Contra Costa County Agriculture and Weights & Measures Newsletter

Spring 2012

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This is a part of a series of quarterly newsletters designed to inform growers in Contra Costa County about issues important to the Agricultural community. We welcome your questions and comments about any topics in this newsletter as well as suggestions for future newsletters. Contact us at:

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Pesticide Use Reporting

In 1990, California became the first state to require full reporting of agricultural pesticide use. California's pesticide use reporting program is the largest and most complete in the world. Growers and many other pesticide users must submit documentation on a monthly basis to their County Agriculture Departments.

Each County Agriculture Department submits data from the reports to the California Department of Pesticide Regulation. The information is compiled and used to track patterns and trends in California pesticide use. It can help agencies understand whether pest management strategies are succeeding, let researchers identify new problems and find solutions, help regulators make better policy decisions, and educate the public about pest control practices.

Pesticide use reports are also available to the public under the California Public Records Act.

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Pesticide users must submit monthly reports.

Public and private agencies, individuals, and businesses submit data requests that involve pesticide permit and use report data. For this reason, it is important to have accurate, complete, and timely information.

Both agricultural and many non-agricultural pesticide uses must be reported. "Agricultural use" includes parks, golf courses, cemeteries, rangeland, pastures, and rights-of-way. All postharvest pesticide treatments of agricultural commodities must also be reported. Certain other users of non-agricultural pesticides, such as landscapers and structural pest control businesses, must submit monthly pesticide use reports. The primary exceptions to the reporting requirements are the use of most industrial/institutional and home-and-garden pesticides.

All uses of pesticides in a calendar month must be recorded on a pesticide use report. If no pesticides were used or if the pesticides were applied by a licensed pest control business, the grower does not need to submit a pesticide use report. Any material with either an EPA or California State registration number is considered to be a pesticide and must be reported. Materials with California State registration numbers include many adjuvants and other additives.

There are three different types of production agriculture monthly pesticide use reports that may be used. The one shown below is intended to report pesticide use for a single crop on a single site. On the next page, there are examples of the two other types of pesticide use reports.

Before entering an EPA registration number, (EPA Reg. No.), it is best to look at the pesticide label in order to get the most accurate and up to date information. Don't confuse the EPA Reg. No. with the EPA establishment number (EPA Est. No.). The EPA Est. No. identifies the factory that made the pesticide. Be careful when copying from old pesticide use reports. Manufacturers can change both the EPA Reg. No. and even the name of the pesticide without warning.

The type of units checked off in the "Total Product Used" box on the pesticide use report must match the formulation of the pesticide. For example, don't report liquid formulations

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This is an example of a site and commodity production agriculture pesticide use report. Much of the information it asks for can be found on the pesticide permit (items 4, 9-17) and on the label of the pesticide that was used (items 22, 27).

STATE OF CALIFORNIA
DEPARTMENT OF PESTICIDE REGULATION
PR-EN-F-01TC (REV. 08/06) Page 1 of 2

PRODUCTION AGRICULTURE MONTHLY PESTICIDE USE REPORT

Submit to the Agricultural Commissioner within 10 days of the month following application.

February (Month) 2011 (Year)

☐ Nursery

Operator ID/Permit No.	Operator (Grower)	Address	City	Zip Code
07-11-070999B	John Smith	65 Magnolia St.	Brentwood	94513

Site Identification No.	Total Planted Acres/Units	County Number	Section	Township	Range	Base & Meridian
Home Ranch	10	7	8	1 [X] N ☐ S	3 [X] E ☐ W	☐ S [X] M ☐ H

Commodity/Site Treated: apricots

Field Location: Southwest corner of Magnolia & Oak

Date/Time Application Completed	Acreage/ Units Treated	Application Method (Check One)	Block ID (If Applicable)	EPA or State Registration Number (From Label)	Total Product Used	Days Reentry	Rate Per Acre	Dilution	Product and Manufacturer
2-17-11 0830	10	[X] Ground ☐ Air ☐ Fume ☐ Other		352-515-AA	145 ☐ LB [X] OZ ☐ PT ☐ QT ☐ GA				Asana XL Insecticide, DuPont
2-17-11 0830	10	[X] Ground ☐ Air ☐ Fume ☐ Other		66222-42-AA	40 ☐ LB [X] OZ ☐ PT ☐ QT ☐ GA				Bumper 41.8EC Fungicide, Makhteshim-Agan
2-17-11 0830	10	[X] Ground ☐ Air ☐ Fume ☐ Other		71058-6-AA	50 ☐ LB ☐ OZ ☐ PT ☐ QT [X] GA				IAP Organic 440 Spray Oil, IAP

in pounds, granular formulations in gallons, etc. Also, it is important that the information on the pesticide use report does not contradict what is listed on the pesticide permit. If the crop changes or the planted acreage has increased, be sure to get your pesticide permit updated. Remember that each pesticide use report form should have information on it from only one calendar month.

Growers must keep copies of all pesticide use reports for any pesticide applications made to their production agriculture sites in the last two years. If a pest control business made the pesticide application, the business must give a copy of the use report to the grower for his/her records.

Any required pesticide use reports must be submitted to the County Agriculture Department by the 10th of the month following use. Even if the pesticide use report was prepared by a pesticide dealer, advisor, or some other person, the person who applied the pesticide is still legally responsible for ensuring the report is submitted.

Failure to submit required pesticide use reports by the 10th of the following month is a violation that can lead to a fine. If growers or businesses do not submit required pesticide use reports, the County Agriculture Department can investigate whether pesticides were used by examining pesticide dealer sales records, conducting pesticide storage inspections, etc.

The Multiple Section pesticide use report is for reporting pesticide use on several different sites planted with the same type of crop. Much of the information can be found on the pesticide permit (items 3-5, 10-14, 16) and on the label of the pesticide that was used (items 19, 24).

STATE OF CALIFORNIA
PRODUCTION AGRICULTURE MONTHLY PESTICIDE USE REPORT: MULTIPLE SECTION
PR-ENF-184 (REV. 08/08) Page 1 of 2
DEPARTMENT OF PESTICIDE REGULATION
ENFORCEMENT BRANCH

SEE INSTRUCTIONS ON THE REVERSE OF THIS FORM

1. MONTH	2. YEAR	3. COUNTY NO.
February	2011	7

4. COMMODITY / SITE TREATED	5. OPERATOR ID / PERMIT NO.	6. OPERATOR (GROWER)	7. ADDRESS	8. CITY	9. ZIP CODE
apricots	07-11-070999B	John Smith	65 Magnolia St.	Brentwood	94513

10. SECTION	11. TOWNSHIP	12. RANGE	13. BASE AND MERIDIAN	14. SITE IDENTIFICATION NUMBER	15. DATE AND TIME APPLICATION COMPLETED	16. TOTAL PLANTED ACRES	17. TOTAL TREATED ACRES	18. APPLICATION METHOD (CHECK ONE)	19. EPA / CALIF. REG. NO. FROM LABEL	20. TOTAL PRODUCT USED (CHECK ONE UNIT OF MEASURE)	21. RATE PER ACRE	22. DILUTION	23. DAYS REENTRY	24. MANUFACTURER / NAME OF PRODUCT
8	1 X N ☐ S	3 X E ☐ W	☐ S ☐ H X M	Home Ranch	2-17-11 0830	10	10	X GROUND ☐ AIR ☐ FUME ☐ OTHER	71058-6-AA	50 ☐ LB ☐ OZ ☐ PT ☐ QT X GA				IAP Organic 440 Spray Oil, IAP
8	1 X N ☐ S	3 X E ☐ W	☐ S ☐ H X M	Jones	2-17-11 0730	3	3	X GROUND ☐ AIR ☐ FUME ☐ OTHER	71058-6-AA	15 ☐ LB ☐ OZ ☐ PT ☐ QT X GA				IAP Organic 440 Spray Oil, IAP
2	1 X N ☐ S	3 X E ☐ W	☐ S ☐ H X M	Site 3	2-17-11 0630	6	6	X GROUND ☐ AIR ☐ FUME ☐ OTHER	71058-6-AA	30 ☐ LB ☐ OZ ☐ PT ☐ QT X GA				IAP Organic 440 Spray Oil, IAP

The Multiple Site/Commodity pesticide use report is for reporting pesticide use for several different crops and/or sites planted in the same section, township, and range. Much of the information can be found on the pesticide permit (items 4-9, 14, 16, 17) and on the pesticide label (items 20, 25).

STATE OF CALIFORNIA
PRODUCTION AGRICULTURE MONTHLY PESTICIDE USE REPORT: MULTIPLE SITE/COMMODITY
PR-ENF-183 (REV. 08/08) Page 1 of 2
DEPARTMENT OF PESTICIDE REGULATION
ENFORCEMENT BRANCH

SEE INSTRUCTIONS ON THE REVERSE OF THIS FORM

1. MONTH	2. YEAR	3.	4. COUNTY NO.
February	2011	☐ NURSERY	7

5. SECTION	6. TOWNSHIP	7. RANGE	8. BASE & MERIDIAN	9. OPERATOR ID / PERMIT NO.	10. OPERATOR (GROWER)	11. ADDRESS	12. CITY	13. ZIP CODE
8	1 X N ☐ S	3 X E ☐ W	☐ S X M ☐ H	07-11-070999B	John Smith	65 Magnolia St.	Brentwood	94513

14. SITE IDENTIFICATION NUMBER	15. DATE / TIME APPLICATION	16. COMMODITY / SITE TREATED	17. TOTAL PLANTED ACRES	18. TOTAL TREATED ACRES	19. APPLICATION METHOD (CHECK ONE)	20. EPA / CALIF. REG. NO. FROM LABEL	21. TOTAL PRODUCT USED (CHECK ONE UNIT OF MEASURE)	22. RATE PER ACRE	23. DILUTION	24. DAYS REENTRY	25. MANUFACTURER / NAME OF PRODUCT
Home Ranch	2-17-11 0830	apricots	10	10	X GROUND ☐ AIR ☐ FUME ☐ OTHER	71058-6-AA	50 ☐ LB ☐ OZ ☐ PT ☐ QT X GA				IAP Organic 440 Spray Oil, IAP
Home Ranch	2-17-11 0800	peaches	3	3	X GROUND ☐ AIR ☐ FUME ☐ OTHER	71058-6-AA	15 ☐ LB ☐ OZ ☐ PT ☐ QT X GA				IAP Organic 440 Spray Oil, IAP
Jones	2-17-11 0730	apricots	6	6	X GROUND ☐ AIR ☐ FUME ☐ OTHER	71058-6-AA	30 ☐ LB ☐ OZ ☐ PT ☐ QT X GA				IAP Organic 440 Spray Oil, IAP

Oriental Fruit Fly

In September 2011, ten Oriental Fruit Flies (OFF) were caught in pest detection traps in Stockton. The finds indicated there was a breeding population of the pest there and a quarantine was declared to try to contain it.

OFF is an invasive pest that attacks over 230 crops including tree fruits, nuts, vegetables, and berries. OFF's short life cycle allows it to multiply rapidly, creating heavy infestations that can cause complete crop losses. Establishment of these flies would not only hurt crops but also cause increased pesticide use, export restrictions, and damage to native plants through the destruction of their fruit.

A female OFF can lay more than 1,000 eggs in her lifetime. The maggots hatch under the skin of the host fruit and tunnel through it, feeding on the pulp. The larvae drop from the fruit and burrow into the soil to pupate. In an advanced infestation, breeding is continuous, with several generations per year. The adult is a strong flyer, recorded to travel 30 miles in search of food and sites to lay eggs. This ability allows OFF to infest new areas very quickly.

OFF is widespread through much of southern Asia and the neighboring islands. It was first recorded in Hawaii in 1946, and now attacks nearly every commercial fruit crop grown there except pineapples. OFF was first reported in California in 1960 and has been detected in the state every year since 1966. Eradication efforts by state and federal agencies over the years have prevented these introductions from turning into permanent infestations.

OFF adults are a bit larger than a housefly, about 1/3 inch in length.

Heavy infestations produced by an OFF outbreak can cause complete crop losses.

The Stockton quarantine area is roughly 12 miles long by 10 miles wide and consists of about 40% farmland and 60% residential areas. In an effort to keep the infestation from spreading, the San Joaquin County Department of Agriculture has enforced quarantine restrictions that specify how host fruits and vegetables can be harvested and transported. They have also tried to get home gardeners to consume their back yard produce at home and not move it from their property.

Affected growers, including those producing host crops for certified farmers markets, immediately faced difficulties in moving their commodities outside the quarantine area. When the Stockton quarantine area was established, some growers did not have enough time to treat their crops before harvest. As a result, some fields of tomatoes and peppers had to be destroyed. Post-harvest fumigation of peppers was tried but caused too much fruit damage to be effective.

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Some walnut growers had to remove the hulls (a host for OFF) within the quarantine area before moving the walnuts outside it. In total, the infestation caused $291,000 in crop losses and additional costs to growers during September to November 2011.

Unless more OFF are found within the Stockton quarantine area, the quarantine will expire some time in late summer 2012. Until then, growers in the quarantine area who produce any of the 230 crops attacked by OFF will have to satisfy strict requirements to move their produce.

An OFF infestation can pop up anywhere at any time. Growers in Contra Costa County need to be prepared for the possibility it could be found here. If an OFF quarantine is declared, affected growers, harvesters, packers, processors, post-harvest treatment facilities, transporters, and others who produce or receive host material from inside the quarantine area must be under a compliance agreement. The compliance agreements cover chemical treatments, packing, processing, post-harvest treatments, transportation, container markings, safeguarding host material, handling of soil, etc.

In the core area (within one square mile around a find), growers do not have the option to treat the crop prior to harvest. Any host crops that cannot be processed inside the core area to eliminate all risk of OFF have to be destroyed. In the rest of the quarantine area, a minimum of four chemical treatments must be made to the crop before harvest. Annual host crops with a growing cycle of less than 30 days must be treated during their entire growing season. The pre-harvest treatment period for other crops is a minimum of 30 days, but can be longer depending on the OFF life cycle degree-day calculations. The Pre-harvest Treatment Schedule posted on the CDFA website lists OFF degree-day calculations. Affected growers should regularly check the website for updates to the calculations.

Walnut hulls are a potential host for OFF.

OFF bait stations applied to utility poles and trees attract and kill male flies.

Products used for OFF treatments must be on the approved list. One of the products, GF-120 NF Naturalyte Fruit Fly Bait, is an approved organic material. The County Department of Agriculture must be notified before any chemical treatments takes place and treatments must be monitored by state or county inspectors. When the required treatments are completed, a permit is issued to allow the movement of the crop for a ten day period. If the harvest continues beyond 10 days, additional treatments and permits are necessary.

Within 24 hours of finding an OFF, 25 traps per square mile are placed in the area around the detection sites. At the same time, the California Department of Food and Agriculture (CDFA) begins other eradication and detection efforts.

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Exotic fruit fly quarantines are often caused by infested fruit and vegetable shipments.

For 200 meters around each detection property, inspectors check host fruit for larvae and treat the ground to kill any emerging adult flies. For 100 meters around each detection property, they also remove any host fruit.

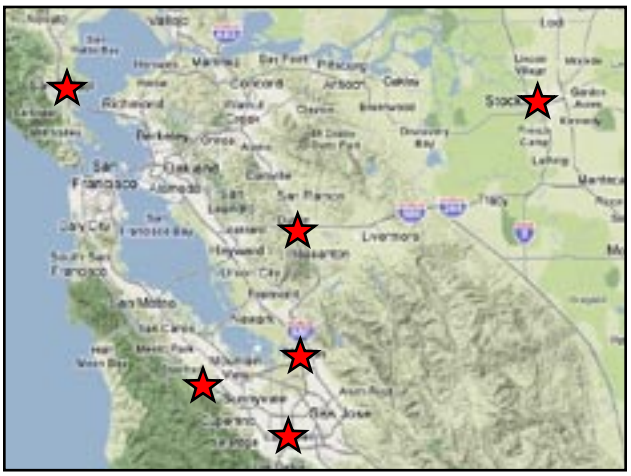
The standard treatment for an OFF infestation is to use small bait stations to selectively kill off the male flies. The bait stations contain a male attractant mixed with a small amount of a pesticide and are applied to utility poles and street trees. Killing the males causes eradication of the population by preventing females from mating. This treatment is specific for OFF and will not harm other insects such as bees or butterflies.

No one knows for sure how the original flies got to Stockton. Most of the finds were made in a residential area halfway between Hwy. 5 and 99, south of Hammer Ln. The most common pathway for pests to enter the state is by "hitchhiking" in fruits and vegetables brought back illegally from infested regions around the world. It is also possible that a resident's friends or relatives may have mailed them infested fruit.

OFF is generally detected in the state at least several times per year, mostly in Southern California. However, they can also be found in the Bay Area. Two OFF were trapped in Pleasanton in October 2011, triggering an eradication program. As a result, 9 square miles were treated and trap numbers were increased in the square mile around the find. Since no other OFF were detected, the find was probably the result of hitchhiking larvae in illegal fruit. It was not necessary to establish a quarantine in Pleasanton. Quarantines are only declared when: a mated female, larva, or pupa is found; or when 6-8 adult flies are found inside a 3 mile radius area during one OFF life cycle. The number of adult flies it takes to trigger the quarantine will vary according to whether the area is urban, rural, or farmland.

Single OFF were also found in Los Altos and Campbell in 2011 and in San Rafael in 2010. Since they were single fly finds, they did not require an eradication project. Two OFF were trapped in Milpitis in 2010, triggering an eradication project similar to the one in Pleasanton.

If OFF detections in Contra Costa County result in quarantines, we will contact affected growers as soon as possible. We will also post information on our website about the quarantine restrictions. If a quarantine occurs, we will need to be able to contact growers quickly. Please make sure we have your most current contact information. If we can reach you without delay, it will help avoid unneccessary interruption of your harvest and the shipment of your crops.



The stars on the map represent where OFF has been found in and near the San Francisco Bay Area within the last two years.

Contra Costa County Yesterdays

In the years before World War II, California's agricultural economy was struggling. A combination of the aftereffects of the Great Depression, crippling droughts, and the pressure of Dust Bowl immigrants had stressed California growers to the breaking point. It got even worse right after war broke out. Attacks by German U-boats effectively stopped exports to Europe. The U.S. Navy had to supply destroyer ships to escort American cargo ships full of food and other needed materials safely to the Allies.

When the U.S. entered the war after the attack on Pearl Harbor in 1941, the demand for food commodities boomed. The U.S. not only had to feed its own population and military, but was also a major supplier for the Allies. As a result, farm commodity prices skyrocketed and growers were pressured to produce more and more food to keep up with the demand. Citizens were also encouraged to help by planting their own victory gardens to produce fruits and vegetables as a part of the war effort.

Most of the military deployment and operations for the war in the Pacific was centered in California. There were military bases, depots, airfields, and factories all over the San Francisco Bay Area. Contra Costa growers were well placed to supply fresh, local produce to the civilians and military personnel working nearby. As a result, the price per ton for Contra Costa County fruits and vegetables nearly tripled between 1939 and 1945.

As patriotic citizens flocked to join the military or work in factories producing material for the war, farmers faced critical labor shortages along with the demands for higher production. Although Congress authorized military deferments for farm workers in 1942, agricultural employment in the United States dropped by one million during the war. To help deal with the lack of farm workers, the government encouraged civilians to volunteer and help growers harvest their crops. In 1943, the U.S. Crop Corps organized and operated farm labor services such as the Victory Farm Volunteers (for high school age boys and girls) and the Women's Land Army.

The War Food Administration promoted the use of labor-saving equipment, high yield crop varieties, and more efficient farming methods. Many growers were convinced to try them. The number of tractors on U.S. farms increased two-thirds by 1945. The new methods and technologies developed during the war helped revolutionize agricultural productivity and led to the "Green Revolution" of the 1950's.

Posters issued by U.S. government agencies to help boost crop production during World War II.

Free Fieldworker Training Classes

The Contra Costa County Department of Agriculture and U.C. Cooperative Extension will offer free pesticide safety training classes in Spanish for fieldworkers. The class satisfies the requirement that fieldworkers receive pesticide safety training every five years. Each participant will receive a Worker Training Verification Card as proof of attendance.

The classes will be held at the Delta Valley Farm Center (located at the northeast corner of Delta Rd. and 2nd St. in Knightsen) from 8:00 a.m. to 10:00 a.m on April 19 and June 14, 2012. To reserve, please call (925) 427-8610 and provide the names or number of attendees.

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