CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

CALIFORNIA AGRICULTURE DETECTOR DOG TEAM PROGRAM

Annual Report

July 1, 2015 - June 30, 2016

Pictured: California teams at the annual handler meeting held in Los Angeles County.

Picture taken by Ed Williams, Los Angeles County.

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PURPOSE OF COOPERATIVE AGREEMENT #15-8506-1165-CA

The purpose of cooperative agreement USDA #15-8506-1165-CA is to implement the use of the California Agriculture Detector Dog Teams (herein referenced as California Dog Teams) to enhance inspection and surveillance activities related to plant products entering the State of California via parcel delivery facilities and airfreight terminals for the purpose of excluding the introduction of plant pests that may negatively impact agriculture.

WORK PLAN ACTIVITIES PERFORMED BY CDFA

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. CDFA verified all expenses approved for payment to county agricultural commissioner cooperators were legitimate expenses as outlined in the CDFA/CAC cooperative agreement. CDFA acted as the liaison between CAC and the National Detector Dog Training Center (NDDTC) and was responsible for communicating significant pest finds and smuggling information to USDA/SITC.

WORK PLAN ACTIVITIES PERFORMED BY COUNTY AGRICULTURAL COMMISSIONERS

The California Dog Teams and inspectors were distributed as described in **Table 1** and the picture* below. Nine of the fourteen California Dog Teams worked parcel facilities for the full reporting period (July 1, 2015 - June 30, 2016): Alameda (1 team), Contra Costa (2 teams), Los Angeles (2 teams), Sacramento (1 team), San Bernardino (1 team), San Diego (2 teams) and Yolo (inspectors only).

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

TABLE 1: Distribution of CA 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	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

*County Dog Team locations are shaded.

This fiscal year it was necessary to replace teams due to retirements and adjust handler position locations to maximize area coverage.

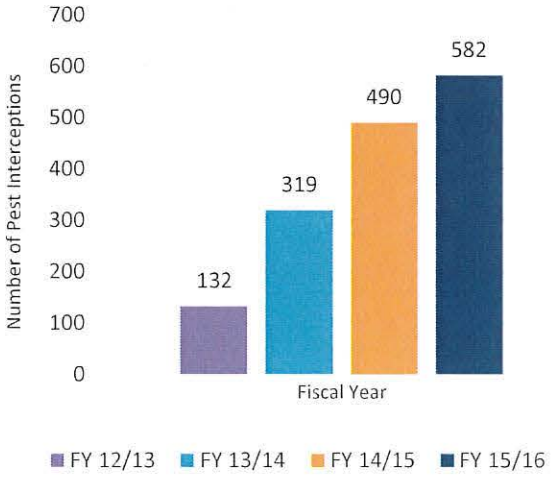
Five new handlers were hired and attended the Agriculture Detector Dog Handler Training course at the National Detector Dog Training Center (NDDTC) in Newnan, Georgia. Two of the five handlers replaced retired teams in Fresno and Santa Clara counties. The other three new handlers were placed in Los Angeles, Sacramento and Santa Barbara counties to increase the overall coverage in California.

SUMMARY OF DOG TEAM INTERCEPTIONS AT PARCEL FACILITIES

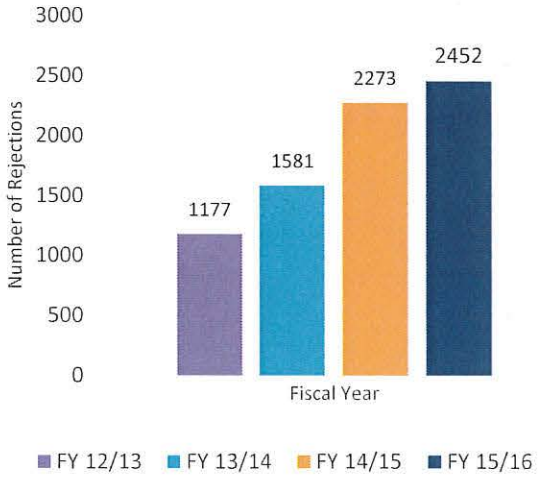
The California Dog Teams continue to demonstrate that unmarked parcels present a high-risk pathway for significant agricultural pests to enter California. During the agreement period, a total of 582 significant pests were intercepted by California Dog Teams (**Graph 1**), which is a 19% increase from the pests intercepted at this same reporting period for FY 2014/2015. Some of these interceptions involved multiple pest specimens in a single package.

The California Dog Teams alerted on 36,042 total marked and unmarked parcels containing agricultural products and had a 97.8% accuracy rate detecting agricultural commodities in unmarked packages. Of the total alerted parcels, 9,117 were intercepted at USPS facilities and of these packages 53% (4,828) were unmarked. Additionally, due to the efforts of the California Dog Teams, 2,452 rejections have been issued for violations of state and federal plant quarantine laws and regulations (**Graph 2**).

Graph 1: Pest Interceptions



Graph 2: Violation of Plant Laws & Regulations



USPS PROGRESS

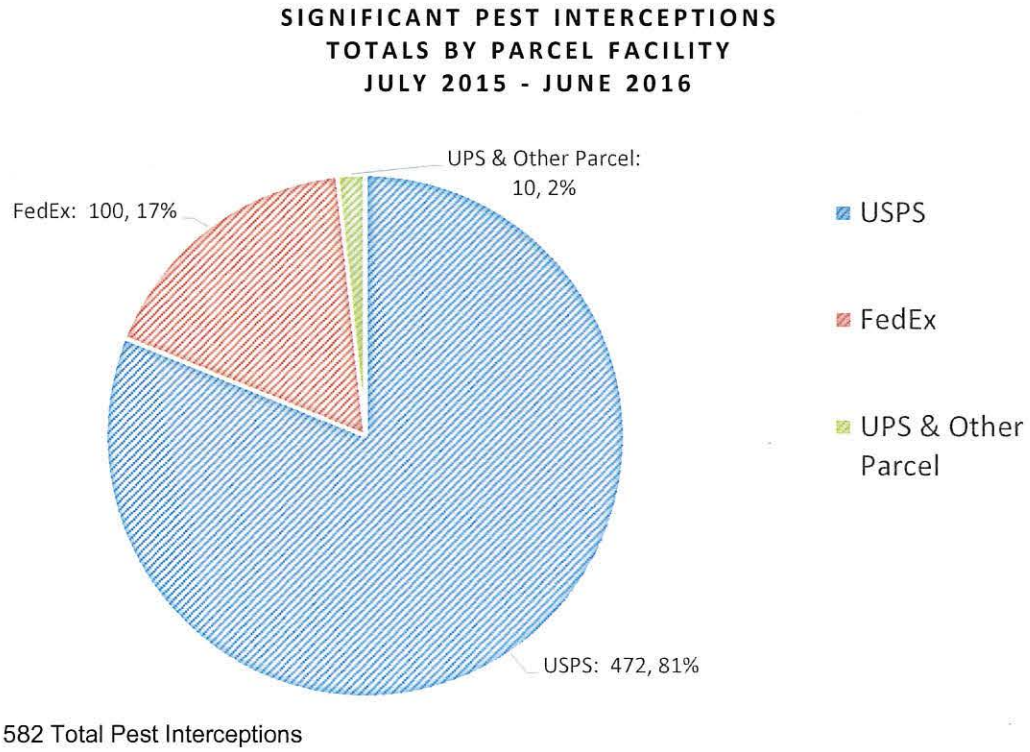
CDFA continued laying the groundwork for Dog Teams working at U.S. Postal Service's (USPS) processing and distribution centers. This work is conducted under a multiagency Memorandum of Understanding (MOU). This MOU requires inspectors to contact either the shipper or receiver within 24 hours to gain consent to open a parcel the dog alerted on. Although this process is resource intense, data collected over the past two years shows evidence that the USPS is the highest risk parcel pathway based not only on the quantity of pest interceptions (**Graph 3**), but also on the quality of pest interceptions and percentage of unmarked parcels **(Graph 4)**.

Because of the risks associated with the USPS, California Dog Teams started concentrating their efforts in this pathway. CDFA will continue to work with the USDA and USPS to improve the existing MOU by making modifications in the existing language to clarify the intent and instructions. 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 have contained agricultural material. CDFA continues to work with USDA on expanding the ability to seek search warrants at all USPS locations.

Further modifications and goals sought will include authorization to work at all USPS processing and distribution centers statewide and the ability to enforce the Terminal Inspection Act in California. The pursuit of search warrants to open parcels when inspectors are unable to gain consent is still ongoing.

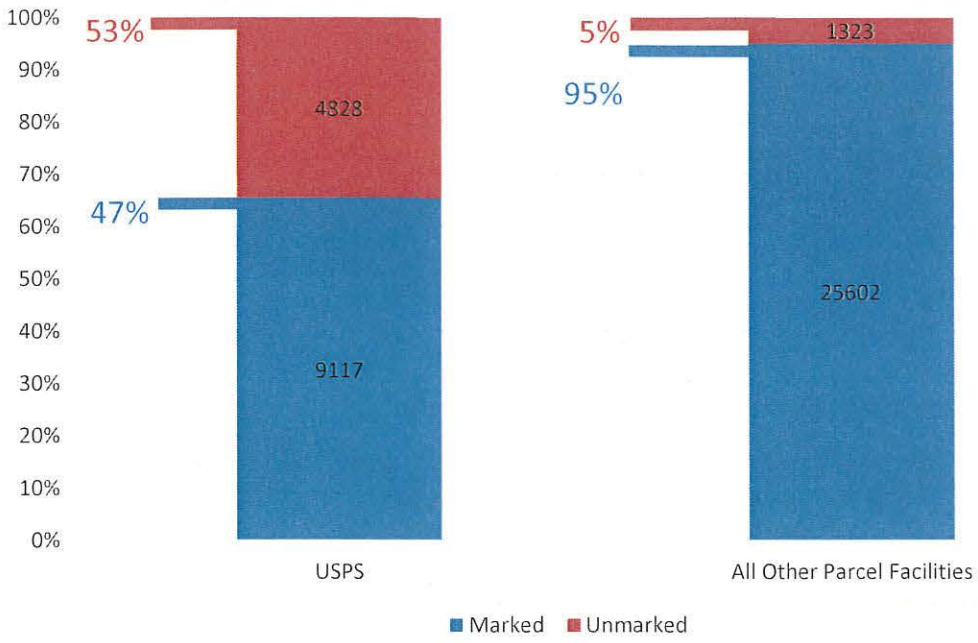
Graph 3 below illustrates the parcel facilities where pests have been intercepted and demonstrates the risk of parcels entering California through the USPS. The California Dog Teams have increased inspection hours at the United States Postal Service (USPS) as a result of the data.

GRAPH 3: CA DOG TEAMS- PEST INTERCEPTION TOTALS PER FACILITY TYPE



582 Total Pest Interceptions

GRAPH 4: COMPARISON OF MARKED VS. UNMARKED PARCEL INTERCEPTIONS BY PARCEL FACILITY



SIGNIFICANT PEST INTERCEPTIONS

During this agreement period, California Dog Teams were extremely successful at protecting California agriculture by intercepting significant pests of agriculture before they could be introduced into California. **Table 2** below lists the number and type of actionable pests which included 125 actionable A-rated pests and 457 actionable Q-rated pests.

Table 2: Significant Pests Interceptions

July 1, 2015 – June 30, 2016

Interceptions	Common Name	Scientific Name	Rating	Origin
2	Leaf Miner	Agromyzidae Family	Q	FL (2)
1	White Fly	Aleurocanthus/sp	Q	FL (1)
1	White Fly	Aleurodicus/dispersus	Q	HI (1)
1	White Fly	Aleurodicus/sp.	Q	FL (1)
3	White Fly	Aleurotrachelus/sp.	Q	FL (2), PR (1))
1	White Fly	Aleurovitreus/sp	Q	FL (1)
9	White Fly	Aleyrodidae Family	Q	FL (5), HI (4)
3	**West Indian Fruit Fly**	Anastrepha/obliqua	A	PR (3)
1	**Fruit Fly**	Anastrepha/sp.	A	FL (1)

Interceptions	Common Name	Scientific Name	Rating	Origin
1	**Caribbean Fruit Fly**	Anastrepha/suspensa	A	FL (1)
1	Ant	Anoplolepis/gracilipes	Q	HI (1)
3	Oriental Scale	Aonidiella/orientalis	A	FL (3)
16	Aphid	Aphididae Family	Q	FL (4), HI (7), GA (1), LA (1), OR (1), PA (1), PR (1)
1	Stick Bug	Arvelius/albopunctatus	Q	FL (1)
2	Armored Scale	Aspidiella/sacchari	Q	FL (2)
3	Coconut Scale	Aspidiotus/destructor	A	FL (2), TX (1)
17	Armored Scale	Aulacaspis/tubercularis	Q	FL (8), PR (9)
1	**Oriental Fruit Fly**	Bactrocera/dorsalis	A	HI (1)
1	Wasp	Bephratelloides/cubensis	Q	FL (1)
4	Moth	Blastobasidae Family	Q	CA (2), FL (2)
1	Moth	Blastodacna/sp	Q	NH (1)
2	Cockroach	Blattodea Order	Q	FL (2)
1	Snail	Bulimulus/guadalupensis	Q	FL (1)
1	Moth	Cacographis/osteolalis	Q	FL (1)
1	Snail	Camaenidae Family	Q	PR (1)
1	Carpenter Ant	Camponotus/sp.	Q	MN (1)
7	**Huanglongbing**	Candidatus Liberibacter/asiaticus	A	FL (3), GA (1), LA (1), PR (2)
3	Ant	Cardiocondyla/obscurior	Q	FL (3)
1	Aphid	Cerataphis/sp.	Q	HI (1)
5	Florida Wax Scale	Ceroplastes/floridensis	A	AL (1), FL (4)
3	Fig Wax Scale	Ceroplastes/rusci	A	FL (2), HI (1)
5	Wax Scale	Ceroplastes/sp.	Q	FL (4), HI (1)
1	Armored Scale	Chrysomphalus/sp.	Q	FL (1)
5	Leafhopper	Cicadellidae Family	Q	FL (4), HI (1)
1	Herculeana Scale	Clavaspis/herculeana	A	HI (1)
29	Scale	Coccidae Family	Q	CA (2), FL (18), HI (2), MS (1), NJ (1), OR (1), PR (3), TX (1)
1	Capparis Soft Scale	Coccus/capparidis	Q	FL (1)
3	Green Scale	Coccus/viridis	A	FL (2), HI (1)
1	Leaf Spot	Coleophoma/empetri	Q	FL (1)
25	Fruit Spot	Colletotrichum/asianum	Q	FL (21), PR (4)
2	Fruit Spot	Colletotrichum/fructicola	Q	FL (2)
2	Fruit Spot	Colletotrichum/queenslandicum	Q	FL (2)
7	Fruit Spot	Colletotrichum/siamense	Q	FL (5), PR (2)

Interceptions	Common Name	Scientific Name	Rating	Origin
1	Fruit Spot	Colletotrichum/sp.	Q	FL (1)
9	Fruit Spot	Colletotrichum/theobromicola	Q	FL (9)
1	Angraecum Scale	Conchaspis/angraeci	Q	HI (1)
1	Butternut Curculio	Conotrachelus/juglandis	A	VA (1)
1	Grass Moth	Crambidae Family	Q	NJ (1)
16	Weevil	Cucurlionidae Family	Q	AL (1), CT (1), KY (1), MA (1), MN (1), NC (3), RI (1), SC (3), TN (1), TX (2), VA (1)
1	**Hickory Shuckworm**	Cydia/caryana	A	PA (1)
4	**Asian Citrus Psyllid**	Diaphorina/citri	A	CA (2), FL (1), TX (1)
15	Scale	Diaspididae Family	Q	FL (6), HI (5), NJ (2), PR (2)
12	Mealybug	Dysmicoccus/grassii	A	FL (10), PR (1), TX (1)
1	Click Beetle	Elateridae Family	Q	KY (1)
3	**Sweet Orange Scab**	Elsinoe/australis	A	FL (1), PR (1), TX (1)
1	Mite	Eriophyidae Family	Q	TX (1)
1	Giant Prickly Stick Insect	Extatosoma/tiaratum	Q	CA (1)
17	Striped Mealybug	Ferrisia/dasylirii	Q	FL (17)
4	Mealybug	Ferrisia/sp.	Q	FL (4)
1	Armored Scale	Fiorinia/phantasma	Q	HI (1)
1	Ant	Formicidae Family	Q	FL (1)
2	Gastropod	Gastropoda Order	Q	FL (1), HI (1)
2	Moth	Gelechiidae Family	Q	FL (2)
1	**Senegal Tea Plant**	Gymnocoronis/spilanthoides	Q	AZ (1)
12	**Cedar Apple Rust**	Gymnosporangium/juniperi-virginianae	A	CT (1), FL (1), IL (1), MA (3), MD (1), MN (1), NH (1), NY (1), TN (1), VT (1)
1	Armored Scale	Hemiberlesia/neodiffinis	Q	FL (1)
3	True Bug	Hemiptera Order	Q	FL (2), NC (1)
1	Moth	Hendecasis/duplifascialis	Q	NJ (1)
2	Banana-silvering Thrips	Hercinothrips/bicinctus	Q	CA (2)

Interceptions	Common Name	Scientific Name	Rating	Origin
1	True Bug	Heteroptera Order	Q	FL (1)
1	Blastobasid Moth	Holcocera/crassicornella	Q	FL (1)
1	Mining Scale	Howardia/biclavis	A	FL (1)
31	Insect eggs	Insect egg	Q	AL (1), AR (1), FL (14), HI (5), IN (1), LA (1), PR (5), TX (3)
2	Black Thread Scale	Ischnaspis/longirostris	A	FL (2)
1	Termite	Isoptera Family	Q	HI (1)
1	Planthopper	Kallitaxila/granulata	Q	HI (1)
4	Moth	Lepidoptera Order	Q	FL (3), NY (1)
1	Armored Scale	Lepidosaphes/eurychlidonis	Q	FL (1)
3	Armored Scale	Lepidosaphes/sp.	Q	HI (1), PR (2)
1	**South American Spongeplant**	Limnobium/laevigatum	A	AZ (1)
3	Armored Scale	Lindingaspis/floridana	Q	FL (3)
15	Pink Hibiscus Mealybug	Maconellicoccus/hirsutus	A	CA (1), FL (14)
	Mango Shield Scale	Milviscutulus/mangiferae	Q	FL (1), HI (1)
1	Capsid Bugs	Miridae Family	Q	HI (1)
1	Ant	Monomorium/sp.	Q	FL (1)
2	Masked Scale	Mycetaspis/personata	Q	FL (2)
1	Ant	Myrmica/latifrons	Q	WI (1)
4	Fruit Spot	Neofusicoccum/mangiferae	Q	FL (2), PR (1), Unknown (1)
1	Fruit Spot	Neofusicoccum/sp.	Q	PR (1)
1	Mealybug	Nipaecoccus/floridensis	Q	FL (1)
4	Mealybug	Nipaecoccus/sp.	Q	FL (4)
1	Moth	Noctuidae Family	Q	NJ (1)
2	Seed Bug	Nysius/sp.	Q	FL (1), MA (1)
2	Mealybug	Paracoccus/marginatus	Q	FL (2)
2	Sansevieria Scale	Parlatoria/proteus	A	FL (2)
1	Vanda Orchid Scale	Parlatoria/pseudaspidiotus	A	FL (1)
1	**Black Citrus Scale**	Parlatoria/ziziphi	A	PR (1)
1	Land Snail	Paropeas/achatinaceum	A	LA (1)
1	Rust	Phakopsora/phyllanthi	Q	FL (1)
4	Exotic Soft Scale	Phalacrococcus/howertoni	Q	FL (3), PR (1)
18	Ant	Pheidole/sp.	Q	AL (2), FL (10), HI (2), LA (1), MS (2), TX (1)

Interceptions	Common Name	Scientific Name	Rating	Origin
2	Mealybug	Phenacoccus/gossypii group	Q	FL (2)
1	Tube-tailed Thrip	Phlaeothripidae Family	Q	TX (1)
3	Boxwood Scale	Pinnaspis/buxi	A	HI (3)
9	Lesser Snow Scale	Pinnaspis/strachani	A	FL (6), HI (1), PR (2)
3	Mealybug	Planococcus/lilacinus	A	AL (1), FL (2)
2	Slender Soft Scale	Prococcus/acutissimus	Q	FL (2)
1	Camphor Scale	Pseudaonidia/duplex	Q	GA (1)
4	Trilobe Scale	Pseudaonidia/trilobitiformis	Q	EC (1), FL (1), GU (1), HI (1)
7	Magnolia White Scale	Pseudaulacaspis/cockerelli	A	FL (2), HI (5)
2	White Peach Scale	Pseudaulacaspis/pentagona	A	FL (2)
1	Leaf Spot	Pseudocercospora/smilacicola	Q	TX (1)
1	**Twobanded Japanese Weevil**	Pseudocneorhinus/bifasciatus	Q	MA (1)
59	Mealybug	Pseudococcidae Family	Q	CA (2), FL (36), HI (10), PR (4), TX (3), VA (1), Unknown (3)
1	Citriculus Mealybug	Pseudococcus/cryptus	A	HI (1)
2	Mealybug	Pseudococcus/jackbeardsleyi	Q	CA (1), FL (1)
4	Mealybug	Pseudococcus/odermatti	Q	FL (4)
1	Mealybug	Pseudococcus/sp.	Q	PR (1)
1	Fruit Spot	Pseudofusicoccum/sp.	Q	FL (1)
3	Bagworm Moth	Psychidae Family	A	AL (1), FL (2)
5	Psyllid	Psyllidae Family	Q	CA (4), FL (1)
5	Moth	Pyralidae Family	Q	CA (1), FL (2), LA (1), OH(1)
1	**Burrowing Nematode**	Radopholus/similis	A	FL (1)
1	Western Cherry Fruit Fly	Rhagoletis/indifferens	A	WA (1)
2	Walnut Husk Fly	Rhagoletis/suavis	A	OH (2)
1	Lychee Bark Scale	Rutherfordia/major	Q	FL (1)
	Bark Beetle	Scolytidae Family	Q	CA (2)
1	Tropical Fire Ant	Solenopsis/geminata	Q	PR (1)
2	**Red Imported Fire Ant**	Solenopsis/invicta	A	AL (1), FL (1)
1	Sphinx Moth	Sphingidae Family	Q	FL (1)

Interceptions	Common Name	Scientific Name	Rating	Origin
1	Snail	Succinea/sp.	Q	NY (1)
2	Ant	Technomyrmex/sp.	Q	FL (2)
1	Redbanded Whitefly	Tetraleurodes/sp.	Q	CA (1)
1	Spider Mite	Tetranychidae Family	Q	FL (1)
4	Tetranychid Mite	Tetranychus/sp.	Q	FL (2), GA (1), HI (1)
2	Bush Cricket	Tettigoniidae Family	Q	FL (2)
6	Thrips	Thripidae Family	Q	CA (1), FL (1), NY (1), SC (1), TX (2)
1	Thrips	Thrips/florum	A	HI (1)
12	longan Scale	Thysanofiorinia/nephelii	Q	FL (12)
1	Thrips	Thysanoptera Order	Q	HI (1)
5	Moth	Tortricidae Family	Q	FL (4), Unknown (1)
2	**Papaya Fruit Fly**	Toxotrypana/curvicauda	A	FL (2)
1	Peacock Mite	Tuckerella/sp.	Q	PR (1)
1	Citrus Snow Scale	Unaspis/citri	A	FL (1)
3	Slug	Veronicellidae Family	Q	FL (2), HI (1)
1	Scolytid Beetle	Xylosandrus/sp	Q	HI (1)
1	Snail	Zachrysia/provisoria	Q	FL (1)
3	**African Fig Fly**	Zaprionus/indianus	Q	FL (3)

582 Total Interceptions

HIGHLIGHTS OF COUNTY DOG TEAM INTERCEPTIONS

Dog team interceptions from July 1, 2015 to June 30, 2016 resulted in the interception of 125 A-rated pests and 457 Q-rated pests. Of these pest interceptions, there were seven interceptions of the huanglongbing (HLB), 12 exotic fruit fly interceptions which included Oriental fruit fly, West Indian fruit fly and African fig fly, as well as other notable finds such as, Asian citrus psyllid (ACP), cedar apple rust, hickory shuckworm, twobanded Japanese weevil, and walnut husk fly. These quarantine pests are not known to occur in California and the dog team interceptions were critical to prevent the establishment of detrimental pests in California. The narratives below detail examples of interesting interceptions during the reporting period.

EXAMPLES OF ALAMEDA COUNTY DOG TEAM INTERCEPTIONS

Summary of Interception Highlights:

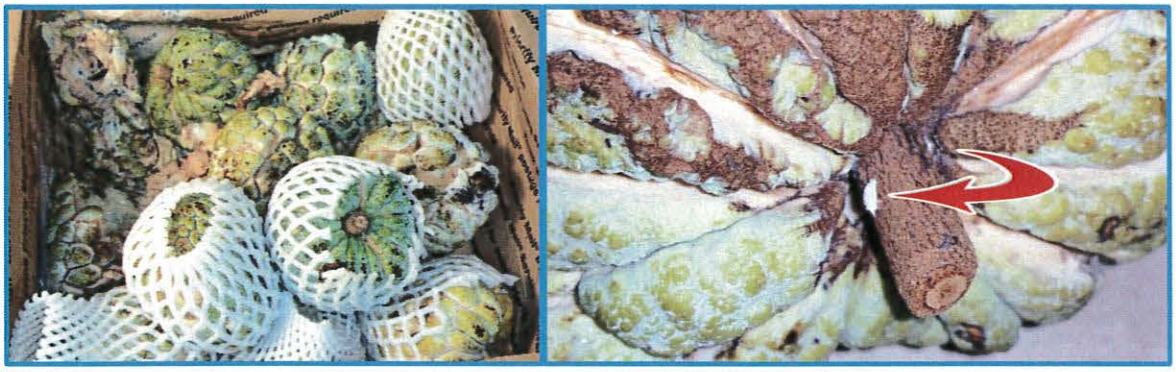
1. *Unmarked Custard Apple Shipment*
2. *Florida Plant Shipment*
3. *Infested Unmarked Package from Alabama*
4. *Yellow Spot Motoro Stingray*

UNMARKED CUSTARD APPLE SHIPMENT

On August 26, 2015, Alameda County Dog Team Inspector/Handler Lisa Sampson with dog Cosmo intercepted an unmarked and uncertified shipment of custard apples from Florida at USPS Oakland. Alameda County Inspector Claire Perkins obtained permission to open the parcel and, upon inspection, insects could be seen on the surface of custard apples.

Insects samples were submitted to the Plant Pest Diagnostics (PPD) Laboratory and identified as Q-rated *Zaprionus indianus* (fig fly), A-rated *Dysmicoccus grassii* (mealybug), and Q-rated *Ferrisia dasylirii* (mealybug).

Intercepted Custard Apple Parcel and Close-up of *Dysmicoccus grassii* on Custard Apple



On September 2, 2015, the same team intercepted Q-rated *Ferrisia dasylirii* (mealybug) and Q-rated insect eggs on custard apples from Florida and Q-rated *Pseudococcus sp.* (mealybug) on Spanish lime fruit from Puerto Rico.

FLORIDA PLANT SHIPMENT

On October 9, 2015, Alameda County Dog Team Inspector/Handler Lisa Sampson with dog Cosmo intercepted an unmarked and uncertified shipment of plants in soil from Florida at FedEx Newark. The shipment was very visibly infested with live pests.

Pest samples were submitted to the PPD Laboratory and identified as A-rated *Ceroplastes rusci* (fig wax scale).

Fig Wax Scale Intercepted on Plants from Florida

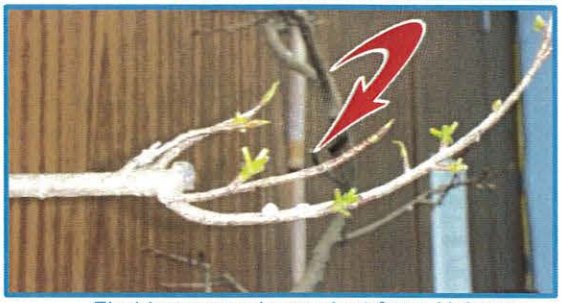
Infested Unmarked Package from Alabama

On February 2, 2016, Alameda County Dog Team Inspector/Handler Lisa Sampson with dog Cosmo and Inspector Claire Perkins intercepted two unmarked and uncertified parcels of plants in soil at FedEx in Newark. The parcels originated from Alabama and were en route to Hayward.

The parcels were confiscated and, upon inspection, live pests were found. Pest samples were submitted to the PPD Laboratory and identified as the following:

- A-rated Psychidae (bagworm)
- A-rated *Planococcus lilacinus* (mealybug)
- A-rated *Ceroplastes floridensis* (Florida wax scale)
- Q-rated *Pheidole* sp. (ant)

On February 9, Ag & Standards Investigator II Chris Craft and Deputy Agricultural Commissioner/Sealer Ronnie K. Eaton conducted a site visit at the receiver's residence in Hayward. The purpose of this visit was to educate the resident regarding entry requirements of plants into California from other regulated states.



Florida wax scale on plant from Alabama

***Potamotrygon motoro* (yellow spot motoro stingray)**

On April 26, 2016, Alameda County Dog Team Inspector/Handler Lisa Sampson with dog Cosmo intercepted an unmarked parcel at FedEx Express in Pleasanton, shipped by Exotic Fish Shop located in Massachusetts.

Yellow Spot Motoro Stingray

Upon inspection, the parcel was found to contain a live stingray (species unknown). Inspector Sampson suspected that the ray might be prohibited under Section 671 of Title 14 of the California Code of Regulations (CCR).

The parcel was held at the shipping terminal and the California Department of Fish and Wildlife (CDFW) was contacted. An officer from CDFW identified the animal as a *Potamotrygon motoro* (yellow spot motoro stingray), listed as a detrimental species to agriculture and prohibited under CCR 671.

The animal was confiscated by CDFW and the receiver who lives in Contra Costa County was cited for importation of a restricted species without a permit and CDFW processed the citation through the Contra Costa County District Attorney's office.

EXAMPLES OF CONTRA COSTA COUNTY DOG TEAM AND SANTA CLARA INTERCEPTIONS

Summary of Interception Highlights:

1. *Unmarked Package of Florida Origin Sugar Apples*
2. *Search Warrant Used on Florida Fruit*
3. *Uncertified Mangos from Puerto Rico*
4. *Cherry Fruit from Washington*

Unmarked Package of Florida Origin Sugar Apples

On September 18, 2015, Contra Costa County Inspector/Handler Cecilie Siegel with dog Conan and Santa Clara County inspector Julius Calso intercepted an unmarked and uncertified package from Florida at USPS in San Jose. Inspectors obtained permission to open the parcel which contained *Annona squamosa* (sugar apple fruits).

Whole fruit with pests were submitted to the PPD Laboratory and identified as Q-rated *Colletotrichum theobromicola* (anthracnose) and Q-rated *Pseudococcus jackbeardsleyi* (mealybug). A notice of rejection was issued for the violations and the fruit shipment was destroyed.

Search Warrant Used on Florida Fruit

On September 18, 2015, Contra Costa County Inspector/Handler Cecilie Siegel with dog Conan and Santa Clara County Inspectors Julius Calso and Helena Roberts intercepted an unmarked package from Puerto Rico at USPS. Inspectors attempted to obtain permission to open the package, but neither sender nor receiver could be contacted within 24 hours. A search warrant was obtained and inspectors were able to open and inspect the package containing avocados and limoncillos.

Avocados from Puerto Rico

Upon inspection, brown spotting and decay were observed on the avocados and avocado samples were submitted to the PPD laboratory. Both Q-rated *Colletotrichum queenslandicum* and Q-rated *Neofusicoccum* sp. were detected in culture. The package was destroyed.

This *Colletotrichum queenslandicum* detection represents the first reports of this pathogen in the continental US. It is previously known in Fiji and Australia on papaya, avocado, passion fruit and coffee.

Uncertified Mangos from Puerto Rico

On June 8, 2016, Contra Costa County Inspector/Handler Cecilie Siegel with dog Conan intercepted an unmarked and uncertified package from Puerto Rico at the USPS in San Jose. Permission was obtained from the receiver to open the package for inspection, which contained mangos.

During the inspection of the mangos, Santa Clara County Inspector Julius Calso and Paulo Philippidis found larvae inside the mango fruit.

The larvae samples were submitted to the PPD Laboratory and identified as A-rated *Anastrepha obliqua* (West Indian fruit fly).

West Indian fruit fly larvae Intercepted on mango fruit from Puerto Rico

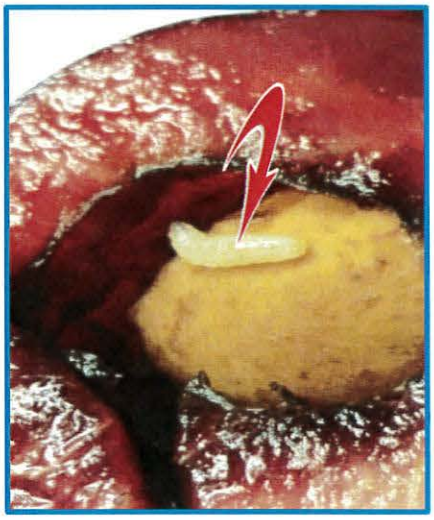
Cherry Fruit from Washington

On June 2, 2016, Contra Costa County Dog Team Inspector/Handler Cecilie Siegel with dog Conan intercepted an unmarked and uncertified box of cherry fruit from Washington at USPS in San Jose. Permission was obtained from the receiver to open the box for inspection.

During the inspection of the cherries, Santa Clara County Agricultural Biologist Julius Calso and Paulo Philippidis found larvae inside the fruit.

Larvae samples were submitted to the PPD Laboratory for identification and identified as A-rated *Rhagoletis indifferens* (western cherry fruit fly).

Western cherry fruit fly larvae intercepted on cherry fruit from Washington



EXAMPLES OF LOS ANGELES COUNTY DOG TEAM INTERCEPTIONS

Summary of Interception Highlights:

1. *Fruit Spot Fungus*
2. *Crabapple Interception*
3. *Chestnuts from Tennessee*
4. *Unmarked Package of Persimmons*
5. *Weevils Found in New York Package*
6. *Exotic Pathogens Found on Florida Avocados*
7. *Citrus Snow Scale on Florida Oranges*
8. *Huanglongbing on Oranges with Leaves from Louisiana*
9. *Guava from Florida: Caribbean fruit fly*

Fruit Spot Fungus (*Colletotrichum asianum*)

On July 29, 2015, Inspector/Handler Rogelio Carranza with inspectors Craig Foy, Shawn Borbor, Lauren Eckert and dog Tahoe were working at a Los Angeles USPS facility. During the inspection, Tahoe alerted on an unmarked Priority Mail package from Florida. The listed sender of the package gave permission to open the package for inspection. The opened package was filled with mangoes, sapodillas, and mamey sapote. The inspectors examined all of the tropical fruit and selected mangoes that appeared to be infected and brought them back to the office for a thorough inspection.

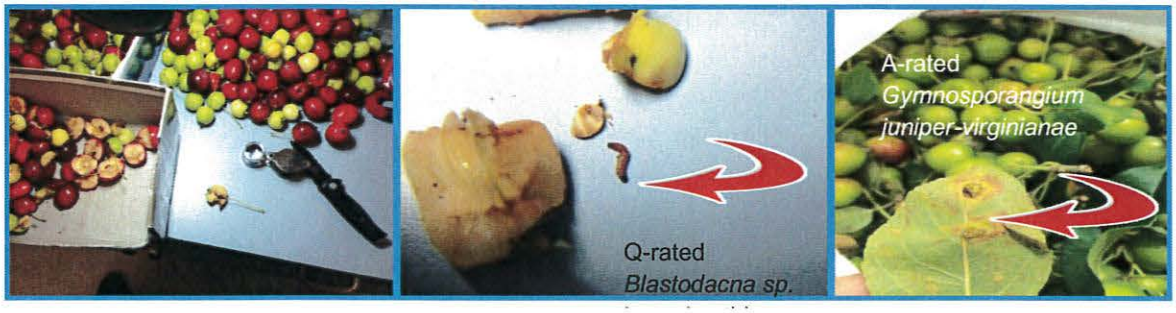
Mangos, sapodillas, and mamey sapote from Florida

A pest sample from the mangos was submitted to the PPD Laboratory for identification and identified as Q-rated *Colletotrichum asianum* (fruit spot fungus).

Crabapple Interception

On August 19, 2015, two shipments of crabapples were intercepted by Los Angeles County Dog Teams and inspectors. The first crabapples shipment from New Hampshire was intercepted by inspector/handler Rogelio Carranza with dog Tahoe at FedEx. The second shipment of crabapples from Massachusetts was intercepted by inspectors Craig Foy, Shawn Borbor, Rick LeFeuvre, CDFA's David Quimayousie and inspector/handler Lauren Eckert with dog Sedona at USPS. Inspectors obtained permission to open the USPS parcel and after finding pests and submitting them to the PPD Laboratory.

Pictured: East Coast Crabapple Shipments



Chestnuts from Tennessee

On September 30, 2015, County Dog Team Inspector/Handler Rogelio Carranza with dog Tahoe and inspector Craig Foy intercepted a parcel from Tennessee at USPS. Inspector Foy obtained permission to open the parcel which contained chestnuts. Upon inspection, Craig Foy found live larvae in the chestnuts.

Pest samples were submitted to the PPD Laboratory and identified as Q-rated Curculionidae (weevil) larvae.

Q-rated Curculionidae (weevil) larvae on chestnuts from Tennessee

Unmarked Package of Persimmons

On October 7, 2015, Inspector/Handler Lauren Eckert and dog Sedona were once again at the USPS in Los Angeles with inspectors Rick LeFeuvre, Shawn Borbor and Diana Eckert. While working, Sedona nosed her way over to an unmarked box from Georgia.

Inspector Borbor obtained permission to open the package. Inspectors Lauren Eckert and Diana Eckert carefully looked through the various agricultural items. The persimmons looked like they had several scale insects on them.

Insect samples were submitted to the PPD Laboratory and identified as Q-rated *Pseudaonidia duplex* (camphor scale).

Persimmons with Camphor Scale

Weevils Found In New York Package

On October 19, 2015, Inspector/Handler Lauren Eckert and dog Sedona were working at the USPS in Los Angeles with Inspector Craig Foy. While working, Sedona alerted on an unmarked box from New York.

Inspector Foy obtained permission to open the package, which contained acorns, chestnuts, and oak leaves. Larvae were found on the acorns upon inspection.

Pest samples from the acorns were submitted to the PPD Laboratory and identified as Q-rated Curculionidae

Q-rated Curculionidae Weevil in Chestnuts from New York

Exotic Pathogens Found on Florida Avocados

On September 22, 2015, Los Angeles Inspector/Handler Lauren Eckert with dog Sedona and Inspectors Craig Foy and Diana Eckert intercepted an unmarked package from Florida at FedEx.

Avocados from the package were inspected and samples submitted to the PPD laboratory. Q-rated *Colletotrichum queenslandicum* and Q-rated *Pseudofusicoccum sp.* were detected in culture. *Pseudofusicoccum sp.* closest match is to *P. violaceum,* which is only known in S. Africa on *Pterocarpus sp.* *Pseudofusicoccum* species are not known to exist in US.

Avocados from Florida

A-rated Citrus Snow Scale on Florida Oranges

On November 20, 2015, Inspector/Handler Rogelio Carranza and dog Tahoe were working at USPS Los Angeles. Tahoe alerted on an unmarked and uncertified package from Florida. Inspector Shawn Borbor obtained permission to open the box which contained oranges and grapefruit. Upon inspection, Inspector Borbor found scale on the fruit.

Package Containing Florida Oranges and Grapefruits

Pest samples were submitted to the PPD Laboratory and identified as A-rated *Unaspis citri* (citrus snow scale) on the oranges.

A-rated Huanglongbing (HLB) on Oranges with Leaves from Louisiana

On December 10, 2015, Inspector Lauren Eckert and dog Sedona were working at the Los Angeles USPS distribution facility. Sedona alerted on an unmarked box of oranges and sweet potatoes from Louisiana. Inspector Craig Foy contacted the receiver by telephone and obtained permission to inspect the box.

After inspection, Inspector Foy submitted the mottled citrus leaves samples to the PPD laboratory. The laboratory tested the leaves by real-time PCR and DNA sequence analysis and found them positive for A-rated *Candidatus* Liberibacter asiaticus (citrus greening, huanglongbing or HLB).

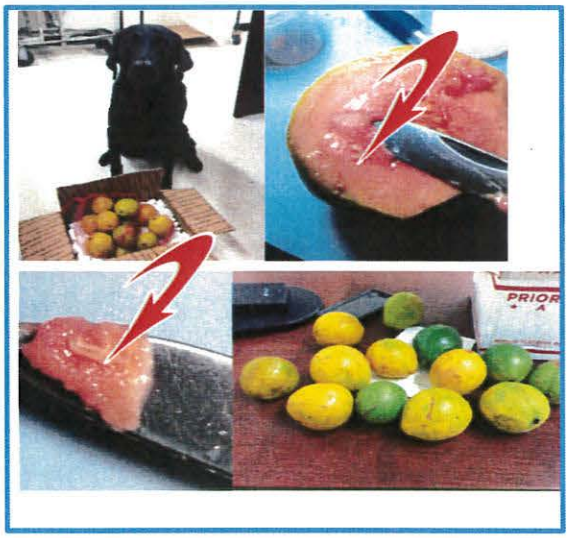
Oranges with leaves from Louisiana

Guava from Florida

On May 12, 2016, Los Angeles County Dog Team Inspector/Handler Lauren Eckert with dog Sedona intercepted a box of guava fruit sent by Tropical Imports in Florida at USPS in Los Angeles.

The statement on the box had "contains pink guavas and okay for agriculture inspectors to open". It did not include origin.

Upon inspection of the box, Inspector Eckert found several pests on and in the fruit and submitted them to the PPD Laboratory. The laboratory identified A-rated *Anastrepha suspensa* (Caribbean fruit fly) and Q-rated Pseudococcidae (immature mealybugs).



Dog Sedona with guava fruit infested with pests from Florida

EXAMPLES OF SAN BERNARDINO COUNTY DOG TEAM INTERCEPTIONS

Summary of Interception Highlights:

1. *Pink Hibiscus Mealybug*
2. *Unmarked Shipment of Cut Foliage*

Pink Hibiscus Mealybug

On September 17, 2015, Inspector/Handler Kristina Cummings with dog Bishop and inspectors Josh Hardeman and Shannon Lehrter, were working at USPS in Redlands. During inspection, Bishop alerted on an unmarked and uncertified package from Florida.

The inspectors obtained permission to open the package which was filled with backyard grown cherimoya fruit. The fruit was moderately infested with live mealybugs.

Pest samples were submitted to the PPD Laboratory and identified as A-rated *Maconellicoccus hirsutus* (pink hibiscus mealybug) and Q-rated *Ferrisia* sp. (mealybug).

San Bernardino County Handler Kristina and Detector Dog Bishop

Unmarked Shipment of Cut Foliage

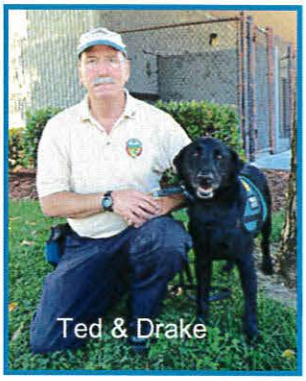
On September 23, 2015, Inspector/Handler Kristina Cummings with dog Bishop and inspector Josh Hardeman intercepted unmarked boxes from Texas at FedEx Ontario.

Inspectors Hardeman and Cummings inspected the boxes containing over 80 pounds of cut foliage, which were heavily infested with pests.

Bishop with Cut Foliage Interception

Pest samples were submitted to the PPD Laboratory and identified as Q-rated Pentatomidae eggs (stink bug) and Q-rated *Pseudocercospora smilacicola* (fungi disease). *P. smilacicola* is known in Korea, Japan, Florida, Louisiana, Mississippi, Pennsylvania, and Cuba.

EXAMPLES OF SAN DIEGO COUNTY DOG TEAM INTERCEPTIONS



Summary of Interception Highlights:

1. *Multiple Pest Interceptions at San Diego USPS*
2. *Burrowing Nematode*
3. *Oriental Fruit Fly*

Multiple Pest Interceptions at San Diego USPS

On September 18, 19, and 21, 2015, unmarked and uncertified shipments were intercepted by San Diego County inspectors Jason Sapp, Mike Feeley, Nicole Goss, and inspector/handler Ted Olsen with dog Drake at USPS San Diego.

Inspectors obtained permission to open packages and after finding pests submitted them to the PPD Laboratory for identification.

All pests intercepted during this three-day period were identified:

- A-rated *Maconellicoccus hirsutus* (pink hibiscus mealybug)
- A-rated *Dysmicoccus grassii* (mealybug)
- Q-rated *Aleurodicus* sp. (whitefly)
- Q-rated Pseudococcidae (mealybug)
- Q-rated Unknown insect eggs

Mealybugs on Sugar Apples and Whitefly on Guava Plant from Florida

Rejected items which included: sugar apples, guava, variegated shell ginger, blue ginger, stingray alocas and assorted plants, were destroyed and notices of rejection were issued.

Burrowing Nematode Intercepted

On September 21, 2015, San Diego Inspector/Handler Ted Olsen with dog Drake and inspector Jason Sapp intercepted an unmarked and uncertified package from Florida at USPS.

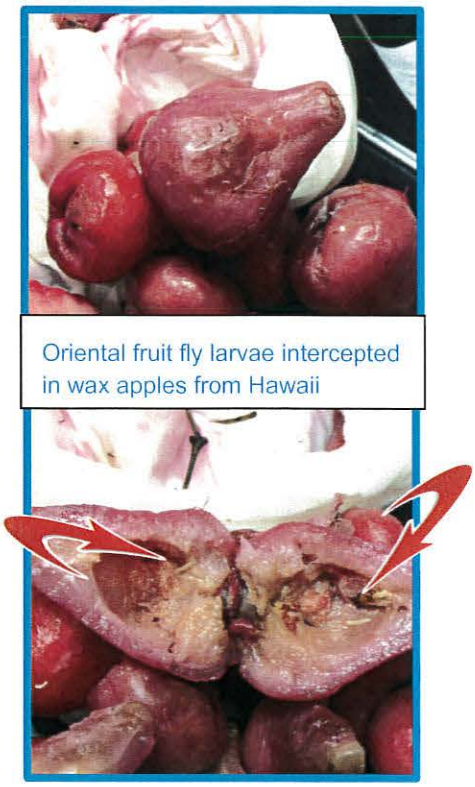
Inspectors obtained permission to open the parcel that contained cuttings of *Ctenanthe sp.* Cuttings sampled were submitted to the PPD Laboratory and A-rated *Radopholus similis* (burrowing nematode) were identified.

Bactrocera dorsalis (Oriental fruit fly)

On June 10, 2016, San Diego County Dog Team Inspector/Handler Jeremy Partch with dog Venus and Inspectors Jason Sapp and Dave Navarro intercepted an unmarked and uncertified box from Hawaii at USPS in San Diego. Inspectors Sapp and Navarro obtained permission from the receiver in person to open and inspect the box. The box contained three pounds of mangos and five pounds of *Syzygium samarangense* (wax apples).

Upon inspection of the fruit, the mangos were found clean and some suspect pests were found in the wax apples.

The pest samples were submitted to the PPD Laboratory for identification and identified as A-rated *Bactrocera dorsalis* (oriental fruit fly).



Oriental fruit fly larvae intercepted in wax apples from Hawaii

EXAMPLES OF CONTRA COSTA COUNTY DOG TEAM AND YOLO INTERCEPTIONS

Summary of Interception Highlights:

1. *Sweet Orange Scab from Puerto Rico*
2. *Black Thread Scale*

Sweet Orange Scab on Citrus from Puerto Rico

On August 31, 2015, Contra Costa County Dog Team Inspector/Handler Mariah de Nijs, with dog Cairo and Yolo County inspectors Bill Lyon and Kevin Martyn, intercepted an unmarked and uncertified package from Puerto Rico at USPS West Sacramento. Inspectors Lyon and Martyn contacted the receiver by telephone and obtained permission to inspect the package.

The package contained *Citrus sp.* (citrus fruit), *Xanthosoma sp.* (yautia corms), *Dioscorea sp.* (liame), and bananas. All items were found to be insect-free, and the root crops and bananas were released to the receiver.

The citrus were confiscated and submitted to the PPD Laboratory for suspect Sweet Orange Scab. The PPD Laboratory confirmed the citrus to be infected with A-rated *Elsinoe australis* (sweet orange scab).

Sweet Orange Scab on citrus fruit from Puerto Rico

Black Thread Scale

On December 4, 2015, Contra Costa County Dog Team Inspector/Handler Mariah deNijs with dog Cairo intercepted an unmarked and uncertified package at West Sacramento USPS distribution facility. The package originated from Florida and was en route to Merced.

The package contained non–agricultural items, two small trees with soil (*Cassia* sp. and unidentified), one ounce piece of dried wood, one gallon baggie of cut foliage *Tiliacoria triandra* (ya-nang), and one bundle of unidentified cut foliage. Inspectors Lyon and Martyn found some pests on *Tiliacoria triandra* (ya-nang) cut foliage.

The pest samples were submitted to the PPD Laboratory and were identified as A-rated *Ischnaspis longirostris* (black thread scale) and Q-rated *Phakopsora phyllanthi* (rust). The shipment was destroyed.

EXAMPLES OF SACRAMENTO COUNTY DOG TEAM AND YOLO INTERCEPTIONS

Summary of Interception Highlights:

1. *African & Papaya Fruit Flies from Florida*
2. *Hickory Shuckworm*
3. *Twobanded Japanese Weevil*
4. *Potted Citrus Trees from Texas*
5. *Psyllidae nymph, thrips and viable GWSS egg masses*
6. *Cedar Apple Rust*
7. *Senegal Tea Plant*
8. *South American Spongeplant*

African Fruit Fly, Papaya Fruit Fly from Florida

On August 5 and 6, 2015, Sacramento County Dog Team Inspector/Handler Jennifer Berger with dog Dozer and Yolo County inspectors Bill Lyon and Kevin Martyn intercepted two unmarked and uncertified packages from Florida at the West Sacramento USPS distribution facility. The inspectors contacted receivers of the packages and obtained permission to open and inspect them.

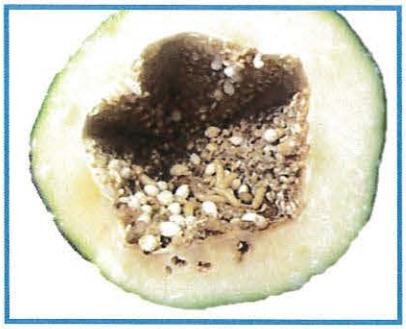
The first package contained *Capsicum frutescens* (peppers), *Terminalia sp.* (sea almonds), *Manilkara zapota* (sapodilla), and *Mangifera indica* (mangoes). None of the contents exhibited any external signs of exotic fruit fly, but two larvae were immediately discovered in the bottom of the box. Each type of fruit was separated into its own doubled plastic bag at the USPS facility (as was the box itself). A more thorough inspection back in the office resulted in six more larvae found in the bottom of the bag containing sea almonds and two more larvae from the bag containing peppers. No larvae were found associated with the mangoes or sapodillas, but there was scale on the mangoes.

Florida Shipment and African Fig Fly Larvae

Initially, the PPD Laboratory identified Q-rated *Pseudaonidia trilobitiformis* (trilobe scale) on mango and Q-rated Tephritidae, and further molecular analysis revealed Q-rated *Zaprionus indianus* (African fig fly) and A-rated *Anastrepha sp.* (fruit fly) larvae. Los Angeles County entomologist, Dr. Gevork Arakelian notes that the African fig fly is a generalist Drosophilid that is known to infest fruit of 70+ species of plants. The contents of the box and the box itself were destroyed.

The second package contained *Momordica charantia* (bitter melons), *Carica papaya* (papayas), and *Hibiscus esculentus* (okra pods). The papayas were green and showed no signs of infestation. One of the papayas, however, was found to harbor several fruit fly larvae in the interior cavity.

Pests were submitted to the PPD Laboratory and identified as A-rated *Toxotrypana* curvicauda (papaya fruit fly). Notices of rejection were issued and the package contents were destroyed.



Fruit Fly Larvae in Papaya

Hickory Shuckworm Intercepted at USPS

On November 6, 2015, Sacramento County Dog Team Inspector/Handler Jennifer Berger with dog Dozer intercepted a package from Pennsylvania at the West Sacramento USPS distribution facility. Inspectors Bill Lyon and Kevin Martyn contacted the shipper by telephone and obtained permission to open the package.

The package contained approximately one pound of *Carya sp.* (hickory nuts) in the husks, *Quercus sp.* (acorns), and *Juglans* sp. (butternut). According to the shipper, the nuts were intended for planting.

Hickory Nut Shipment and Hickory Shuckworm

Examination of the hickory husks and other nuts yielded 10 larvae which were identified by the PPD Laboratory as A-rated *Cydia caryana* (hickory shuckworm). The hickory nuts were destroyed and the remainder of the package released to the receiver. A notice of rejection was issued.

Twobanded Japanese Weevil

As part of a collaborative effort to learn from each other, San Diego (Jeremy Partch/Venus), Sacramento (Jennifer Berger/Dozer), and Contra Costa (Mariah deNijs/Cairo) county dog teams worked together at the West Sacramento USPS facility during the three-day period of August 19-21. The trio pulled a total of 72 packages and inspectors were able to contact 58% of the shippers/receivers which resulted in six A-rated pests and 13 Q-rated pests.

One noteworthy interception was the twobanded Japanese weevil intercepted on August 21, 2015 by Contra Costa County Dog Team Inspector/Handler Mariah DeNijs with dog Cairo and Yolo County inspectors Bill Lyon and Kevin Martyn.

Detector Dog Cairo Finding a Package Containing Twobanded Japanese Weevil

After obtaining permission to open the parcel, two weevils were collected from the approximately five pounds of fresh *Malus* sp. (crabapple) fruit and submitted to the PPD Laboratory for identification.

Diagnostics resulted in the identification of Q-rated *Pseudocneorhinus bifasciatus* (twobanded Japanese weevil) and Q-rated Curculionidae (weevil). This is the first interception/detection of the twobanded Japanese weevil in California.

CDFA entomologist, Dr. Andy Cline, reports that "*Pseudocneorhinus bifasciatus*, the twobanded Japanese weevil, is an extremely polyphagous weevil with over 100 host plants, many of which are ornamentals and nursery plants." The beetles in the USA are primarily female and can reproduce parthenogenetically meaning that they do not need a mate to reproduce. So even a single larva may be able to start an infestation if it had a chance to mature.

Other pests intercepted by Yolo County inspectors and these dog teams during this three-day period:

- A-rated *Gymnosporangium juniper-virginianae* (cedar apple rust)
- Q-rated *Bephratelloides cubensis* (eurytomid wasp)
- Q-rated *Aleurocanthus* sp. (whitefly)
- A-rated *Candidatus* Liberibacter asiaticus (citrus greening)
- A-rated *Gymnosporangium juniper-virginianae* (cedar apple rust)
- A-rated *Maconellicoccus hirsutus* (pink hibiscus mealybug)
- A-rated *Dysmicoccus grassii* (mealybug)
- Q-rated *Ferrisia dasylirii* (mealybug)
- Q-rated *Aulacaspis tubercularis* (armored scale)
- Q-rated *Aspidiella sacchari* (armored scale)
- Q-rated *Lepidosaphes* sp. (armored scale)
- Q-rated Pseudococcidae (mealybug)
- Q-rated Tortricidae (moth)
- Q-rated Diaspididae (armored scale)

Rejected items which included: sugar apples, citrus fruit, mangoes, guava, crabapples, and turmeric, were destroyed and notices of rejection were issued.

Citrus Trees with Soil from Texas

On January 28, 2016, Sacramento County Dog Team Inspector/Handler Jennifer Berger with dog Dozer and Inspector Michelle King intercepted an unmarked parcel at the local UPS distribution facility. The parcel contained a citrus tree with soil shipped from Texas and was en route to Lodi.

Inspector King and Ag Deputy Ramona Saunders were able to conduct a thorough inspection and found several tiny live insects and insect eggs on the leaves.

Pest samples were submitted to the PPD laboratory and identified as Q-rated Eriophyidae (mites) and Q-rated insect eggs.

Inspector King inspecting for pests

Psyllidae Nymphs, Thrips and Viable GWSS Egg Masses

On April 15, 2016, Sacramento County Dog Team Inspector/Handler Jennifer Berger with dog Dozer and Yolo County inspectors Bill Lyon and Kevin Martyn intercepted a medium sized parcel from Oceanside, CA at the West Sacramento USPS. Inspector Lyon obtained permission to open and inspect the parcel. Both Inspectors Lyon and Martyn examined the contents of the parcel.

The parcel contained one orange, five passionfruit, three baggies of fresh citrus leaves, one bag of fresh passionfruit vine with leaves, one avocado and leaves, and one bag guava leaves. The fruit was clean but the leaf material was found to contain several suspect pests.

Psyllidae nymph (probably *Diaphorina citri*) from citrus leaves

Infested leaves and pest samples were submitted to the PPD Laboratory and identified as Q- rated Psyllidae nymph (probably *Diaphorina citri*), Q-rated *Hercinothrips bicinctus* (banana silvering thrips), Q-rated Pseudococcidae (mealybug), and B-rated *Homalodisca vitripennis* (viable GWSS egg masses).

Passionfruit leaves infested with banana silvering thrips

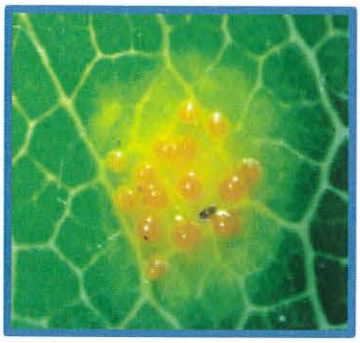
***Gymnosporangium juniper-virginianae* (cedar apple rust)**

On two separate occasions – May 6 and 11, 2016 -- Sacramento County Dog Team Inspector/Handler Jennifer Berger with dog Dozer and Yolo County Inspectors Bill Lyon and Kevin Martyn intercepted a couple of boxes at the West Sacramento USPS:

- *Tilacora triandra* leaves and an unidentified leaf from Florida
- Two bareroot yellow delicious variety *Malus* sp. (apple) trees from Tennessee

Inspector Lyon obtained permission to open and inspect the boxes. Both Inspectors Lyon and Martyn examined the contents of the boxes.

Leaves in the box from Florida were pest free with one random unidentified leaf mixed in with a mealybug and a rust spot.



Unidentified leaf in the shipment of *Tilacora triandra* leaves from Florida infested with cedar apple rust

A box containing two bareroot apple trees from Tennessee was commercially packed and properly marked as "dormant bareroot apple trees" with Tennessee origin. The trees were bareroot but no longer dormant and showed small orange spots on several leaves.

Infested leaves of both shipments were submitted to the PPD Laboratory and identified as A-rated *Gymnosporangium juniper-virginianae* (cedar apple rust).

Shipment of aquatic plants from Arizona

***Gymnocoronis spilanthoides* (Senegal tea plant)**

On May 13, 2016, Sacramento County Dog Team Inspector/Handler Jennifer Berger with dog Dozer and Yolo County Inspectors Bill Lyon and Kevin Martyn intercepted an uncertified package from Arizona at the West Sacramento USPS. Yolo County Inspectors Lyon and Martyn obtained permission from the shipper to open and inspect the package.

Inside the package was a bag of aquatic plants that included *Pistia stratiotes* (water lettuce), *Eichhornia crassipes* (water hyacinth), and a foot-long section of an unidentified third aquatic plant.

The unidentified plant sample was submitted to the PPD Laboratory (Botany) for identification. DNA sequencing pinpointed the sample to be Q-rated *Gymnocoronis spilanthoides* (Senegal tea plant).

PPD Laboratory Notes by Dr. Robert Price: Semiaquatic composite with very immature flowers, determination made from ITS DNA sequencing. Species listed as noxious by Australia due to invasion potential in wet habitats and is under investigation by USDA APHIS.



Senegal tea plants

***Limnobium laevigatum* (South American Spongeplant)**

On May 27, 2016, Sacramento County Dog Team Inspector/Handler Jennifer Berger with dog Dozer intercepted a box from Arizona at the West Sacramento USPS distribution facility. The box was en route to a private party in Calaveras County. Yolo County inspectors Bill Lyon and Kevin Martyn contacted the shipper and receiver by telephone and obtained permission to open and inspect the box.

Inside the box were several plastic bags of aquatic plants. The invoice listed the following:

- *Ludwigia sediodes* (mosaic plant)
- *Azolla caroliniana* (fairy moss)
- *Limnobium spongia* (frogbit)
- Floating heart

The plants labeled "frogbit" and "floating heart" looked identical and were submitted to the PPD Laboratory (Botany) for identification. Identification for both came back as A-rated *Limnobium laevigatum* (South American Spongeplant).

Aquatic plants from Arizona

*__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.

*__Photos compliments__ of Plant Pest Diagnostics Laboratory; Alameda, Contra Costa, Los Angeles, San Bernardino, San Diego, Santa Clara, Sacramento, and Yolo counties.

8-10-16

Nick Condos, ROAR Date
California Department of Food and Agriculture
Plant Health and Pest Prevention Services

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