

CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

CALIFORNIA DETECTOR DOG TEAM PROGRAM



Annual Report

July 1, 2022 – June 30, 2023

Picture: CDFA class of 2022 with their NDDTC trainer.

Picture courtesy of NDDTC.

CONTENTS

- Purpose of Cooperative Agreement #22-8506-1165-CA.....3
- Work Plan Activities Performed by The CDFA3
- COVID 193
- Distribution of California Dog Teams4
- Additions and Replacements4
- Outreach.....5
- Accuracy and Certification5
- Summary of Dog Team Interceptions at Parcel Facilities5
- USPS Progress6
- Significant Pest Interceptions.....8
- Highlights of County Dog Team Interceptions13
- Examples of Alameda County Dog Team Interceptions13
- Examples of Contra Costa County Dog Team Interceptions16
- Examples of Sacramento County Dog Team Interceptions17
- Examples of San Bernardino County Dog Team Interceptions20
- Examples of San Diego County Dog Team Interceptions21
- Examples of Santa Barbara County Dog Team Interceptions23
- Examples of Santa Clara County Dog Team Interceptions26

PURPOSE OF COOPERATIVE AGREEMENT #22-8506-1165-CA

The purpose of cooperative agreement #22-8506-1165-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).

The CDFA issued five Pest Exclusion Advisories (PEAs) directly connected to the Dog Program. PEAs provided instructions for inspecting parcels that may contain targeted pests of concern, disposition guidance, changes in data reporting, and funding updates.

CDFA provides weekly pest lists for A, Q, and W-rated pests intercepted or detected in California. Additionally, AQW Pest Report write-ups are written and distributed monthly to the counties.

Two CAC audits were conducted for the Dog Program during this reporting period (Santa Clara and San Diego). Covid protocols affected the audit department's availability for travel and staffing this FY.

The CDFA prioritizes allocating unspent funds to the counties and lab when there is a need for change in work plan.

COVID 19

During this reporting period, all California Dog Teams were able to work in parcel facilities while following the Covid safety protocols of each county. Additionally, all dog teams have been able to travel out of county and provide inspection coverage for other counties, including non-dog team counties. Outreach activities continued to be limited due to social distance requirements.

DISTRIBUTION OF CALIFORNIA DOG TEAMS

The California Dog Teams and inspectors were distributed as described in Table 1 and in the map below. Ten of the 13 California Dog Teams worked at parcel facilities for the entire reporting period (July 1, 2022 – June 30, 2023): Contra Costa (one team), Fresno (one team), Los Angeles (three teams), Sacramento (two teams), San Bernardino (one team), San Diego (two teams), and Yolo (inspectors only). In May 2023, two dogs were replaced in Alameda and Santa Barbara, and one new team was placed Santa Clara.

Teams are based in a single county but work regionally to cover over 200 facilities in 32 of 58 California counties or 56.4 % of the total square mileage in California.

TABLE 1: Distribution of California Dog Teams

County	Area Covered	# of Teams
Alameda	Alameda County	1
Contra Costa	San Francisco Bay Area	1
Fresno	Fresno County	1
Los Angeles	Los Angeles County	3
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



ADDITIONS AND REPLACEMENTS

Ten of the 13 funded dog teams worked through the entire reporting period.

Teams that worked the entire FY included Contra Costa (1), Fresno (1), Los Angeles (3), Sacramento (2), San Bernardino (1), and San Diego (2).

Three counties did not have teams work the entire FY. The Alameda dog was medically released in January 2023 and the Santa Barbara dog retired in December as planned. The Santa Clara handler was released from the position at the beginning of this reporting period and a new handler was hired in March 2023. All three handlers attended the NDDTC classes March through May 2023, acclimating their new dogs beginning May 2023.

The three dog teams that were replaced included: Alameda (1, medical released), Santa Barbara (1), and Santa Clara (1). Due to acclimation time the teams did not work in the USPS for this reporting period.

OUTREACH

Outreach activities (demonstrations, education, public relations, and workshops) are performed by the dog teams as a secondary task. Outreach is performed throughout California, including counties not funded under the Dog Program.

During this reporting period, the dog teams participated in 20 outreach events. Events included nine County Ag Day in various locations throughout the state, Farm Days, Humane Society Education Program in San Diego, Travel Shows in Los Angeles, and demonstrations at schools.

ACCURACY AND CERTIFICATION

The NDDTC, CDFA and counties worked cooperatively to ensure the teams certified in person this FY. The NDDTC traveled to California to perform the annual USDA certification.

Certification occurred regionally in June 2023. All teams must pass with a score of 90% accuracy or above to meet the USPS MOU working requirements. Additionally, the CDFA monitored all dog teams' proficiency each month to ensure 90% accuracy was maintained for teams working in the USPS. Accuracy is determined by the number of positive alerts in packages intercepted at private parcel facilities (i.e., FedEx).

The dog teams continued to meet monthly for regional group trainings for alert accuracy and USPS exercises. The All-State Handler training was held February 2023 in Sacramento County.

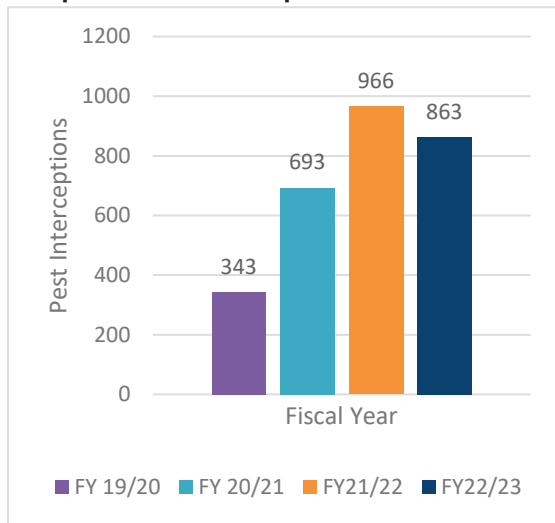
SUMMARY OF DOG TEAM INTERCEPTIONS AT PARCEL FACILITIES

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 863 significant pests were intercepted by California Dog Teams (Graph 1). 502 of these pests were intercepted in unmarked packages (58%) (Graph 4).

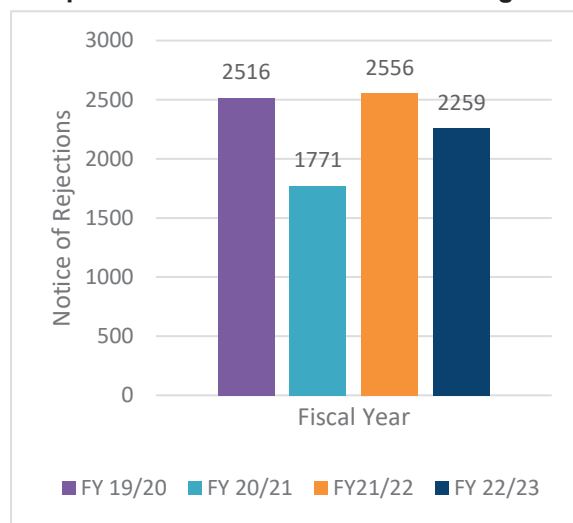
Some of these interceptions involved multiple pest specimens in a single package. Our detector dogs alerted on parcels that yielded pests that are known to cause serious agricultural and economic impacts such as Asian citrus psyllid, Caribbean fruit fly, cedar and Japanese apple rusts, burrowing and reinform nematodes, and red imported fire ant.

The California Dog Teams alerted on 53,866 marked and unmarked parcels containing agricultural products during this agreement. Of the total alerted parcels, 4,702 were intercepted at USPS facilities and of these packages 3,011 were unmarked per the USPS requirements. Due to the efforts of the California Dog Teams during this reporting period, 2,259 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



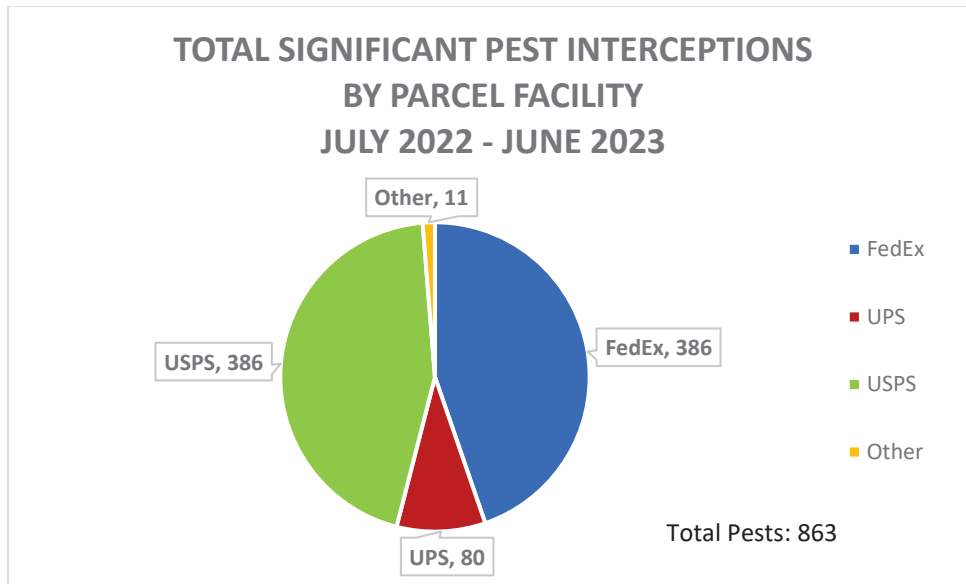
USPS PROGRESS

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 (Graph 4), which continues to be demonstrated this fiscal year when considering only 53% of dog teams worked this pathway.

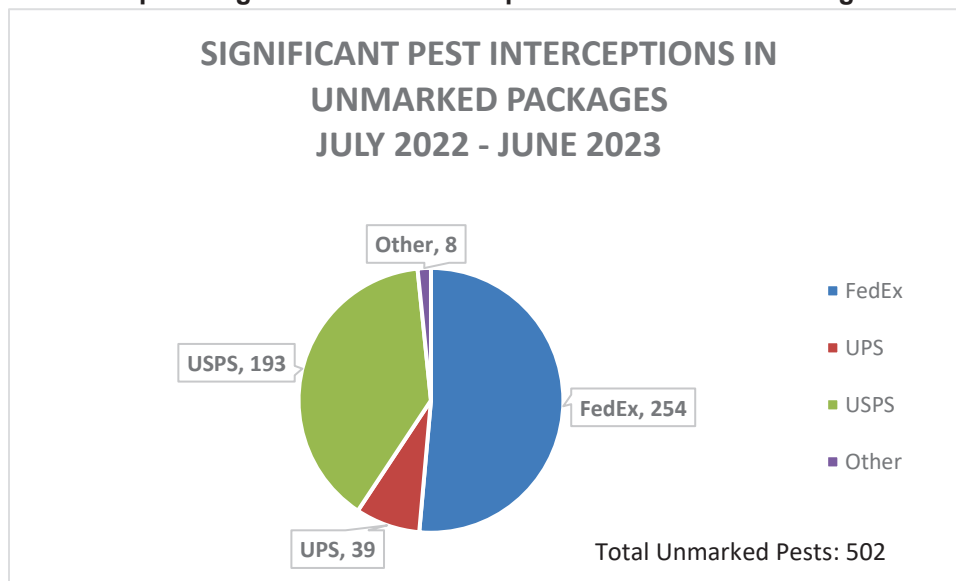
Because of the risks associated with the USPS, California Dog Teams concentrate their efforts on processing and distribution systems.

Graph 3 illustrates the distribution of pest interceptions by the California Dog Teams at different parcel facilities. Graph 4 illustrates the pest interceptions in only unmarked packages at the parcel facilities.

Graph 3: Total Pest Interceptions by Parcel Facility (Marked and Unmarked Packages)



Graph 4: Significant Pest Interceptions in Unmarked Packages



A new Call Center pilot program was developed and operated in four counties at the end of FY 17-18. The Call Center supports the California Dog Teams USPS package permissions task. The purpose of the Call Center is to provide a centralized call center team that efficiently and cost-effectively lessens the burden for individual counties without any loss in customer service or rates of consent. The Call Center is meant to supplement county efforts to locate individuals and acquire permissions. The Call Center pilot program 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. Previously, the average consent rate was 52%, prior to the pilot program. During the initial pilot, the Call Center achieved a 90% consent rate. The Call Center pilot program ceased in November 2018 due to funding and a low amount of

USPS certified dog teams. The Call Center was implemented again for all USPS dog team counties in February 2021 and is operated from Yolo County.

During this reporting period, the Call Center had an 75% total consent success rate. The staff attempted 1,963 calls and were able to get consent for 1,482 packages.

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. The current list contains 351 shippers.

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 2 below lists the number and type of actionable pests which includes 331 actionable A-rated pests, 531 actionable Q-rated pests, and 1 actionable W-rated pest. Of note, our agricultural detector dogs alerted on parcels that yielded pests known to cause serious agricultural and economic impacts such as Asian citrus psyllid, Caribbean fruit fly, cedar and Japanese apple rusts, red imported fire ant, burrowing and reinform nematodes.

Table 2: Significant Pest Interceptions

July 1, 2022 – June 30, 2023



ScientificName	Common_Name	Rating_ID	Origin
Acaridae	Mite	Q	HI
Acutaspis/perseae	armored scale	Q	COL, FL
Aleurocerus/sp.	palm whitefly	Q	CA
Aleuroplatus/sp.	whitefly	Q	PR (6)
Aleurotrachelus/anonae	whitefly	A	FL (4), PR (5)
Aleurotrachelus/sp.	whitefly	Q	PR (2)
Aleyrodidae	whitefly	Q	FL (3), LA, PR (3), Unknown
Aleyrodidae	Whiteflies	Q	FL (5), PR (4)
Alternanthera/sp.	joyweed	Q	MI
Amaranthus/blitum	purple amaranth	Q	FL
Anastrepha/suspensa	Caribbean fruit fly	A	FL (2)
Aonidiella/orientalis	oriental -scale	A	FL (15), GA (3), HI, Unknown
Aphididae	aphid	Q	EC, COL (2), GA (2), FL (3), HI (5), NC, PR (13), SC
Asiothrixus/antidesmae	whitefly	A	FL
Aspidiella/hartii	armored scale	A	GH
Aspidiotus/destructor	coconut scale	A	FL (2), Unknown
Aspidiotus/excisus	aglaonema scale	A	PR

ScientificName	Common_Name	Rating_ID	Origin
Asteraceae/sp	indet asteraceae seedling	Q	PR
Aulacaspis/tubercularis	armored scale	A	FL (32), GA, PR (10)
Axonopus/sp	carpetgrass	Q	PR
Bacopa/caroliniana	blue waterhyssop	Q	MI
Blastobasidae	scavenger moth	Q	FL (2), VA
Blattodea	cockroach	Q	FL, HI, Unknown
Blyxa/aubertii	bamboo plant	Q	MI
Brachymyrmex/sp.	ant	Q	FL
Brachyponera/chinensis	Asian needle ant	A	SC
Cardamine/occulta	woodland bittercress	Q	AL, FL, PR, TX (2)
Ceroplastes/floridensis	Florida wax scale	A	FL (2)
Ceroplastes/rubens	red wax scale	A	PR (3), EC
Ceroplastes/rusci	fig wax scale	A	FL (4)
Ceroplastes/sp.	wax scale	Q	FL (4), HI, PR (5)
Ceroplastes/stellifer	stellate scale	A	FL, HI, PR (9)
Cicadellidae	leafhopper	Q	FL, PR, TX, Unknown
Coccidae	scale	Q	EC (6), EC (3), FL (11), HI, ID, MO, PR (14), Unknown
Coccoidea	scale	Q	FL (2), PR
Coccus/moestus	soft scale	A	PR
Coccus/viridis	green scale	A	FL (2), PR
Colletotrichum/camelliae	anthracnose	Q	FL, TX
Colletotrichum/cf. queenslandicum	anthracnose	Q	PR
Colletotrichum/sp. nov.	anthracnose	Q	US
Cosmopterigidae	cosmet moth	Q	HI
Crambidae	snout moth	Q	NC
Cryptocoryne/sp	water trumpet	Q	MI (2)
Cucurlionidae	weevil	Q	MS
Curculio/sp.	weevil	Q	MO, SC
Curculionidae	weevil	Q	CT, HI (2)
Cyperus/brevifolius	green kyllinga	Q	CA
Cyphomyrmex/sp	fungus ant	Q	Unknown
Dermaptera	earwigs	Q	CA, FL, HI
Diaphania/costata	sherbet moth	Q	SC (2)
Diaphorina/citri	Asian citrus psyllid	A	FL
Diaspididae	scale	Q	CA (2), EC (14), FL (29), GA (2), HI (9), ID (5), MS, NY, PR (11), SC, Unknown (5)
Dichromothrips/corbetti	thrips	Q	HI
Drymaria/cordata	whitesnow	W	FL
Dysmicoccus/grassii	mealybug	A	FL (6), GA (3)
Dysmicoccus/neobrevipes	gray pineapple mealybug	A	FL (8), GA (3)

ScientificName	Common_Name	Rating_ID	Origin
Elsinoe/sp.	plant pathogen	Q	FL
Empoasca/sp.	leafhopper	Q	HI, OH
Eriophyidae	mite	Q	PR
Euphorbia/hypericifolia	chickenweed	A	FL, PR (2)
Euphorbia/ophthalmica	Florida hammock sandmat	Q	PR (4), TX
Euphorbia/sp.	spurge	Q	FL (2), PR
Ferrisia/sp.	mealybug	Q	FL (2)
Ferrisia/virgata	striped mealybug	A	US
Fiorinia/phantasma	scale	A	FL
Fiorinia/theae	tea scale	A	AL, GA
Formicidae	ant	Q	EC, GH
Frankliniella/invasor	thrips	Q	HI
Gastropoda	slug/snail	Q	FL, HI, PR
Gelechiidae	twirler moth	Q	FL, HI
Geometridae	moth	Q	TX
Geoplanidae	flatworm	Q	FL (2), Unknown
Gracillariidae	leafminer	Q	US
Gryllotalpidae	mole cricket	Q	FL
Gryllidae	cricket	Q	Unknown
Gymnosporangium/juniperi-virginianae	cedar apple rust	A	MA, TN
Gymnosporangium/yamadae	Japanese apple rust	A	CT
Hemiptera	true bug	Q	CR, FL, MD, PR
Horridipamera/sp	seed bug	Q	HI
Howardia/biclavis	mining scale	A	FL
Insecta	insect eggs	Q	CO, EC, FL (20), HI (4), IL, LA, MS, PR (5), TH, TR, TX, WA, US (3), Unknown (4)
Ischnaspis/longirostris	black thread scale	A	EC (2), HI
Isoptera	termite	Q	PR
Lepidosaphes/laterochitinsa	mussel scale	A	HI
Lopholeucaspis/cockerelli	cockerell scale	A	FL
Ludwigia/inclinata	ludwigia	Q	MI
Maconellicoccus/hirsutus	pink hibiscus mealybug	A	FL (5), GA (3)
Megascolecidae	earthworm	Q	FL (2)
Meloidogyne/enterolobii	root knot nematode	A	FL
Metaleurodicus/cardini	whitefly	Q	FL
Microstegium/vimineum	Nepalese browntop	Q	GA
Milviscutulus/mangiferae	mango shield scale	A	FL (7), PR (2)
Monomorium/floricola	ant	A	FL (2)
Monomorium/sp.	ant	Q	CA
Monophlebidae	scale	Q	EC, PR
Mycetaspis/personata	masked scale	A	FL (4), PR (2)

ScientificName	Common_Name	Rating_ID	Origin
Mycetaspis/sp	amored scale	Q	LA
Myosotis/scorpioides	true forget me not	Q	NY
Neosilba/sp	paprika fly	Q	GA (3)
Nipaecoccus/sp.	mealybug	Q	HI (2)
Noctuidae	moth	Q	TX (2)
Nylanderia/sp	ant	Q	FL (4), GA, PR (2)
Nymphalidae	blue footed butterfly	Q	TH
Nysius/sp	chinchbug	Q	HI
Ochetellus/glaber	ant	A	HI (6), US
Oecophoridae	concealer moth	Q	SC
Oxalis/debilis	pink woodsorrel	Q	PR
Oxalis/dillenii	slender yellow woodsorrel	Q	PR, FL
Oxalis/violacea	violet woodsorrel	Q	IA
Parlatoria/crypta	scale	Q	ID
Parlatoria/pseudaspidotus	vanda orchid scale	A	FL, NY
Pentatomidae	stinkbug	Q	FL
Peperomia/pellucida	shiny bush	Q	PR
Phalacrocooccus/howertoni	croton scale	A	FL (2), Unknown
Pheidole/sp.	ant	Q	CA, FL (11), GA, HI (2), IND, LA, PR (3), TX, Unknown
Philephedra/tuberculosa	soft scale	Q	TX
Pilea/microphylla	artilleryweed	Q	FL (6), PR (3), HI, LA
Pinnaspis/buxi	boxwood scale	A	CO, COL (3), EC (12), ID, FL (4), HI (5)
Pinnaspis/strachani	lesser snow scale	A	AL, CA, EC (13), FL (23), HI (2), ID, OH, US, Unknown (2)
Planococcus/lilacinus	mealybug	A	FL (2)
Planococcus/minor	pacific mealybug	A	FL (3), GA, HI (11), EC
Planococcus/sp.	mealybug	Q	HI (2)
Pogostemon/deccanensis	aquatic plant	Q	MI
Potentilla/simplex	old field cinquefoil	Q	IA
Prococcus/acuteus	slender soft scale	A	CA, FL (2), PR
Procontarinia/sp	mango midges	Q	CA
Proxys/punctulatus	stinkbug	Q	FL
Pseudaonidia/trilobitiformis	trilobe scale	A	FL (2), Unknown
Pseudaulacaspis/cockerelli	magnolia white scale	A	CA, FL (7), GA, HI, EC
Pseudaulacaspis/pentagona	white peach scale	A	CA, FL (4), HI (9), PR

ScientificName	Common_Name	Rating_ID	Origin
Pseudococcidae	mealybug	Q	CA (2), CR, EC (16), FL (39), HI (23), IND, PR (15), US (2), Unknown (3)
Pseudococcus/jackbeardsleyi	mealybug	A	HI, PR, EC (2)
Pseudococcus/odermatti	mealybug	A	FL
Psychidae	bagworm moth	A	FL (2), GA (3), US (2)
Psyllidae	psyllid	Q	FL, HI
Radopholus/similis	burrowing nematode	A	FL, HI
Rotala/hippuris	aquatic plant	Q	MI
Rotylenchulus/reniformis	reniform nematode	A	PR
Saccharicoccus/sacchari	pink sugarcane mealybug	A	FL
Selenaspidus/articulatus	rufous scale	A	EC (2), FL
Solenopsis/invicta	red imported fire ant	A	FL
Spermacoce/verticillata	shrubby false buttonweed	Q	FL
Spodoptera/sp.	armyworm	Q	FL
Subulinidae	land snail	Q	FL (2)
Technomyrmex/sp.	ant	Q	FL, HI (5)
Tephritidae	fruit fly	Q	FL
Tetraleurodes/sp.	redbanded whitefly	Q	NC
Tetraleurodes/ursorum	whitefly	Q	NC
Tetranychidae	whitefly	Q	CA, FL, PR
Tetranychus/sp.	tetranychid mite	Q	FL (3), SC, PR (4), Unknown
Thrips/maculicollis	thrips	A	HI (2)
Thysanofiorinia/sp	scale	Q	FL (2)
Thysanoptera	scale	Q	FL (3), PR
Tortricidae	tortrix moth	Q	FL (3), GA
Tradescantia/fluminensis	small leaf spiderwort	Q	CA
Trionymus/boninsis	mealybug	A	FL
Tuckerella/sp.	peacock mite	A	FL
Uromyces/asclepiadis	Milkweed rust	A	TX
Wasmannia/auropunctata	ant	A	FL (3), HI (2), PR (2)
Xyleborus/sp	scolytid beetle	Q	FL
Zachrysia/provisoria	snail	A	FL

863 Total Interceptions

HIGHLIGHTS OF COUNTY DOG TEAM INTERCEPTIONS

California Dog Team interceptions from July 1, 2022, to June 30, 2023, resulted in the interception of 331 A-rated, 531 Q-rated, and 1 W-rated plant pests including Asian citrus psyllid, Caribbean fruit flies, burrowing and reniform nematodes, and red imported fire ant. 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 COUNTY DOG TEAM INTERCEPTIONS

Summary of Interception Highlights:

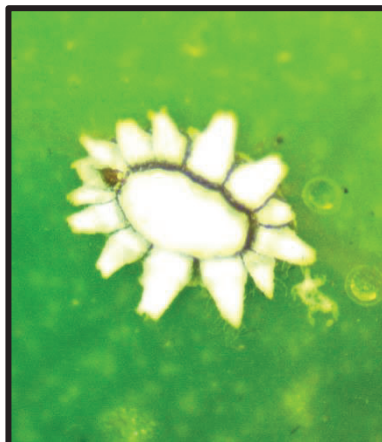
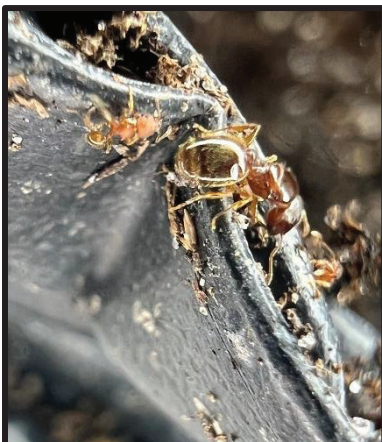
1. Unmarked Package from Florida
2. Unmarked Package of sugar apples
3. Lesser Snow Scale
4. Root knot nematode

Unmarked Package from Florida

On August 19, 2022, Alameda County Dog Team Inspector/Handler Lisa Sampson with Detector Dog Zenna, and Agricultural Inspectors Megdelawit Yoseph and Alejandro Regalado conducted a routine parcel inspection at the UPS facility in Fremont. During the inspection, Zenna alerted Inspector Sampson on an unmarked package from Florida. The package was opened for inspection and contained a *Syzygium samarangense* (java apple) tree.

Upon further inspection, Inspector Alejandro Regalado found numerous pests on the surface of the leaves and in the soil of the java apple tree. Pest samples were collected and sent to the PPD Entomology laboratory, where they were identified as the following:

- Q-rated *Pheidole* sp. (ant)
- Q-rated *Ceroplastes* sp. (wax scale)
- A-rated *Milviscutulus mangiferae* (mango shield scale)
- Q-rated *Spermacoce verticillate* (shrubby false buttonweed)



Unmarked Package of sugar apples

On August 31, 2022, Alameda County Dog Team Inspector/Handler Lisa Sampson with Detector Dog Zenna, and Agricultural Inspector Megdelawit Yoseph, intercepted an unmarked and uncertified three packages from Georgia at a FedEx facility in Oakland. The non-commercial shipment contained 150 lbs. *Annona squamosa* (sugar apples) fruits, 50 lbs. in each package.

Upon inspection of the fruits, Inspector Yoseph and Agricultural Inspector Alejandro Regalado found numerous suspect pests on the surface of the sugar apples fruits.

Pest samples were collected and submitted to PPD Entomology Laboratory where they were identified as the following:

Left to right: Q-rated *Pheidole* sp.; Q-rated *Ceroplastes* sp.; A-rated *Milviscutulus mangiferae*
(Photos courtesy of Alameda County.)

- A-rated *Dysmicoccus neobrevipes* (gray pineapple mealybug)
- A-rated Psychidae
- A-rated *Aonidiella orientalis* (oriental scale)
- A-rated *Maconellicoccus hirsutus* (pink hibiscus mealybug)
- Q-rated Diaspididae
- Q-rated *Pheidole* sp. (ant)
- Q-rated Tortricidae



Alameda County K9 Zenna detected three packages of *Annona squamosa* (sugar apples) fruit from Georgia, heavily infested with multiple pests as above. (Photos courtesy of Alameda County.)

Lesser Snow Scale

On October 26, 2022, Alameda County Dog Team Inspector/Handler Lisa Sampson with Detector Dog Zenna, and Agricultural Inspector Megdelawit Yoseph conducted a routine parcel inspection at a FedEx facility in Oakland. During the inspection, Zenna alerted Inspector Sampson on a properly marked package from Florida. Agricultural Inspector Yoseph opened the package and found the shipment to contain a bouquet of tropical cut flowers and foliage, including fronds of *Areca* sp. (palm) originating from Ecuador.

Upon closer inspection, Inspector Yoseph found the backside of the palm fronds to be infested with suspect scales. Pest samples were collected and sent to the PPD Entomology Laboratory where they were identified as A-rated *Pinnaspis strachani* (lesser snow scale).



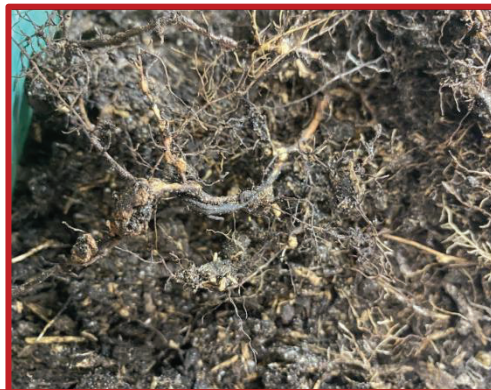
Photos of 3 instars of A-rated *Pinnaspis strachani* (lesser snow scale). (Image retrieved from http://blogs.cdfa.ca.gov/Section3162/?attachment_id=2642).

Root knot nematode

On May 31, 2023, Alameda County Dog Team Handler/Inspector Lisa Sampson with Detector Dog Tank and Agricultural Inspector Megdelawit Yoseph intercepted an unmarked and uncertified package from Florida at the UPS facility in Oakland. The package contained *Psidium* sp. (guava) trees with roots and soil.

Upon inspection of the guava trees, Agricultural Inspector Alejandro Regalado found numerous suspect pests on the surface of the leaves and on the roots of guava trees. Leaves of the trees were infested with an unknown potential pathogen. Pest and soil samples were collected and submitted to the PPD Entomology and Nematology Laboratories where they were identified as the following:

- A-rated *Meloidogyne enterolobii* (root knot nematode)
- Q-rated Coccidae (scale)
- Q-rated Aleyrodidae (whitefly)
- Q-rated Pseudococcidae (mealybug)



A shipment of *Psidium* sp. (guava) trees from Florida, infested with multiple A-rated and Q-rated pests. (Photos are courtesy of Alameda County.)

EXAMPLES OF CONTRA COSTA COUNTY DOG TEAM INTERCEPTIONS

Summary of Interception Highlights:

1. Guava plant with soil
2. Q-Rated Artillery Weed

Guava plant with soil

On February 16, 2023, Contra Costa County Dog Team Inspector/Handler Simone Ackermann accompanied by Detector Dog Major and Santa Clara County Biologist/Standards Inspectors Jana Labrucherie intercepted an unmarked parcel from Puerto Rico at the USPS distribution center in San Jose. Inspectors Ackermann and Labrucherie received consent from the receiver to open and inspect the parcel.

The parcel contained a guava plant with soil attached to the roots. The exterior of the parcel lacked the required markings indicating the contents and growing origin of the contained plant material. Furthermore, the parcel didn't include a phytosanitary certificate for Burrowing and Reniform Nematode Quarantine, and therefore the parcel and guava plant was confiscated for further inspection.

Upon closer inspection of the plant Inspectors Ackermann and Labrucherie found suspect insect pests on the leaves of the guava plants. Pest samples were collected and submitted to the PPD Entomology Laboratory, where they were identified following:

- Q-rated mealybug (*Pseudococcidae*)
- Q-rated whitefly (*Aleuroplatus* sp.)
- A-rated soft scale (*Coccus moestus*)

Q-Rated Artillery Weed

On March 1, 2023, Contra Costa County Dog Team Agricultural Inspector/Handler Simone Ackermann with Detector Dog Major, and Agricultural Inspector Lucas Ohio Pattie intercepted a marked and certified parcel from Hawaii at a FedEx facility in Pacheco. The parcel contained *Cymbidium* sp. (orchid) plants with soil. Burrowing and Reniform Nematode (BRN) Certificate #0391 accompanied the plants.

Upon inspection of the orchids, a suspect weed was found near the base of a plant growing in the soil. A weed sample was collected and submitted to the PPD Botany Laboratory where it was identified as Q-rated *Pilea microphylla* (artilleryweed).



A Q-rated *Pilea microphylla* (artilleryweed) weed found with the orchids (plants) from Hawaii. (Photos Courtesy of Contra Costa County.)

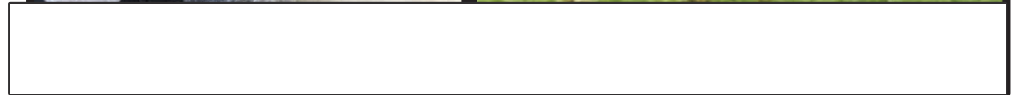
EXAMPLES OF SACRAMENTO COUNTY DOG TEAM INTERCEPTIONS

Summary of Interception Highlights:

1. Puerto Rico Plants in Unmarked Package
2. A-Rated Scales in Cut Foliage from Florida
3. Q-Rated Weed in an Unmarked Parcel
4. Cedar-apple rust from Tennessee
5. Caribbean fruit fly in certified package

Puerto Rico Plants in Unmarked Package

On November 4, 2022, Yolo County Inspector Chase Granum and Sacramento County Dog Team Inspector/Handler Mariah de Nijs with Detector Dog Taz conducted a routine parcel inspection at the USPS Distribution Center in West Sacramento. During the sort, Detector Dog Taz alerted his handler to an unmarked parcel from Puerto Rico destined to Carmichael, CA. The parcel was set aside for further inspection. Permission was obtained from the shipper to open the package for inspection. The package contained two separate unidentified plants with soil attached to the roots, shipped without a phytosanitary certificate. While conducting the inspection of the content, suspect insect pests were found on the leaves of the unidentified plants. Although the shipment was subject



to rejection due to the absence of certification, samples were collected due to the presence of visible pests for further analysis. Pest were submitted to the PPD Entomology Laboratory, where they were identified as A-rated *Aleurotrachelus anonae*.

A-Rated Scales in Cut Foliage from Florida

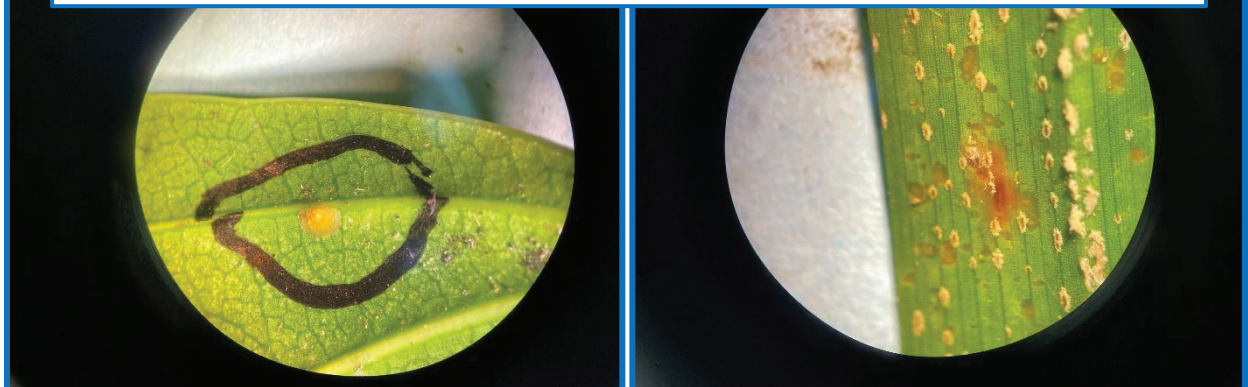
On February 3, 2023, Sacramento County Inspector Laura McCreedy, along with Sacramento County Dog Team Inspector/Handler Mariah de Nijs and Detector Dog Taz, conducted a routine parcel inspection at a FedEx facility in Rancho Cordova. During the inspection, Taz alerted Inspector de Nijs on a properly marked package from Florida, which contained bunches of various cut foliage, including branches of *Cocculus* sp. (*cocculus*) and *Phoenix roebelenii* (robellini palm).

Upon closer examination of the foliage, Inspector McCreedy found suspect insect pests on the underside of some of the leaves. Pest samples were collected and submitted to the Plant Pest Diagnostics (PPD) Entomology Laboratory, where they were identified as the following:

- A-rated *Aonidiella orientalis* (oriental scale)
- Q-rated Diaspididae (scale)



Above left: Cocculus leaves. Above right: Robelenii palm fronds. Bottom left: A-rated *Aonidiella orientalis* (oriental scale) on a *Cocculus* sp. leaf. Bottom right: Q-rated Diaspididae (scale) on a robellini palm frond. (Photos courtesy of Sacramento County.)



Q-Rated Weed in an Unmarked Parcel

On April 14, 2023, Yolo County Inspector Alex Argueta, along with Sacramento County Dog Team Inspector/Handler Michelle King and Detector Dog Kernul conducted a routine parcel inspection at the USPS Distribution Center in West Sacramento. During the inspection, Detector Dog Kernul alerted on an unmarked and uncertified shipment from Puerto Rico. The package was en route to a receiver in San Joaquin County and was suspected of containing high risk plant material. The shipper was contacted and gave permission to open the intercepted package.

After receiving permission to inspect the parcel, Yolo County Inspector Joel Hernandez opened the parcel and found a three-foot *Mangifera* sp. (mango) tree plastic wrapped with roots and soil. Upon closer inspection of the tree, Inspector Hernandez found a suspect weed growing within the soil. A pest sample was collected and sent to the PPD Botany Laboratory where it was identified as Q-rated *Peperomia pellucida* (shiny bush).



An unmarked and uncertified parcel contained a 3-foot *Mangifera* sp. (mango) tree wrapped with soil. (Photo courtesy of Yolo County).

Cedar-apple rust from Tennessee

On April 19, 2023, Sacramento County Dog Team Inspector/Handler Mariah de Nijs with Detector Dog Taz and Yolo County Inspector Joel Felice intercepted an unmarked and uncertified package from Tennessee at the USPS Distribution Center in West Sacramento. Attempts were made by Yolo County inspectors to contact the shipper and the receiver to obtain permission to inspect the package.

Yolo County Inspectors Joel Hernandez and Michelle Lawson ultimately obtained permission from the shipper to open the package for inspection. The package contained two bare-root *Malus* sp. (apple) trees. Upon detailed inspection of the apple trees, Inspectors Hernandez and Lawson noticed that the leaves were infested with an unknown potential pathogen. Leaf samples were collected and submitted to the PPD Plant Pathology Laboratory where they were identified as A-rated *Gymnosporangium juniperi-virginianae* (cedar-apple rust).

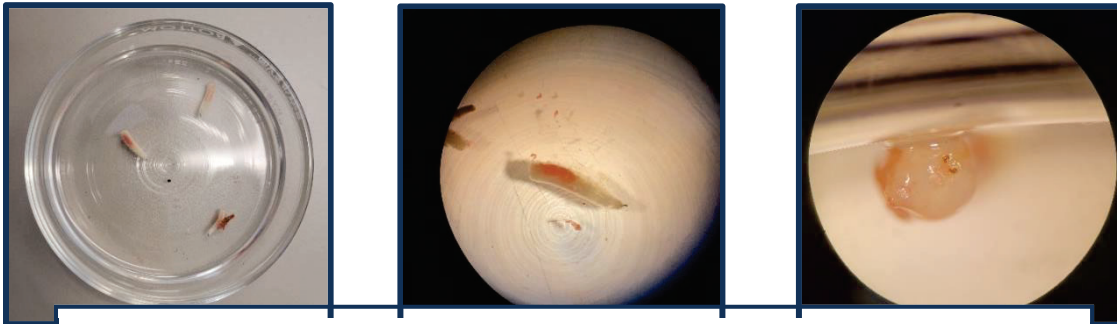


A shipment of *Malus* sp. (apple) trees from Tennessee, infested with A-rated *Gymnosporangium juniperi-virginianae* (Cedar Apple Rust). (Photo courtesy of Yolo County.)

Caribbean fruit fly in certified package

On May 19, 2023, Sacramento County Inspector Joshua Kelley and Dog Team Inspector/ Handler Michelle King with Detector Dog Kernul conducted a routine parcel inspection at the FedEx facility in Rancho Cordova. During the inspection, Detector Dog Kernul alerted on a properly certified package from commercial shipper "Tropical Fruit Box" located in Miami, FL. The package contained an assortment of tropical fruits including guava.

Shipments of guava fruit from Florida to California are prohibited due to California Code of Regulation (CCR) [Section 3252](#) Caribbean Fruit Fly Exterior Quarantine. Closer examination and cutting of the fruit revealed the presence of seven live larvae. Pest samples were taken and sent to the PPD Entomology Laboratory where they were identified as A-rated *Anastrepha suspensa* (Caribbean fruit fly).



Collected samples of *Anastrepha suspensa* (Caribbean fruit fly) on a Petri plate and under the microscope. (Photos are courtesy of Sacramento County.)

EXAMPLES OF SAN BERNARDINO COUNTY DOG TEAM INTERCEPTIONS

Summary of Interception Highlights:

1. Tea Plants infested with Rated Scale Pests
2. Hawaiian Papaya
3. Uncertified milkweed plants

Tea Plants infested with Rated Scale Pests

On August 18, 2022, San Bernardino County Dog Team Inspector/Handler Kristina Cummings with Detector Dog Macey and Inspectors Keri Vigil and Shannon Lehrter intercepted a properly marked and certified package from Georgia at a USPS facility in Redlands. The package contained 4 tea plants with roots and soil. The permission was obtained from the shipper to open and inspect the package by the Yolo County Call Center.

During an inspection of the plants, Inspector Lehrter found suspect pests on the leaves of the plants. Pest samples were collected and submitted to the PPD Entomology Laboratory where they were identified as A-rated *Florinia theae* (tea scale) and Q-rated Diaspididae (scale).



Tea plants from Georgia, infested with A-rated *Florinia theae* and Q-rated Diaspididae scales.

Hawaiian Papaya

On December 7, 2022, San Bernardino County Dog Team Inspector/Handler Kristina Cummings and Detector Dog Macey conducted a routine inspection at the FedEx facility in San Bernardino. During the inspection, K9 Macey alerted Inspector Cummings on a properly marked shipment of *Carica papaya* (papaya) fruit coming from Hawaii. The shipment was properly certified with a USDA Limited Permit No. 26 treated stamp.

Upon closer inspection of the papaya, Inspector Cummings observed live scale insects around the stems of the fruit. Insect samples were collected and sent to the PPD Entomology Laboratory where they identified as A-rated *Pseudaulacaspis pentagona* (white peach scale).

A-rated *Pseudaulacaspis pentagona* (white peach scale) on the stems of *Carica papaya* (papaya) fruit from Hawaii. (Photo courtesy of San Bernardino County).



Uncertified milkweed plants

On March 17, 2023, San Bernardino County Inspector/Handler Kristina Cummings accompanied by Detector Dog Macey intercepted an unmarked package from Texas at the FedEx facility in San Bernardino. The package contained two milkweed plants in soil. There was no certification included with the package.

Upon closer inspection of the milkweed plants, Inspector Cummings noticed unusual brown markings on the leaves of the plants. Symptomatic leaves were sampled and sent to the PPD Plant Pathology Laboratory where the pathogen was identified as A-rated *Uromyces asclepiadis* (milkweed rust).

EXAMPLES OF SAN DIEGO COUNTY DOG TEAM INTERCEPTIONS

Summary of Interception Highlights:

1. Uncertified and Unmarked peaches
2. Infested Logan Plant from Florida
3. Q-rated *Colletotrichum camelliae*

Uncertified and Unmarked peaches

On July 26, 2022, San Diego County Agricultural Inspector/Handler Melissa Sinkovits with Detector Dog Owen, and Dog Team Assistant/Insect Detection Specialist II (IDS II) Fran Wade conducted a routine parcel inspection at a FedEx facility in San Diego. During the inspection, Detector Dog Owen alerted his handler to an unmarked, non-commercial package shipped from Jackson City,

MS. The package contained peach fruit that did not include a required phytosanitary certificate, essential for the shipment of peaches from Mississippi.

Upon closer inspection of the peaches, IDS II Wade found suspect pests on the fruit and in the box. Pest samples were collected and sent to the PPD Entomology Laboratory where they were identified as Q-rated Curculionidae.



Left – A package with infested peach fruits.
Right – Detector Dog Owen with the seized peaches.
(Photos are courtesy of San Diego County.)

Infested Logan Plant from Florida

On November 23, 2022, San Diego County Dog Team Sr. Agricultural Inspector/Handler Melissa Sinkovits with Detector Dog Owen, and Agricultural Standards Inspector Aprille Geier conducted a routine parcel inspection at the FedEx facility in San Diego. During the inspection, Detector Dog Owen alerted on an unmarked and uncertified package from Florida that contained a single *Dimocarpus longan* (longan) plant with roots in soil. Upon closer inspection of the plant, suspect scales were found on leaves of the plant. Although the shipment was subject to rejection due to the absence of certification, samples were collected due to the presence of visible pests for further analysis. Pest samples were collected and submitted to the PPD Entomology Laboratory where they were identified as A-rated *Prococcus acutissimus* (slender soft scale).



A longan plant from Florida, infested with A-rated *Prococcus acutissimus* (slender soft scale). (Photos courtesy of San Diego County.)

Q-rated *Colletotrichum camelliae*

On March 22, 2023, San Diego County Dog Team Inspector/Handler Melissa Sinkovits with Detector Dog Owen, and Insect Detection Specialist II (IDS II) Fran Wade conducted a routine parcel inspection at a FedEx facility in San Diego. During the inspection Inspector Sinkovits intercepted an unmarked package with *Smilax* sp. cuttings shipped by East Texas Smilax Ltd. from Winnsboro, TX.

Upon closer inspection of the content, Inspector Sinkovits found brown spots on several leaves of *Smilax* sp. (greenbrier) vines and placed the package on hold for a more thorough inspection at San Diego County Entomology lab. Collected samples were subsequently forwarded to PPD Plant Pathology laboratory, where they were identified as Q-rated *Colletotrichum camelliae*.



Infested *Smilax* sp. vines found on shipment from Texas.
(Photo courtesy of San Diego County)

EXAMPLES OF SANTA BARBARA COUNTY DOG TEAM INTERCEPTIONS

Summary of Interception Highlights:

1. Infested Jujube from Louisiana
2. Cedar Apple Rust intercepted on Backyard Fruit
3. Weeds in Unmarked Rooted Plants
4. Q-Rated Artillery Weed on Uncertified Shipment

Infested Jujube from Louisiana

On August 3, 2022, Yolo County Inspector Courtney Stemen and Santa Barbara County Dog Team Inspector/Handler Chris Tyler with Detector Dog Doomis intercepted an unmarked parcel from Louisiana at a USPS facility in West Sacramento. Permission was obtained from the non-commercial shipper to open the parcel for inspection. The parcel contained 6 lbs. of *Ziziphus* sp. (jujube) fruit.

During an inspection of the fruit, Inspector Stemen found suspect pests inside some of the stem cavities of the fruit. Pest samples were collected and submitted to the Plant Pest Diagnostics (PPD)

Entomology Laboratory, where they were identified as Q-rated *Mycetaspis* sp. (scale) and Q-rated Diaspididae (scale).

Ziziphus sp. (Jujube) fruit from Louisiana, infested with Q-rated *Mycetaspis* sp.
(Photo courtesy of Yolo County.)



Cedar Apple Rust intercepted on Backyard Fruit

On September 21, 2022, Yolo County Agricultural Inspector Dennis Chambers and Santa Barbara County Agricultural Inspector/Dog Handler Chris Tyler, with Detector Dog Doomis conducted a routine parcel inspection at the USPS West Sacramento Distribution Center. During the inspection, Detector Dog Doomis alerted on an unmarked non-commercial parcel shipped from Andover, MA that was suspected of containing plant material. Permission was obtained from the receiver to open the parcel for inspection. The parcel contained approximately 8 lbs. of *Malus* sp. (crab apple) fruit with attached leaves.

During the detailed inspection of the content, Inspector Chambers noticed rust symptoms on the leaves of the crab apples. Samples were submitted to the PPD Plant Pathology Laboratory, where they were identified as A-rated *Gymnosporangium juniperi-virginiae* (cedar apple rust).

Weeds in Unmarked Rooted Plants

On October 7, 2022, Yolo County Inspector Bill Lyon, and Santa Barbara County Dog Team Inspector/Handler Chris Tyler with Detector Dog Doomis intercepted an unmarked and uncertified parcel from Georgia at a USPS facility in West Sacramento. Permission was obtained from the non-commercial shipper to open the parcel for inspection. The parcel contained 25 unidentified rooted plants with soil.

Upon further inspection of the plants, Inspector Lyon found suspect weed pests in the soil inter-mixed with two other unidentified plants. Weed samples were collected and submitted to the PPD Botany Laboratory where they were identified as Q-rated *Microstegium vimineum* (Japanese stiltgrass).



A-rated *Aleurotrachelus anonae* found on the shipment from Puerto Rico.
(Photos courtesy of Yolo County.)

Q-Rated Artillery Weed on Uncertified Shipment

On March 17, 2023, Santa Barbara County Dog Team Inspector/Handler Chris Tyler, Detector Dog Doomis, and Yolo County Inspector Courtney Stemen conducted parcel inspections at the USPS Distribution Center in West Sacramento. During the inspections, Detector Dog Doomis alerted Handler Tyler on an unmarked and uncertified shipment from Puerto Rico. The package was en route to a receiver in San Joaquin County and was suspected to contain high risk plant material. The shipper was contacted and gave permission to open the intercepted package.

The package contained one *Azadirachta indica* (neem) tree with roots and soil in a half-gallon sized container. Upon closer inspection of the contents, multiple suspect weeds were found growing in the soil. Weed samples were collected and sent to the PPD Botany Laboratory where the following were identified as Q-rated *Pilea microphylla* (artillery weed).



EXAMPLES OF SANTA CLARA COUNTY DOG TEAM INTERCEPTIONS

Summary of Interception Highlights:

1. Infested fruit from Florida
2. Root knot nematode

Infested fruit from Florida

On May 24, 2023, Santa Clara County Dog Team Inspector/Handler Jana Labrucherie with K9 Everest and Agricultural Biologist Elliot McIntosh intercepted a marked and certified parcel from Florida shipper Tropical Fruit Box at the FedEx Dado facility in San Jose. The parcel contained Ecuador origin *Mangifera* sp. (mango) and dragon fruit.

Upon inspection of the fruit, Agricultural Biologist McIntosh found suspect pests on the stem portion of a mango fruit. Pest samples were collected and submitted to the PPD Entomology Laboratory where they were identified as A-rated *Aulacaspis tubercularis* (armored scale) and Q-rated Pseudococcidae (mealybugs).

Root knot nematode

On June 8, 2023, Santa Clara Biologists/Standard Inspectors Pablo Gomez, Kathy Vo, Khoi Nguyen, along with Santa Clara County Dog Team Inspector/Handler Jana Labrucherie and Detection Dog Everest, conducted a routine inspection of incoming packages at the UPS facility in San Jose. During the inspection Detection Dog Everest alerted her handler on eight unmarked packages originating from Hillsborough County, FL, that were pulled off the feeder for detailed inspection. The packages were opened for inspection and contained six banana plants, two guava trees, and eight chili pepper plants with soil attached to the roots. Plants were shipped without any accompanying permits or certificates.

Inspectors Gomez and Nguyen inspected each plant and found them to have various live pests. Pest samples were collected and sent to PPD Entomology and PPD Pathology Laboratories where they were identified as the following:

- A-rated *Mangiferae* sp. (mango scale)
- A-rated *Enterolobii* sp. (root-knot nematode)
- Q-rated Gryllotalpidae (mole cricket)
- Q-rated *Cardini* sp. (whiteflies)
- Q-rated Ceroplastes (wax scale)



“Routine” parcel inspection that protects California agriculture.

(Photos courtesy of Santa Clara County.)



***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.

Andrew R. Cline Digitally signed by Andrew R.
Cline
Date: 2023.12.05 11:48:42 -08'00'

Andrew Cline, ROAR Date
California Department of Food and Agriculture
Plant Health and Pest Prevention Services

**BETH STONE
SMITH** Digitally signed by BETH STONE
SMITH
Date: 2023.12.05 13:39:05 -08'00'

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