

Contra Costa County Agriculture and Weights & Measures Newsletter



Spring 2008

Inside this issue:

New Agricultural Commissioner	1
Employee Pesticide Training	2
Fieldworker Training	4
Cherry Buckskin Disease	5
Contra Costa County Yesterdays	7
In Memory Of	8

This is the second in 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 Agricultural Commissioner

After a 35-year career serving Contra Costa County's agricultural interests, Chief Deputy Commissioner Vince Guise has been selected to take on the position of Contra Costa County's new Agricultural Commissioner/Director of Weights and Measures.

Vince has served as the Chief Deputy Agricultural Commissioner for eight years and spent the previous eleven years as Deputy Agricultural Commissioner. He says of the Department, "The Agriculture/Weights and Measures Department is vibrant and progressive and is recognized throughout the State as a leader. I want to continue this tradition." Federal Glover, District V Supervisor and Chair of the Board, said, "Vince

Continued on Page 2



Vince Guise (left) has been named the new Contra Costa County Agricultural Commissioner/Director of Weights and Measures, succeeding Ed Meyer (right).

has the experience and professional relationships to succeed and thrive in this position”.

He will be facing some serious challenges in his first year as Agricultural Commissioner/Director of Weights and Measures. Governor Schwarzenegger has proposed funding cuts in many programs that directly affect the Department. Contra Costa County has also mandated deep budget cuts and a hiring freeze for all County Departments. New infestations of exotic plant pests, weeds, and diseases will likely continue to be found in and around Contra Costa County. The Light Brown Apple Moth (LBAM) represents both a serious threat to agriculture in the County as well as a deeply controversial issue as eradication efforts by the State and Federal Governments continue.

Ed Meyer, the retiring Agricultural Commissioner/Director of Weights and Measures, has had his share of challenges over the twelve years he has served as the Department head. In his first year as Commissioner, he had to cope with both Africanized honeybee and Oriental Fruit Fly finds in Contra Costa County. These were just the first in a series of exotic pest finds in the County ranging from Glassy-winged Sharpshooters in Brentwood to Light Brown Apple Moth in west County. During his time as Agricultural Commissioner, he has dealt with budget cuts, lay-offs, natural disasters, pest eradications, and many changes in the laws the Department must enforce.

Over the last twelve years, the Department has worked to help growers understand and comply with increasingly complicated laws. There have also been conflicts between growers and the homeowners moving into new developments that have been built in the county’s east side. The general public often doesn’t understand normal farming practices and accuses growers of harming their health and the environment. The County Agriculture Department often acts as a mediator between the two sides, defending the grower’s right to farm while protecting the environment and the public’s safety.

Employee Pesticide Training

When employees handle pesticides, they must receive training in order to use them safely. Before handling any pesticide and at least once a year thereafter, employees must be trained in a manner they can understand. If any new pesticides will be used, they must receive updated training on that new pesticide. Employees are considered to be already trained if they are certified applicators (Qualified Applicator License/Certificate holders, Journeyman Pilots, or certified private applicators). The person who trains employees who handle pesticides for agricultural production must be one of the following: a certified private applicator, a Qualified Applicator License/Certificate holder, a County Biologist, a U.C. Farm Advisor, a Pest Control Advisor, or someone who has completed an approved instructor training program.

There are certain written records that must be kept by the employer when employees handle pesticides. These include training records for each employee, a written training program, hazard communication documents, and pesticide use records. If the employees use respirators,

Continued on Page 2



“Handling” means application, mix/loading, flagging, and servicing contaminated equipment.

regularly handle organophosphate and/or carbamate pesticides, or use fumigants, there may be additional records necessary. Most employee pesticide records must be kept at least two to three years.

A written training program takes the guesswork out of producing a properly trained employee. With a detailed list of topics and materials to work from, employers don't have to worry about forgetting any required subjects. Employers may either design their own program or adapt an existing one. The written training program should include a list of any materials that are used for training, such as pesticide labels, Material Safety Data Sheets (MSDS), the Pesticide Safety Information Series (PSIS), permit conditions, equipment manuals, and any other educational materials an employer wishes to use.

Most of the topics that must be covered during training are general and will apply to any employee. Employees must be able to read and interpret pesticide labels in order to know how to use the pesticide safely and effectively. They must be informed about the immediate and long term health hazards of each type of pesticide they will handle. There are worker safety requirements in addition to those on the pesticide label. For production agriculture, washing facilities (water,



Mix/loading usually requires more safety equipment than application because concentrated pesticides are more dangerous than diluted ones.



Certain types of pesticides and/or sites may require the use of special safety equipment.

soap, and single use towels) as well as a clean change of coveralls must be at the mix/load site and within 1/4 mile of where handlers will work. Employees need a place to wash and change clothes after handling pesticides and a clean place to store personal clothing. In most situations, employees must wear chemical resistant gloves and approved eye protection when handling any pesticide. There are certain temperature limitations if employees must use chemical resistant protective clothing. For many of these requirements, there may be exemptions for employees when using certain types of equipment, pesticides, or application methods.

There are special worker safety requirements for certain types of pesticides. For production agriculture, pesticide labels requiring eye protection mean employees must carry *with* them at least one pint of water to use for emergency eyewash. When using pesticides with "Danger" or "Warning" labels, employees must wear coveralls provided and cleaned by the employer. If employees mix or load containers of more than one gallon of a "Danger" liquid pesticide, they must use a closed system. Employees handling "Danger" pesticides may not work alone without regular contact. The requirements when employees handle minimal exposure pesticides (Buctril, Bronate, Folpet, Metasystox-R, Comite, Omite) are very restrictive.

Continued on Page 4

Other general topics that all employees must be trained on include: how pesticide poisoning occurs, heat illnesses, first aid for pesticide exposure, and emergency procedures. They must know how to use and maintain personal protective equipment and pesticide use equipment. They must be aware of their hazard communication rights, the posted A8 or N8, and where pesticide related records are kept. Other topics include: pesticide storage, handling empty pesticide containers, service container labeling, medical care posting, having labels at the use site, transportation of pesticides, protection of the environment, reentry intervals, and posting.

Other situations may require additional special training, testing, and records. The regulations regarding the use of respirators by employees have become far more restrictive, requiring a doctor's evaluation, special training, and new documentation. When organophosphates and/or carbamates pesticides are used more than six days in 30, medical supervision is required. Fumigant use requires there be a written accident response plan and a fumigation management plan.

Employers may choose to have someone else train their employees. However, employers are still responsible for making sure their employees have been trained on all the required subjects. Employers must be ready to provide training when new employees are hired and when new pesticides will be handled. Employers must ensure that employees comply with safety requirements and must also keep and update all necessary employee records.



The requirements for employees who use respirators changed as of January 1.

Fieldworker Training



Field workers must be trained if they will work in a treated field.

Fieldworkers who will work in treated fields must be trained before entering a treated field and at least once every five years thereafter. A field is considered to be treated if it has had a pesticide application or reentry interval within the last 30 days. If fieldworkers only enter fields after the 30 days has passed, they do not need to be trained.

Fieldworkers must be trained by a qualified person (see the list on page 2). An employee who has been trained to handle pesticides is considered already trained as a fieldworker. The training must be presented in a manner the fieldworker can understand and is not required to be documented in writing.

Fieldworker training must cover: how pesticide poisoning occurs; pesticide exposure symptoms; long-term health hazards; first aid for pesticide exposure; surfaces at the work site that may be contaminated; how to avoid pesticide poisoning; washing facilities; protective clothing; their hazard communication rights and the posted A9; medical care posting; reentry intervals; warning signs; washing after field work; cleaning contaminated clothing; and where records, including application specific information for the treated field, will be kept.

For more information on training fieldworkers and employees, contact the Contra Costa County Department of Agriculture.

Cherry Buckskin Disease

Cherry Buckskin Disease (also called X-disease) is a major cause of cherry decline, which can lead to the serious loss of sweet cherry trees. It is caused by a phytoplasma organism that is found in the phloem cells of infected trees. The disease wiped out the cherry industry in Napa and Solano counties in the 1930's. To this day, cherries cannot commercially farmed in those counties.

On most cherry rootstocks (Colt, Mazzard, Giesla, Stockton Morello), infected trees look fairly normal except that fruit on one or more branches doesn't color up and ripen fully. Affected fruit can appear pebbly, leathery-skinned, and pale. On these rootstocks, the best time to find infected trees is just before harvest. It may take years for the infection to finally kill the tree.

On Mahaleb rootstocks, trees show yellowing leaves within a few months of infection but the fruit will only be slightly affected. These trees may also suddenly wilt and collapse above the graft union. The way to find infected trees grafted on this rootstock is to carefully watch for symptoms during the season or to examine the graft union under the bark.

Cherry Buckskin Disease is commonly spread by leafhoppers, which pick up the disease organism when feeding on infected plants. One infected leafhopper feeding a few moments can transmit



A cherry branch showing normal fruit on the left and diseased fruit on the right.



An orchard infected with Cherry Buckskin Disease.

the disease to a new tree. In this area, the leafhoppers that most often carry the disease are the Cherry Leafhopper and Mountain Leafhopper. Management of the disease is made more difficult because there are other host plants that can carry Cherry Buckskin Disease and host the leafhoppers. Other plants that can harbor the disease include ornamental, crop, and weed plants such as almond, clover, dandelion, and some types of plum. Plants that can host the leafhoppers include privet, boxwood, pyracantha, alfalfa, peach, apple, and dock.

Cherry Buckskin Disease was first found in this county in two orchards near Brentwood in 2002. At that time, one infected orchard was removed entirely and in the other, trees with symptoms were removed along with surrounding trees. The orchard was treated to control the leafhopper vectors and leafhopper sprays were also recommended for adjacent orchards.

In 2003, infected trees were found in the same orchard identified in 2002 as well as in a neighboring orchard that had not been treated to control leafhoppers. Since the disease can take more than a year to show symptoms, it is possible the new site had been infected the previous season. Both orchards had trees with symptoms removed and had sprays applied throughout the season to control the leafhoppers.

Continued on Page 6

Leafhopper sprays were also recommended for orchards within 1/2 mile of the infected orchards.

In 2004, infected trees were detected again in both orchards and also in an adjacent orchard where leafhopper sprays had been applied. The remaining orchard that had been found infected in 2002 was removed. The two other infected orchards were sprayed for leafhoppers during the season and had symptomatic and surrounding trees removed. Leafhopper sprays were recommended for orchards within one mile of the infected orchards.

In 2005, new infections were found again in both remaining orchards and in three new orchards. Two of the new orchards were near the previously identified ones, but one was a mile away from any known infection site. The infected and surrounding trees in each orchard were removed and leafhopper sprays were applied throughout the season. Leafhopper sprays were recommended for all cherry orchards in the area.



Common vectors for Cherry Buckskin Disease: Cherry Leafhopper (above), Mountain Leafhopper (below).



On most rootstocks, infected trees will show a mixture of affected and normal fruit.

In 2006, it was not possible to run the samples collected during the preharvest surveys due to lack of lab availability. In 2007, infected trees were found in two new orchards near Marsh Creek, a mile from any previously identified sites. The orchards were sprayed throughout the season and had the infected and surrounding trees removed. U.C. Cooperative Extension found a commercial lab to run the samples collected during the preharvest surveys. Pat McKenzie from Mid Valley Ag has generously offered to pay the lab costs for testing samples in 2008.

The preharvest surveys in bearing cherry orchards are scheduled each year just prior to harvest. The surveys are done by staff from U.C. Cooperative Extension, the Contra Costa County Department of Agriculture, and volunteers from the Master Gardener program.

Cherry Buckskin Disease keeps spreading because the area has so many leafhopper vectors. Even when an orchard is sprayed, some leafhoppers may escape, especially in tall or dense orchards, or may be able to transmit the disease before they die. However, the more cherry orchards that receive preventative sprays, the smaller the leafhopper population and the lower the chances the disease will be spread further.

Continued on Page 7

U.C. Cooperative Extension has recommended a spray program consisting of a winter dormant spray with oil and an insecticide along with three to four in-season insecticide sprays from June to October. Spray timing is critical to control leafhopper populations during late summer and fall when they are at their highest. Even young orchards should be sprayed. Since it is usually fruit that shows the symptoms, non-bearing orchards are not included in the annual survey. Any infected trees could remain in a non-bearing orchard as a source of infection for the area.

It is important to cut down infected trees as soon as possible *after* first spraying the orchard to kill any leafhoppers that may have been feeding on the infected trees. Kill the stump with an herbicide or remove it entirely to prevent resprouting with infected foliage. For trees on Mahaleb rootstock, watch carefully throughout the season for disease symptoms. Keep other plants that can harbor the disease out of the orchard and surrounding area.

Local cherry growers and industry members have recently formed a Cherry Taskforce to develop an area-wide management program to help eliminate Cherry Buckskin Disease from Contra Costa County. They hope to improve the process of arranging for the removal or treatment of infected trees, abandoned orchards, and roadside plants that can harbor the disease. Unmanaged host plants can serve as a reservoir to re-infect the managed orchards. If the disease spreads into landscape hosts outside the agricultural core, it would be virtually impossible to eliminate or even control.

For further information on Cherry Buckskin Disease and the recommended leafhopper control sprays, go to the UC IPM website at ipm.ucdavis.edu. While our local Farm Advisor, Janet Caprile, is on a sabbatic leave, Joe Grant, a Farm Advisor in San Joaquin County, has agreed to take calls regarding cherries from Contra Costa County growers. His phone number is (209) 468-2085 and his email address is jagrant@ucdavis.edu.

Contra Costa County Yesterdays

In the last half of the 19th century, wheat was a top crop in Contra Costa County. California wheat was in high demand worldwide due to its high quality and resistance to spoiling during long ocean voyages.

The coast from Port Costa to Martinez was a natural shipping center. It had deep water to allow large ships to dock close to shore and high bluffs to provide protection from storms. Also, the fresh water in the Carquinez Strait prevented the growth of salt water borers that destroyed wood pilings. The area was supplied by the Southern Pacific Railroad line which brought in wheat from fields all over central California.



Above: a horse drawn harvester. Below: Martinez harbor in 1885. (photos courtesy of the Contra Costa County Historical Society)



By the early 1900's, competition had driven wheat prices down and Contra Costa County growers began to switch to more profitable fruit and vine crops. Wheat is still grown in Contra Costa County today. In 2006, over 2,500 acres of wheat was harvested.

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.

Francis L. Aebi Sr.
Robert Christopher Cecchini
Alfred Dejesus
Russell DeMartini
David Ninomiya
Wayne Thomas



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