

Fall 2009

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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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or visit our website at: www.co.contra-costa.ca.us/ and click on Departments, then Agriculture/Weights & Measures.

Online Local Weather Information

Weather can often dictate every aspect of crop production from when the crops are planted all the way through harvest. Forecasted weather conditions may force growers to make or delay certain operations. High wind speeds might make pesticide applications too risky. Hail storms could damage crops. Threat of freezing temperatures might require the use of frost damage prevention techniques such as ventilation fans.

Even information about past weather conditions can be useful to growers. Soil temperatures and chilling hours can have a strong effect on crop germination and yields. Rainfall totals indicate how much supplemental irrigation is needed. A record of day temperatures helps growers time their pest control sprays so as to reach pests during certain parts of their life cycles.

Unless you have your own weather station, accurate and local information can be hard to find. Fortunately, the National Weather Service

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Degree day calculations can help determine the timing of codling moth sprays in apples.

(NWS) and other organizations operate weather stations that are accessible online. Contra Costa County has about 30 Remote Automated Weather Stations (RAWS) whose information is available from the National Weather Service website. The three stations that are nearest the major farming areas in east county are: in Brentwood west of the Hwy 4 Bypass, along Bethel Island Rd. east of Oakley, and south of Los Vaqueros Reservoir southwest of Byron. For growers near the county lines, there are also online automated stations in the Altamont Pass, Tracy, and Stockton.

To get data from the local automated weather stations, go to the San Francisco Bay Area/ Monterey National Weather Service website at www.wrh.noaa.gov/mtr/. To reach the RAWS information, click on "Observations" (shown by the green arrow on the top right figure) which will take you to the "Current Weather" page (shown in the middle right figure).

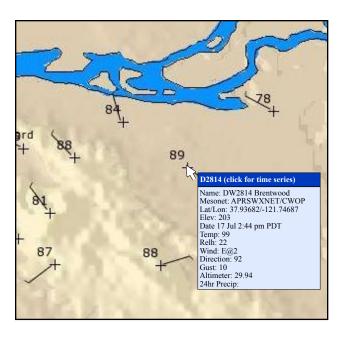
When you click on the "Interactive Map: East Bay" (shown by the red arrow), it will bring up a map of all the RAWS in the East Bay. If you move your mouse indicator over a station, the most current information will be displayed (as shown in the lower right figure). If you click on the station, it will take you to a page with data from the last two days. This is a detailed list of the values the station has measured over time increments that may be as short as every ten to twenty minutes. If a station has been taken out of service for maintenance, its indicator mark on the map will be missing.

The type of information each station lists will depend on what agency operates it. For instance, stations operated by the Federal Aviation Administration at airports will include data such as visibility and cloud cover while Forest Service stations will list fuel moisture levels. Almost all of the stations list temperature, wind speed, and wind direction. Other useful information to growers that is often listed for many stations is wind gust speed and 24 hour precipitation.

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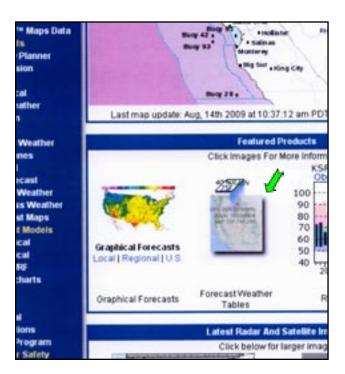


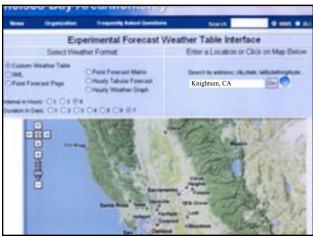
Detailed local weather forecasts can also be found using the National Weather Service website. These forecasts are especially useful for planning pesticide applications. Growers may be required by law to be aware of and mitigate forecasted weather conditions. For example, dormant insecticide applications are prohibited when the National Weather Service has forecasted that a storm likely to cause runoff from the treated field is to occur within 48 hours.

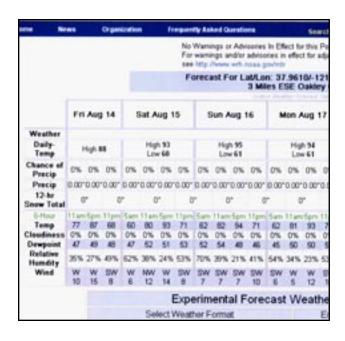
To access detailed forecast information, start at the National Weather Service SF/Monterey website. Go down about half way down the page and click on the "Forecast Weather Tables" icon (shown by the green arrow on the top right figure). You will then be taken to the Experimental Forecast Weather Table Interface (shown in the middle right figure). Once there, you can choose what area you want a forecast for either by entering the city and state in the location search box and clicking on the "Go" button or by clicking on the map displayed in the lower part of the screen. Either will bring you to a table of the forecast information (an example is shown in the lower right figure). If you want to redefine the desired forecast area, click on the map in the lower part of the screen.

The table will give forecast information in six hour time blocks during the next seven days. It is possible to set it to list shorter time intervals and a fewer number of days. (The wind speed forecasts are not available on the shorter time interval tables.) Information on the table includes the probability and expected amount of rain, temperature, cloudiness, dewpoint, humidity, wind speed, and wind direction.

Please remember that a weather forecast for several days in the future will tend to be less accurate than one for the next day. It is important to keep monitoring weather forecast information before certain farming operations because conditions may change quickly. It is especially important to watch the weather before applying pesticides in order to avoid drift and runoff







Pesticide Permit Renewal

In winter, most growers take a break from the prior growing season and start planning for the next one. One of the necessary tasks for a new farming year is to renew grower pesticide use permits/operator I.D. numbers with the county Department of Agriculture.

In Contra Costa County, we use the pesticide permit appointment for more than just permit renewal. During the appointment, the Biologist will also review the pesticide use records; gather crop statistics; check pesticide use equipment and storage facilities; and, where applicable, inspect employee training records and grower hazardous material business plans. This year, we also want to help growers prepare for the probable expansion of the Light Brown Apple Moth (LBAM) quarantine area in east county.

We want to make sure the renewal process goes as smoothly and efficiently as possible because we know growers' time is valuable. This article is intended to help growers prepare for their permit appointments.

Accurate and complete information on the pesticide permit is important not just for the county Agriculture Department, but also for any pesticide dealers, pest control advisors, and pest control businesses the grower may use. Since



Pest control businesses and advisors also depend on the accuracy of grower pesticide permits.



The rapidly changing quarantine restrictions due to the LBAM infestation make it vital that we be able to contact growers quickly.

conditions may have changed during the past growing season, it is good to carefully review your permit for any necessary changes.

It helps to make a photocopy of your permit and write on it any additions or corrections. Then you can refer to it when the county Biologist calls to make an appointment and ask about changes. In cases where growers have many fields or many changes that need to be made to their permits, we appreciate having a written copy of the corrections before the appointment.

Some items to look at on your current permit include: Are the contact/mailing addresses, phone numbers, and fax numbers up to date and correct? Updated contact information will allow us to quickly reach any growers affected by LBAM quarantine changes. For that reason, we would also like to get growers' email addresses.

Are all the field sites on the permit? For each existing site, check that the crops, acreage, and location descriptions are correct. Remember to let us know if there have been any changes, such as the construction of new schools or churches, in the area around each site. For restricted material pesticide permits, is the list of pesticides complete? If there are any restricted pesticides you don't use anymore, please let us know so we can remove them from the list.

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During the permit appointment, the Biologist will also inspect pesticide storage and application equipment.

Growers who apply restricted material pesticides themselves must have a current private applicator certificate (PAC) or a qualified applicator license/certificate. The PAC can be renewed either by taking approved continuing education classes or by retaking the written test. The Contra Costa County Department of Agriculture offers grower continuing education each year in early winter. Announcements detailing this years sessions will be mailed out in this fall.

If your PAC expires in 2009 and you won't have the required class hours by January 1, 2010, please call and schedule a time to take the test. If all your required hours of continuing education classes were given by our Agriculture Department, your PAC will be automatically renewed. If you have taken approved continuing education classes elsewhere, you will need to have written documentation from the agency that gave the class in order to renew your PAC.

During a permit appointment, the Biologist will inspect pesticide use related records. Growers should have copies of their permits, pesticide use reports (both for grower and pest control business applications), and, if applicable, application completion records. Records need to be kept for at least two years. The Biologist may also ask how you make sure employees, contractors, and

field workers are kept informed when pesticides have been applied to a field so they won't enter during the application or reentry interval.

For growers who have employees that handle pesticides, there will be additional records such as a written training program, signed training records, and a completed hazard communication safety series. Where applicable, there must also be records related to respirator use and/or a medical supervision program.

Pesticide storage areas need to be kept locked when unattended and have a posting sign for any "Danger" or "Warning" pesticides. Whenever there are pesticides not in their original containers with their original labels, they must have service container labeling. Other storage area problems include pesticides that have been stored in food or drink containers, safety equipment stored with pesticides, and unrinsed empty liquid pesticide containers.

A few growers in Contra Costa County also have Hazardous Material Business Plans under the jurisdiction of the County Health Services Department. As a service to our growers, the Agriculture Department reviews these plans at no charge to growers. If you have a Hazardous Material Business Plan, please check the inventory list, quantities, site map, etc. so you can let the Biologist know about any changes that might need to be made.



Pesticide storage areas with "Danger" or "Warning" materials must have a legible posting sign.



Fields in the LBAM quarantine area must be inspected within 30 days of harvest

During the coming year, we expect the LBAM quarantine area to expand and cover most, if not all, of our east county area. The resulting restrictions would have a serious impact on our growers since LBAM can infest just about every type of crop that Contra Costa County grows. Based on our previous experience, these quarantine expansions happen suddenly and cause big problems for growers trying to move their harvested commodities. When the quarantines expand, we have to write compliance agreements for each affected grower, inspect the fields within 30 days of harvest, and issue documents that allow transportation of the commodity.

We need your help to keep the disruption of your normal farming practices to a minimum. Please make sure we can call or email you immediately when necessary. A fax number will also be useful so we can send you compliance agreements and transportation authorization documents. Also, if your field is under quarantine, we will need to know as soon as possible when you will harvest so we can schedule the field inspections. We may also need to know what packer or processor the commodities will go to and where.

The Contra Costa County Department of Agriculture will start issuing 2010 pesticide permits in early December. If you have questions or would like to set up an appointment, please call our Knightsen office at 925 427-8610 (for east county growers) or call our Concord office at 925 646-5250.

U. C. Cooperative Extension

The Cooperative Extension program in Contra Costa County is still under threat from the County's current budget crisis. Unless the County pays its share of the operating budget, we forfeit all Cooperative Extension funding and programs forever. Once a County leaves the partnership, the remaining resources will be redistributed throughout the state and can not be recovered when the budget improves.

Our local Cooperative Extension's funding comes from the University of California, Contra Costa County, and federal partners. The County's share of the cost is only ten percent of the Cooperative Extension budget, or about \$300,000. For that money, Contra Costa County is able to draw on the knowledge of experts from throughout the U.C. system. Janet Caprile has provided the lead in the development of pest management programs for many local crops such as cherries, corn, grapes, walnuts, apples, and pears. Sheila Barry and Ali Harivandi have developed similar programs for local ranchers and landscapers. The 4-H programs help educate future growers.

At this point, the County has managed to find only about half of the money needed to keep our local Cooperative Extension programs running. The County is looking to the community to help them raise much of the remaining funds. Every other California county has found the resources to keep their Cooperative Extension open. We should be able to find a way to do the same.

Supervisors Piepho and Glover need to hear from farmers and ranchers about the importance of the Cooperative Extension programs to our county agriculture. Please call, write, or email them today. Please also consider making a tax-deductible donation - no amount is too small. Checks should be made out to the Contra Costa County Cooperative Extension and mailed to Shelley Murdock, Dept. Head, Cooperative Extension, 75 Santa Barbara Rd., 2nd Floor, Pleasant Hill, CA 94523. She will gladly send you a receipt for your taxes.

LBAM Quarantine Update

Single LBAM males have been found this summer in Brentwood and Byron. So far, we have not found additional moths that would put these areas under quarantine. As of August 28, four moths have been found in the Oakley area and five in Antioch. As you can see from the map below, the Northern California quarantine area continues to expand into new territory with multiple finds in Manteca (San Joaquin County) and Davis (Yolo County). LBAM has also spread to Southern California, triggering new quarantine areas in Los Osos (San Luis Obispo County) and Long Beach (Los Angeles County).

A draft of the Environmental Impact Report for the LBAM Eradication Program was released for public comment on July 31. It presents CDFA's plans to control LBAM using the release of sterile males, biocontrol organisms, and the application of mating disruption pheromones. The pheromones would be applied in urban areas and for small, isolated populations by using twist-ties and in blobs of matrix applied to utility poles and trees. In remote, heavily infested areas, the pheromones would be applied by air.

Some of these techniques are already in use or will begin soon. Twist ties are currently being used to eradicate LBAM in outlying areas. CDFA has also planned releases of LBAM sterile males this fall in Napa and Sonoma counties with moths raised by the new sterile insect production facility in Moss Landing.



The green hatched area shows the Bay Area LBAM quarantine as of September 1.

Contra Costa County Yesterdays

In the late 19th and early 20th century, Martinez was the home of the famous naturalist, John Muir. He was a botanist, geologist, explorer, lecturer, and author of many books and articles about the virtues of conservation and the natural world. He also was involved in the creation of our National Park system and founded the Sierra Club in 1892.



courtesy John Muir National Historical Site
John Muir's house and surrounding farmland
in Martinez in 1891.

However, before he became a famous naturalist John Muir helped farm a 2,600 acre fruit ranch in the Alhambra Valley. In 1880, he married Louie Strenzel, the daughter of Dr. John Strenzel, a successful grower producing pears, grapes, apples, peaches, apricots, oranges, and mulberries in the Martinez area. John Muir was a hard worker and good businessman and, as Dr. Strenzel's partner in the fruit ranch, was able to make enough money to enable his family to live comfortably. Then, with his wife's support, he retired from fruit growing and turned to writing and working for conservation causes.

In 1890, John Muir and his family moved into the large Victorian house that had been the home of Dr. Strenzel until his death. This house and its contents have been restored to look as they would have in John Muir's time. The house and gardens are now a part of the John Muir National Historical Site on Alhambra Ave. just north of Hwy 4 in Martinez. The site is open Wednesday through Sunday from 10:00 a.m. to 5:00 p.m.

In Memory Of

The Agriculture Department wishes to recognize the loss of the following members of the Agricultural Community in Contra Costa County and to express our condolences to their families.

Bob Chapman Leonard Gerry Roy Gursky Dee Monk



Contra Costa County
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Division of Weights & Measures
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