

Contra Costa County Agriculture and Weights & Measures Newsletter



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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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New State Fees

On July 1, 2012, the California Department of Food and Agriculture (CDFA) started to charge fees for phytosanitary certificates issued by state agencies and County Departments of Agriculture. CDFA will now charge \$5.30 for most Federal phytosanitary certificates, State phytosanitary certificates, and certificates of quarantine compliance (CQC's). Master permit certificates will cost \$125 per year.

Federal phytosanitary certificates provide official verification to a foreign country that a shipment meets their plant quarantine requirements. These certificates may require that the commodity be tested for plant diseases, fumigated to eliminate pests, or inspected during the crop's growing season. Many Federal phytosanitary certificates issued in California are written by County Biologists authorized by USDA as cooperators.

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Exporting agricultural commodities to other states and countries is an important part of California's economy.

State phytosanitary certificates and CQC's are used to satisfy the requirements of other U.S. states. They provide official verification that a shipment has been inspected and is free of pests the receiving state doesn't allow. These certificates may also require special surveys, treatments, and/or analyses. Most states have quarantines to protect their agriculture against specific pests, including those that might be common in other states. Brown garden snail is an example of a common California pest that is prohibited by many states.

Sometimes, other states want a phytosanitary certificate in order to verify where the commodity was grown. For example, Hawaii has a quarantine against European Corn Borer. This pest is common in many states but does not occur in California. Hawaii law requires that all shipments of corn, even those from California, be accompanied by an official certificate stating either that the corn was treated for European Corn Borer or that the corn was grown in a non-infested state.

Master permits are compliance agreements that allow growers to self certify their shipments. Participating growers agree to follow certain specific requirements to keep their commodity free of pests. This allows them to use a master certificate instead of having each shipment inspected. Growers who hold master permits are regularly inspected by their County Department



Contra Costa County peaches going to Canada require an official pest monitoring program and inspection of the fruit prior to shipping.



Brown garden snail is common in California but is a serious exotic pest in other states.

of Agriculture to ensure they are complying with the terms of the agreement. Master permits are only available for certain agricultural commodities going to certain U.S. states.

The Contra Costa County Department of Agriculture has been working with CDFA to develop a new master permit for sweet corn shipments going to Hawaii. Under the new fee structure, sweet corn growers must pay \$5.30 per certificate for official verification that their corn was grown in California. A sweet corn master permit would allow a grower to pay only \$125 per year and get the same official verification. CDFA is currently negotiating with the Hawaii Department of Agriculture to get this new master permit accepted.

CDFA does not charge a fee for regulatory phytosanitary certificates when the shipment destination is inside California. Regulatory certificates are issued when there is an existing California quarantine for a pest. An example is Light Brown Apple Moth (LBAM). LBAM is currently under quarantine in California. Host material that leaves the quarantine area must be accompanied by official certification that it is free from LBAM life stages.

Non-regulatory phytosanitary certificates are issued as a service to growers who ship their

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commodities outside California. A certificate shows the inspectors at destination that the commodity satisfies their agricultural quarantines. For example, Florida requires phytosanitary certificates for shipments of brown garden snail host material grown in California. County Biologists must carefully inspect the shipments to verify they are free of brown garden snail. The inspection and certificate are not a part of any current California quarantine restrictions. They are provided to help growers get their shipments to destination without any unnecessary delays.

Traditionally, CDFA has been able to cover the cost of issuing phytosanitary certificates by using state general fund money. The certificates are seen as an important service for the state's agricultural trade and economy. However, CDFA now faces a budget cut of at least \$31 million over a two-year period.

The budget cuts threaten the existence of six very important statewide programs that protect California agriculture. The high risk quarantine inspection program helps prevent infestations caused by exotic pests in commercial and private shipments that enter California. The program includes inspections at UPS, Fedex, border stations, ports, etc. The pest detection program maintains a network of insect traps throughout the state to find infestations while they are still small. The emergency quarantine response



Pest detection is just one of the programs at risk due to state budget cuts.



The detector dog teams are a part of the high risk quarantine inspection program.

program keeps infestations from spreading and the pest eradication program eliminates them. The plant pest diagnostic lab quickly identifies new exotic plant pest and disease samples. The trade facilitation program develops and maintains market access and trade for California agricultural commodities.

All these programs benefit growers who export agricultural commodities. CDFA needed a way to save the programs from the budget cuts. After consulting with industry representatives and researching the costs to issue phytosanitary certificates, CDFA decided to charge a set fee per certificate. The fees will only go to support the statewide quarantine programs. They may not be diverted to any other program or state agency. The fees are only temporary and are set to expire in 2015 unless the regulation that established them is renewed.

Like the state, the County Departments of Agriculture have had to deal with recent serious budget cuts. In the past, the Contra Costa County Department of Agriculture has been able to provide many types of services free of charge to growers. Although the Department has no current plans to charge fees for certificates and other services, budget cuts in the future may require it.

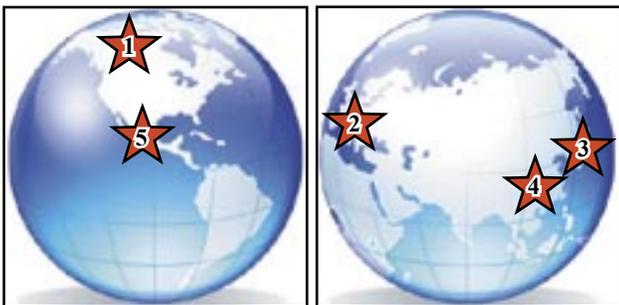
California Agricultural Exports

California has been the nation's top agricultural state every year since 1948. In 2010, California accounted for about 11.9% of the national cash receipts from agriculture with a total of \$37.5 billion in revenue. The state accounted for 16% of the national receipts for crops, and 7% of the national revenue for livestock and livestock products.

California also leads the nation in international agricultural exports. Although the most important market for California agriculture is the U.S., about 24% of the state's production is sold to foreign countries. California's share of total U.S. agricultural exports was 14% in 2010 with a value of \$14.7 billion. Almonds, dairy, wine, walnuts, rice, and pistachios accounted for about 47% of California's agricultural exports.

The top export destinations for California agricultural products in 2010 were: Canada, the European Union, Japan, China/Hong Kong, Mexico, South Korea, India, the United Arab Emirates, Taiwan, and Australia. In Contra Costa County, the top agricultural product export destinations were Canada, the European Union, China/Hong Kong, and Taiwan. Over half of all Contra Costa County agricultural exports during 2010 - 2011 went to Canada and Europe.

For more information on California's agricultural exports and other crop statistics, go to the U.C. Agricultural Issues Center website at www.aic.ucdavis.edu



The top five export destinations for California agriculture: Canada, Europe, Japan, China/Hong Kong, and Mexico.

Stockton Oriental Fruit Fly Eradicated

On June 20 2012, the California Department of Food and Agriculture (CDFA) announced that the infestation of Oriental Fruit Flies in the Stockton area had been eradicated. This ended restrictions on the movement of a wide variety of fruits and vegetables within the 118 square mile quarantine area. The restrictions, which were designed to keep the infestation from spreading, cost growers within the quarantine area an estimated \$291,000 in crop losses and additional costs during September to November 2011.

Immediately after the detection of ten Oriental Fruit Flies in Stockton last September, CDFA and the San Joaquin County Department of Agriculture began detection and eradication efforts to keep the pest from spreading. In the area around each find, inspectors removed host fruit and treated the ground to kill any emerging adult flies. Within the quarantine core area, workers applied small patches of fly pheromone bait mixed with pesticide 8-10 feet up on utility poles and trees. Male Oriental Fruit Flies that were attracted to the bait died before they could mate with females.

Although the Stockton population was detected and eradicated successfully, it is important to stay watchful. In 2012 so far, four male Oriental Fruit Flies have been trapped at residential properties in Santa Clara County. As these new finds show, exotic insect pests can enter the state at any time in illegal fruits and vegetables brought back from infested regions around the world.



The Oriental Fruit Fly infestation in Stockton was declared eradicated in June 2012.

Spider Bites

Insects and spiders are a common hazard for agricultural workers. Spiders are especially frightening for most people because of their reputation for deadly bites. However, although people often think they have been bitten by a spider, research shows that most “spider bites” were actually caused by something else. Wounds that are diagnosed as spider bites are more usually bites from ticks, fleas, mosquitoes, flies, bedbugs, or other insects.

Spiders rarely bite people. Although a few types are aggressive, most will only bite when humans press against them. When a spider does bite, it may not choose to inject venom or may even be unable to penetrate human skin because its mouthparts are too small.

Spiders that do bite a human are almost never captured for identification. Doctors have to guess what caused a wound based on what it looks like. Wound necrosis (the breakdown of tissue around a bite) is seen by many doctors as a sure sign of a spider bite. However, necrosis is more often caused by sensitivity to insect toxins or microbial infections entering breaks in the skin.

Nearly all spiders have venom they use to kill their prey. How a human reacts to the venom



The Brown Recluse spider does not live in California and has only been found here in shipments coming from infested areas.



The black widow (left) and yellow sac spider (right) are common in California and have bites that can be hazardous to humans.

will depend on its type, toxicity, amount injected, and the size of the victim. Children are more at risk than adults because of their smaller body mass. Only a few species of spiders found in California have venom that is toxic enough to seriously hurt an adult human.

Brown recluse spiders are often blamed for causing bites in California, especially when the wound has necrosis or is slow to heal. However, no populations of brown recluse spiders have ever been found in California. The only reported finds have been a few stowaway spiders in shipments from infested areas outside the state.

Brown recluse spiders have bodies up to 3/8” long and a dark, violin-like mark on the cephalothorax (the part where the legs attach). They are often confused with yellow sac spiders, which are similar in shape but lacks the markings on the cephalothorax. Although California has other native recluse spiders, they tend to live in remote areas away from human population centers. The Chilean recluse spider, a similar-looking native of South America, has been found in Southern California, but no bites have ever been recorded.

The California spider usually responsible for serious bites is the black widow. Adult female

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A hobo spider (left). *Hololena* (right) is a common native California funnel web spider that looks similar but is not dangerous.

black widows are large and easily recognizable with shiny black bodies, slender black legs, and a rounded abdomen with red markings underneath. Male and young female black widows are much smaller and lighter in color with a pattern on the back of their abdomens. The mouthparts of the males and young females are too small to penetrate human skin. Black widow spiders are very common in California and tend to be timid, running away to hide when disturbed.

Black widow venom attacks the nervous system, causing pain, muscle contraction, and cramping. The effects range from mild to serious but death is unlikely. Antivenin for black widow bites is readily available from medical care providers if needed.

Yellow sac spiders are small, pale-colored, active hunters that don't rely on webs to catch their prey. They build silk sacs as a daytime shelter and to hold their eggs. Yellow sac spiders are not aggressive and will drop and run for cover if disturbed. They are common in houses as well as outside in foliage.

Yellow sac spider venom attacks cell tissue, causing pain, redness, swelling, and itching. It may also cause mild necrosis that takes up to a few weeks to heal. Many spider bite wounds that are blamed on brown recluse spiders are probably caused by yellow sac spiders.

Another spider often blamed for causing necrotic bites is the hobo spider. It is a common spider from Europe that is found in the Pacific Northwest but has never been documented in California. Hobo spiders build funnel-shaped webs that lead back into a hole or sheltered place where the spider waits for prey. They look very similar to dozens of California native funnel-weaving spiders that are not dangerous to humans.

There are a number of popular myths about spider bites. Tarantulas have been portrayed in many movies and T.V. shows as having a lethal bite. In actual fact, tarantulas have a very weak venom and usually defend themselves, not by biting, but by shedding irritating hairs from their legs and abdomens. Brown widow spiders hit the news in the south after Hurricane Katrina and were thought to be deadly. But brown widows actually have a weaker venom than black widows and are far less common in California.

Another spider bite myth involves “daddy-long-legs” which are believed by many people to have an extremely poisonous venom. There are actually two very different types of animals people call “daddy-long-legs”. One is a spider but the other is a relative of spiders called a harvestman. Harvestmen don't have venom and

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Two different arachnids are commonly known as daddy-long-legs: the spider (also called a cellar spider) left, and a non-spider (also called a harvestman) right.

can't spin webs. They usually eat small insects, decayed plant material, and fungi. Unlike spiders, harvestmen have an oval-shaped body without a clear separation between the abdomen and the rest of their body. Harvestmen are rarely found in houses, but instead prefer to live in humid outdoor areas.

The other kind of daddy-long-legs is a spider called a cellar spider. Cellar spiders are very common in houses and other structures. They build a messy web and hang in it upside down. When the web is touched, the spider will rapidly vibrate it to entangle prey or discourage predators. Cellar spiders can actually be beneficial because they often kill and eat black widow spiders. Cellar spiders have a mild venom and their mouthparts are so small, they usually can't penetrate human skin.

It's easy to overlook spiders, ticks, mosquitoes and other small pests. When working in areas where exposure is likely, workers should wear protective clothing and take precautions. Recommended protective clothing consists of a long sleeved shirt, long pants, hat, gloves, socks, and boots. Keep sleeves buttoned and pant legs tucked into socks. Inspect or shake out clothing, shoes, and equipment before use. Make sure tetanus immunizations are up to date to prevent infections. Some people have an allergic reaction to bites and stings which can lead to death. If a worker shows any unusual reactions to a bite or sting, seek medical attention immediately.



Check clothing and equipment before use.

Contra Costa County Yesterdays

The story of corn began in Mexico over 6,000 years ago when ancient farmers domesticated a native grass called teosinte. Corn soon became the most important food crop for the Aztecs, Mayans, Incas, and many native American tribes because it grew quickly, had good yields, and could adapt to many climates.

Early Spanish explorers first brought corn back to Europe in the early sixteenth century. It spread quickly to the Middle East, Africa, India, and Asia. Today, there are thousands of varieties of corn in countries all over the world.



A sweet corn crate label from the 1950's.

Sweet corn resulted from a mutation in ancient South American field corn. It's sweetness comes from a reduced ability to convert sugar to starch in the kernels. Sweet corn has always been a popular and widely grown vegetable in America. However, before the mid 20th century it was usually canned, dried, or frozen due to its short shelf life. It wasn't until the 1980's that supersweet hybrids became widely available. They not only had a sweeter flavor, but were also able to retain it during long-distance shipping. Since then, other hybrids have been developed with even better yields, vigor, and flavor.

Contra Costa County growers in the 1980's were quick to plant the new supersweet hybrids and discovered that they grew especially well in the Brentwood area. The superior quality of Brentwood corn became widely known and demand was high. From 1989 to 2004, the acreage of sweet corn planted in Contra Costa County increased five fold. Today, Contra Costa County produces more sweet corn than any other county in the state except Imperial.



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