

CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE



DOG TEAM PROGRAM Annual Report

July 1, 2012 - June 30, 2013

Pictured: Contra Costa Dog Team canine Bart surrounded by children at CDFA's Ag Day while conducting community outreach with his handler, Mariah deNijs.

Purpose of Cooperative Agreement #12-8506-1165-CA

The purpose of cooperative agreement USDA #12-8506-1165-CA is to implement the use of the 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. This report is in fulfillment of USDA cooperative agreement USDA #12-8506-1165-CA.

Work Plan Activities Performed by CDFA

CDFA distributed funds to County Agricultural Commissioners (CAC) for the purposes of continued training and maintenance of dogs and fulfilling Dog Team activities as outlined in the work plan. 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

All California dog teams worked the full reporting period (July 1, 2012 - June 30, 2013): Alameda (1 team), Contra Costa (2 teams), Fresno (1 team), Los Angeles (2 teams), Sacramento (1 team), San Bernardino (2 teams), San Diego (2 teams), San Joaquin (1 team), and Santa Clara (1 team).

The California Dog Teams were distributed as outlined below (**Table 1**).

TABLE 1: Distribution of CA Dog Teams

County	Area Covered
Alameda	Alameda County
Contra Costa Team #1	San Francisco Bay Area
Contra Costa Team #2	San Francisco Bay Area
Fresno	Fresno County
Los Angeles Team #1	Los Angeles County
Los Angeles Team #2	Los Angeles County
Sacramento	Sacramento Valley
San Bernardino Team #1	Inland Empire Area
San Bernardino Team #2	Inland Empire Area
San Diego Team #1	San Diego County
San Diego Team #2	San Diego County
San Joaquin	San Joaquin County
Santa Clara	South Bay Area

County Agricultural Commissioners' Accomplishments:

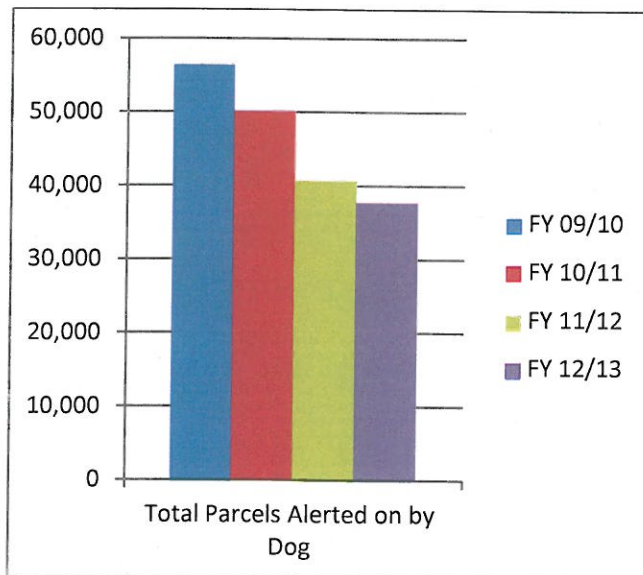
The CA Dog Teams have demonstrated that unmarked parcels present a high-risk pathway for harmful pests to enter California (**Table 2**). Continuous data for the funded years are compared and visually represented (**Graph 1 and 2**). Review of the data and graphs shows the number of total parcels alerted on by the canines has decreased, while the number of unmarked parcel alerts and pest finds have increased over time. This analysis demonstrates the dog teams have improved their proficiency with time and experience. Between July 1, 2012 – June 30, 2013, CA Dog Teams alerted on 37,977 total marked and unmarked parcels containing agricultural products. Of the total alerts, 3,481 were unmarked parcels containing agricultural commodities. A total of 132 pests were intercepted during the reporting period, which included 24 actionable A-rated pests and 107 actionable Q-rated pests (**Table 4**) throughout California at parcel facilities (**Table 3**). Some of these interceptions involved multiple pest specimens in a single package. Additionally, due to the efforts of the CA Dog Teams, 1,177 rejections were issued for violations of state and federal plant quarantine laws and regulations.

Table 2: CA Dog Teams -Parcels, Pests and Violations

	FY 09/10	FY 10/11	FY 11/12	FY 12/13
Total Parcels Alerted on by Dog	56,753*	50,294	41,002	37,977
Total Parcels Unmarked with Agricultural Commodities	2,270*	1,981	2,925	3,481
Total A & Q Pests	53*	57	124	132
Total Violations of Plant Quarantine Law and Regulations	1,560*	2,016	1,948	1,177

**Data reflects a full year for only six Dog Teams.*

Graph 1: CA Dog Teams- Parcel Alerts



Graph 2: CA Dog Teams-Total A&Q Pests

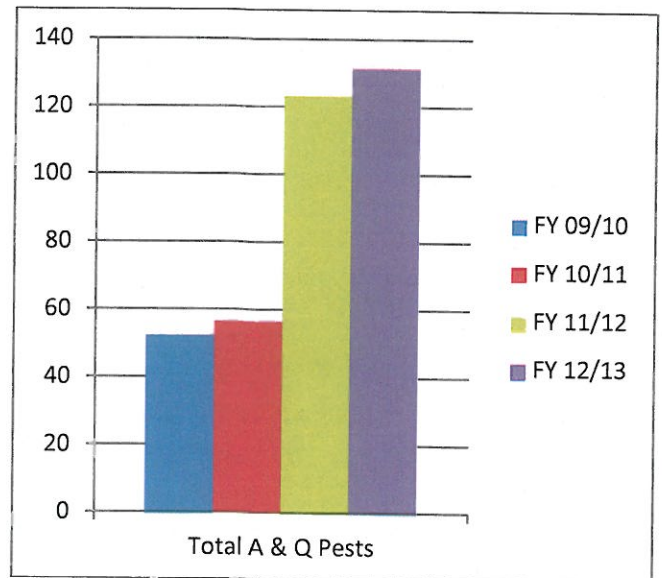


Table 3: CA Dog Teams- Pest Interception Totals per Facility Type

County	Fed Ex	UPS	USPS	Other Carriers
Alameda	24			1
Contra Costa	3	3		
Fresno	11			5
Los Angeles	10			
Sacramento	8		35	
San Bernardino	8			
San Diego	3		4	
San Joaquin				
Santa Clara*			17	
Total:	67	3	56	6

**Contra Costa dog teams worked the Santa Clara USPS in FY 12/13*

Significant Pest Interceptions

Table 4 on page 11- 13 lists the number and type of actionable A & Q pests found as a result of the efforts of the CA Dog Teams during the reporting period. The table follows the narrative of interesting finds during the reporting period.

Significant Interceptions

Asian Citrus Psyllid on Curry Leaves

PDR: 570P06100564

On May 14, 2013, Yolo County Inspector Bill Lyon, Sacramento County Dog Team Inspector Handler Jennifer Berger with dog Dozer intercepted an unmarked package of *Murraya* sp. (curry) leaves from Florida at Yolo County USPS. Dozer alerted on the package. (The Sacramento County Dog Team began working at the West Sacramento (Yolo County) USPS in February 2013.) The package was securely held at the USPS while consent to open it was attempted.

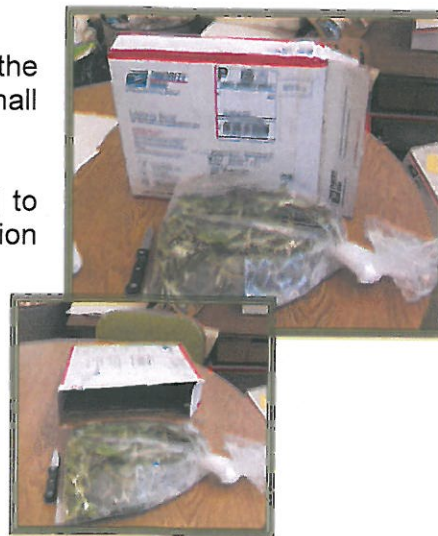
****All first class mail at the USPS is not allowed to be opened until consent from either the shipper or receiver is obtained.****

Sacramento County was successful in contacting the shipper in Florida and the shipper granted the county permission to open and inspect the package. The shipper was unaware of the shipping requirements after they were informed by the county of the requirements. The shipper allowed the county to confiscate the shipment.

Although the package measured quite small in size, inside the package were three plastic grocery bags stuffed with small branches and leaves.

Many life stages of insects were collected and submitted to the Plant Pest Diagnostics (PPD) laboratory for identification resulting in the following A- and Q-rated pest interceptions:

1. A- rated *Diaphorina citri* (Asian citrus psyllid or ACP)
2. Q- rated *Pseudaulnobia trilobitiformis* (trilobe scale)
3. A- rated *Aonidiella orientalis* (oriental scale)
4. Q- rated *Coccus capparidis* (capparis soft scale)
5. A- rated *Pinnaspis strachani* (lesser snow scale)
6. Q- rated Diaspididae (psyllid)
7. Q- rated *Aleurodicus* sp. (whitefly)



Also, the leaf material (curry leaves) and ACP were both tested for Huanglongbing (HLB). Results were negative.

Violations included:

- Federal Domestic Quarantine for Citrus Greening and Asian Citrus Psyllid, Section [301.76](#)
- California State Exterior Quarantine for Citrus Pests, (California Code of Regulations or CCR Section [3250](#))
- California Food and Agricultural Code (FAC), Section [6461.5](#) (live pests)
- California FAC, Section [6421](#) (lack of markings)

A USDA-SITC Referral Form was submitted to the United States Department of Agriculture/Smuggling Interdiction and Trade Compliance program for their records.



All photos of confiscated package with leaf material courtesy of Yolo County

The following week, the same team intercepted an unmarked package of citrus leaves from a different shipper in Florida. Dead fragments (nymph and wing) were identified by the PPD laboratory as ACP (PDR 570P06100566).

***Annona muricata* (soursop) fruits from Puerto Rico**

PDR: 1626350

On June 13, 2012, Contra Costa County's dog team handler Mariah de Nijs, dog Bart, and Santa Clara County Biologist Julius Calso intercepted an unmarked package of *Annona muricata* (soursop) fruits from Puerto Rico at a USPS facility. Damage to the box exposed the contents. Further inspection of the fruits revealed mealybugs on the soursop. The laboratory identified A-rated *Maconellicoccus hirsutus* (mealybug). The soursop was rejected due to FAC 6461.5 (live pests) and 6421 (lack of markings) and destroyed.



Rejected soursop

Mangos from India

PDR: 360P06176326

On June 17, 2013, San Bernardino County Dog Team Handler Mike Cochrane, dog Kiwi, and Inspectors Joshua Hamilton and Gena Hassan, intercepted backyard mangoes from India via a New York Express Company at FedEx Ground. Twenty-four pounds of commodities were wrapped in newspaper from India and sealed in plastic. The box was buffered with styrofoam panels and enclosed in another box. A shipping invoice from Mumbai was attached to the outer container. Mealybugs were intercepted upon examination of the fruit. Samples submitted to the PPD Laboratory identified the pests as Q-rated *Formicoccus robustus* (mango root mealybug).

The shipment was rejected for FAC, Section [6461.5](#) (live pests) and FAC, Section [6421](#) (lack of markings) and a USDA-SITC Referral Form was submitted to the United States Department of Agriculture/Smuggling Interdiction and Trade Compliance program for follow-up. Use and submission of this form is how CDFA conveys information pertaining to significant interceptions of Federal pests. Use of this form is part of the county Dog Team cooperative agreement.

Lemons, Apples, and Rose Petals Labeled Improperly

PDR: 1630032

On June 25, 2012, San Bernardino County dog handler Mike Cochrane, dog Kiwi, and inspector Joshua Hardeman were inspecting at FedEx Ontario Airport when Kiwi alerted on a box labeled "Shari's Berries". Kiwi is trained to ignore chocolate covered strawberry type shipments, but she did not this time. Upon inspection, the package was found to contain lemons, apples, and rose petals.



The package was rejected for the following:

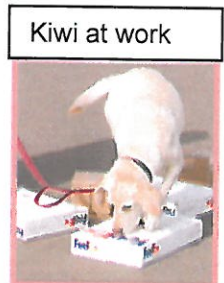
- [FAC 6521](#) (reasonable cause, intrastate movement)
- [FAC 6501](#) (intrastate markings)
- [CCR 3435](#) (Asian citrus psyllid)

Codling moth, leafhopper, flower bug, and Q-rated *Frankliniella schultzei* (cotton bud thrips) were identified by the lab. The package was destroyed.

Infested Maile Lei

PDR: 1630583

On June 25, 2012, San Bernardino County dog handler Mike Cochrane, dog Kiwi, and inspector Joshua Hardeman intercepted a maile lei from the Hawaiian Lei Company during the night sort at UPS Ontario. Samples were collected from the lei and sent to the lab. Q-rated *Ceroplastes stellifer* (stellate scale) was identified and the package destroyed due to [FAC 6461.5](#) (live pests).



Ti Leaf Garland with Egg Masses

PDR: 1626935

Also, on Thursday, July 5, 2012, Fresno dog team handler Stephanie LeBarron, dog Chelsea, and Inspector Aide Matthew Douglas were inspecting packages at FedEx in Fresno. Chelsea alerted on a package sent from Allegiant Air in Las Vegas, Nevada. Upon opening, the team discovered ti leaf garland with egg masses on the leaves.

On June 30, 2012, Allegiant Air began flying from Fresno to Hawaii. The first return flight from Hawaii to Fresno was scheduled for July 6, 2012. Phone conversations with Allegiant Air determined that the garland had originated in Hawaii and was being sent to the Fresno Air terminal for good luck on the inaugural Hawaiian flight into Fresno. A sample submitted to the lab came back with a determination of live Q-rated *Orchamoplatus mammaeferus* (croton whitefly) pupae. The ti leaf garland was double bagged and destroyed.



Fresno Dog Team pictured with infested ti leaves from Hawaii

Sugar Apples from Florida

PDR: 1626362

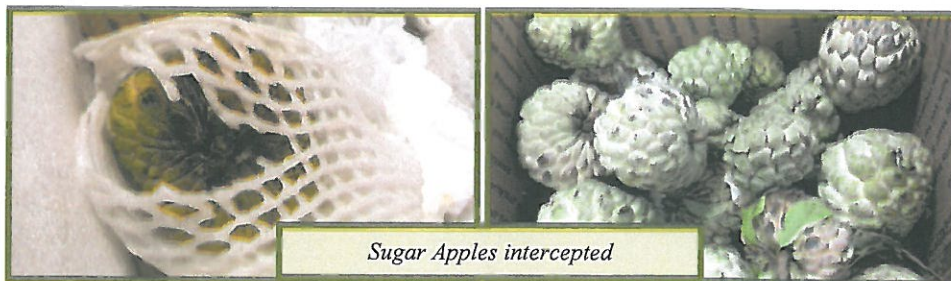
On August 6, 2012, Contra Costa County's dog team handler Mariah deNijs, dog Bart, and Santa Clara County Biologist Julius Calso intercepted an unmarked package of sugar apples (*Annona squamosa*) from Florida at a USPS facility. Damage to the box exposed the contents. Further inspection of the fruits revealed mealybugs on the sugar apples. The laboratory identified A-rated *Dysmicoccus grassii* (mealybug). The sugar apples were rejected and destroyed due to CA Food and Agricultural codes, sections [6461.5](#) (live pests) and [6421](#) (lack of markings) and for violation of California State Exterior Quarantine for Caribbean Fruit Fly (CCR 3252).



FL shipment of the sugar apples infested with mealybugs

PDR: 1626370

On August 23, 2012, Contra Costa County's dog team handler Cecilie Siegel, dog Bella, and Santa Clara County Biologist Julius Calso intercepted unmarked packages of *Annona squamosa* (sugar apple) fruits from Florida at a USPS facility. Inspection of the fruits revealed mealybugs on the sugar apples. The laboratory identified A-rated *Dysmicoccus grassii* (mealybug). The sugar apples were rejected and destroyed due to CA Food and Agricultural codes, sections [6461.5](#) (live pests) and [6421](#) (lack of markings) and for violation of California State Exterior Quarantine for Caribbean Fruit Fly (CCR 3252).



Sugar Apples intercepted

D. grassii has been found in the tropical or subtropical regions, Africa, Europe, North America, including Florida, and southern Asia, but originally described from the Canary Islands. It has a wide host range, including coffee, cocoa, banana, and papaya.

Sapodilla Fruit from Florida

PDR: 1626363



Intercepted package of sapodilla

On August 15, 2012, Contra Costa County's dog team handler Cecilie Siegel, dog Bella, and Santa Clara County Biologist Julius Calso intercepted a noncommercial, unmarked package of *Manilkara zapota* (chico or sapodilla) fruit from Florida at a USPS facility. Damage to the box exposed the contents. Further inspection revealed scale on the fruit. Pest samples submitted to the laboratory were identified as A-rated *Parlatoria proteus* (sansevieria scale).

The package was rejected and destroyed due to CA Food and Agricultural codes, [section 6461.5](#) (live pests) and [section 6421](#) (lack of markings).

Mango Shield Scale on Mango Plants

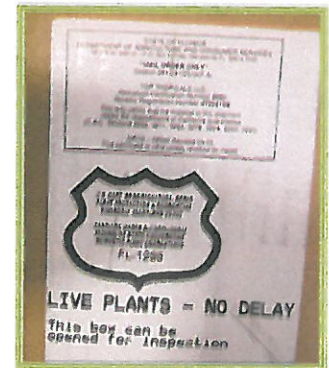
PDR: 190P06058529



Reported by Gashaw Deres, Los Angeles County:

"On January 9, 2013, our Dog Team members, Inspectors Rogelio Carranza, Craig Foy, Jose Barrajas and dog Tahoe intercepted a shipment of two *Mangifera indica* (mango) plants at FedEx. It was shipped from Top Tropicals, LLC in Florida. The shipment had all the required certification. The inspectors conducted a thorough inspection of the plants and intercepted Q-rated *Malvisculutuls mangiferae* (mango shield scale). The pest was

identified by Dr. Gevork Arakelian and confirmed by CDFA."



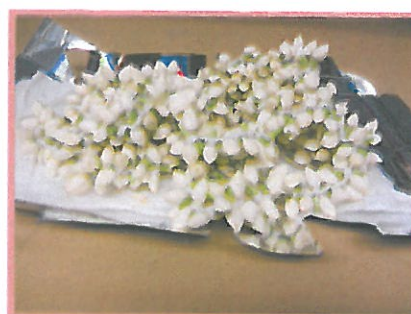
The shipment was in violation of California Food and Agricultural Code (FAC), [Section 6461.5](#) (live pests) and destroyed.



*Photos courtesy of
Los Angeles County*

***Jasminum sambac* Cut Flowers**

PDR: 010P06131071



On February 22, 2013, at FedEx Express, Alameda County Inspectors Keely Kirkman and Lisa Sampson with dog Cosmo intercepted live pests on a shipment of 200 *Jasminum sambac* cut flowers from SRI Vanguard Imports in New Jersey. The package was unmarked and no certification was present.

A moderate infestation of live larvae were collected from inside the flower bud and submitted to the Plant Pest Diagnostics Laboratory and identified as Q-rated Tortricidae.

The shipment was in violation of the following California Food and Agricultural codes and destroyed.

- [Section 6421](#), lack of markings
- [Section 6461.5](#), live pests

*Photos from Alameda County:
Shipment intercepted*



Hawaiian Cut Flower Shipments

PDR: 100P06145070

On January 10, 2013, during a routine inspection of Hawaii floral material at a FedEx, Fresno County Dog Team Handler Stephanie LeBarron and dog Chelsea intercepted a shipment of palm fronds from Green Point Nurseries, Inc. infested with Q-rated Diaspididae (scale). The infested material was removed from the shipment and destroyed due to FAC, Section 6461.5.

PDR: 390P06189381

On May 17, 2013, Inspector Anna Brown, Dog Team Inspector Handler Thomas Doud, and dog Kojak, were working at FedEx Stockton when they intercepted a package containing cut flowers originating from Hawaii. Upon inspection of the package, live pests were found near the base of the cut flowers and submitted for sampling to the Plant Pest Diagnostics Laboratory.



Q-rated pests intercepted included:

- *Delottococcus confuses*
- Pseudococcidae

The package was in violation of California Food and Agricultural Code (FAC), Section [6461.5](#) (live pests) and destroyed.

PDR: 010P06131079

On April 10, 2013, at FedEx Express in Pleasanton, Alameda County Inspector Keely Kirkman and Dog Team Inspector Handler Lisa Sampson with dog Cosmo intercepted live pests on a shipment of cut flowers from Hawaii. The package was certified through the use of a Limited Permit.

A moderate to heavy infestation of pests were collected from on and inside some of the flowers and stems and submitted to the Plant Pest Diagnostics Laboratory for identification. Pests identified included Q-rated Pseudococcidae (mealybug), Aphididae (aphid), and *Technomyrmex albipes* (ant).

The shipment was in violation of California Food and Agricultural Code, Section [6461.5](#) (live pests). The majority of the shipment was reconditioned and released, but the two affected stems were removed and destroyed.

Unmarked Package from Hawaii

PDR: 010P06131066

On May 1, 2013, at FedEx in Oakland, Alameda County Inspector Justin Riggs and Dog Team Inspector Handler Lisa Sampson with dog Cosmo intercepted a heavy infestation of live ants in an unmarked box of orchid plants potted in soil from Hawaii.

Ants were collected from the soil, foliage, and in the packing material and the soil was sampled for nematodes. Samples submitted to the Plant Pest Diagnostics Laboratory were identified as Q-rated *Pheidole* sp. (big-headed ant).

The shipment was in violation of the following and destroyed:

- California Food and Agricultural Code, Section [6461.5](#) (live pests)
- California Food and Agricultural Code, Section [6421](#) (lack of markings)
- California State Exterior Quarantine for Burrowing and Reniform Nematode Exterior Quarantine, [California Code of Regulations 3271](#)
- Federal Domestic Quarantine Order for Light Brown Apple Moth, [DA-2012-20](#)



Plantains from Florida

PDR: 390P06037954

On March 27, 2013, at FedEx Express, San Joaquin County Inspectors Anna Brown, Rand Medina, and Thomas Doud with dog Kojak intercepted larvae in a package of plantains and root vegetables from Florida. The package was unmarked and no certification was present.



Intercepted shipment

Pests were collected from plantains and submitted to the Plant Pest Diagnostics Laboratory. The pests were identified as Q-rated Crambidae.

San Joaquin County K-9 Kojak

The shipment was in violation of California Food and Agricultural codes, sections [6421](#) (lack of markings) and [6461.5](#) (live pests). The fruit was destroyed and the remainder of the shipment was released.

TABLE 4: Significant Pests, A-Rated Interceptions
July 1, 2012 – June 30, 2013

Numbers of Interceptions	Scientific Name	Common Name/Notes	Rating	Origin
1	<i>Ochetellus glaber</i>	Ant	Q	Hawaii
1	<i>Abgrallaspis ithacae</i>	Hemlock Scale	Q	Maine
1	<i>Aleurodicus sp.</i>	Whitefly	Q	Florida
1	Aleyrodidae	eggs	Q	Florida
1	Aleyrodidae	adult	Q	Minnesota
1	<i>Allopeas clavulinum</i>		A	Texas
1	<i>Amnestus sp.</i>	Burrowing Bug	Q	North Carolina
2	<i>Aonidiella orientalis</i>	Oriental Scale	A	Florida
1	<i>Aonidiella orientalis</i>	Oriental Scale	A	Puerto Rico
4	Aphididae	nymphs	Q	Hawaii
1	Aphididae	alate incidental	Q	Hawaii
1	Aphididae	adult	Q	Norway
1	Aphididae		Q	Unknown
1	Aphididae	immatures	Q	Wisconsin
1	<i>Aphis sp</i>	Aphid	Q	Hawaii

Numbers of Interceptions	Scientific Name	Common Name/Notes	Rating	Origin
3	<i>Aulacaspis hedyotidis</i>	Amored Scale	Q	Florida
1	<i>Aulacaspis hedyotidis</i>	Amored Scale	Q	Mexico
1	<i>Aulacaspis hedyotidis</i>	Amored Scale	Q	Unknown
1	<i>Aulacaspis tubercularis</i>	Amored Scale	Q	Florida
1	<i>Aulacaspis tubercularis</i>	Amored Scale	Q	Puerto Rico
1	<i>Aulacaspis yasumatsui</i>	Cycad Aulacaspis Scale	Q	Hawaii
1	<i>Bagous sp.</i>	Bagoini Weevil	Q	Hawaii
1	Cercopidae	female	Q	Minnesota
1	<i>Ceroplastes rubens</i>	Red Wax Scale	A	Hawaii
3	Coccidae	immatures, adult female, instars	Q	Florida
2	Coccidae	pupa, instar females	Q	Minnesota
2	<i>Coccus capparidis</i>	Capparis Soft Scale	Q	Florida
1	<i>Coccus viridis</i>	Green Scale	A	Florida
1	Coleophoridae		Q	Florida
1	<i>Cryptotermes sp.</i>	Powderpost Termite	Q	Unknown
1	<i>Delottococcus confusus</i>	adult female	Q	Hawaii
3	<i>Diaphorina citri</i>	Asian Citrus Psyllid	A	Florida
6	Diaspididae	adult females, immatures	Q	Florida
2	Diaspididae	immatures	Q	Hawaii
1	Diaspididae	Possibly Pinnaspis uniloba	Q	Hawaii
6	<i>Dysmicoccus grassii</i>	Mealybug	A	Florida
1	<i>Dysmicoccus neobrevipes</i>	adult female	Q	Hawaii
1	<i>Formicococcus robustus</i>	adult female and immatures	Q	New York
1	<i>Frankliniella tritici</i>	Eastern Flower Thrips	A	Florida
1	Gelechiidae		Q	New Jersey
1	Gracillariidae		Q	Louisiana
1	Gracillariidae		Q	Unknown
1	<i>Hemiberlesia sp.</i>	Amored Scale	Q	Mexico
1	Heteroptera	nymph	Q	Hawaii
1	Insecta	insect egg	Q	Florida
1	Insecta	immatures	Q	Florida
1	Lygaeidae	Rhyparochromus vulgaris	Q	Florida
2	<i>Maconellicoccus hirsutus</i>	Mealybug	A	Florida
1	<i>Milviscutulus mangiferae</i>	Mango Shield	Q	Florida
1	<i>Milviscutulus mangiferae</i>	Mango Shield	Q	Hawaii
1	Miridae	larva	Q	Florida
1	<i>Ochetellus glaber</i>	Ant	Q	Hawaii
1	Olethreutinae		Q	New Jersey
1	<i>Orchamoplatus mammaeferus</i>	Croton Whitefly	Q	Nevada
1	<i>Parlatoria proteus</i>	Sansevieria Scale	A	Florida
8	<i>Pheidole sp.</i>	Ant	Q	Hawaii
2	Phlaeothripidae	adults	Q	Hawaii
2	<i>Pinnaspis strachani</i>	Lesser Snow Scale	A	Florida

Numbers of Interceptions	Scientific Name	Common Name/Notes	Rating	Origin
2	<i>Pseudaonidia trilobitiformis</i>	Trilobe Scale	Q	Florida
1	<i>Pseudaulacaspis cockerelli</i>	Magnolia White Scale	A	Hawaii
1	Pseudococcidae		Q	Florida
2	Pseudococcidae	crawler, immature female	Q	Hawaii
1	Pseudococcidae	Crawlers and badly damaged adult female	Q	Texas
1	Pseudococcidae	immatures	Q	Unknown
1	<i>Pseudococcus landoi</i>	Mealybug	Q	Viet Nam
2	<i>Pseudococcus odermatti</i>	Mealybug	Q	Florida
2	<i>Pseudococcus sp.</i>	Mealybug	Q	Hawaii
1	Psychidae		Q	North Carolina
1	Tarsonemidae		Q	Hawaii
1	<i>Technomyrmex albipes</i>	Ant	Q	Florida
8	<i>Technomyrmex albipes</i>	Ant	Q	Hawaii
1	<i>Technomyrmex albipes</i>	Ant	Q	Louisiana
1	<i>Tetramorium sp.</i>	Ant	Q	Hawaii
6	<i>Thysanofiorinia nephelii</i>	Longan Scale	Q	Florida
1	<i>Trialeurodes vaporariorum</i>	Greenhouse Whitefly	Q	Minnesota
1	Veronicellidae		Q	Unknown
1	<i>Vinsonia stellifera</i>	Stellate Scale	Q	Hawaii
1	Information not provided on PDR		A	Florida
2	Information not provided on PDR	insect eggs	Q	Hawaii
1	Information not provided on PDR		Q	Unknown
Total: 132				

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.

Kevin Masuha
for

Robert Leavitt, Ph.D., 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