



Issue #31

Amador/El Dorado County Master Gardener E-News

July 2012

Peace Valley Lavender Farm

Cathy Koos Breazeal, Amador County Master Gardener



Peace Valley Lavender Barn

Wondering where this place is? It's actually in Bucks County, Pennsylvania, where I am spending a few weeks visiting family. Always up for a garden tour, my mom suggested this spot and I jumped at the opportunity.

The couple that runs the farm, Patti and George Lyons, started out their agricultural career market gardening for 150 restaurants in the greater Philadelphia area. After many years of 24/7 labor

producing vegetables, they decided to scale back to a less labor-intensive but high value crop.

Patti said as they were driving through Bucks County looking at farms for sale, she suddenly had a vision of a hillside of lavender. Thus was born Peace Valley Lavender Farm on a bucolic hillside overlooking Lake Galena.

With about 3000 plants on the farm, they rely on a nearby grower for replacement plants as needed. Rather than starting the plants from seed, they prefer vegetative culture using softwood/greenwood cuttings from the best plants on the property. Flower stems are cut back to the main body of the plant this time of year, and pruning occurs in spring, with about 1/3 of the plant cut back.

Harvesting is done almost daily this time of year. Counter to harvesting market produce in the early morning hours, lavender is cut and bundled in early afternoon, but only on dry days after the morning dew is gone. Lavender is hardy in Bucks County's Zone 6 down to 20 degrees, but it really wants to be in a dry culture. Last autumn's extreme rainfalls of 30 inches in 30 days wreaked havoc on the farm and they lost a significant number of established plants.

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Once cut, the lavender is rubber-banded into bundles and then the bunches are hung to dry in the historic barn for about two weeks. Then the dried lavender is run through a contraption they imported from Australia. Wire brushes rub the buds off the stems and drop the buds into a cotton sack tied below the machine.

From there, the dried flower buds are placed in a steam distiller where the essential oils are collected. As we talked, George returned to the distiller every few minutes to collect the oils from the continuously-running still.

Patti said they mainly grow *Lavandula angustifolia* varieties such as Munstead and Grosso, and they create various culinary and aromatherapy products from essential oils distilled right in the old barn. Lavender, rose and tea tree oils are the only essential oils you can apply directly to your skin without causing a rash. Some varieties have more or less camphor than others, with camphor providing some of the medicinal qualities of the plant.



Patti shared historical anecdotes about the lavender field workers in the Middle Ages who survived the Black Death and other plagues. Later studies showed possible antiseptic qualities of the plant may have protected those workers.

We had a fun and fragrant morning learning about lavender and picked up some good tips on cultivation and plant use.

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Locust? Or Grasshopper?

Robin Ivanoff, Amador County Master Gardener



News media recently reported stories of locusts swarming in Northern California (I think it was near Willows), to which I said "No way! Those are grasshoppers they're showing." Well, turns out it's BOTH---when our regular ol' grasshoppers overpopulate rapidly, their usually solitary temperament changes to a more aggressive and social one, causing actual physical changes in color and pushing them to swarm to other food sources. That's when entomologists change their classification from plain old grasshoppers to locusts.

As far as control goes, grasshoppers and locusts are extremely mobile as flying adults, so it makes sense to attack them while they are still in the juvenile (nymph) stage. Insecticidal band spraying is highly effective---the nymphs walk across the ground-sprayed insecticide and later die. Alternatively, there is baited feed targeted specifically toward grasshoppers. But the most important consideration is the timing of the chosen application in relation to the insect's development.

For more information about grasshoppers and managing them in your garden, [visit the IPM website on grasshoppers](#).

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How Can I Garden Amongst The Deer?

Lucy Martin, Amador County Master Gardener



Q: I moved to this area two years ago. I am trying desperately to garden in the foothills. So far my biggest challenge has been the deer that freely roam our unfenced property. I live at 3000' elevation. I have faithfully followed the deer resistant plant guide in the Sunset Western Garden book, but very little of what I have planted remains. Is it hopeless?

A: Although the situation is challenging it is far from hopeless and can be an exciting adventure. Deer are a visual pleasure in our wooded surroundings. However, they are destructive in what they eat, trample and the male deer cause damage by rubbing their antlers against the trunks of large woody shrubs and small trees.

First of all you must accept that the only sure method of deer control is high, sturdy fencing. You need a fence that is at least 6' tall or higher, depending on the slope of your property. Also, you must accept the fact that your unfenced yard will not be filled with roses or many beautiful flowering ornamentals, and certainly not a vegetable garden. You can solve this by fencing off a small area to be used for vegetables and perhaps some of your favorite flowering plants. The deer resistant guides that are published are simply that; a guide. As you begin to slowly experiment you will find that there are many plants deer are not attracted to (most of the time). I can only share what has been my experience and perhaps my suggestions will help you.

In twenty-five years or so of experimenting I have learned that I must adapt to the deer. I have learned patience because it is a long-slow process, but you will save yourself a lot of frustration and money. I start by trying plants on the deer resistant list that are adaptable to my zone. I buy one plant of a kind only. I start the plant in a container and leave it on my deck through at least winter; this allows the plant to mature a bit. Then I place it where the deer are inclined to gather; in my yard it's near the bird bath where they come to drink. If they munch the plant, I plant it within my fenced area, use it as a deck plant, or give it away. If the deer munch on it there is no need to waste the time and effort to plant it in the open yard.

I have been fortunate that the deer, though sometimes numerous and with curious babies, have not come onto my deck. If the deer ignore that plant then I buy more and plant them according to plan. This can be a 2 - 3 year trial period for each plant I am experimenting with. There are failures in this, too, because there are plants the deer will leave alone for a long period of time and then one day they decide to sample it. But by this time the plant is usually established and will only be temporarily damaged and not succumb to death. It will recover and perhaps the following year the deer will leave it alone. I think of this as the deer doing my pruning!



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How Do I Garden Amongst The Deer?, *Continued from Page 3*

I do not use chemical deer repellents. They can provide some protection but they also must be reapplied regularly. especially after a rain or over-head watering. If you elect to try them, please follow label directions and remain consistent with your application.

Each yard (area) is different. What your neighbor grows that the deer leave alone or munch may be different from yours. It can differ from yard to yard.

You must make this a personal experiment.



General plants that have remained deer-resistant in my yard are: *illex* (holly), *juniperus* (juniper), *lavandula* (lavender), *mahonia aquifolium* (hollyleaved barberry), *nandina domestica* (sacred bamboo), *nerium oleander* (oleander), *rosmarinus officinalis* (rosemary), *teucrium fruticans* (shrubby germander), *ajuga reptans* (common bugle), euphorbia, *astilbe biternata* (Appalachian false goat's beard), *narcissus pseudonarcissus* (daffodil), *origanum vulgare* (oregano), *phlox stolonifera* (creeping phlox), *santolina chamaecyparissus* (lavender cotton), *stachys byzantine* (lamb's ears), and *thymus* (thyme).

Those I have tried that failed are too numerous to mention. But this success list may serve as a guide for you.



Phlox Stolonifera (Creeping Phlox)



Narcissus Pseudonarcissus (Daffodil)



Stachys Byzantine (Lamb's Ears)

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Enter The Amador County Fair!



The Amador County Fair is July 26-29. The deadline to turn in entry forms for most items, including ag-horticulture (veggies, herbs, fruits, etc.), floriculture, preserved and baked foods, and scarecrows (!!!) is Saturday, July 7 at 6 pm.

Look at your garden and pamper your finest plants and produce to get them ready for the fair. [Click here for exhibit rules and schedules.](#)

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Master Gardeners At The Farmers' Markets



Amador County Master Gardeners and Master Food Preservers will be at several of the Amador County Farmers' Markets this summer. Look for us when you attend these events:

- Sutter Creek Farmers' Market, Saturday mornings
- Jackson Farmers' Market, Sunday mornings
- Pine Grove Farmers' Market, Wednesday afternoons from 3-6pm

We have lots of information available at our booths: Quick Tip pest management cards, laminated Planting Guides (\$5), Star Thistle removal information, Master Gardener and Master Food Preservers Class Schedules, Fire Safe Council pamphlets on horse and livestock evacuation, 100 foot defensible space, and so much more. See you there!

El Dorado County Master Gardeners are also at Farmers' Markets this summer and fall.

- El Dorado Hills Farmers' Market, Sunday mornings
- South Lake Tahoe Farmers' Market, Tuesday mornings
- Cameron Park Farmers' Market, Wednesday mornings
- Placerville Farmers' Market, Saturday mornings

You can purchase a variety of UC Ag and Natural Resources gardening books at our booths.

And at all locations, you can talk with a Master Gardener to get free gardening advice for a planned project, existing project, or a pest that you don't want in your project!

For specific locations, go to <http://www.cafarmersmarkets.com>.

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Shade In The Summer Garden

Kathy Freeman, Amador County Master Gardener



During the blazing hot weekend in June, I noticed that my basil plants were just sitting there, not flourishing. I checked and they had plenty of water, the soil was good and they were getting plenty of sun. So why weren't they doing well? Basil really can't handle our full sun all day long. It was just too hot for the plants. Since my kitchen needed a break from the heat, I bought some shade cloth. I used a little of the material to shade my basil from the afternoon sun. The morning sun is plenty for them.

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UC Master Gardener Program to Begin in the Lake Tahoe Basin in September

The University of California (UC) Master Gardener Program extends to the public, UC research-based information about home horticulture and pest management. With the unique climate and elevation parameters of the Lake Tahoe Basin, specific, localized gardening training will be provided to a new cohort of UC Master Gardeners beginning in September 2012.

In exchange for the training and materials, Master Gardeners perform volunteer services through a variety of means, extending information to the communities within the Lake Tahoe Basin.

To find out more about what it takes to become a Master Gardener volunteer and if you would like to be part of this exciting Lake Tahoe training and program, please register your interest at [Master Gardener Program Lake Tahoe Basin](#).



Angora Demo Garden

Or call Wendy West, UCCE Program Coordinator for the Lake Tahoe Master Gardeners at 530-621-5533. *

Discovery May Lead To New Tomato Varieties With Vintage Flavor And Quality

UC Davis News and Information (<http://news.ucdavis.edu>)



A new discovery could make more tomatoes taste like heirlooms, reports an international research team headed by a University of California, Davis, plant scientist.

The finding, which was reported in the June 29 issue of the journal *Science*, has significant implications for the U.S. tomato industry, which annually harvests more than 15 million tons of the fruit for processing and fresh-market sales.

“This information about the gene responsible for the trait in wild and traditional varieties provides a strategy to recapture quality characteristics that had been unknowingly bred out of modern cultivated tomatoes,” said Ann Powell, a biochemist in UC Davis’ Department of Plant Sciences and one of the lead authors of the study.

“Now that we know that some of the qualities that people value in heirloom tomatoes can be made available in other types of tomatoes, farmers can have access to more varieties of tomatoes that produce well and also have desirable color and flavor traits,” she said.

For decades, plant breeders in the tomato industry have selected varieties that are uniformly light green before they ripen, in order to produce tomatoes that can be harvested at the same time. However, this characteristic is accompanied by an unintended reduction in sugars that compromises the flavor of the fresh fruit and its desirability for processing.

Powell’s UC Davis research team began studying the genes influencing tomato fruit development and ripening

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Discovery May Lead To New Tomato Varieties..., Continued from Page 6



Plant biochemist Ann Powell checks on green and ripe tomato fruit that naturally carry genes for more sugars, soluble solids and the health-promoting compound lycopene. (Barbara Blanco-Ulate/UC Davis photo)

after spending two summers screening tomato plants for transcription factors that might play a role in both fruit color and quality. Transcription factors are proteins that regulate genes, or turn them on and off. These factors themselves are manufactured or expressed by genes.

The UC Davis researchers were particularly interested in tomatoes they observed in the field that were unusually dark green before they ripened.

Partnering with researchers at Cornell University and in Spain, who were mapping regions of the tomato genome, the scientists discovered two transcription factors, called GLK1 and GLK2, that control the development of chloroplasts. Chloroplasts are the structures in the plant cells that enable plants to photosynthesize, converting the energy of sunlight into sugars and other compounds that influence flavor and color.

The researchers scoured a collection of mutant and wild species of tomatoes at UC Davis established at UC Davis by the late Professor Charles Rick beginning in the 1950s. They discovered that dark green tomatoes that naturally express GLK2 produced ripe fruit with increased levels of sugars or soluble solids, important for processing tomatoes, as well as higher levels of the health-promoting compound lycopene.

“Nature presents numerous important genes and their variants, like uniform ripening, that breeders employ to facilitate the needs of growers, processors and consumers,” said Jim Giovannoni, a USDA plant molecular biologist with the Boyce Thompson Institute at Cornell University. “Understanding the genes responsible for these characteristics facilitates the challenging process of breeding crops that meet the needs of all components of the food-supply chain.”

Cuong Nguyen, a Cornell graduate student in Giovannoni’s laboratory co-authored the paper with Powell. Other members of the research team included: Theresa Hill, KaLai Lam Cheng, Rosa Figueroa-Balderas, Hakan Aktas, Hamid Ashrafi, Ariel Vicente, Javier Lopez-Baltazar, Roger Chetelat, Allen Van Deynze and Alan Bennett, all of UC Davis; Yongsheng Liu and Cornelius Barry of Cornell University and the Boyce Thompson Institute of the USDA; Clara Pons and Antonio Granell, of the Universidad Politécnic de Valencia, Spain; Rafael Fernández-Muñoz of the Universidad de Málaga, Spain.

Funding for the study was provided by The University of California Discovery program, the U.S. Department of Agriculture-Agricultural Research Service, the National Science Foundation, the Viet Nam Education Foundation, the Fundación Genoma España, and the Ministerio de Ciencia y Tecnología and the Instituto Tecnológico de Costa Rica.

UC Davis is an international leader in agricultural research and is ranked as the most frequently cited university in the world in the area of plant and animal sciences, according to ISI Essential Science Indicators. The university’s Department of Plant Sciences is internationally known for its Plant Breeding Academy, which provides professional training for plant breeders around the world.

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Public Education Classes & Events for Amador and El Dorado Counties – Free!!



Most classes are from 9 a.m. – Noon. Please call ahead to confirm locations.

Amador County

Unless otherwise noted, location for all Amador classes: GSA Building, 12200-B Airport Road, Jackson.

July

14: Composting and Vermiculture

There is no better way to improve your soil and the health of your garden than to add compost to the soil. This class will teach you about the various methods of making compost from yard waste and clippings then how and when to apply it to your garden. If you start applying compost to your garden you will find you really have a green thumb after all.

The class will also teach you about using worms to compost household fruit and vegetable waste. The resulting worm compost is amazing material for your garden.

26-29: Amador County Fair

Stop by the Master Gardener booth outside of Pokerville Hall at the Amador County Fair. Check out our fun and educational displays, ask Master Gardeners questions about what's happening (or not happening!) in your garden, swap gardening stories with other visitors at the booth, or just get out of the sun for a while!

While you're at our booth, pick up a **free tree seedling** and grow your own shade, courtesy of Sierra Pacific Industries.



El Dorado County

Unless otherwise noted, location for all El Dorado classes: Veterans Memorial Building, 130 Placerville Drive, Placerville. Questions? Call 503-621-5528.

July

July class sites will be finalized in early July. Please check our website to confirm locations.

7: Water-Efficient Gardening

Summer is in full swing and most of us have started irrigating our gardens and landscape plantings. Attend this class lead by Master Gardener Steve Savage to learn when and how much water to give your plants. Learn which irrigation techniques are appropriate for each kind of plantings.

14: Salsa Gardening

Do you like hot peppers and south of the border flavors? Join Master Gardener Kristin Rankin as she teaches how to grow your own salsa ingredients.

21: Making Worms Work for You

Join Master Gardeners Merry Campbell, Gail Fulbeck, and Cindy Young for this presentation on how to use this hardworking friend of all gardeners, the worms. Learn how worms can rapidly break down kitchen waste to make worm compost, one of the best organic fertilizers possible. Covered also will be the types of worms needed and how to harvest the compost.

28: Bees and Butterflies

Come hear Master Gardeners Eve Keener and Kathy Pearson talk about attracting bees and local butterflies to your gardens.

[Check out the El Dorado Master Gardener Facebook page.](#)





“Of Course I Can!”

In the Master Gardeners’ dreams your home garden reflects what you learned during the year at our classes.

- ☑ You selected and planted fruit trees. You pruned berry bushes and have a huge number of blossoms.
- ☑ You amended your soil, maintained/added the irrigation system, and left bare dirt for native pollinators.
- ☑ You started your own plants from seeds or cuttings, and shopped at a Master Gardener plant sale.
- ☑ You planted a mix of vegetables and herbs in rows, raised beds, and containers.
- ☑ You grow plants to attract beneficial insect and pollinators and use UC IPM strategies to control pests.

The ideal result? An abundance of produce you can’t eat fast enough or give away! (Will your neighbors pretend to be napping every time you try to “share” your zucchini?) Preserve it and enjoy your garden’s bounty all year. Master Food Preservers start their summer classes on July 7 in San Andreas and Placerville.



The first class in each county demonstrates the basic principles of safe water bath canning while making various products. Master Food Preservers will explain why each step of the process is important to ensure that your home preserved foods are not only delicious, but safe.

Learn how to properly adjust recipes you may find on the Internet and in magazines. You’ll also get recipes that use home preserved foods. Find the home food preservation class nearest you at <http://ucanr.org/mfpcs>.

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Pest Notes



Free Pest Notes are available on a variety of topics. For more information, call or email your local Master Gardener office.

To explore the Pest Notes on the UC Integrated Pest Management (IPM) website, go to <http://www.ipm.ucdavis.edu>.

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