Master Gardener University of California

The Curious Gardener

A Quarterly Newsletter Published by
the University of California Cooperative Extension
and the UC Master Gardeners of Placer and Nevada Counties

Vol. 26, No. 3
Summer 2019

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UC CE

University of California
Agriculture and Natural Resources

Considering Drip Irrigation?

by Carol Feldman, Placer County Master Gardener

Drip irrigation, ho-hum, right? It's not fancy, or fun, but it's become a critical part of sustainable gardening, and really, it's an unsung hero. Water is a limited resource and homeowners and government agencies alike have joined in the conservation mantra. So how does drip irrigation fit in?

Drip irrigation is the most efficient way to water your garden beds and most of your landscape. Using plastic pipes, tubing and drip heads called emitters, a drip system delivers a measured amount of water to plants right where they need it. This results in reduced evaporation and runoff, but also healthy plants! It is so efficient, in fact, that drip systems are often exempt from local watering restrictions.

A collection of potted plants that have the same watering schedule could easily be watered by drip tubing and emitters attached to a timer that is attached to a hose bib. However, watering large areas with plants that have varying water needs is where drip irrigation really shines.

It's best to group plants in your landscape by water and sun needs, a method called hydrozoning. Hydrozones enable you to design an irrigation system with an independent schedule for each zone. For example, your zones might reflect the different watering needs of vegetables, perennials and trees.

Let's look at the components of a typical drip system. A plastic pipe attaches to your home's water main. The pipe carries water to a set of valves that direct the water to your pre-defined zones, via plastic tubing, and the valves are controlled by a timer that allows for multiple schedules. The process is not only water efficient, but saves you time and energy as well. That's not so ho-hum!

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The brown tubing has drip emitters built in. Photo by Elaine Applebaum

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Smaller tubing and emitters are then attached to the tubing coming out of the valves, to extend water to the plants. When designing with the smaller tubing, there is a choice between point source and line source water delivery. While point source has been the traditional approach, line source has become the preferred method in many cases.

Point source delivery uses plain tubing to run the water to the plant, and button emitters that you attach to one end of the plain tubing. You decide what size emitter, how many and their location, based on plant needs. It's a good approach if your plantings are sparse or placed unevenly, but you'll need to check them periodically for damage.

Line source uses tubing with built-in, or in-line emitters. This tubing is laid out in a grid pattern to cover 100% of an area. This approach provides water more uniformly, like rain in nature. It's best used for dense plantings, and the emitters aren't exposed to the damaging environment.

Many local retailers have expertise with drip system components and suppliers, and can guide you in selecting the best options for your situation. They can explain all the latest technology in timers and controllers, like automatic adjustments for rain or ground moisture. Also, be sure to find your home's water pressure and ask about the need for pressure reducing equipment.

To schedule the timer for your zones, consider the plant's water needs, time of year and your soil texture. If you have sandy soil, water more frequently, but for less time. If you have clay soil, water less frequently but for longer.

Once installed, check the equipment a few times each year to find damaged or disconnected parts and judge if your garden's water needs have changed.

So let's show some enthusiasm for the unsung hero; bring drip irrigation into your yard and your life. Your community and the planet will appreciate it too!

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Hotline FAQs

What is making holes in my young vegetable starts? How can I identify the cause and prevent it?

Western spotted cucumber beetle (inset) and example of the crop damage it can cause. Photos by Jack Kelly Clark.

by Pauline Kuklis, Placer County Master Gardener

Based on your description of the damage, it is likely caused by cucumber beetles. They are attracted to tender new growth, eating the stems of new seedlings and chewing holes in young leaves. There are both striped and spotted varieties. The western twelve spotted cucumber beetle, *Diabrotica undecimpunctata*, is quite common throughout California. The striped variety seems to favor cucurbits (e.g. cucumbers, squash), but the spotted ones like just about all tender new plants. Typically, the adults will overwinter in the weedy areas and come out in spring—just in time to devour your new seedlings. They lay their eggs in the soil, and the larvae quickly hatch and begin to munch away on the roots. When they mature (by late summer to early fall), they will start in again on leaves, fruit and flowers. These pests can also be a vector for bacterial diseases and viral infections. Once your plants have a disease such as bacterial wilt, your plant will die fairly quickly.

Ideally you should take steps to prevent having a large infestation of this pests, such as:

- Clean out debris in the fall and eliminate grasses and other growth where they like to over winter.
- Grow your new starts in small pots until they are quite mature before planting in the ground.
- Use row covers to protect your young plants.

Check out the following references for more detailed information about the life cycle and control of cucumber beetles:

https://vric.ucdavis.edu/pdf/pests_WesternCucumberBeetle.pdf

http://ipm.ucanr.edu/PMG/r116300511.html

Managing Deer in the Foothill Garden Landscape

by Bonnie Bradt, Nevada County Master Gardener

We all know that part of the appeal of living in our beautiful county is the proximity to the natural world. The trees, meadows and wildlife, all surround us and enrich our lives just by being there. But whenever people move into a wild area, we want to make changes. We want to build houses, design landscape and plant gardens. All of these activities bring us into direct conflict with that natural world we admire and which brought us here.

Most Nevada County residents know the main signs that deer have been visiting. These signs can be summed up in four words - tracks, trails, droppings and damage. Deer tracks are easy to identify if they are left in soft ground. They are hooved animals with two "toes" or halves, of each hoof. Each half is pointed in the front.

Deer are animals that tend toward habitual behavior. Therefore, they generally walk the same trails day after day. These trails can be seen through the grass or snow. They are often worn down so thoroughly that they are often completely bare of vegetation so they're easily visible.

Droppings are another easily detected sign that deer have been visiting. Their droppings are usually piles of small dark round or oblong pellets which are left where the deer have been browsing.

The last sign, and the worst for us, is the damage that deer do to our veggies, shrubs and trees. Damage is often noticed with many stems, branches or flowers nipped off in one area. But deer can also completely denude a vegetable garden if they are hungry or if there are many of them. They can strip the bark from trees. Their appetites depend upon the time of year and the presence of alternative food sources in the area. If winter is long and there isn't much natural browse, deer will eat almost anything. If there is any doubt about what animal is visiting, a game camera, set up on one of their easily visible trails or in the garden, will catch stunning portraits of your visitors.

Photo by Dee Whitehill

Deer have a set group of behavior patterns that bring us into constant conflict. They like to eat a wide variety of vegetation - almost anything we like to plant. They become habituated to almost anything we use to try to scare or repel them. Deer can trample young plants and damage young trees or shrubs by rubbing their antlers to remove the coating of "velvet". Deer will usually feed in the late evening or the early morning, when we are not out there to chase them away. And deer will assuredly NOT change these patterns of behavior. So we must adapt ours.

Management Possibilities

There are three general methods of dealing with unwanted incursions of deer into your yard. The three most practical management methods are deterrents, fencing or the use of deer resistant plants. Each of them will work, to a certain extent. But keep in mind the behavior pattern of deer that is the hardest to deal with. Deer can become "HABITUATED" (accustomed to) just about anything! Once they have learned that something won't harm them, they generally ignore it.

The first method involves use of deterrents/repellants. This category includes scare tactics, frightening devices and chemical repellants. Interestingly, dogs are the most effective scare tactic. They are unpredictable and usually effective at keeping the deer at a distance. Of course, use of this technique to its best effect means leaving the dog out at night to protect the yard. This is often not desirable.

There are many commercially available devices that are meant to scare deer away from the vicinity. The best are motion activated and triggered by the appearance of the deer. These include water sprays, lights or sound emitting devices. If used correctly, according to instructions, each will work for at least awhile. But deer learn quickly, and if a device does not harm them, they will soon ignore it. Deer in urban areas have learned the humans are a noisy lot, and can generally be ignored. Even simply tying some stray CD's or strips of mylar tape to a fence or branch to blow in the wind can be an effective deterrent for a short while. The effective life of some of these devices will be lengthened if they are moved around the garden, thereby increasing the time before the deer become habituated to their presence. More elaborate devices are constantly being invented and offered to the commercial market. One recent introduction is a device which, upon detecting the approach of a deer, emits an authentic alarm call of a doe, or the hostile, territorial call of a buck. The calls are alternating and not in a predictable pattern. This device, powered by a solar panel, is quite expensive but has given very positive results in University studies.

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Chemical repellants are a popular method for driving deer away from landscape plantings. The biological basis for their effectiveness is the fact that deer will avoid something that has an intense smell, as that input may interfere with their ability to sense the approach of a predator. Various repellants are sold and some are commonly homemade. There are pros and cons to these materials. Most chemical repellants are not allowed on food crops. Some will damage plants. Some smell terrible to humans. And many wash off in the rain and should be reapplied often. On the positive side, homemade repellants are inexpensive. And commercial ones are also within a reasonable price point. Most chemical repellants work well, for a while. They work better if they have both a repellant smell and taste. Repellants should be applied before deer damage occurs so deer will learn that this plant tastes bad. Some commercial repellants are combined with sticking agents to prevent removal by the rain. Some repellants are derived from predator urine and drive the deer away, due to fear conditioning. These products are often water soluble and easily washed away by rain or irrigation.

Often the method of providing alternate food choices for the deer, in order to discourage them from eating your plants, has been suggested. Feeding the deer encourages them to see your yard as a food resource and won't endear you to your neighbors. It just doesn't work and it's illegal in California.

Physical exclusion by fences or barriers, is by far the most reliable way to protect your plantings (especially your vegetables) but it must be properly built and maintained. Deer can jump quite high, so the fence should be at least 8 ft tall. Deer will normally not jump even a 6-foot fence but if chased or frightened, can clear an 8-foot fence from level ground. On sloping ground, a 10 to 11-foot fence may be required if they are jumping downhill. For economy, 4 to 5-foot commercial mesh fencing can be stretched between posts from the ground up, and can then be topped by 9 or 10 ga. smooth wire (barbed wire is not necessary) strung at 6-8 intervals above the mesh fence, to add height (see illustration). Posts should be 6-8 feet apart to keep the fencing tight. Deer can also crawl under a fence so that area should be reinforced to prevent this mode of entry. Electrified fencing can be used

Photo by Elaine Applebaum

(even a single electrified strand) but they can be expensive and potentially dangerous to local children or other "non-target" species. Also, individual plants can be protected by a small fence or cage. This technique is often used when a shrub or tree is first planted, as deer are often curious about anything new, even if the plant is considered deer resistant.

The landscape use of deer resistant plantings is often the best method of dealing with the presence of deer in the area. Deer, like most animals, have certain food aversions, so planting things they don't like is a practical way to keep your landscape relatively intact. This technique does not apply to the planting of vegetables as deer generally like the same things that we do. Many plants resist deer because they are toxic (oleander, foxglove, milkweed, poppies, false indigo). Deer generally dislike plants with a strong smell for the same reasons noted above for chemical repellants (rosemary, lavender, some sages, anise, peonies). Deer also tend to avoid plants with sharp or textured leaves (holly, Osmanthus, juniper, lamb's ears). Deer will, however, often nibble new growth even on a resistant plant. Especially if the plant is new or the deer is hungry. Fawns will try ANYTHING.

When choosing deer resistant plants, don't forget grasses. Deer usually leave the ornamental grasses and sedges alone. Also remember that although tulips are devoured by the deer, they will avoid daffodils, leucojum and iris. Common foothill deer resistant plants also include the early blooming Lenten Roses, Spirea, ferns, Red Hot Poker plants, Hyssop (or Agastache; many colors), and ground covers like creeping Phlox and ornamental oregano. Also California natives like Bleeding Heart, the gorgeous Matilija poppy and the many manzanitas are unappetizing to deer. Please consult the lists available for our area, Sunset Climate Zone 7.

The takeaway message is this – don't think you can't landscape just because you live in "deer country". Just choose your plants wisely, and use protection if you need to. Fence in your vegetable garden and your rose bushes. Check out neighborhood plantings and note which are thriving even without fences. The Master Gardeners are here to advise you in creating a pretty, healthy, deer resistant landscape.

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Water-Saving Idea

Take Control of Your Controller

by Julie Saare-Edmonds, Placer County Master Gardener

One of the smartest things a gardener can do is regularly adjust the settings on their irrigation controller—you may know it as the sprinkler timer or clock.

Most houses have a controller installed to water the yard on a set schedule. That schedule should change with the weather—at least quarterly or better yet, monthly. But how do you figure out how long to run the irrigation system? The good news is there is free online watering scheduling calculator available here. All you need is access to a computer, your zip code, and to answer a few questions about your landscape. You can then print out a schedule to set your irrigation controller. If you don't know how your controller works, read the manual—lost ones can be replaced by printing one from the manufacturer's website.

There are a few points to remember to make the most of your irrigation water: adjust and tune up the system before you start using it in spring, break up the run times if water runs off the lawn, turn off the system when it's raining—even if the schedule says to water, and check your soil's moisture level with a shovel. If you need more help than this article provides, contact your local water provider—many provide assistance to their customers, including how-to videos, waterwise house calls and rebates.

Sizzling Summer in the Garden

by Ann Wright, Nevada County Master Gardener

It's summer, and it's hot! The unrelenting heat of summer adds another dimension to gardening activities. Tending the garden in the hot weather warrants some precautions—working in the garden or yard in the cooler hours is a good choice. Wear a hat, and drink plenty of water before, during and after working outside. Drinking smaller amounts (6 to 8 ounces) of water every 15 minutes is more effective than consuming larger amounts less often. Wear light-colored clothing and sunscreen. Consider nighttime gardening—it's cooler and many creatures may be more obvious at night with a flashlight.

When possible to help nurture and protect plants during high summer heat, reduce the temperatures in the garden—add shade by shade cloth or other temporary shade structure. Containers or pots can be shrouded with shade cloth to decrease surface temperatures of the container. Some signs of heat stress in plants include wilting, dead or dying foliage and brown leaves. Dull or gray-green foliage or new leaves smaller than normal are also signs of heat stress in plants. Wilting is also a normal plant response to heat extremes and is one way the plant minimizes water loss. Wait until evening when temperatures cool to see if the plant recovers before adding extra water.

How much water a plant needs is dependent on the type of plant, where it is growing and the type of soil where it is planted. For example, clay soil generally absorbs water more slowly but water is retained longer than sandy soil which drains more rapidly and thus dries out more quickly. A simple way to determine moisture in the soil is to feel the soil with fingers, or insert a long screwdriver or piece of rebar 12 to 18 inches into the soil and see if there is moist soil adhered to the tool. A more quantitative way to check soil moisture is to use a soil water meter probe. Inserted at root level, moisture probes are helpful for smaller plants and containers. The soil may feel dry on the top, but the meter will detect deeper soil moisture. This will help alleviate containers from sitting too long in water which floods the roots, leading to the potential demise of the plant. Some other tips for managing gardens during the hot, sizzling months of summer into fall include:

• Water deeply and regularly in the morning or at night. Drip systems help deliver water specifically to the root zones of the plants. Trees and plants with deep roots may be watered less frequently, but slowly and longer. The roots will seek a water supply and tend to grow deeper and stronger when watered deeply and less frequently.

• Hold off adding new plants to the garden or landscape until fall. The onset of early winter rain and cooler temperatures better supports new root growth. Now is the time to nurture existing plants, and check plants for heat stress.

• Avoid fertilizing plants and trees during hot summer months. Adding nutrients (nitrogen) to stimulate new growth during hot months is counter intuitive—new growth increases the need for more water.

• Mulch! A covering of mulch helps insulate soil and helps decrease evaporation at the soil level. A good 4 to 6 inch layer of shredded bark, straw or other mulch helps protect the small surface roots, and as mulch decomposes, the health of the soil is enhanced.

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You Stink!

by Yvonne and Doug Fee, Placer County Master Gardeners

Well… maybe you don't stink personally. But now that the warm weather has arrived, you probably do have some stink bugs in your garden. Nevada and Placer Counties are home to a variety of both native and non-native stink bugs (sometimes also called shield bugs). Stink bugs are members of the *Pentatomidae* family, and are "true bugs". They are characterized by having needle-like sucking mouth parts and shield-shaped bodies. The bad guys among them can damage crops directly by feeding on fruit or nuts. But not all of them are bad guys. So how do we tell which is which? Well, it's confusing because many of them look very similar to each other. And then, the immature specimens often look entirely different than their mature elders. So, to help you with backyard identification, here are some of our common Bad Guys:

Green stink bug: These guys suck the sugars out of our peaches and pretty much destroy the fruit. They also like seeds, grains, nuts and other fruits.

Green stink bug nymphs. Photo by Herb Pilcher, USDA-ARS, Bugwood.org

Green stink bug adults. Photo by Russell F. Mizell, III, University of Florida.

Consperse stink bug: Another bad sucker, who especially likes tomatoes and berries.

Consperse stink bug nymphs and eggs, above, and adult, below. Photos by Jack Kelly Clark

Conchuela stink bug: Loves legumes and blackberries.

Conchuela stink bug nymphs, photo by Whitney Cranshaw, Colorado State University, Bugwood.org

Adult conchuela stink bug. Photo credit: Apurba Barman, Texas A & M Agrilife Extension

Find more stink bugs on the next page

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Brown marmorated stink bug: Originally from Asia, they eat it all... fruit, vegetables and nuts. According to UC, they can cause "severe crop and garden losses". They are spreading and, yes, they have been found here in Placer and Nevada Counties.

Brown mamorated stink bug, 4th instar nymph, above and female adult, below. Photos from Rutgers New Jersey Agricultural Experiment Station.

Those are some of our common local stink bug "bad guys". But just because they suck doesn't mean they're bad. We have some good guy stink bugs too. But they look a lot like the bad guys. So, how do you tell the difference? Well, one time-honored technique is to put on your glasses, grab your magnifying glass and study them very carefully. Just like in the B Grade western movies, the good guys are the ones wearing the little white hats. However, if that method fails you, you might want to be aware that beneficial species of stink bugs generally look slightly different from the bad plant-sucking guys in that **the good guys tend to have pointy shoulders as opposed to more rounded shoulders on the bad guys**. Check out www.stopbmsb.org/stink-bug-basics/look-alike-insects/ for some side-by-side comparison photos.

Here are Some of Our Local Good Guy Stink Bugs:

Rough stink bug: Like their stinky cousins, they emit a foul-smelling fluid when disturbed. But they are beneficial predators who attack and suck the juices out of caterpillars, beetle larvae, aphids and whiteflies.

Rough stink bug adult. Photo by Mike Quinn, TexasEnto.net.

Perhaps the moral of the story is that you probably want to figure out just exactly which bug it is that you're finding in your garden. After all, you wouldn't want to stomp a good guy, would you? Among other reasons, you'd smash his little white cowboy hat.

Spined soldier bug: Another very common beneficial predator, this guy attacks a wide variety of garden pests, including oakworms, squash bug nymphs, and some other major economic pests. They are valued enough that their eggs are collected and sold to gardeners.

Spined soldier bug nymph. Photo by Phil Sloderbeck, Kansas State University, Bugwood.org

Spined soldier bug adult, Photo by Marlin E. Rice, Iowa State University

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BotLat Corner

Find Out What Those Weird Plant Names Mean

by Peggy Beltramo,
Placer County Master Gardener

Summertime means vacations. How about some BotLat interest while you are traveling? Oldest, largest, longest, tallest; are any of those on your bucket list? Let's look at some amazing plants and where they can be found.

A bristlecone pine tree, *Pinus longaeva*, is the oldest known single living tree at 5,068 years old. As yet unnamed, this tree proved to be 18 years older than 'Methuselah,' once thought to be the oldest bristlecone pine. The genus, *Pinus,* derives from the Latin for 'resin', while *longaeva* designates 'ancient'. A fitting description for a pitchy oldster. These trees live at 9,000 to 11,000 feet elevation in the White Mountains of eastern California. Find out about visiting them here.

The largest living organism (in U.S. Forest Service photo above) is a clonal aspen colony from a single tree in Utah. Nicknamed Pando, meaning 'I spread' in Latin, this is a 106 acre grove of 47,000 aspens, all genetically identical and sharing a single root system. At over 80,000 years in existence and weighing 13 million pounds, this *Populus tremuloides* is the heaviest living organism and is among the most massive.

Populus, the aspen's genus, is from the Latin for people (think popular and population.) It is believed that trees in this genus were planted around public meeting places in ancient times.

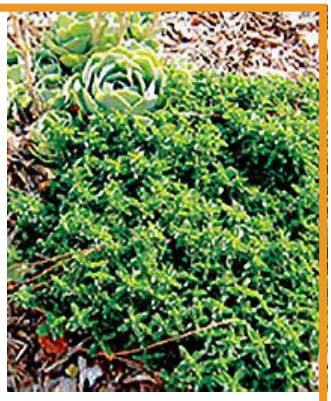
If you have seen aspen forests, you will probably recognize the meaning of this tree's specific epithet, *tremuloides* (think 'trembling'). Yes, it symbolizes the quaking aspen leaves' ability to move with the slightest breath of air, due to their flat petioles (leaf stems.)

Fishlake National Forest in Utah is home to Pando. Learn more about him and how to visit here.

There are two excursions for you, now you find the next adventure.

UC DAVIS ARBORETUM All-Stars

Dwarf Oregano, *Origanum vulgare* 'Betty Rollins'



by Jan Birdsall, Placer County Master Gardener

Put a little spice in your garden and attract native bees and butterflies at the same time. *Origanum vulgare*, commonly known as oregano, is not particular about soil type but needs good drainage. In addition, it thrives on full sun and light afternoon shade. It is heat and drought tolerant.

The Arboretum All-Star *Origanum vulgare* 'Betty Rollins', commonly known as dwarf oregano, is a perennial that requires low to moderate water in a western or southern exposure. Initially, it is slow to grow the first year, then moderate growth in the years afterwards. Its growth habit is slightly mounding or prostrate, dense with a neat mat that helps suppress weeds. Dwarf oregano matures at three to six inches in height and one to two feet in width so it is a good ground cover. In addition, it can be used in perennial borders, containers, rock gardens, small spaces or on slopes. This plant flowers from spring to fall with clusters of pink tubular flowers. It will bloom in the heat of summer when many flowering plants rest. The foliage consists of small, oval, grass-green edible leaves along curving stems. If using the leaves for culinary purposes, make sure to pick them before the plant blooms for maximum flavor.

To ensure reblooming, remove old foliage along main stems or tip-trim after a flush of bloom. In winter, prune again to remove old flower stalks by tip trimming. When planting, make sure to spread compost around roots and then water. Like other oreganos, there are no serious insect or disease problems. Watch for fungal diseases, aphids, leaf miners and spider mites that may appear.

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- Wrightson, Stephanie. *Oregano and Marjoram*. University of California UC Master Gardener Program of Sonoma County. n.d. http://sonomamg.ucanr.edu/Food_Gardening/Feature_Vegetables/Oregano_-_Marjoram/#

Events Calendar

Nevada County Demo Garden
1036 W. Main St., Grass Valley (on NID Grounds)

Placer County Test Garden
11477 E. Ave., Auburn (Senior Garden, DeWitt Center)

Nevada County events in green; Placer County events in yellow
All events are free unless noted otherwise

June

June 22
10:00 am - noon
Garden Makeover: Lawn to Landscape workshop
Demo Garden, NID Grounds
1036 W. Main St., Grass Valley

August

August 3
10:30 - 11:30 am
Planting a Winter Garden workshop
Loomis Library, 6050 Library Dr. Loomis

August 7 to 11
10:00 am - 7:00 pm each day
Visit our booth and attend daily workshops and composting demos at the Nevada County Fair
Ag-Sperience area, Nevada Co. Fairgrounds, 11228 McCourtney Rd, Grass Valley

August 17
10:00 am - noon
Compost is the Gardener's Best Friend workshop
Demo Garden, NID Grounds
1036 W. Main St., Grass Valley

August 24
10:00 am - noon
Growing Cool Season Vegetables in the Foothills workshop
Demo Garden, NID Grounds
1036 W. Main St., Grass Valley

September

September 7
9:30 am - 1:00 pm
"Bite Me" Tomato Tasting and Open House
10:30 - 11:30 am
Edible Gardening workshop
11:30 - 12:30 pm
Garden Tool Maintenance workshop
Demo Garden, NID Grounds
1036 W. Main St., Grass Valley

September 21
9:00 am - noon
Master Gardeners Fall Plant Sale
Demo Garden, NID Grounds
1036 W. Main St., Grass Valley

September 27, 28, 29
Fri. 11:00 am - 6:00 pm, Sat. 10:00 am - 6:00 pm, Sun. 10:00 am - 5:00 pm
Visit Placer Co. Master Gardeners at the Auburn Home Show
Gold Country Fairgrounds, Auburn

October

October 5
10:30 - 11:30 am
Gardening Hit or Myth workshop
Loomis Library, 6050 Library Dr. Loomis

October 5
10:00 am - noon
Deer, Oh Dear! workshop
Demo Garden, NID Grounds
1036 W. Main St., Grass Valley

October 12
10:00 am - noon
No Sun, No Problem: Planting in the Shade workshop
Demo Garden, NID Grounds
1036 W. Main St., Grass Valley

Visit Master Gardeners at Local Farmers' Markets

8:30 am to 1:00 pm
Every Tuesday, May–Oct.
Near Whole Foods at the Fountains, Roseville

8:00 am to noon
1st & 3rd Saturdays, May–Oct.
Old Town Courthouse parking lot in Auburn

8:00 am to noon
Saturdays, Mid May–Mid Sept.
Growers Market, North Star House, Grass Valley

About Master Gardeners

Our mission as University of California Master Gardener volunteers is to extend research-based gardening and composting information to the public through various educational outreach methods. We strive to present accurate, impartial information to local gardeners so they have the knowledge to make informed gardening decisions in regard to plant choices, soil fertility, pest management, irrigation practices, and more.

The Master Gardener volunteer program was started in the early 1970s at the Washington State University. Farm Advisors became overwhelmed by all the incoming calls from home gardeners and homesteaders so they trained volunteers to answer these questions and the "Master Gardener Program" was born. The first University of California Master Gardener programs began in 1980 in Sacramento and Riverside counties. The Nevada County and Placer County Master Gardener Associations began soon thereafter in 1983.

Over 35 Years of Serving Placer and Nevada Counties

Production Information

The Curious Gardener is published quarterly by the University of California Cooperative Extension Master Gardeners of Placer and Nevada Counties.

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Have a Gardening Question?

Call our Hotline

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