

CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE



DOG TEAM PROGRAM Annual Report

July 1, 2009 - June 30, 2010

Pictured: Los Angeles Dog Team Hung Truong and Ebony
Picture provided by the Los Angeles County Agricultural Commissioner's Office

Purpose of Cooperative Agreement #09-8520-1165-CA

The purpose of cooperative agreement USDA #09-8520-1165-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.

Purpose of Annual Report

The purpose of the report is to document accomplishments of the activities outlined in the work plan. This report is in fulfillment of USDA cooperative agreement USDA #09-8520-1165-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, training new handlers and fulfilling Dog Team activities as outlined in the work plan. CDFA conducted database (information capture) training for handlers and biologists working with Dog Teams. CDFA also 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

For the full reporting period (July 1, 2009 - June 30, 2010) California had two funded Dog Teams operating out of Contra Costa County (covers the San Francisco Bay Area), one team in San Bernardino County (covers the Inland Empire), one team in Fresno, one team in Sacramento (covers Sacramento Valley), and one team operating out of San Diego.

In October 2009, four new handlers from Los Angeles, San Diego and Santa Clara counties attended the 10-week training course at the NDDTC in Newnan, Georgia. All four handlers successfully completed training and graduated in December 2009. In January 2010, the four additional teams began operating out of their respective counties (**Table 1**).

TABLE 1: Operating CA Dog Teams

Dog Team	Months in Operation During Reporting Period	Area Covered
Contra Costa Team #1	July 1, 2009 - June 30, 2010 (12 months)	San Francisco Bay Area
Contra Costa Team #2	July 1, 2009 - June 30, 2010 (12 months)	San Francisco Bay Area
Fresno	July 1, 2009 - June 30, 2010 (12 months)	Fresno County
Los Angeles Team #1	January 1, 2009 - June 30, 2010 (6 months)	Los Angeles County
Los Angeles Team #2	January 1, 2009 - June 30, 2010 (6 months)	Los Angeles County
Sacramento	July 1, 2009 - June 30, 2010 (12 months)	Sacramento Valley
San Bernardino	July 1, 2009 - June 30, 2010 (12 months)	Inland Empire
San Diego Team #1	July 1, 2009 - June 30, 2010 (12 months)	San Diego County
San Diego Team #2	January 1, 2009 - June 30, 2010 (6 months)	San Diego County
Santa Clara	January 1, 2009 - June 30, 2010 (6 months)	South Bay Area

Installation and Certification

In January and February 2010, Aaron Beaumont, Training Specialist with the NDDTC visited California to conduct installations for the four new Dog Teams. All new teams were successfully installed and began the process of introducing their dogs to the new working environments including local parcel facilities and the office. In addition to installation, Mr. Beaumont also conducted accuracy certification for the six existing Dog Teams. All six teams passed with the required accuracy proficiency of at least 80%. Certification is conducted on an annual basis to ensure handlers and dogs are performing at acceptable levels.

County Agricultural Commissioner's Accomplishments:

The CA Dog Teams have demonstrated that unmarked parcels present a high-risk pathway for harmful pests to enter California (**Table 2**). Between July 1, 2009 - June 30, 2010, CA Dog

Teams alerted on 56,753 total marked and unmarked parcels containing agricultural products. Of the total alerts, 2,270 were unmarked parcels containing agricultural commodities (**Table 3**). A total of 53 pests were intercepted during the reporting period, which included 13 actionable A-rated pests and 40 actionable Q-rated pests (**Table 4**). Some of these interceptions involved multiple pest specimens in a single package. Additionally, due to the efforts of the CA Dog Teams, 1,560 rejections were issued for violations of state and federal plant quarantine laws and regulations.

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

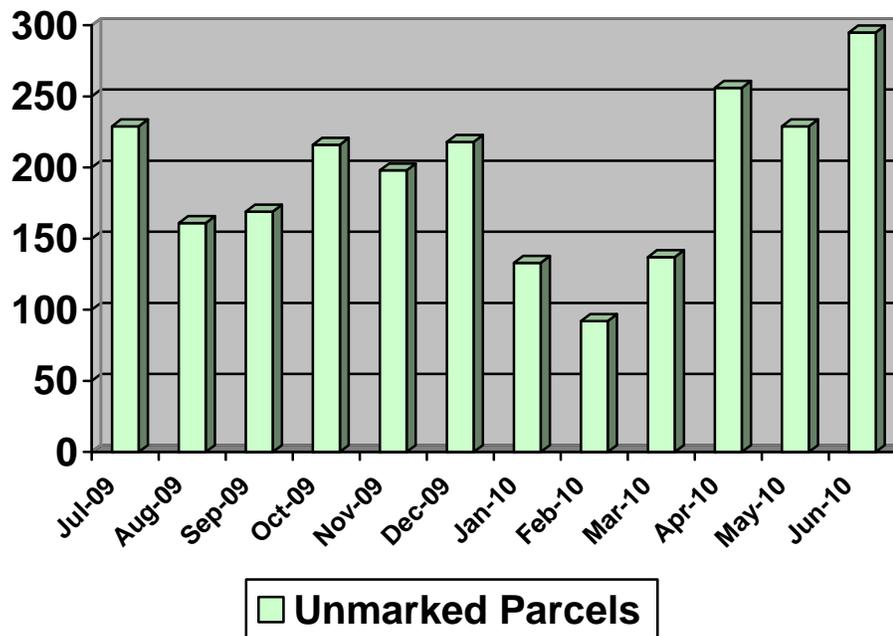
Total Parcels Alerted on by Dog	56,753*
Total Parcels Unmarked with Agricultural Commodities	2,270*
Total A & Q Pests	53*
Total Violations of Plant Quarantine Law and Regulations	1,560*

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

Trends in Unmarked Parcels

During reporting period (July 1, 2009 - June 30, 2010), Dog Teams conducted inspections at a total of 110 facilities throughout the state. During that time, the number of unmarked parcels found to contain agricultural products was highest in the month of June, with a total of 295 reported unmarked parcels that month, with April having the second highest number of unmarked parcels found to contain agricultural products (256) (**Table 3**).

TABLE 3: Detections of Unmarked Parcels



Significant Pest Interceptions

The tables below list the number and type of actionable pests found as a result of the efforts of the CA Dog Teams during the reporting period. Following the tables is a narrative of the most interesting finds during the reporting period.

TABLE 4: Significant Pests, A-Rated Interceptions
July 1, 2009 – June 30, 2010

Numbers of Interceptions	Scientific Name	Common Name / Notes	Rating	Origin
1	<i>Acutaspis aliena</i>	Armored Scale	Q	US/FL
1	<i>Agallia sp.</i>	Leafhopper	Q	US/HI
1	<i>Bambusaspis mliaris</i>	Bamboo Pit Scale	Q	Unknown
1	<i>Candidatus Liberibacter asiaticus</i>	Citrus Greening Huanglongbing	A	India/Kochi
1	<i>Carduus nutans</i>	Musk Thistle	A	Greece/Kilikas
1	<i>Ceroplastes rubens</i>	Red Wax Scale	A	US/Honolulu
1	<i>Ceroplastes rusci</i>	Fig Wax Scale	A	Costa Rica
1	<i>Clavaspis herculeana</i>	Herclueana Scale	A	US/HI
1	<i>Coleoptera Coccinellidae</i>	see notes	Q	Costa Rica
3	<i>Diaphorina citri</i>	Asian Citrus Psyllid	A	Unknown, Unknown, India/Kochi
1	<i>Diptera Tephritidae</i>		Q	Unknown
1	<i>Hemiberlesia sp.</i>	Armored Scale	Q	US/FL
3	<i>Homoptera Aphididae</i>	see notes	Q	US/HI, Unknown, US/WA
1	<i>Homoptera Cicadellidae</i>		Q	Costa Rica
1	<i>Homoptera Coccidae</i>		Q	US/HI
2	<i>Homoptera Diaspididae</i>		Q	US/HI, US/Makawao
1	<i>Homoptera Pseudococcidae</i>		Q	Hana
1	<i>Howardia biclavis</i>	Mining Scale	A	US/FL
1	<i>Isoptera</i>		Q	US/Kahuku
1	<i>Lagocheirus sp.</i>	Longhorned Beetle	Q	US/HI
1	<i>Lepidoptera Gelechidae</i>		Q	US/HI
1	<i>Lepidoptera Tortricidae</i>	see ID notes	Q	Unknown
1	<i>Leucaena sp.</i>		Q	Mexico
1	<i>Limnophila cf. indica</i>		A	US/NY/Hicksville
1	<i>Myriophyllum sp.</i>		Q	US/NY/Hicksville
1	<i>Neohydatothrips sp.</i>		Q	Unknown
1	<i>Papaveraceae</i>		Q	Mexico
2	<i>Pheidole megacephala</i>	Bigheaded Ant	Q	US/HI, US/HI/Kula
3	<i>Pheidole sp.</i>	Ant	Q	US/AZ, US/HI, Unknown
2	<i>Pinnaspis buxi</i>	Boxwood Scale	A	Costa Rica, Costa Rica
1	<i>Pseudaulacaspis cockerelli</i>	Magnolia White Scale	A	
1	<i>Pseudococcus elisae</i>	Exotic Mealybug	Q	US/HI
1	<i>Pseudococcus jackbeardsleyi</i>	Mealybug	Q	
1	<i>Pseudococcus odermatti</i>	Mealybug	Q	
3	<i>Technomyrmex albipes</i>	Ant	Q	US/HI, US/HI, US
2	<i>Thysanoptera Thripidae</i>	larva	Q	Unknown, Unknown
1	<i>Trioza aiceps/possibly</i>	Avocado Gall Psyllid	Q	Mexico
4	Unable to identify further	Insect eggs, Eggs, Insect cocoon, Insect eggs	Q	Unknown, Unknown, Costa Rica, Unknown
Total 53				

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.

Examples of Significant Pest Interceptions

On July 2, while working at a United Parcel Service (UPS) facility, the San Bernardino Dog Team intercepted a 65-pound shipment of mangoes shipped from Florida. This was a non-commercial shipment and both shipper and receiver were private parties. Live **Q-rated armored scale (*Acutaspis aliena*)** was found on the fruit. This pest is known to occur in Florida. The package was rejected for live pests (FAC, Section 6461.5) and for violation of Caribbean Fruit Fly Exterior Quarantine (CCR 3252), which lists mangoes as a host. The package was destroyed.



The 65-pound package of mangoes was destined to a private residence in Highland, CA (San Bernardino County) which is located within a few miles of areas where OFF quarantines have occurred in the past (Rialto, Rancho Cucamonga).

On July 13, the Fresno County Dog Team was working at a FedEx facility when Chelsea hit on a canvas gym bag. This was no ordinary gym bag – it contained clothes, jewelry, knick-knacks, peppers, nail polish, newspaper and a grocery bag of plant and leaf material (*believed to be curry leaves*).

Ten A-rated Asian citrus psyllid nymphs and adults (*Diaphorina citri*) were found in the leaf material. **Further testing confirmed that the nymph psyllids were positive for A-rated Huanglongbing disease.**

The gym bag originated from Kochi, India and made its way on Emirates Airlines to the Los Angeles FedEx Air facility. It was then sent via FedEx Air to Fresno, where the owner resides.



The bag somehow managed to bypass customs clearance and the USDA. The bag still had the original "packing" tape that was placed on the gym bag by the Emirates Airlines at origin. The "packing" tape was not disrupted upon arrival in Fresno County. Furthermore, there was no certification of customs clearance.

The plant material was destroyed. The other contents of the gym bag were inspected and released to the owner. The USDA/Safeguarding Interdiction and Trade Compliance (SITC) team was notified.

State agriculture crews conducted a survey for Asian citrus psyllids near the package's destination. CDFA crews also deployed traps in a one-square mile area, conducted visual surveys, and used a vacuum device on host plants all with negative results.

On August 26, Sacramento County Dog Team Jennifer and Tassie, and Sacramento County inspector Gafar, intercepted a small unmarked package from Texas at the FedEx facility in North Sacramento. The package was a family hodgepodge: with the Texan uncle sending his nephew a needed part, plus a few “unexpected” surprises including guavas and curry leaves.



Jennifer & Tassie



Infested curry leaf

Because curry leaf presents a high risk for transporting Asian citrus psyllid (ACP), the dog handler and Sacramento County inspector acted quickly by safeguarding the package and returning to the Agricultural Commissioner’s office for a detailed inspection. Back at the office many suspect ACP samples (adults and nymphs) were collected and submitted to the CDFA Plant Pest Diagnostics Laboratory. The exact number of live ACP found in the package is unknown (*county reports that there were too many to count*). The samples were later confirmed to be A-rated ACP (*Diaphorina citri*). Additionally, the curry leaves were submitted to the lab for Huanglongbing (HLB) testing. Fortunately the samples were found negative for the disease.

On September 17, San Diego County Dog Team Jeremy Partch and Friday intercepted a shipment of ten cherimoya fruit at a FedEx location. The unmarked parcel originated from the state of Florida and was in violation of the following regulations:

Jeremy & Friday



Rejected cherimoyas

- CA FAC 6421
- CA FAC 6461.5

Lab results revealed that the cherimoya fruit was infested with *Pseudococcus oedermtti* (mealybugs) and Tortricidae (family), both Q-rated pests not known to occur in California. The fruit was rejected and destroyed.



Ebony

On March 5, at about 8:00 a.m. at the FedEx in Santa Fe Springs, Ebony, a black Labrador mix who graduated in December 2009 from the NDDTC, responded to an unmarked box sent from Arizona. Inspector Truong and supervisor Carmen Rieger opened the unmarked box



Inspector Hung Truong and Ebony

and found it contained dandelion greens, bok choy, dill, green lettuce, and parsley. The shipment was held and inspected. The mixed vegetables appeared home grown and contained ants, aphids, mites, slugs, springtails, wasps, and moths. One of the insects was a big-headed ant (*Pheidole* sp.) which is a Q-rated pest. The shipment’s contents were destroyed by freezing.

Multiple Violations



On April 30, Jeremy Partch, San Diego County Dog Handler and his dog Friday, along with the help of assisting inspector Nick Basinski, intercepted a nursery shipment from Top Tropicals Botanical Garden and Nursery in Florida. The shipment was intercepted at UPS San Marcos and found to have violated Master Permit QC 390 for Florida Nursery Stock. In order to meet the quarantine requirements, the plant species in the shipment should have been on the Florida Department of Agriculture and Consumer Services approved nurseries list.

Since these Florida plants were not approved to be shipped under Master Permit QC 390 and were not accompanied by an original phytosanitary certificate, they violated California Code of Regulations 3271 (Burrowing and Reniform Nematode) and the federal quarantine for imported fire ant (7 CFR 301.81). The plants were also in violation for not having proper markings under California Food and Agricultural Code Section 6421.



A shipment from this nursery was rejected for the same reasons in November 2009, but with different plant species.

The plants were sampled and Q-rated aphids were confirmed. The shipment was rejected and destroyed.

On May 12, Contra Costa County dog team Mariah Slusser and Bart were working at the Santa Clara post office. As reported from Contra Costa County, the team 'pulled a suspect package originating from an address in Greece addressed to a resident in San Jose, California. The recipient was contacted and permission was given to inspect the package. The inspection revealed loose plant cuttings in the package with what appeared to be numerous seed heads or flowers, and a separate zip lock bag containing what appeared to be thistle heads and seeds. The recipient [reported that the] plant cuttings were intended as an herbal medicinal remedy.'



'The thistle was determined to be an A-rated weed species, *Carduus nutans* (Musk Thistle) and the other plant material was determined to be *Urtica urens*, a Z-rated weed species already present in California. The plant material was destroyed, and letters in the package were forwarded in another package due to numerous seeds present in

the original packaging.'



Carduus nutans
(Musk Thistle)



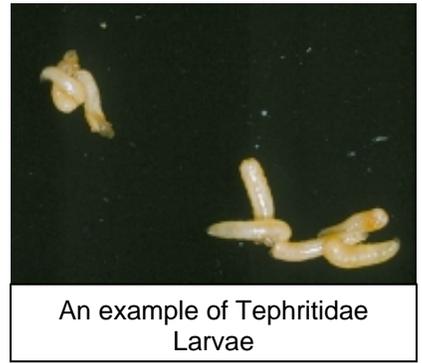
In March, both Contra Costa dog teams began working out of the San Jose USPS facility located in Santa Clara County as part of a pilot program to detect and inspect unmarked packages (including first class and priority express) of plant material for pests shipped through the USPS. This is the first detection of an actionable pest in this pilot program.

On May 25, San Bernardino Dog Team Mike Cochrane and CC intercepted an unmarked private party to private party shipment from Hawaii. The box was found already inside a truck at the FedEx facility in Ontario, California. It contained four leis, one garland made from alyxia leaves and two wedding bands. The leis and wedding bands were pest free, but a live larva was found by Mike and Keri Vigil on the alyxia. The leis and bands were released and the garland was held pending lab identification.



Alyxia leaves

The ID of the Q-rated Tephritidae larva resulted in destruction of the garland.



An example of Tephritidae Larvae

On June 16, Sacramento's Dog Team (Jennifer and Tassie) intercepted an unmarked package from Mexico. Sacramento County reported that, 'There was undeclared plant material (no surface pests) and some unidentified (putrid!) meat along with some clothing and prepared food (mole, tortillas, etc). The box appeared to have been opened by The U.S. Customs and Border Protection, as there was customs tape closing the bottom of the box.



Avocado Gall Psyllid

The Sacramento County inspector confiscated the plant and animal material and FedEx held the remaining items. The lab determined that the package contained a Q-rated Psyllid (avocado gall psyllid, possibly *Trioza anceps*), Q-rated *Leucaena sp.* and Q-rated Papaveraceae.



The SITC officer determined that none of the items in the package were federally actionable; however, since the package contained three Q-rated pests and did not have the correct markings, the material was destroyed.

Signature on File

Robert Leavitt, Ph.D., ROAR
 California Department of Food and Agriculture
 Plant Health and Pest Prevention Services

Date

Signature on File

Helene R. Wright
 United States Department of Agriculture
 APHIS, Plant Protection and Quarantine

Date