

The Curious Gardener

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University of California
Agriculture and Natural Resources

Successful Seed Starting

By Liz Rees, Master Gardener of Nevada County

Did you know that it is possible to plant a whole packet of seeds and not have one of them grow even a tiny bit? The reason I know this is that I have done it.

Seeds that don't germinate are a problem that many, if not all, gardeners have faced. So let's look at why this can happen and what can be done to have a more successful germination rate.

Seeds are special little things. Inside, that tiny dot is the embryo of the plant it wants to be and most of the food it needs to initially grow. What causes the embryo to "wake up" and start growing is the correct combination of soil type, soil moisture, temperature, and light. Each type of seed has its own specific requirements.

But it is also important to know that some seeds need more than just the basic germination conditions. Some seeds have special requirements to urge them out of dormancy. These requirements might be soaking, scratching, firing, cold storage, or other unique treatments. Making sure that you know if your seeds have any special treatments required will increase your success rate.

If you are not dealing with seeds that have special pre-planting treatment needed, here is a quick list of what may have gone wrong and how to avoid it next time.

Lighting: Most seeds require darkness during the germination stage, while others need light. Coleus and lettuce are both seeds that like light to start their germination. The amount of or lack of light is important. Know the light requirement for your particular seed.

Temperature: Each seed type has a preferred germination temperature - too hot they can cook and too cold they stay dormant. A heating mat used under



Mist seeds to keep them moist, but not too wet. Photo by Robyn Emme, Master Gardener of Placer County

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the germinating seeds will help to keep soil at proper temperature. Use a soil thermometer to check temperatures.

Planting Depth: Planting seeds at the right depth increases their chances of germination. The size of the seed can help determine how deep it should be planted. Figure that the correct depth is about two to three times the width or diameter of the seed.

Soil Moisture: It is important to keep the soil moist. Too much moisture can cause a lack of oxygen and cause the seed to rot, while too little moisture causes the seed to dry out. Either of the two situations will cause problems with germination. Using a mister to keep the soil damp without becoming wet is helpful.

Planting Mix: Using fresh soilless seed starting mix is best. Soil-borne diseases, harmful to seeds, can be introduced if you use soil from your garden. Garden soil requires sifting out clumps and foreign material and sterilizing in your oven!

Growing Containers: Containers used for planting should be new or sterilized before using. This prevents diseases from being introduced.

Age of the Seed: Seed packets are stamped with the planting year and offer the best chance of success. If stored properly, old seed will germinate. But many times proper conditions were not met. Viability of the seeds can be checked by different methods, but it is probably best just to use new seeds.

Hopefully this gives you a start on what might have gone wrong and how to do it right next time.

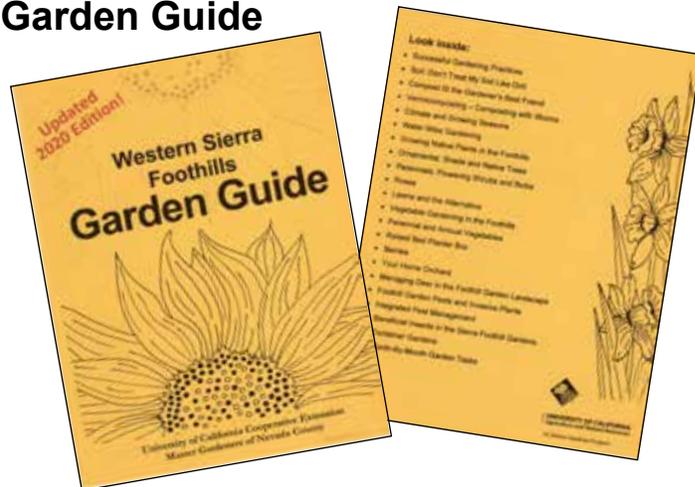


Providing the proper light conditions will improve germination rates. Photo by Robyn Emme.

References:

- *Seed and Seedling Biology*, Penn State Extension. August 28, 2012. <https://extension.psu.edu/seed-and-seedling-biology>
- Rindels, Sherry. *Successful Seed Germination*. Iowa State University Extension and Outreach. February 9, 1996. <https://hortnews.extension.iastate.edu/1996/2-9-1996/seed.html>

Master Gardeners of Nevada County Announce Launch of the 2020 Garden Guide



The updated 2020 edition of the Nevada County Master Gardeners Western Sierra Foothills Garden Guide will be published this spring with a launch at our plant sale on May 9th – the Saturday before Mother's Day. As in previous editions, the 2020 gardening guide provides cultural tips and an abundance of gardening information relevant to the Sierra foothills. New and updated sections on growing native plants, container gardening, composting and vermicomposting have been added to the content. The 2020 edition will also provide lists of plants that grow well in our area, as well as expanded information about integrated pest management.

Back in 1985, local Master Gardeners saw the need for a publication to disseminate gardening information to community home gardeners, specifically in the Sierra foothills. Many calls had been received asking about growing vegetables in this area. At that time the Master Gardeners decided to put together a 28-page booklet with climate charts, growing dates and cultural hints for growing vegetables locally. In 1990 it was decided to expand the booklet into a full-fledged gardening book, just for the western Nevada County foothills. Chapters were added and information on growing vegetables was expanded. From 2002 to 2010, the book continued to be developed and updated; chapters were added and content further researched. The 2010 edition, the Western Nevada County Gardening Guide was published with over 25 sections of subject matter, covering many aspects of home gardening.

With the updated Western Sierra Foothills Garden Guide as a resource, gardeners in the Sierra foothills will become more confident and successful gardening in the challenging conditions that are unique to our local areas. Following the launch at the spring plant sale, the book will be for sale at our office at 255 South Auburn St. as well as local retail stores and nurseries. The cost of the book will be \$30. For more information, contact the UCCE Master Gardeners of Nevada County at 530-273-0919.

Select Trees with Existing Conditions and Ultimate Size in Mind

by Nicole Harrison, Master Gardener of Placer County

A tree is often the largest player or key piece of a garden or landscape. It can be the focal point, backbone, defining monument, or a simple screen. Interestingly, it is also the piece over which we exert the least control. Science tells us that a tree's potential is 50% genetics and 50% environment. The environment is our jurisdiction. How much water? How much sun? Do we need better soil fertility? Each tree species has its own special needs but our efforts to control a tree's environment are almost futile. Of the 50% attributed, we actually only control less than 5%. I will use drip irrigation to illustrate this point. At right, you see a diagram of the root system of a mature tree—roots grow far beyond the dripline. If you have a single line of drip irrigation around the base of a mature tree it will provide water for only a tiny fraction of the root system.

What about size? Many good-willed gardeners have planted small trees (and by that I mean trees that are physically small when planted) only to be surprised when they grow to their potential.

The point I am making here is that the utmost importance should be placed on **tree selection**. A tree should match the ultimate goal with its *potential* size and should match the conditions on your site—the ones you don't control! Let's take a quick look at the most important factors.

Size: The canopy of a tree is less than a third of the organism; two thirds are below the ground. Make sure you have the root space to avoid conflicts with driveways, foundations, and utilities. A good rule for sizing is one third the ultimate height. If a tree will attain a height of 60', the root space should be 20' or more.

Soil/Ground Conditions: One of the most important factors in our urban environment is soil compaction. Many of our lots were graded and compacted for the home and driveway. Then topsoil was brought in and placed on top of the compacted subgrade. Tree roots, at an average depth of 2-4', will be below the topsoil. Accordingly, *that* is the soil we need to match to our species.

Sun Exposure: It is my experience the 'full sun' trees will normally perform well unless shaded more than 50% of the day while the 'shade' trees will not do well in the hot afternoon sun. And you should make some consideration for bark texture—thin, smooth bark will sunburn and can cause lifelong problems for these trees.

Water: Water is the last consideration because it is the most complicated. As a general rule, since we are not able to irrigate more than 5% of the root system of a tree, we should choose a drought tolerant species. However, those of us with big, irrigated, grassy yards should be able to grow trees with moderate irrigation requirements. And trees requiring high water needs often also require 'moist air' and can be very difficult in our dry Mediterranean environment unless you have a year round stream or high water table.

In addition to matching the conditions of the site to the species, there are three main categories of tree types to consider: deciduous species, broadleaf evergreens, and conifers. The following resources will provide some more detailed information on each category and some insider tips to help you to make a choice resulting in "the right tree in the right place."

More information and help with selecting the right tree can be found at the following links:

Cal Poly Tree Selector - Help selecting Landscape Trees
<https://selectree.calpoly.edu/>

ANR Backyard Orchard - Help selecting Fruit Trees
http://homeorchard.ucanr.edu/The_Big_Picture/Tree_Selection/

California Native Plant Society - Help selecting Native Trees
<https://calscape.org>



Above: Roots of a mature tree extend far beyond the drip line.
Drawing by Ken Menzer

Below: Homeowners often underestimate how large trees will get.
Photos by Nicole Harrison



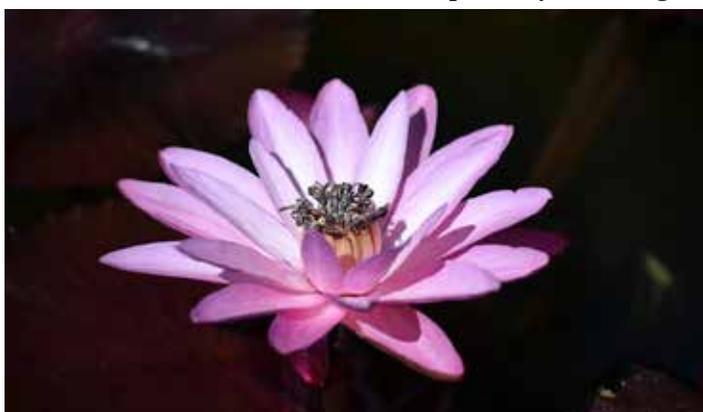
Unlock The Magic and Beauty of Water Lilies This Season

by Julie Lowrie, Master Gardener of Placer County

Water lilies, genus *Nymphaea*, have been revered by ancient cultures for their aesthetic qualities for centuries and have graced the ornamental pond displays of the royals and religious. Water lilies appeared in Persian, Egyptian, and Indian gardens before being imported to Spain by the Moors in the 15th century. From Spain, water lilies migrated to the finest of European ornamental water gardens before finally arriving in the American water gardens.

Two types of water lilies exist under genus *Nymphaea*: hardy water lilies “native to cooler climates” and tropical water lilies “native to tropical or semitropical climates” (Robinson, 1996, p. 161). Both hardy and tropical water lilies will bloom in Placer and Nevada Counties during the growing season; however, tropical water lilies will act as an annual if not given winter protection at season’s end. Distinct from most hardy lilies, tropical blooms sit higher in the water, and depending on the variety may bloom in the day or night.

Below are photos of hardy water lily, *Nymphaea x marliacea* ‘Carnea’ (Marliac Flesh), and tropical day blooming water lily, *Nymphaea* ‘Mel Bel’, respectively.



Hardy lilies emerge from their dormant state once spring days bring more light for a longer period of time. According to David Trinklein, University of Missouri, “Water lilies need abundant sunlight to perform well. Therefore, water gardens should be located where they will receive a minimum of six hours of direct sunlight every day. Although water lilies will survive in less light, their flowering will be diminished. As a general rule, the more sunshine the better for water lilies.” Be aware that not all hardy lilies are created equally. While not currently named on the California Invasive Plant List, *Nymphaea odorata* is considered a noxious weed in Washington and an invasive plant on the Invasive Plant Atlas.

If your lilies have small leaves, do not appear to be thriving, and are not blooming, you should take them out of your pond to review their condition. While it is preferable to manage your lilies as they become active in the spring, you may need to take the following steps in order to ensure that your lilies thrive and are producing beautiful blossoms throughout the summer months.

If you look closely at the photo at right, you will see dormant winter foliage, (small thin leaves) instead of healthy floating leaves (larger thicker leaves). You will see that this lily has become pot-bound and has no room to grow except on the many points of growth on the woody branches. This photo indicates that this lily has not been maintained for a number of years, having been likely left in its original one gallon pot for a long time. It has not been divided and repotted, stunting its growth and development as represented by the production of small leaves and no blooms.

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In order to properly divide and repot your lily, you can use the tools and fertilizer identified in the photo on the left. The hatchet is useful to cut away dead roots and old stems, and the smaller, root cutter tool can be used to carve out the most viable lily growing points for repotting. Once you have selected some of the best growing points, you can arrange them in the center of a one gallon pot, placing one to two tabs of fertilizer in the non-draining pot before surrounding your growing points with baseball diamond soil or any other clay-based soil available to you. Lastly, you can place rinsed pea gravel on the top of your divided and repotted lily so that the soil will not float away when you slowly lower the pot back into your pond.

By completing these steps annually, you ensure a beautiful and healthy lily that will thrive and give you lovely blooms throughout future summers. The photo on the right shows the divided, fertilized, and repotted overgrown lily presented on the previous page.



References

- Slocum, Perry D., Peter Robinson with Frances Perry. *Water Gardening Water Lilies and Lotuses*. Timber Press. 1996.
- Trinklein, David. *Water lilies: Easier than you think*. May 8, 2017. https://ipm.missouri.edu/MEG/2017/5/Water_Lilies/

Hotline FAQs

Do you have
gardening questions?
Call the Master Gardener
Hotline in your county
Nevada Co. 530-273-0919
Placer Co. 530-889-7388



Blossom damaged by Camellia petal blight. Photo by Jack Kelly Clark

My Camellia flowers are turning brown and prematurely dropping off the bush. The browning seems to begin at the center of the blossom, then spreads to the majority of the flower. What is causing this?

by Pauline Kuklis, Master Gardener of Placer County

The most likely cause for what you have described is Camellia petal or flower blight, which is caused by the fungus *Ciborinia camelliae*. While this pathogen reduces the beauty of your flowers, the good news is that it does not impact the overall health of the bush.

Petal blight is more common during an especially warm, moist spring. Typically, it starts as small brown spots which rapidly spread to cover much of the flower. Normally the fungus does not attack all flowers uniformly, so the browning may occur in a somewhat random pattern. The spores of the fungus can be spread by the wind, and will remain viable on or in the soil for several years.

The best way to keep it under control is to remove and discard all affected flowers. Once the flowering season is over, discard the top several inches of soil and/or mulch, and replace it with clean, pathogen-free material.

Please refer to the following resources for more detailed information about petal blight, as well as other possible factors that can cause Camellia flowers to discolor.

<http://ipm.ucanr.edu/PMG/GARDEN/PLANTS/camellia.html>

<http://ipm.ucanr.edu/PMG/r280110511.html>

<https://www.apsnet.org/edcenter/disandpath/fungalasco/pdlessons/Pages/PetalBlightCamellia.aspx>

BOTLAT Corner

Find Out What Those Weird Plant Names Mean

by Peggy Beltramo, Master Gardener
of Placer County

Animals in the Garden

No, I am not talking about gophers or deer, but instead, plants that bear animal names. *Leonotis leonurus*. Do you know your astrological signs? Leo is the sign for lion, right? Well, the plant name at the beginning of this article is Leo—twice! The genus, *Leonotis*, signifies 'lion's ear'; the specific epithet, *leonurus* is Greek for 'lion's tail'; and the flowers of this plant do resemble a lion's ear, or a lion's tail, depending on your imagination.

Another animal named plant is the genus, *Echinops*. These plants are globe thistles and the genus is Greek for 'hedgehog face', which is spiny, like a thistle. *Echinacea* (cone flower) is another genus of hedgehog-like blooms, named for their spiny, hedgehog-like center of their blossoms.

More names in the flower-zoo: *arachnoides*, which describes spider-web succulents (arachne is Greek for spider); *Equisetum*, which is a horse-tail rush (equus is Greek for horse), and *Dracunculus*, an arum, which translates to 'little dragon'.

Just think, choose your plants by their BotLat names, and you can have a zoo right outside your door.

References:

- *Plant Finder*. Missouri Botanical Garden. <https://www.missouri-botanicalgarden.org/plantfinder/plantfindersearch.aspx>
- Stearn, William T. *Stearn's Dictionary of Plant Names for Gardeners*. Cassell Publishers Limited. 1992.

Beetles, the Largest Order in the Animal Kingdom

by Bonnie Bradt, Master Gardener of Nevada County

So let's celebrate the thousands of beetle species across the planet, in every niche and terrain and of sizes from microscopic to enormous! See how you do in this beetle trivia. Answers are taken from the publication *California Insects* by Powell and Hogue, U.C. Press.



- 1) Beetles (Coleoptera) do, indeed, make up the largest order in the entire animal kingdom on earth. They have more than _____ times the number of described species as the second largest order of animals, the Bees and Wasps (Hymenoptera).
- 2) There are close to _____ described species in the state of California.
- 3) The beetles' mouthparts are adapted for - A) Sucking B) Rasping C) Chewing
- 4) What type of beetle larva awaits its prey by hiding in a hole in the ground, with its hardened flattened head held at ground level like a trap door? When the prey (often ants) unwittingly crawls across the head, the larvae rapidly springs out and grabs the prey, dragging it into the hole.
A) Tiger Beetle B) Rhinoceros beetle C) Soldier beetle D) Blister beetle



5) What family of beetles includes the infamous Hoplia beetle (a common pest of garden flowers, seen at left), the dung beetle, the Japanese beetle (one of the worst insect pests, but luckily not found in California YET) and was revered in Ancient Egypt?

- 6) One of the most common insects in California, this small green beetle with black spots is found on many cultivated and weedy plants. Particularly abundant on members of the squash family, its name is _____.
- 7) No other family in the entire animal kingdom has as many species as the family of this type of beetle. Probably more than 1,000 species in California. Major distinguishing features are the long snout and the elbowed, clubbed antennae. Many members of this family cause huge economic damage to crops or stored foods. These beetles are called _____.
- 8) Extremely common beneficial insect found in the garden (and all over California) this type of beetle is probably better known than any other. Often brightly colored, although species are variable, both adults and larvae are excellent predators of aphids, mealybugs, and other small pests. More than 125 species known in California. Some species form huge masses for hibernation. Their name is _____.
- 9) True or False? The beetle genus *Eleodes*, which are medium to large smooth black beetles, can almost stand on their head to emit a foul smelling gas to repel a potential predator.
- 10) How did the blister beetle get its name?



Answers on page 7



Two All-Star Currants *Ribes aureum* and *R. malvaceum*

by Laurie McGonagill, Master Gardener of Placer County

The currant is a fruiting vine in the genus *Ribes* you may have avoided because of the prickles. Rest assured, it is the gooseberry—also in Grossulariaceae, the gooseberry family—not the currant, which has spines (prickles). Currants are usually deciduous, have delicate fragrant flowers, some bell-shaped, in shades of pink, red, and yellow. Both species featured here are deciduous, drought-tolerant and tough, as well as good looking!

Ribes aureum, golden currant, (top left) is also known by other names such as buffalo currant, clove currant, or Missouri currant. Golden currant grows six to ten feet tall. It blooms with yellow flowers in winter and spring. The light spicy fragrance attracts hummingbirds and butterflies. Its small globular fruits are amber or

black in color and are food for birds and humans too—think currant wine or jam, yum!

Ribes malvaceum, chaparral currant, (top right) is a California native that grows to five or more feet. It has sweet-smelling pink flower clusters that often bloom in mid-winter, giving hummingbirds an early source of nectar. Purple berries emerge after flowering. A leaf added to your tea will give it an extra kick. *Ribes malvaceum* grows well on slopes with good drainage and likes a little afternoon shade in our area. It may go dormant and lose its leaves if it's very hot. Wait until spring to water and it will bounce right back!

These currants have a moderate to fast growth rate and grow especially well under the canopy of an oak.

References:

- *All-Stars Plant Details*. UC Davis Arboretum All-Stars. n.d. <https://arboretum.ucdavis.edu/plant/golden-currant>, <https://arboretum.ucdavis.edu/plant/chaparral-currant>
- *Landscape Plants*. Oregon State University. College of Agricultural Sciences. Department of Horticulture. 2019. <https://landscapeplants.oregonstate.edu/plants/ribes-aureum>, <https://landscapeplants.oregonstate.edu/plants/ribes-malvaceum>



Beetle Trivia Answers

- 1) There are more than two times the described species of beetles as bees and wasps.
- 2) Almost 7,000 described beetle species in California.
- 3) Beetles' mouth parts are adapted for C) Chewing.
- 4) A) Tiger beetle. Check out a YouTube video of the Tiger beetle in action. It is really neat to watch. One of my grandson's favorites!
- 5) Scarabs. There are close to 500 species of Scarabaeidae in California. Their larvae are C-shaped grubs.
- 6) Spotted cucumber beetle.
- 7) This family are the "weevils". Easy to spot with their long "noses" and mostly unfortunate food choices.
- 8) Lady beetle, commonly called the "Ladybug."
- 9) True – giving them the common name of "Stink beetle". Remember this is as opposed to "Stink BUG" which is a different kind of critter altogether and is NOT a beetle.
- 10) Blister beetles, found in many regions of the globe, can secrete defensive fluids which can cause severe blistering of human skin. Few if any of the 100+ species in California have this capability, despite the common name.

Nematodes: Friend or Foe?

by Alex Irons, Master Gardener of Nevada County

Most gardeners today have heard of Nematodes, microscopic roundworms that, along with various other microorganisms, make up the soil food web. Undeniably, the interactions of soil organisms and plant health have been disconnected for far too long. Fortunately, modern science led by University research has opened our minds to the unique relationships between soil and plant health. The correlation between the health of our gardens and our soils can be partially examined through the relationship nematodes have with plants and other microorganisms. The utilization of nematodes in the soil are innumerable, making them a great example of how each organism is connected to one another and plays an integral role.

Nematodes aid in the mineralization of immobilized nitrogen, are used as beneficial predators as part of IPM plans, and can infest plants' rhizomes and spread pathogens.

Arguably, the most important role of a nematode is the mineralization of insoluble nitrogen into the plant soluble form of ammonium. In order to understand why this is so important we must reflect on the natural cycle of nitrogen in the soil food web. Nitrogen, being one of the macro nutrients, is widely understood to be of great importance to plant vitality. When nitrogen is lacking a plant will surely exhibit signs of chlorosis and then necrosis. But how do plants naturally acquire this prevalent atmospheric gas through natural means? One of the most commonly known forms of nitrogen cycling is through that of rhizobia, the nitrogen fixing bacteria associated with legumes. This is an excellent process for nitrogen to be turned into nitrate, but certain species of plants prefer their nitrogen in the form of ammonium. For those ammonium loving plants, nematodes are the providers, specifically the bacteria and fungi feeding nematodes. These nematodes consume more nitrogen than they need and therefore excrete the excess in the form of ammonium. In fact, a study conducted in 1998 and 1999 by Howard Ferris, UC Davis professor of nematology, concluded that soil nitrogen levels increased by 20% or more "by the feeding of bacterial- and fungal-feeding nematodes in microcosm experiments." If you didn't already appreciate nematodes, surely you must now... Besides fixing nitrogen there are several species of predatory nematodes that can be used as part of an IPM plan.

Predatory or parasitic nematodes are perhaps more commonly associated with organic gardening methods as part of IPM. These parasitic roundworms can be purchased to attack a variety of plant pests such as slugs, weevils, lawn grubs, carpenter worms, fungus gnats, and artichoke plume moths. With more than 15,000 known species of nematodes and an estimated 500,000 more, nematodes are one of the most abundant groups of animals second only to arthropods. In fact, it is believed that every organism on earth is infested



Assorted nematodes under a microscope. Photo from ipm.iastate.edu

with one kind of nematode or another. Because they are such a diverse group of species there are a wide range of applications different nematodes can be used for when considering IPM. Particular species can be purchased that each target distinct home garden pests. On the other hand there are several species of nematodes that can adversely affect your plants' health.

While there are many beneficial nematodes, it would be an incomplete picture of the soil food web if we didn't

examine the nematodes that are considered pests. If you have ever had the displeasure of dealing with root knot nematodes you will understand the devastation an infestation of pest nematodes can have on your garden. Pest nematodes feed on plant tissue, either as endo- or ecto-parasitic organisms, feeding on the rhizome tissue or within it, respectively. Not only do pathogenic nematodes secrete enzymes that digest nutrients of the plant root tissue, they also serve as vectors for plant viruses, such as grape fan leaf virus. When an infestation of nematodes occurs in a plant the root system cannot uptake water and nutrients efficiently, resulting in chlorosis and eventual necrosis of infested plant. Needless to say nematodes can result in complete devastation when the soil food web is imbalanced.

It is essential that gardeners understand both the positive and negative impacts the divergent interactions nematodes can have in our gardens. Nematodes are both friend and foe, yet both are intrinsically valuable and integral parts of the soil food web. Often times we as gardeners have a basic understanding of individual interactions in our gardens, but it is important to remember these are complex ecosystems and that working with them can be easier than manipulating it. That being said I encourage you to get to know the microorganisms in your soil. There are over 1 billion in a single teaspoon of healthy soil made up of twenty to thirty thousand different species so it might take a while to get acquainted with all of them but nematodes are a good place to start.

References

- *Introduction to the Nematoda*. UC Museum of Paleontology. (n.d.). <https://ucmp.berkeley.edu/phyla/ecdyssozoa/nematoda.html>
- Ferris, Howard. *Contribution of Nematodes to the Structure and Function of the Soil Food Web*. The Journal of Nematology. March 2010. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3380510/>
- *Nitrogen-Fixing Bacteria*. Science Direct. (n.d.) <https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/nitrogen-fixing-bacteria>

UCCE Master Gardener Program of Nevada County Demonstration Garden News

by Ann Wright, Master Gardener of Nevada County

In 1991, the volunteers with the UC Master Gardener Program of Nevada County established a Demonstration Garden on 1.5 acres of land provided by the Nevada Irrigation District. What first began as an herb garden has grown to include a wide variety of distinct educational areas, including:

- Foothill Mediterranean garden
- Designated orchard and raised bed gardens
- Oak and native habitat area
- Native meadow and waterwise garden
- Cottage garden, showcasing UC Davis All-Stars
- Rock garden with deer-resistant plants
- Compost demonstration area
- A covered pavilion for events and workshops
- New to the garden in 2019: a hoop house with prop benches and space for growing plants for our plant sales!

Each garden area hosts an abundance of learning opportunities for visitors. The Foothill Mediterranean garden hosts plants suited to warm, dry summers and cool, wet winters. The orchard showcases ladder-free fruit trees and early-to-late bearing berries. Trees are summer and winter pruned to maximize fruit production. The Native meadow and waterwise areas host native grasses, perennials and bulbs



as well as drought-tolerant perennials. The Oak habitat/California native area highlights what to grow under native oaks. The fenced, raised bed area houses vegetables, herbs and ornamentals as well as container gardens. An abundance of the plants in the demo garden are pollinator-attractants; Monarchwatch.org has certified our Demonstration Garden as a Monarch Butterfly waystation. In non-fenced areas, deer-resistant plants are included.

The Demonstration Garden is open to the public and accessible via the Nevada Irrigation District at 1036 West Main Street, Grass Valley. A map of the garden is available on the website, <http://ncmg.ucanr.org>

Master Gardeners of Placer County

invite you to our

Garden Faire

free gardening event

Saturday, April 4, 2020

9 a.m. to 3 p.m.

Maidu Community Center

1550 Maidu Drive, Roseville

FREE ADMISSION

Come grow with us!



Sponsored by Roseville Utilities

Presented by UC Master Gardeners of Placer County

<http://pcmg.ucanr.org> | (530) 889-7388



Things to see and do:

- Hands-on demonstrations at 9:30 a.m., 10:30 a.m., 12 p.m., 1 p.m.
- Information by Master Gardeners
- Info on bees, butterflies & chickens
- Succulents to plant
- Garden art and plants for sale
- Composting advice
- Crafts for kids
- Food trucks
- Door prizes

Talks by experts:

- Growing Native Plants at 10 a.m. by Greg Gayton
- Veggies: Top Ten Tips at 11:30 a.m. by Kevin Marini
- Where is My Water Going? at 1 p.m. by John Shannon



Glorious colorful flowers!

UC Master Gardeners of Nevada County 2020 Spring Plant Sale

In time for Mother's Day, Master Gardeners are busy planning, propagating and caring for a variety of young plants for this year's annual Spring Plant Sale. This fun event is scheduled for **Saturday, May 9th from 9:00 a.m. to noon**, at the Master Gardeners Demonstration Garden, located at 1036 West Main Street in Grass Valley.

This year we will be providing a large variety of vegetable, herb, perennial and flower starts. Approximately 50 varieties of tomatoes will be offered, 20 varieties of peppers, plus cucumbers, eggplants, squash, melons, scallions and greens like kale and arugula. We will also have at least 5 varieties of basil and other favorite herbs (dill, oregano, lemon balm, chives). We will again be providing 3 varieties of Nevada County native milkweed, ready to plant with instructions. We will again have a selection of perennials, propagated by Master Gardeners, which will last for years as backbone plants of the landscape. Our exciting news is that we will offer an incredible rainbow of flowers in gorgeous colors, large and small, annual and perennial, to create arrangements or attract pollinators. We will also have containers of the magnificent Matilija poppy whose flowers are the largest native bloom in the state and once established, one of the hardiest and most drought tolerant.

Tours of the Demonstration Garden will again be available, so plan to arrive early for the best plant selections! A list of plants that will be offered is available on the Master Gardeners of Nevada County website: <http://ncmg.ucanr.org/>

For questions, or more information about any of our Master Gardener events, contact us at our office Hotline: (530) 273-0919.

Help Us Help You—Take Our Survey!

We want Curious Gardener to meet your needs for reliable, helpful and timely gardening information. To that end, we have created a reader survey in which you can let us know how we're doing and what we can do to improve.

Are we talking over your head, or insulting your intelligence? Providing new information and inspirational ideas, or boring you with things you already know or don't care about? We can't please everyone with every article, but we strive to provide something of value to each reader in every issue. This is your chance tell us about your gardening situation and what YOU want to read and learn more about.

Click [here](https://ucanr.edu/survey/survey.cfm?surveynumber=10494) or type <https://ucanr.edu/survey/survey.cfm?surveynumber=10494> into your browser window to access the survey. We look forward to your input!

35th Annual Placer County Master Gardeners Mother's Day Garden Tour Sunday, May 10

Rain or Shine

10:00 am to 4:00 pm

Tickets \$20, Children under 12 free

Featuring wonderful gardens in
Auburn, Loomis and Granite Bay

Tickets will go on sale starting Saturday, April 25 through the day of the tour at Eisleys Nursery in Auburn and Green Acres Nursery and Supply in both Rocklin and Roseville.





Events Calendar

Please Note:

- Pre-registration is required for classes held at Loomis Library. Call 916-824-2905 to reserve your spot.
- Pre-registration is highly recommended to ensure a spot in classes held at Roseville Utility Exploration Center. Call 916-746-1550.

March

March 7

10:00 – noon

Totally Tomatoes

Grass Valley Elks Lodge
109 South School Street

March 14

10:00 am - noon

Bringing Native Plants into Your Garden

Grass Valley Elk's Lodge
109 S. School St.

March 21

10:00 – 11:00 am

Basic Composting

Auburn Library, 350 Nevada St.

March 28

10:00 – noon

Flower Gardening from Seed

Grass Valley Elks Lodge
109 South School Street

April

April 4

10:00 am - 3:00 pm

5th Annual Garden Faire

Maidu Community Center
1550 Maidu Dr., Roseville

More info on page 9

April 4

10:00 am - noon

Water Wise Gardening

Demo Garden, NID Grounds
1036 W. Main St., Grass Valley

April 25-26

Sat. 10 am - 5 pm; Sun. 10 am - 4 pm

Visit our booth at the Home, Garden & Lifestyle Show

Nevada County Fairgrounds

May

May 2

10:00 am - noon

Encouraging Beneficial Insects

Demo Garden, NID Grounds
1036 W. Main St., Grass Valley

May 2

10:30 am – 11:30 am

Using Plants to Create a Balanced Ornamental Pond Environment

Loomis Library, 6050 Library Dr.
Free, but call 916-824-2905 to register

May 9

10:00 am – noon

Summer Veggie Gardening

Roseville Utility Exploration Center
1501 Pleasant Grove Blvd., Roseville
Small fee; register at 916-746-1550

May 9

9:00 am - noon

Spring Plant Sale

Demo Garden, NID Grounds
1036 W. Main St., Grass Valley.

More info on page 10

May 10

10:00 am - 4:00 pm

Mother's Day Garden Tour

Placer County Gardens in Rocklin,
Loomis, Granite Bay

More info on page 10

May 15, 16, 17

Fri. 11 am - 6 pm, Sat. 10 am - 6 pm,
Sun. 10 am - 5 pm

Visit our booth at the Spring Auburn Home Show

Gold Country Fairgrounds, Auburn

May 16-17

10:00 am - noon

Soroptimists Garden Tour

TBA - Nevada County

June

June 6

10:00 am - noon

Weeds: The Good, Bad & Ugly

Demo Garden, NID Grounds
1036 W. Main St., Grass Valley

June 13

10:00 am - noon

Garden Makeover - Lawn to Landscape

Demo Garden, NID Grounds
1036 W. Main St., Grass Valley

June 13

10:00 am – noon

Integrated Pest Management

Roseville Utility Exploration Center
1501 Pleasant Grove Blvd., Roseville
Small fee; register at 916-746-1550



Nevada County events
in green boxes



Placer County events
in yellow boxes

Starting in May, Visit Master Gardeners at Local Farmers' Markets

8:00 am to noon Mid May–Mid Sept.
at the Saturday Growers Market,
North Star House, **Grass Valley**

8:00 am to noon 1st & 3rd Saturdays,
starting May 4, Old Town Courthouse
parking lot in **Auburn**

8:30 am to 1:00 pm every Tuesday,
starting May 7, near Whole Foods at
the Fountains, **Roseville**

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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Master Gardeners of Placer County

Have a Gardening Question?

Call our Hotline

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530.889.7388

Nevada County Residents

530.273.0919

Master Composter Hotline

530.889.7399

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Please note all gardening advice and information is geared to the climate and conditions of Placer and Nevada Counties, CA.

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