Entomology Laboratory where they were identified as:

- A-rated *Pinnaspis buxi* (boxwood scale)
- A-rated *Pinnaspis strachani* (lesser snow scale)
- Q rated Diaspididae (scale)



TRICARINATE
IMMATURE
MALE SCALE

ADULT FEMALE
WITH COVER

FEMALE BODY
(COVER REMOVED)

A-rated *Pinnaspis buxi* (boxwood scale) was found on palm fronds in a shipment from Ecuador. (Photos retrieved from <https://blogs.cdfa.ca.gov/Section3162/?p=2619>.)

A-rated, a pest of economic or environmental detriment and is either not known to be established in California or it is present in a limited distribution that allows for the possibility of eradication or successful containment.

Q-rated, an organism or disorder suspected to be of economic or environmental detriment, but whose status is uncertain because of incomplete identification or inadequate information.

W-rated, a species listed as a noxious weed on California Code of Regulation 4500.

Approved and Signed By:


Mark A.
McLoughlin

 Digitally signed by Mark A.
McLoughlin
Date: 2021.10.13 14:15:36 -07'00'

Date _____

Mark A. McLoughlin, ROAR
California Department of Food and Agriculture
Plant Health and Pest Prevention Services

**BETH STONE
SMITH**

 Digitally signed by BETH STONE
SMITH
Date: 2021.10.13 14:47:30 -07'00'

Date _____

Beth Stone-Smith, ADODR
United States Department of Agriculture
APHIS, Plant Protection and Quarantine