

Contra Costa County Agriculture and Weights & Measures Newsletter



Summer 2010

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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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European Grapevine Moth

California is under threat from yet another new exotic moth pest. The European Grapevine Moth (EGVM), *Lobesia botrana*, was first reported in North America in Napa County vineyards in September 2009. It is in the same family as the Light Brown Apple Moth, an exotic moth pest that has recently caused infestations and quarantines affecting Contra Costa County growers. As of June 15, EGVM had been reported in Napa, Sonoma, Solano, Medocino, Fresno, Monterey, and Merced counties. At this time, it has not been detected in Contra Costa County.

EGVM feeds primarily on the flowers and berries of grapes and the flowers of olives and rosemary. It may also occasionally feed on other crops such as nectarine, plum, blackberry, cherry, persimmon, and apricot. EGVM is native to

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The European Grapevine Moth is a serious exotic pest recently found in California.

Italy and has spread to Europe, north and west Africa, the Middle East, eastern Russia, Japan, and Chile. In Italy, which has a similar climate to California, EGVM has three generations a year. Crop losses due to EGVM have been reported as high as 80% in some parts of Europe.

The damage to grapevines caused by the pest begins when first-generation larvae feed and spin webbing on the flower clusters. Later larval stages penetrate the berries and hollow them out, leaving only the skin and seeds. Third-generation larvae cause the greatest damage by webbing and feeding inside the berries and bunches, contaminating them with frass (insect excrement). Feeding damage caused by the larvae exposes the berries to infection by fungi and may attract other pests such as ants, fruit flies, and raisin moths to the damaged fruit.

Adult moths are small, about 1/4 to 1/3 inch long, with a wingspan of about 1/2 inch. The females are slightly larger than the males. Both male and female adults have mosaic-patterned forewings made up of tan, gray, brown, and black blotches. The second pair of wings is gray with a fringed border. When at rest, the wings are held in a bell shape over the abdomen.

EGVM eggs are tiny and laid singly instead of in overlapping clusters, as is common for other types of vineyard moths in this family. When they first emerge from the egg, the larvae are white with a black head. Older larvae are tan to



Early larval stages are tan to yellow-brown and then become dark colored as they grow.



Larvae cause damage to grapevines by feeding on the flowers, hollowing out the berries and contaminating the bunches with frass.

yellow-brown, turning dark green, brown, or maroon as they mature. The larvae pupate in light gray cocoons which may be found on the flower clusters, under the bark, or in cracks in the soil. EGVM overwinters in the pupal stage.

Pheromone lure traps are used for the detection and monitoring of EGVM. Contra Costa has traps in both commercial and homeowner vineyards larger than two acres since March 2010 with no detections as of June 15. The trapping survey is a part of a statewide effort to determine how widespread the EGVM population is in California. The results of the survey will determine what types of control measures will be used.

Parts of Napa, Solano, Sonoma, Mendocino, and Fresno counties are currently under quarantine for EGVM. Since the moth is small and probably can't fly very far, EGVM will most likely spread by larvae and pupae in infested plants, fruit, green waste, and equipment. In the quarantine areas, there are restrictions on the movement of these items to help prevent existing infestations from moving into new areas. Other states and countries concerned about receiving EGVM infested commodities from California may eventually impose import requirements. So far, there is little information about what these restrictions may turn out to be.

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Mating disruption using a pheromone dispenser in caneberries.

The University of California Cooperative Extension, the County Agriculture Departments, and industry have been working to help grape growers in infested areas find control methods for EGVM. Pacific Biocontrol Corporation has recently received registration for their product Isomate-EGVM, which is a pheromone dispenser that causes mating disruption. For more information, go to the Pacific Biocontrol website at www.pacificbiocontrol.com or call Pat Weddle (916 425-7986) or Tom Burlando (916 607-9354). Isomate-EGVM has been approved for use in organic vineyards by the National Organic Program.

The University of California Cooperative Extension has created a list of recommended pesticides to help control EGVM on grapes. These include several low risk chemicals such as insect growth regulators, *Bacillus thuringiensis*, and spinosyns. To get a copy of the list, go to <http://cenapa.ucdavis.edu/files/77066.pdf> or call Janet Caprile, Contra Costa County's Farm Advisor at 925 646-6540. For control of EGVM in olives, the manufacturer of Dipel DF has requested a special registration from the Department of Pesticide Regulation.

If any EGVM detections in Contra Costa County result in quarantines, we will contact affected growers as soon as possible regarding restrictions and also post the information on our website.

Pesticide Emergency Medical Care

California's worker safety regulations specify safe work practices for employees who handle pesticides or work in treated fields. Handling pesticides includes applying, mixing, loading, flagging, and working with contaminated equipment and containers. A treated field is an area that has been treated with a pesticide or had a restricted entry interval within the last 30 days.

The employer is responsible to arrange in advance to provide emergency medical care for employees who handle pesticides or work in treated fields. Employers must: locate a facility where emergency medical care is available for employees; inform employees and their supervisors of the name and location of the doctor or medical care facility where emergency medical care is available; post in a prominent place at the work site (or in the work vehicle if there is no designated work site) the name, address, and telephone number of a medical care facility in the area that is able to provide emergency medical care; and inform employees of the procedures to be followed to get emergency medical care if the medical care facility is not reasonable accessible from the work location.

Employers must also make sure that employees are taken to the doctor or medical care facility when: there are reasonable grounds to suspect that an employee has a pesticide illness; or an exposure to a pesticide has occurred that might reasonably be expected to lead to an employee's illness. Employees must be taken to the doctor by another person and not go by themselves.



Employee pesticide emergency medical care must be planned for in advance.

Are You A Savvy Consumer?

Going to the supermarket often feels like a battle of wits between the consumer and the product manufacturers. Although there are laws that require all products to be clearly labeled, this doesn't protect consumers who ignore quantity statements and buy products based only on the size or shape of the package. The only way to be sure of how much product you are getting is to read the label quantity statement. The weight, volume, count, length, square footage, time, etc. listed there is required by law to be accurate.

Manufacturers want their own products to look bigger and better than their competitor's. However, packages that look the same on the shelf may actually contain very different quantities.

Companies use label descriptions and pictures to persuade consumers to buy their products. Pictures can show the product as being much bigger than it really is. Descriptions such as "family size", "jumbo", "value pack", etc. may be used to convince consumers they are getting a good deal. However, these pictures and descriptions have no legal meaning.



NET WT 13.25 OZ (375g)
NET WEIGHT 16 oz (1 lb) 453 g

The box of pasta at left looks slightly larger than the one on the right but it actually contains much less.



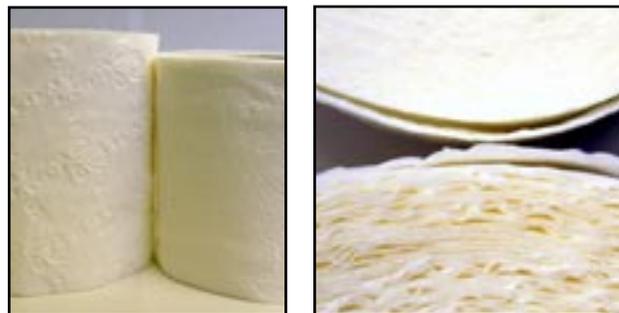
Package pictures and label descriptions may try to persuade consumers that the contents are much bigger than they really are.

A container's shape and color can be used to convince consumers that there is more product inside it. A triangular box looks big when seen from the front on the grocer's shelf. An oddly shaped bottle makes it hard to figure out just how much it holds. A product's cap or dispenser that is the same color as its bottle makes the bottle look larger. Even products such as toilet paper can vary not only in the width of the roll, but also in how tightly they are wound.

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Above: container shapes and colors may convince consumers they are getting more than is really there. Below: toilet paper rolls can vary in size and density.





Putting less product in the same-sized container is like a hidden price increase.

Products used to come in standard sizes, such as a pound, 12 ounces, or 8 ounces. Now, consumers often find manufacturers putting less product in the same-sized box, resulting in a strange quantity fraction and a hidden price increase.

“Slack fill” is the term for when only a portion of the container is filled with product. Some types of slack fill are permitted by law if they are unavoidable or serve a purpose.

A common type of slack fill is often seen in containers of cereal and chips. It is caused when the product settles during shipping and handling. Another type of slack fill allowed by law is the use of standard-sized containers. Certain box sizes and shapes are standard in industry and the machines used to pack them are also standardized. This standardization allows many



Left: slack fill due to the settling of contents after packing. Right: slack fill caused when a smaller sized product is packed into a standard sized box.



Slack fill due to product spacers that help prevent product damage.



different products to be packed, transported, and displayed more easily. Spacers and padding used to protect the contents of a package are a kind of slack fill that serves a purpose.

Tips For Consumers

Read the quantity statement on the label.

Try to compare products by looking at the price per quantity. Many stores make comparison shopping easier by having shelf tags that show the price per ounce, count, square foot, etc.

Don't be fooled by package shapes, sizes, or designs.

Remember that the picture of the product on the label may be larger than the actual product.

Ignore label descriptions like “family size”, “jumbo”, and “giant”.

Don't assume that larger packages will always be a better deal than smaller ones.

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An example of a typical shelf tag.

Be sure to check serving sizes. Some products claim more servings by reducing the serving size.

Watch out for claims like “33% more”. The comparison might be to a totally unrelated product.

Check your receipts for price accuracy, especially for sale items.

If you feel you have been overcharged, tell the clerk or the store manager about it. You can also report overcharge problems to your County Weights & Measures Department.

The Contra Costa County Division of Weights and Measures’ goal is to help to ensure the honesty and integrity of everyday business transactions for the people of Contra Costa County. The Division is a part of the Contra Costa County Department of Agriculture and works under the direction of the Contra Costa County Board of Supervisors and the California Division of Measurement Standards.

Weights and Measures Inspectors check that packaged commercial products actually contain the quantity stated on the label. While at a store, they also check store scanners for accuracy and to make sure the price charged at the register is the same as the posted or advertised price.

Report suspected inaccuracies or violations of the weights and measures laws and regulations to the Division of Weights and Measures. All consumer complaints will be investigated.

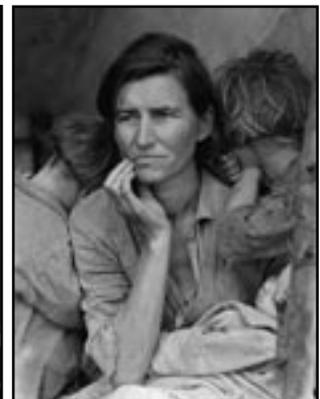
Contra Costa County Yesterdays

When Contra Costa County’s first crop report was published in 1939, the world was a very different place. World War II had just begun as Nazi Germany invaded Poland and Japan invaded China. In the United States, the Depression was ending and the New York World’s Fair exhibited the very first color photography and fluorescent lights. In California, the Golden Gate International Exposition was in full swing to celebrate San Francisco’s newly built Golden Gate Bridge and Bay Bridge.

By 1939, California was filled with refugees from the Dust Bowl. Severe cycles of drought, erosion, and dust storms during the mid 1930’s had wiped out much of the agriculture in the Midwest. Known as “Okies”, many of the displaced farmers and their families headed west, desperately hoping to find work and start their own farms. California’s relief agencies were overwhelmed by the hundreds of thousands of people who had fled to California by 1940.

California’s own agriculture was changing during the late 1930’s. Irrigation projects had begun to make more land available for farming which led to an increase in both the number of farms and the average acreage per farm. The gradual

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In 1939, San Francisco held the Golden Gate International Exposition and California was filled with refugees from the Dust Bowl.

recovery from the Great Depression, in part due to programs passed by Congress as a part of the New Deal, had improved and stabilized farm prices. Some of the programs that were established then are still in existence today.

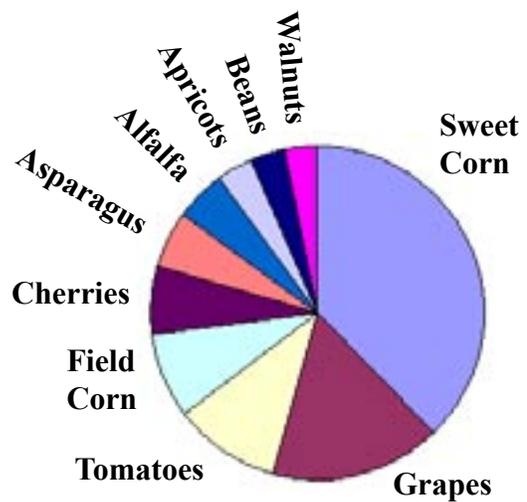
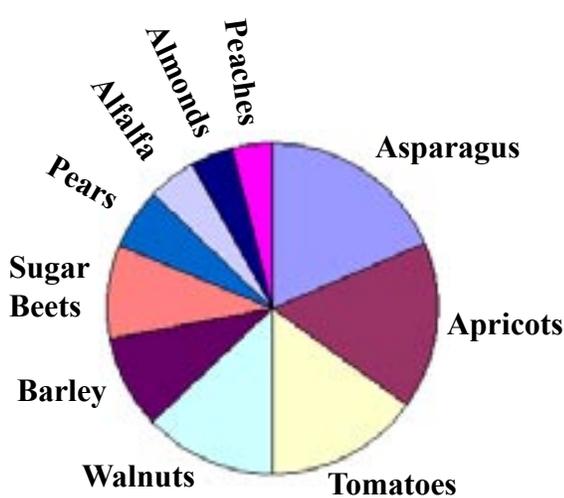
Contra Costa County agriculture in the late 19th century had been dominated by the production of hay, grain, and other field crops. By the 1930's, this had changed to favor fruit, nut, and vegetable crops. Advances in canning, packing, refrigeration, and transportation led California to become a world leader in the production of fruit. Contra Costa County's location only made this change easier. The county had good roads and railroad lines for overland freight shipping as well as having access to several large ports along San Francisco Bay. By 1939, only three field crops were left in the top ten Contra Costa County crops: barley, sugar beets, and alfalfa.

The biggest change in our agriculture over the last 70 years has been the loss of farmland. Cities have replaced farms until only about 20% of the land harvested for crops in 1939 remains in production today. Another major change since 1939 has been the much higher crop yields that growers can get today. Due to a combination of better varieties, new pest and disease control methods, modern equipment, etc., growers can

often get many times more tonnage per acre than was possible in 1939. As an example: 2009 fresh market apricots produced twice the 1939 yield per acre and 2009 processing tomatoes produce nine times more.

The type of crops in the top ten has also changed in some ways since 1939. Five of the 2009 top ten crops were also in the top ten in 1939: tomatoes, asparagus, alfalfa, apricots, and walnuts. However, sweet corn, the number one crop in 2009, was so minor a crop in 1939 that it was not even listed in the crop report. Grapes, which were only ranked fourteen in 1939, have become the 2009 number two crop due to the modern consumer's interest in fine wines.

Although the amount of Contra Costa County land harvested for crops has dropped by 80% in the last 70 years, the value of it (adjusted for 2009 dollars) has decreased by only about 57%. Today, Contra Costa County farmland can produce crops worth relatively more per acre than those grown in 1939. This is due to a combination of better farming methods and the demand for specialty products such as organic produce, heirloom varieties, locally grown cuisine, and Certified Farmers' Markets. As we head into the future, Contra Costa County growers will continue to adapt and prosper in the 21st century.



The top ten Contra Costa County crops in 1939 (left) and 2009 (right). Livestock and rangeland pasture were excluded from the 2009 list because they were not reported in the 1939 crop report.



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