

Contra Costa County Agriculture and Weights & Measures Newsletter



Winter 2013

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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 Blunders

Every year, the California Department of Pesticide Regulation (DPR) publishes a list of the top pesticide blunders by consumers during the previous year. The list is drawn from cases reported to DPR and investigated by the County Departments of Agriculture.

Many home pesticide accidents occur in kitchens and bathrooms. Victims get sick when they spray kitchenware and counters then use them to prepare food. Homeowners who spray aerosol pesticides inside enclosed spaces such as cabinets or showers can suffer both inhalation and skin exposure. Combining the wrong cleaning products will result in a face full of chlorine gas.

Families and household pesticide products can be a bad combination. Children are especially at risk from pesticides that haven't been stored

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Most home pesticide illnesses happen because users did not read and follow the label.

properly. Unsecured pesticides, sprayers, aerosol cans, etc. will often be used as toys by the children who find them. When pesticides are stored in food and drink containers, children and adults can mistakenly consume them.

Insecticide bug bombs are another source of homeowner blunders. Injured users set off bug bombs and then either remain in the room or reenter it during the application. Bug bombs used near open flames can ignite and explode. In one Contra Costa County blunder, the user set his house on fire when he dropped a gopher bomb down a roof vent in order to kill rats.

Simply reading and following the pesticide label would prevent many of these problems. Homeowners often don't wear safety equipment and use pesticides in strange ways and places. Pesticide products are so common that people forget they are poisons. Too often, users think that if some product is good then a lot would be better, leading to disastrous overexposures.

It's tempting to think that only an ignorant homeowner would make these kinds of mistakes. However, professional applicators and growers sometimes make them too. Here are a few real life examples that have happened in California.

A structural fumigation company tarped a house in order to treat it for termites. The fumigator failed to have the natural gas line into the house turned off as was required by the pesticide



Pesticides should never be stored in food and drink containers.



When repairing contaminated equipment, wear the same safety equipment as would be required to apply the pesticide.

label. During the fumigation period, the house gradually filled with gas. When the gas was ignited by a spark from the fumigation fans, the resulting explosion destroyed most of the houses in the neighborhood.

An applicator was using aluminum phosphide tablets to fumigate a tarped pile of almonds. The canister of aluminum phosphide was nearly empty except for some dusty, crumbled tablet bits. He poured the bits into a dish to put under the tarp. As he was placing the dish, the wind blew the tablet dust into his unprotected face. Since he was not wearing a face shield as required by the label, the aluminum phosphide went into his eyes, nose, mouth, and lungs. He suffered permanent lung damage from the exposure.

A licensed applicator was found storing his glyphosate herbicide concentrate in a sports drink bottle. To make matters worse, the bottle was kept in the open bed of his truck and his truck was parked next to a busy city sidewalk.

A grower was using a boom sprayer to treat weeds in his orchard. He noticed several nozzles had clogged and stopped to fix them. In the process of clearing one of the nozzles, he forgot it was contaminated and used his mouth to blow the blockage free.

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An applicator was using diazinon to spray the exterior of his house for ants and spiders. It was a hot and windy day so he wore shorts, a tank top, and sandals. The wind blew the diazinon spray all over his bare skin. Later that evening, he started feeling sick and went to the emergency room. The doctor said that if the man had not come in when he did, he would have died of organophosphate poisoning.

While mixing a pesticide wettable powder, an applicator had problems getting it to mix completely with the water in the tank. Without thinking, he reached into the mixture and began to break up the powder clumps with his bare hand. He developed skin damage on his hand and arm.

An experienced aerial applicator was having his airplane's spray tank loaded with a pesticide. While getting ready to go, he accidentally hit the emergency tank dump lever in the cockpit. The entire contents of the tank were released all over the worker who had just loaded it.

A grower decided to fumigate his orchard before replanting the trees. He used an application method where methyl bromide gas would be injected with a probe deep into the soil. For this method, the label required both irrigation and soil compaction over the injection site in order to seal in the gas. At the time of the application, the soil moisture was not high enough to keep the gas from escaping. As a result, several workers who



Pesticides can be absorbed through the skin when an applicator doesn't wear protective clothing.



Applicators who stay organized and focussed can avoid many pesticide blunders.

later walked through the orchard developed severe chemical burns on their legs and feet.

A structural pest control company wanted to treat a household attic using an insecticide powder. The applicator loaded his duster device while in the homeowner's bedroom. He did not realize the device was switched to the on position and when he plugged it in, it blew pesticide powder all over the bedroom. To make matters worse, the pesticide was a wettable powder and was not labelled for use as a dust. The complete cleanup of the homeowner's bedroom proved to be very expensive for the company.

Pesticide applications are an important and potentially hazardous part of the job for many growers. Applicators with good work habits can avoid most common pesticide blunders. It helps to have a step by step routine to follow as well as a plan to handle any problems that might occur.

Before spraying, review the pesticide label directions and check the weather conditions at the site. Allow for enough time to finish the application without rushing. Don't spray when you are tired, sick, or unable to concentrate. Make sure all the required application and safety equipment is present, organized, and in good condition. Have soap, water, and first aid supplies ready at the site. During the application, stay focussed and try to avoid distractions such as cell phone conversations.

Purple Starthistle

Purple Starthistle (*Centaurea calcitrapa*) is a serious noxious weed that infests many areas in the San Francisco Bay area. It occurs in disturbed areas in pastures, rangeland, roadsides, ditch banks, and fence lines. Purple Starthistle is native to the Mediterranean and was first detected in California near Vacaville in 1886. It has spread to many areas in California and other western states.

Purple Starthistle reproduces only by seed and is most commonly spread by contaminated hay, straw, livestock, soil, and equipment from infested areas. Mature plants may also break off and be rolled by wind, dispersing their seeds along the way. Seeds may remain viable in the soil for several years.

Purple Starthistle usually behaves as a biennial plant but may be an annual or short-lived perennial in some areas. In their first season, the plants form low rosettes that will bolt and flower during their second season. The rosette leaves are gray-green in color with a lighter midrib. Young stems and leaves are covered with pale, cobwebby hairs which smooth out with age. Mature plants are up to four feet tall with a strong taproot and rigid branches. The numerous flowers are purple with a fringe of sharp spines at the base.

Purple Starthistle is very difficult to control once it has become established. It is important to prevent infestations by eliminating any sources of seed coming from infested areas. Physical control methods are relatively ineffective and there are no biological control organisms for Purple Starthistle currently available.

Mowing is not an effective control method because the rosettes are too low to be cut and bolted plants respond to mowing by producing multiple rosettes. Mowing plants that have begun to flower will spread the cut flowers which may be capable of dropping mature seed. Burning may enhance seed germination.

Physical removal can help control small populations. Plants should be cut at least two inches below the soil surface early in the growing season. Plants cut after they have begun to flower must be removed from the site to keep them from releasing viable seed. Field tests show that up to 15% of cut plants will resprout.

Cattle, sheep, and wildlife generally avoid grazing on Purple Starthistle due to the plant's sharp spines and bitter taste. Livestock may eat the young rosettes if other feed is not available. Dense stands of mature plants make access difficult for both livestock and humans.

Herbicides provide the most effective control for Purple Starthistle. Clopyralid, dicamba, picloram, glyphosate, and 2,4-D are commonly used. Applications should be made in spring or late winter because the plants are most sensitive at this time. Repeated applications are recommended to control new rosettes. Purple Starthistle control requires a multi-year process that includes careful monitoring and treatment.



Purple Starthistle (clockwise from upper left) rosette, bolting, mature plant.



A Consumer's Guide to Selling Gold

With the weak economy and the high price of gold, many Americans who need cash are choosing to sell their unwanted jewelry. Gold buying businesses have been quick to take advantage of the demand through internet advertising, mail-in offers, and road shows that travel to a different city each week.

Unfortunately, whenever there are business opportunities, there will also be cheaters who try to take advantage of the consumer. Undercover investigations by the media and by Weights & Measures officials throughout the country have found scams that included rigged scales, faked gold karat tests, and bounced payment checks.

CBS News found outright fraud during an undercover investigation in May 2012. They offered various traveling gold-buying companies pieces of jewelry that had been independently verified as to their gold karat count and weight. The companies made very low first offers to their customers. One company's written policy said employees should start with an offer of less than 5% of the gold's value. Many of the gold buyers claimed the jewelry was only gold plated or was a smaller, less valuable, karat count.

The companies' scales can be another problem. In 2010, New York officials cited 49 gold buying businesses during a statewide inspection sweep. They found scales that were unregistered, not approved, or had been tampered with. One scale even had a hidden spring under the weighing platform so it would give a lower reading.



Traveling gold buying shows have become more common with the weak economy.



Scales used commercially to buy gold in California must be type approved and inspected for accuracy.

Mail-in gold buying companies are no better. They not only offer low payments, but they also make it very hard for consumers to reject the company's offer. By the time the payment check arrives in the mail, it's usually too late for consumers to get their jewelry back. The companies might offer free shipping to mail jewelry to them, but their fine print shows it will be very expensive to get it back again.

People who want to sell their gold jewelry are better off dealing with a local company. California businesses that buy gold are required to use scales that have been inspected, sealed, and approved for weighing precious metals. County Weights & Measures inspectors check these scales on a regular basis to ensure they are working correctly and that consumers are able to witness the entire weighing process.

Having a correct scale only eliminates one type of deception. Consumers need to stay alert, educate themselves, get several offers, and check out company policies and complaint records. When consumers are obviously ignorant about the value of their gold, they invite shady gold buyers to cheat them. Here are some tips to help get the most value from gold buyers.

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The stamped 22K mark on this ring shows it is 91.6% pure gold.

Before taking your gold to a buyer, you need to estimate how much it's worth. Start by figuring out the gold's purity as indicated by the karat value stamped on the gold. If the gold is not stamped, have a jeweler test it or get a kit to test it yourself. In the U.S., most gold is 10K (41.7% gold), 14K (58.5%), 18K (75%), or 24K (100%). In other countries, gold may also be 9K (37.5%), 15K (62.5%), or 22K (91.6%).

Next, you will need to find out the weight of the gold in grams. You can use a kitchen scale to get the weight in ounces, then multiply that number by 28.3 to get the weight in grams. (Be sure to subtract the weight of any gems or other non-gold parts.) Calculate the weight of pure gold by multiplying the weight of the gold in grams times the percentage of gold indicated by the karat value. As an example: a 14K gold chain that weighs 0.8 ounces will contain 13.2 grams of pure gold (0.8 times 28.3 times 58.5%).

Finally, look up the current market value of gold per gram in a newspaper or on the Internet. Gold prices change daily so be sure to check the value on the same day you are planning to sell. Multiply the market price per gram times the amount of pure gold to determine the value.

Now that you have an estimate of what your gold is worth, it's time to choose a buyer. Gold buyers will never give you 100% of the gold's value. Even reputable buyers will start out by offering only 30-40%. You should try to negotiate a higher percentage wherever possible. If the

buyer refuses to negotiate, you can always walk away and try somewhere else.

Local businesses are best because you can easily contact them in case of problems and they are regulated by local authorities. Businesses that buy gold include jewelry stores, pawn shops, and retail gold buyers. If your jewelry is antique, vintage, or artisan made, it might be worth more than just the gold content. If it is, antique stores, auction houses, and internet auction sites might be a better option.

If a buyer disputes the karat value stamped on the gold, ask them to test its purity. This can be done easily using a gold acid test kit. The test is done by rubbing a bit of the gold on a test stone and then using a series of acids to determine the gold's purity. Unscrupulous gold buyers have been known to substitute the acids in the test kit to make sellers believe their gold is worth less. For this reason, only use reputable buyers and be sure to get a receipt.

Always get value estimates from two or more buyers. Closely observe the scale used to weigh the gold. It must have a California State or County seal that shows it has been tested for accuracy. Make sure the scale indicator is at zero before the weighing begins. Notice the weight displayed on the scale indicator and compare it with the receipt. If the buyer doesn't fully explain what is being done, ask questions. Walk away if you have any suspicions. If you think you may have been cheated, contact your local County Weights & Measures Division.



Antique or artist made jewelry may be worth more than the value of the gold content.

USDA Drought Disaster Designation

On September 5, 2012, USDA designated Contra Costa and six other California counties as primary natural disaster areas due to last winter's drought. Winter rain is critical in Contra Costa County for the growth of winter grain, rangeland, and other non-irrigated crops.

All qualified farm operators in the designated areas are eligible for low interest emergency loans from USDA's Farm Service Agency, provided the eligibility requirements are met. Recently, USDA effectively reduced the interest rate for these loans from 3.75 percent to 2.25 percent. The deadline to apply for the USDA emergency loans is May 5, 2013. Additional programs that are available to assist farmers and ranchers include the Emergency Conservation Program, Federal Crop Insurance, and the Noninsured Crop Disaster Assistance Program.

Due to the expiration of the 2008 Farm Bill, some disaster assistance programs are no longer available. These are: Supplemental Revenue Assistance (SURE) for revenue losses greater than 50%; Livestock Indemnity Payments (LIP) for livestock losses; Emergency Assistance for Livestock, Honey Bees, and Farm Raised Fish (ELAP); Livestock Forage Disaster Program (LFP) for feed losses; and Tree Assistance Program (TAP) for tree, vine, and bush losses.

Contact the Stockton Farm Service Agency at (209) 472-7127 for further information on eligibility requirements and for application procedures. Additional information is also available online at <http://disaster.fsa.usda.gov>



Contra Costa County Yesterdays

Most people who grow plants in California know and despise the European Brown Garden Snail. It is a common pest found in greenhouses, nurseries, young orchards, landscaping, and gardens. What most people don't know is that it was deliberately introduced in California over 150 years ago by a man named Antoine Delmas.

Mr. Delmas was an important nursery owner in San Jose during the 1850's. In 1852, he was one of the first growers to bring French wine grape vines back to Northern California. He also brought back specimens of European Brown Garden Snail, commonly eaten as escargot in France. Mr. Delmas planted colonies of the snail in San Jose, San Francisco, and Los Angeles.



By 1900, the Brown Garden Snail had been reported as a pest in Alameda County.

Being native to the Mediterranean and western Europe, the European Brown Garden Snail liked its new home in California. It soon spread to many parts of the San Francisco Bay Area. One can only imagine the horrified reaction of the cut flower and nursery plant growers in Contra Costa County. Since the European Brown Garden Snail was a new and unknown exotic pest, the growers didn't know how to control it before it ruined their crops.

Some things never change. Today, we are still trying to prevent, identify, and treat infestations of new exotic plant pests.



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