THE YOLO GARDENER

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Ann Daniel, UCCE Master Gardener, Yolo County

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Hedgerow Project on Bullseye Farms Hits the Mark

Bonnie Berman, UCCE Master Gardeners, Yolo County

I stumbled across a wonderful opportunity this spring. Bullseye Farms was seeking Master Gardeners to participate and act as supervisors in the installation of their hedgerow project. This would be a new hedgerow along Road 102 running from Road 26 to a little passed Road 27 on the east side of the street. It's a 1.2 mile stretch before you reach housing developments and where Woodland still feels like a slice of the rural Sacramento Valley.

Bullseye Farms already practices integrated pest management and has Sustainability Grown certification. They were looking for more sustainable ways to support their pistachio, almond, and walnut orchards. They knew about hedgerows and when they heard about the CA Department of Food and Agriculture Healthy Soils Program (CDFA HSP) they applied for a grant and received one. They then researched native plant nurseries large enough to support their need. They found two in northern California, Cornflower Farms in Elk Grove and Cal Floral Native in Chico.

They worked with Sam Earnshaw whose business is Hedgerows Unlimited. He acts as a technical advisor through the CDFA HSP program. He and Jeanette Wyrinski at the Yolo Resource Conservation District created a species list that is specifically designed for pistachio orchards. They were particularly looking for natural enemies of the lygus bug, a pest known for infesting nut crops.

While the team planned, their enthusiasm grew as they identified even more benefits their hedgerow project would provide. They selected tall shrubs to act as a windbreak between their land and the adjoining fields to protect their orchard. They selected spreading plants to catch trash or litter that sweeps across the road from passing vehicles. They would create a show-stopping vista of interlacing plants that would display a pattern of different colors and textures throughout the year.

One recent study by Dr. Sasha Heath, UC Davis and Rachael Long, field crops and pest management advisor, UCCE showed that birds help control insect pests in walnut orchards and are voracious predators of codling moth. These orchards next to hedgerows had higher numbers of beneficial birds. By adding toyon and

coffeeberry into the hedgerow plan Bullseye Farms would be able to offer a natural habitat for these birds. They also selected various species of ceanothus, salvias, and manzanita. After pouring over their plan and working out the plant placement they came up with their order; they would use eighteen species and need 1061 plants! Working with the nurseries, they arranged for the plants to arrive in Woodland two days before the planting.

Community members planting the hedgerow

Kristin Jacobs, who wrote the original grant that led to this project, and Jordanne Mariani at Bullseye Farms, and Almond Lane, a partner farm, knew all this planning was leading up to a big event. They reached out to community organizations, contacted organizers at UC Davis, Woodland Tree Foundation, and Tree Davis, and shared their message on social media. Nick Edsall, Director of Orchard Operations and Fernando Navarro, Orchard Manager, and his team did a tremendous amount of preparation. Using farm equipment, they created a berm about fifteen feet from Road 102. They placed each plant on its assigned spot next to a small pile of compost on the freshly mounded soil. Mounds of walnut mulch donated from Mariani Nut Company were in large piles along the 1.2-mile route. Two drip lines had already been laid along the entire length of the berm.

On an early April morning forty community members arrived to find shovels waiting. Kirstin had a poster with photos of each plant to help in identification. Looking along the berm the row of plants seemed infinite, and I wondered if we'd finish in a day. I was wrong. We broke into teams of ten and by dividing the tasks into digging the hole, mixing in compost, and planting the plant, and laying a bit of mulch around each one we moved at a very brisk pace and in two-and-a-half hours we were finished.

The weather was cool, the soil was loose, and Bullseye Farms and Almond Lane provided water and snacks. It was a wonderful opportunity to be outside with other people at a time when most of us were starved for social interaction. There were high school students, college and grad students, locals from Davis and Woodland, and members of community organizations. It was the best that volunteerism can be. We made friends, learned about beneficial habitats, and made a positive change in our landscape for farms and for the travelers along Road 102 that will last far into the future.

Tree Peonies

Sue Fitz, UCCE Master Gardener, Yolo County

So, you want to grow peonies, but have been told it's just not possible. Perhaps, you've tried anyway, and found that the experienced gardeners were right. You can't. They might struggle for a year or two, but they die. It's just not cold enough in the winter here for them. You have massive peony envy when you go up to Tahoe and see them in their glory in late spring. So sad, too bad.

But wait, what if I told you there IS a way, to have a glorious peony show every year, with happy plants increasing in size every year? The trick is to choose tree peonies, bred from completely different species, which come from mild regions of China.

My tree peony

My first tree peony experience happened as a teenager, growing up in the bay area. A little old lady found out I loved plants, and she invited me into her back yard when her tree peony was in full bloom, to pay homage to an enormous plant covered in eight-inch pink flowers. Of course, I asked her where she got it, and smiling complacently, said her husband was given the plant as a gift when he was working with a Japanese nursery company. I tried to find plants for sale, but this was way before the internet, and there did not seem to be any available. Finally, I found a source and was shocked at the asking price, close to a hundred dollars- and this was in the early 1970's, so that is probably closer to two hundred and fifty dollars in today's prices. I did not have that kind of money as a teenager and I was going off to college anyway, so I put the whole idea away as impractical.

Eventually I graduated, got married, and bought a house with a generously sized yard. I read a few articles about tree peonies in national garden magazines and started contemplating mail ordering a plant. They were still very expensive and could only be obtained as bare root plants. I had previously tried mail ordering some bare root shrubs of various kinds, but had found them dead on arrival, or sickly if they lived. I wasn't willing to spend that kind of money on such a chancy gamble. I continued to wait.

Finally, my patience was rewarded. A good garden friend of mine (Daisy Mah, the caretaker of the WPA Rock Garden in William Land Park) asked me if I'd like to go with her to visit Beecher's Nursery, a family run nursery over by Stockton. She heard they had reasonably priced, blooming sized tree peonies for sale in two-gallon cans. Road Trip! We arrived to find many tree peonies, blooming in their containers, all sorts of colors and sized flowers, for a mere fifteen dollars. Whoo-hoo! We loaded up the car.

We stayed long enough to have a chat with the owner of the nursery, John Phillips, to ask how he managed to pull off such a deal. It was quite a story. He ordered some tree peonies to sell at his nursery, but they were so expensive, nobody would buy them. Frustrated, he planted them on the nursery property, since he didn't have the heart to throw such expensive plants away. They bloomed magnificently and set a lot of seed. He tried planting some seed as an experiment and was able to get them to germinate. He found it took four years to raise a plant to blooming size. He organized the enterprise by having four growing beds. Each bed had plants a particular year old, from seedlings, to young plants, to growing bigger plants, to final sized plants. The winter after the fourth-year plants went dormant, he dug them up, potted them in containers, and sold them that spring when they came into bloom. Since they were seed grown, the flower color and size, and plant size was all over the map, but they were all beautiful. He didn't charge much, because it cost him little to produce the plants, and he enjoyed seeing the variety of different flowers. I brought home three plants, a white with red blotch, a pink, and a lavender with a darker purple blotch.

From Bud…

Alas, this was more than twenty years ago, and John has passed away, and Beecher's nursery is no more. I still have the lavender tree peony in my yard, it keeps getting bigger, slowly but surely. As soon as I see the golf-ball sized buds appear in early March, I keep checking until the first blooms appear at the end of March. In a couple of days, the bush

is covered with eight-inch-wide puffs of lavender, and I put on my own complacent smile as I enjoy the show for the ten to fourteen days that it lasts.

…to bloom.

My lavender tree peony is planted in sandy loam, which provides good drainage. It is planted near a crepe myrtle, which provides afternoon shade. I don't think the shade is critical though because the peony has been there longer than the tree. It gets watered during the summer, every four or five days, by sprinkler for twenty to thirty minutes, depending on how hot it is. I fertilize it whenever I think about it, but it would probably be even bigger, with more flowers, if I remembered more often. I like to use time release shrub and tree pellets.

I have also grown *Paeonia delavayi* var. lutea (one of the parents of modern tree peonies) without difficulty, although I wasn't impressed with the yellow flowers with red staining in the center. The flowers were about four inches across. Nice, but nothing special. I eventually removed it for something more interesting.

I was less successful with *Paeonia rockii*, with huge snowy white flowers with a maroon blotch. It was not vigorous, and eventually died, much to my disappointment. I later found it was from a much colder area of China than other species, I assume it was not getting enough winter chill here to thrive. These latter two peonies I found at a small, family run nursery in Vancouver, Washington. They were retiring and selling their stock off, and I picked the two tree peony species up very cheaply.

One last peony adventure remains, intersectional hybrid peonies, which are a cross between a herbaceous and tree peony, It looks like a tree peony in leaf and flower, but the stems are not woody, and the plant dies to the ground during the winter like a herbaceous peony. It was created by a Japanese horticulturist, Dr. Toichi Itoh in 1948, after thousands of failed attempts. These hybrids are often called Itoh peonies, to honor his name. They are slow to propagate, and remain very expensive, even to this day. They supposedly tolerate warmer winter temperatures, but I can't find definitive data to support this information. The most easily found variety is called Bartzella, with a soft yellow, fully double flower. One day I'll stumble across one of these at the local box store for an unbelievably low price, and I'll carry it home to finish the long saga of experimenting with growing tree peonies in California that I embarked on more than fifty years ago.

If You Grow It, They Will Come

Tanya Kucak, UCCE Master Gardener, Yolo County

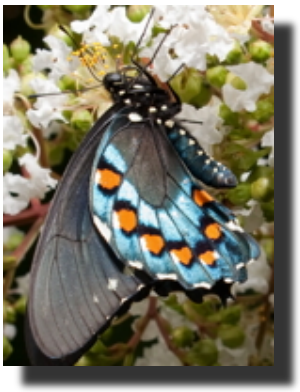
If you're planting native milkweeds for monarch butterflies and other natives for the birds and bees, consider adding a native California pipevine (*Aristolochia californica*) for the pipevine swallowtail butterfly. Also known as Dutchman's pipe, this plant has interesting flowers and fruit as well.

Like native California redbud trees, Dutchman's pipe loses its leaves in late fall, then flowers in winter to early spring before the new leaves appear. The distinctive 1.5-inch flowers have a shape like a bulbous curving pipe, hence the common name, Dutchman's pipe. The color is also distinctive: purplish overall, with a light green

background and deep burgundy veins. Though the flower is said to have an unpleasant odor, attracting fungus gnats that act as pollinators, I've never noticed the odor in gardens, even in large plantings.

Pipe vine can grow on a trellis or twine itself around trees make sure the roots are in the shade. (Photo: Tanya Kucak)

In nature, it occurs along streams and in moist forests. In the garden, Dutchman's pipe can tolerate moderate water as well as drought once it is established. To mimic the way it often grows in nature, plant it next to a tree that it can climb, or train it on a trellis or fence where it can reach for the sun. Dutchman's pipe can grow in the dry shade under native oak trees, it can climb through native shrubs, or it can help form a thicket in a hedgerow. The key is to keep its roots cool as its twelve-foot-plus vines wander upward. In the right conditions, it can even grow as a groundcover. This seems to be one of those plants that is hard to establish in some gardens, but rampant in others! A well-established plant that drapes onto the ground can form new roots.



The elongated heart-shaped leaves are its primary habitat value. They are the only food the pipevine swallowtail caterpillar can eat. If you see a flash of iridescent blue wings, that may be a pipevine swallowtail butterfly (*Battus philenor*) seeking out this plant to lay eggs. This butterfly is mostly black with some orange and white spots. Partially munched leaves may signal the presence of the caterpillar, which is black with red-orange accents.

Pipevine caterpillar (Photo: Tanya Kucak)

Although the pipevine caterpillar can tolerate the toxic aristolochic acids in the pipevine leaves, the plant responds to injury by increasing the concentration of the toxins in that leaf within a day or so. At that point, the caterpillar moves on to another leaf. With only one or a few caterpillars, the plant can retain some partial leaves. But the pipevine swallowtail lays eggs in clusters, and the caterpillars start eating as a group. So, if several caterpillars can munch a leaf faster than the plant can respond, they can defoliate the plant. In turn, the toxins protect the caterpillar and butterfly from being eaten by birds.

Photo: Tanya Kucak

The fruits appear in mid spring (I have some on my plants in mid-May). Their shape reminds me of miniature carambolas or starfruit: light yellow ovals with prominent longitudinal ridges. Unlike carambolas, the fruits of the Dutchman's pipevine do not look waxy, and they are toxic to humans and other vertebrates.

Dutchman's pipe is one of the easiest plants to propagate. Between late fall and early spring, cut a green, nonwoody runner about three feet long. Runners are the stems that grow sideways rather than upward. Fill a one-gallon pot two-thirds with potting mix, coil one piece of vine in each pot, and fully cover with an inch of potting mix. Keep it moist in a brightly lit spot. You will know the plant has successfully rooted when you see new leaves emerging from the pot.

Friend or Foe? Meet the Variety of Lady Beetles

Michelle Haunold Lorenz, UCCE Master Gardener, Yolo County

It was a bright spring morning in April, cool and inviting. As I opened the gate leading to my vegetable garden, I noticed dozens of small orange dots lining the fence. Curious, I looked closer and was shocked to discover something that looked like a ladybug but was about a third larger than normal. It was a lighter orange, with fewer dots than normal ladybugs.

Of course, the first thing I did was to google it to try to figure out what it was, and next, search the ANR database for more information. Were these strange creatures dangerous or helpful for my garden? Here's what I've discovered: These unusual creatures are indeed lady beetles (ladybugs). However, while all are considered beneficial (friend!) for the garden, there are many different types of lady beetles. We are used to seeing the red ones, but there is a wide variety of colors and spots.

This got me interested in the various types of ladybugs one might encounter in the garden so read on for a brief description of the different types and how they can help us in our garden.

Our native ladybug *Hippodamia convergens* also commonly known as Convergent Lady Beetle is dark red with black spots varying in numbers. They are friends to gardeners as both the adults and larvae (which look like small alligators) dine on aphids; one adult can consume up to 5000 aphids! They are gentle and familiar to all who love to garden. You can even buy them at garden stores to release into your garden.

Asian lady beetles are similar looking cousins, but there are several different species of them. The 7-spotted Lady Beetle *Coccinella septapunctata* was introduced from Asia and while it is also red in color, it has a distinct number of spots, three spots on each wing and one spot in the middle. It is a little larger than our native ladybug and is a voracious eater of aphids. This little creature is a friend to gardeners!

The Asian Lady Beetle also known as the Harelquin Lady Beetle *Harmonia axyridis* is larger than the previous species discussed. They were introduced to North America to in 1916 to help control aphids and by the 1980s the population had exploded, slowly pushing out the gentler native ladybugs. These larger beetles are orange in color with anywhere from no dots on the wings, to two dots, to multiple dots. They too are voracious eaters of aphids and multiply at a much faster rate than the native ladybugs. While they are friendly to the garden, they can be a nuisance to homeowners as they seek out warm homes to overwinter. Large populations can be problematic when they swarm. These beetles are also more aggressive than the smaller native ladybug, biting when handled and emitting a noxious yellow stain if squashed.

Most of this information comes from a wonderful new website called Insect Connect created by UCCE and ANR. https://ucanr.edu/sites/insectconnect/ This site contains a photo gallery of common garden insects including pests, natural enemies, and pollinators. It also has sections on insect identification, insect videos, and a list of resources. A particularly fun section involves science in the garden with experiments for all ages as well as lesson plans for teachers. While the site is specifically aimed for the San Francisco Bay area this information is widely applicable to other areas of California including our own Central Valley.

Deadhead to Renew Life

Jan Bower, UCCE Master Gardener, Yolo County

I spent part of Memorial Day weekend deadheading roses and cutting back other flowering perennials. My garden was beginning to look very untidy. The flowers were fast fading, and the small patch of green grass in the backyard had grown beyond the four inches that can be handled by my push mower, the blade of which is dull and needs sharpening. But with hard work, I got both jobs done. Although the place looks tidier now with the spent flowers removed and shorter grass, it could still use some brightening with colorful annuals and maybe some new perennials.

Pinching back a geranium

When deadheading, I feel like a surgeon. I carefully take the stem of the plant, hold the spent flower, find the next set of healthy leaves, and make my incision just above them. I generally use a garden shear to perform the surgery, but sometimes pinching back with my fingers is all that is required for removal of a dead flower. In this performance, I am careful not to damage any buds that may be forming the next flower on the stem or to leave any part of an ugly stem stub exposed. This procedure gets repeated until all the faded, dead flowers have been removed from the plant.

In some cases, like geraniums, I cut deeper into the stems and leaves to reduce the size of the plant and make it more shapely and aesthetically appealing. For roses, I cut back to the first five-leaf leaflet, which keeps some varieties productive all summer.

I also talk to my plants and stroke them tenderly. I think plants respond just like people, to love and tender care.

Why is deadheading important?

The deadheading prescription is important for perennials, but also annuals, because it encourages a second, often longer-lasting bloom, and if done regularly, a continuation of blooming throughout the growing season. When done en masse, the appearance and overall improved performance of the plants in the garden make the yard more attractive.

Deadheading a rose

If the dead flowers are not removed and the petals are left to fall to the ground, all the energy of the plants will be channeled into the development of seedpods rather than new healthy flowers. Some people like the look of leaving seedpods on certain plants, such as poppies and lilies, for late season interest, and then cutting the plants to the ground when all the foliage is gone. Others may want to collect the seeds for planting and producing plants of the same variety in the next growing season. Seed collections

also make nice gifts for neighbors, friends, and relatives, especially if they are from an unusual or award-winning plant.

Some varieties of plants, such as Supertunia and Wave petunias, are prolific bloomers, low maintenance, and don't need to be deadheaded. These plants do not come from seed and do not produce seed. They are developed from cuttings. The petunias grow outward from the center of the plants and new growth spreads and blooms over the old growth, creating mounds of color. They are also "self-cleaning," which means that wind or other factors will cause the flowers either to blow off the plant or simply slip away leaving no old flowers to remove.

The petunias are perfect for time-starved gardeners who feel deadheading is a tedious and never-ending task. For other gardeners, deadheading can be an excuse to spend time in the garden, a time-honored tradition, a way to relax at the end of a long day, or even a Zen-like activity. If you are a gardener who enjoys deadheading, never fear. Even though some plants may no longer need deadheading to bloom continuously, doing so will not harm the plants.

Ground Cover Trial – Part One

Sue Fitz and Paula Haley, UCCE Master Gardeners, Yolo County

One of the most common questions I get as a UCCE Master Gardener, is what to do after a lawn is removed. Often the person asking does not want to settle for mulch or rock as a replacement but does not want the work of a garden of drought tolerant plants that requires more upkeep than their lawn did. When I mention a groundcover as a replacement, their eyes light up, with an enthusiastic YES! Then, of course, they want to know what their choices are, and at this point, I must disappoint them by not having any solid, guaranteed list of recommendations other than star jasmine, prostrate rosemary, and Vinca minor.

The dirty truth is that groundcovers offered by nurseries in our area, for the most part, will not thrive here. The big wholesale growers of groundcovers for California want to maximize their sales by catering to the largest markets in the state. Remember, most of the population of California live along the mild coast, where temperatures are buffered by proximity to the ocean. Estimates put the metropolitan and surrounding populations of the Los Angeles, San Francisco, and San Diego areas as 18.8 million, 7.7 million, and 1.4 million respectively. That's slightly over 71% of California's total population. And that's just the three largest cities and their suburbs. When you add on other, smaller cities along the coast, close to 85 percent of Californians live in a climate very different from ours. So, when our local nurseries put in an order for a selection of groundcovers, a very large majority of the choices sent to them are not the best choices for us here in the valley.

The trial begins

Frustrated by this situation, I began to think seriously about running a ground cover trial for our area. When in 2017 the Woodland Community College greenhouse manager asked me for planting ideas for a long, eight-foot-wide strip of bare ground along the east side of the school's greenhouse, I broached the idea of

planting strips of potential groundcovers in this area, that could be monitored for how well they tolerated our climate. She liked the idea, so we partitioned the area into thirteen four-foot-wide strips and started making best-guess choices for trial.

The area is in full sun, so we did not include any groundcovers for shade. The soil at the college is Pescadero clay, a very poorly draining, saline clay that is so miserable that it is not used for agriculture (there is a reason why the college, county jail, water processing plant and juvenile hall are where they are). The college still uses well water for landscaping, with a pH of 8.3, which is borderline toxic to some types of plants. We did not have much of a budget, so no soil amendments were incorporated at time of planting. We propagated the plants ourselves in the greenhouse. Groundcovers are at least twenty dollars a flat, and we needed at least one flat for each partition, which would have cost close to three hundred dollars. Once planted, we immediately ran into a problem which was amusing as it was aggravating; the countless bunnies that infest the school property found a few of the choices very tasty and cleaned out our plantings (bunnies like gazanias and ice plant, who knew?) The point of this trial is to show that if anything succeeded in this spot, it should be a shoo-in anywhere else in the county.

After bunny depredation, our initial choices for trial were:

- Peruvian verbena (*Verbena peruviana*) - once popular twenty years ago, but no longer used, for some reason
- *Carex pansa*- a sedge that can take dry conditions, sometimes used a lawn substitute
- Lippia- *(Phyla nodiflora)* - a native that grows close to the ground, with pink summer flowers
- Oregano 'Betty Rollins'- a low growing, carpeting herb with pink flowers in the summer
- *Dymondia margaretae* - a low, silvery carpet with yellow flowers in early summer
- *Silver carpet aster (*Lessingia filaginifolia)* - a CA native, low growing carpet of silvery foliage with lavender flowers in late summer
- Wire vine *(Muehlenbeckia axillaris)* - finely textured, black stems and round, glossy leaves, forming a dense mat
- *Bulbine frutecens* 'Hallmark'- a foot tall succulent clumper that flowers nine months out of the year
- *Euonymous fortunei* 'Emerald Gaiety'- a variegated evergreen vining shrub
- *Myoporum parvifolium* - an Australian, fast growing, flat, green groundcover with small white flowers in early summer
- Emu bush 'Grey Horizon' (*Eremophila maculata)* - an Australian gray, ground hugging shrub with yellow flowers in spring
- **Salvia mellifera* 'Terra Seca'- a flat growing form of a native sage with lavender flowers
- *Lobelia laxiflora*- an 18 inch tall perennial with red flowers most of the year
- Society garlic (*Tulbaghia violacea)* - a tough clumper with onion scented leaves and lavender flowers most of the year
- Wall germander (*Teucrium chamadrys)* - a low evergreen shrub with tiny green leaves and mauve flowers in the summer

Note: This adds up to more than thirteen plants, but the two asterisked plants did so poorly, they were removed and replaced with others about two years into the trial.

In the Fall 2021 issue of the *Yolo Gardener* part two of this series will examine the results of the first eight plants, in the final part, appearing in the Winter, 2021 issue, the last seven plants will be covered, and final recommendations made just in time for planting in the Spring.

Garter Snakes in the Garden

Jack Kenealy, UCCE Master Gardener, Yolo County

I have always feared and hated snakes. From an early age I've bought into the old saw, probably created in Hollywood, that it is an obligation of the Westerner to kill every snake one encounters. While I have never actually acted on the impulse, I'd be lying if I said that the impulse didn't exist. At least until now. In the Garter snake I have discovered a gentle, harmless, and useful companion to the garden.

Among all the critters found in California gardens, perhaps the most maligned and misunderstood would be the garter snake. Also called the "garden" snake, a garter snake is easily identified by its prominent side stripes. According to the "Nature Trail" of Pennsylvania State University at New Kinsington's website "(T)he Common Garter Snake has a great variety of color patterns and shades but characteristically a light-colored belly (yellow to pale green) and a prominent side stripe of tan, yellow or orange are indicative of the species. There may also be a variety of spots and reddish blotches that further add to the color diversity of individual specimens. (https://www.dept.psu.edu/nkbiology/naturetrail/speciespages/gartersnake.htm).

"The stripes of the garter snake not only contribute to its ability to effectively conceal itself in its habitat but also help to confuse potential enemies and predators as to its rate and direction of its movements. Garter snakes will attempt to flee if disturbed but can also secrete foul smelling anal secretions and will aggressively bite if provoked." ("Nature Trail"). Despite this caution, garter snakes are thought to be harmless to humans. They have very small teeth and no venom. Another defining characteristic of the Garter snake is its dual-colored tongue. (https://www.bugtech.com/garter-snakes/).

Valley Garter Snake

According to Doug Wechsler, a wildlife biologist at the Academy of Natural Sciences of Drexel University in Philadelphia and author of "Garter Snakes" (Powerkids, 2001), the stripes resemble garters men used to wear to hold up their socks. Another theory is that "garter" is a corruption of *garten*, the German word for "garden. Garter snakes are among the most common in North America with a range that extends from Canada to Florida and Mexico.

Garter snakes are relatively small, usually between twenty-three and thirty inches long. In Northern California, the most common species of snake is the Valley Garter snake (*Thamnophis sirtalis fitchi*). For a wonderful gallery of photographs of garter snakes in California see the webpage California Herps ("Herp" is a vernacular term for non-avian reptiles and amphibians.) http://www.californiaherps.com/identification/snakesid/gartersnakes.id.html

Garter snakes are a gardener's friend. "Often called 'gardener snakes', they earn that name by eating grasshoppers, slugs, grubs, and other insects." They do not eat plants growing in the garden. (https://www.almanac.com/garter-snakes-gardeners-friend). Since they grow throughout their lifetime, garter snakes periodically shed their skin. This discarded skin may be your only indication you have garter snakes in the garden as they are exceedingly shy.

Active during both night and day, snakes must conceal themselves from a variety of predators which include hawks, crows, squirrels, foxes, and racoons. In colder areas of the country, the snakes hibernate in huge colonies and mating habits are tied to the emergence from communal dens. Garter snakes do not hibernate in warmer climates like ours. Instead, mating is occasioned by female Garters emitting strong smelling pheromones which attract males.

After mating, the female Garter snake carries the sperm inside her body until she is ready to fertilize her eggs. She will give birth to between twenty to forty babies at a time. Newborn snakes are on their own right away. (https://www.bugtech.com/garter-snakes/).

If you are averse to snakes and you find a discarded skin don't be concerned. They are as afraid of you as you are of them. Meanwhile your squash bugs, beetles and slugs are on the menu and your favorite plants are not.

Summer Garden Tips 2021

Peg Smith, UCCE Master Gardener, Yolo County

Here comes the sun! We have already had some cycles of more than one-hundred-degree weather so our approach to gardening becomes concentrated to water management, especially after our dry winter. Preserving plantings without water waste is the goal.

Established plants and lawns should not need watering every day. Watering is best done in the morning hours, a periodic deep soaking on a regular schedule early in the morning will carry most plants through the heat. Some plants will appear wilted with the onset of intense afternoon heat. Particularly plants in the squash family (cucurbits, squash, cucumber, melons). Before adding more water to 'give them a lift' check the soil to see if it is nicely damp. If the soil is damp the plant is most likely unable to pull up enough moisture from the soil to counterbalance the amount of water the plant is losing through its leaves by evapotranspiration because of the heat. Allow the plant to recover overnight and check wilt and soil dampness again in the morning. Eager gardeners can tend to overwater drooping plants. Plants don't do well with too much or too little of a good thing - water. They will wilt because of too much water as well as wilting because of too little water. To be healthy a plant requires around its roots an approximate combination of 25% air, 25% water and 50% soil. If we over or under water the plant will wilt and be stressed.

- Drought Care For Trees https://ucanr.edu/sites/YCMG/files/217955.pdf
- Water Conservation Irrigation Practices http://ceyolo.ucdavis.edu/files/53468.pdf

Most plants should be in by now before the summer heat. If you add any plants to the garden in summer, they will benefit from your providing temporary shade until the plant has had a chance to settle and acclimate. The root ball that provides nutrition and water to any new planting is at first only the size of the container from which it came. The first two to three years for new perennial plants establishes the future health of your plants. The soil area around new plantings should be kept moist, but not soggy, so that roots can penetrate out into the surrounding soil to provide strength and nourishment. New plantings should be checked daily and watered on an 'as needed basis'. Adjust your watering or irrigation system to water more frequently until plants are established. As the plants mature the frequency and length of the watering cycles can be extended to give less frequent but deeper watering for good root development.

Slugs and snails have done their damage and are again hidden by the time most of us are out and about in the morning. Keep up the control of these voracious feeders by replenishing beer traps frequently. Slugs and snails are not connoisseurs and will succumb to the cheapest non-alcoholic beer. To make a beer trap, half fill a shallow

container - cat food tin, pint yoghurt container – sink it in to the ground then clean up your catch in the morning. Also, for the control of slugs or snails, various brands of commercial pelleted products containing Iron Phosphate are available from most garden nurseries or stores and can be scattered on the soil or mulch surface.

- Management of Slugs and Snails http://ipm.ucanr.edu/QT/snailsslugscard.html

Take care of your own gardening health by working in the early hours of the day or in the shade, drink plenty of water and take rests to survey your good gardening work. Summer is a good time to think of what you would like to tackle in the Fall. Gardens grow and change with time they are certainly not a one and done project. Taking the time to develop a plan to improve a garden in small bites rather than massive projects makes garden ambitions 'doable'. Look at other gardens, Central Park Gardens, UCD Arboretum, other drought tolerant home gardens that appeal and see if there are additional plants that will complement what you have created.

Water

Become familiar with your city water restrictions and do your part to save water. Remember to place plants with similar water requirements together in your garden to maximize water efficiency.

- Gardening with Hydrozones https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=27809

Conserve water. Keep your plants happy and help to keep the weeds at a minimum by adding mulch to your garden. Four inches of mulch will inhibit weeds, conserve water, and keep a plant's roots cooler. Also, if you are not currently using drip irrigation consider converting your watering system to drip to conserve water.

- Gardening with limited water tips-http://ucanr.edu/sites/YCMG/files/184804.pdf

Several native bees are ground dwellers so always set aside an area of un-mulched dirt to encourage them to stay and reproduce in your garden. Bees need water, a shallow water filled tray with a few rocks for the bees to rest on will attract many of our native bees and the basic honeybee to your garden.

- Bees in the Landscape http://ceyolo.ucdavis.edu/files/143001.pdf

Pests and Diseases

Prevention is the easiest way to minimize plant damage. Stroll through your garden several times a week to scout out potential problems. Regularly check the leaves and flowers for evidence of pests and diseases. Typically, the hot summer heat increases pest activity. If you have a pest or disease problem that you are unable to identify, take as good a quality photo as you possibly can and email it to the UCCE Master Gardeners in Yolo County. Master Gardeners will respond to any questions received from the phone line or emailed to mgyolo@ucdavis.edu. Another invaluable resource you can consult to help identify the pest or disease in a plant is www.ipm.ucdavis.edu for an extensive list of articles and photos for the correct treatment.

Whitefly, spider mites and katydids enjoy feasting on many kinds of plants. Thrips and horntail wasps disfigure roses, and leaf miners and hornworms chew tomatoes. Blasts of water and handpicking (hornworms) early in the morning will deter most infestations.

If the spring weather has caused an increase in powdery mildew on susceptible plants, it is usually not necessary to treat with fungicides. The warmer summer temperatures will help reduce this problem. If the problem does remain the UCD Integrated Pest Management website will provide step by step help to a least toxic solution to the problem.

- Powdery Mildew http://ipm.ucanr.edu/QT/powderymildewcard.html

Weeds

Get them small and get them often! Weeds are opportunistic and will grow wherever there is space or moisture. A cottage garden approach with taller plants at the back of a bed and then various height plants down to ground cover will mature into a garden that has little space for weeds to take over. To prevent weeds

establishing, mulch around plants to smother out new weed growth. Larger weeds are more easily and completely dug out when the soil is moist.

Lawns

Follow your city watering guidelines for what days watering is permitted. Grass can survive with less water than you think. Set the mower blade at a higher setting and recycle the clippings by using a mulching mower or mixing them into the compost. Grass clippings add nitrogen when decomposed. Deep watering lawns on a regular, but less frequent timing, will encourage deeper root growth that will help grass survive the summer's heat. Considering removing the lawn? Check out this site for the technique that works best for you. www.ucanr.edu/scmg/Lawn_Replacement/Grass_Removal_Methods

Fruit

If you (or the squirrels) haven't thinned your fruit trees and vines, they can still benefit. Thin fruit trees (apple, peach, cherry, apricot and grapes), so that there is six inches between each fruit or cluster. This may seem drastic, but your fruit will be larger, more flavorful and it will greatly reduce the risk of broken limbs and branches because of the weight of the fruit.

- Fruit Trees: Thinning Young Fruit http://ceyolo.ucdavis.edu/files/53015.pdf

Mature fruit trees need a deep soaking every week during crop production. Grapes do best with deep water to a depth of around eighteen inches and then allow them to dry to a depth of about six inches between watering. Birds can be deterred by using netting and by placing shiny objects in the canopy. There are commercial, bright reflective tapes available. Old CDs work as well when strung from tree branches.

How you care for your fruit trees during the summer months will help determine the fruit production of the next season. Deep soak fruit trees throughout the summer. Drip irrigation or soaker hoses installed towards the edge of the leaf canopy are the most efficient ways of deep watering for fruit (or any other) tree. Fertilize (follow the label directions) or top dress around the fruit tree with a layer of compost or humus.

Summer pruning of fruit trees is for shaping to give strength to branches for the next year.

- Fruit Trees: Training and Pruning http://ceyolo.ucdavis.edu/files/52981.pdf

The Cherry Maggot (*Drosophila suzukii*) has invaded home cherry crops for the past several summers. The maggots are not discovered until the cherries are ready to harvest. There are several methods of reducing or eliminating this pest. The most environmentally friendly method is to use Spinosad with four to six tablespoons of molasses per gallon of water. For a complete discussion of this pest problem visit http://www.ipm.ucanr.edu/PDF/PEST/NOTES/pnspottedwingdrosophila.pdf

Vegetables and Herbs

The most popular vegetable (technically a fruit) is the tomato. It usually grows effortlessly and is happiest when it is deep watered two times a week. This helps reduce cracking, ridging and blossom end rot. Tomatoes will shut down blossom production when it is in the 100s. Keep an eye out for small black droppings (frass) of the tomato hornworm. Look around and above where you see the frass and hand pick any tomato hornworms you find. The hornworms will damage both the leaves and the fruit.

- Tips to Grow Tomatoes Successfully https://ucanr.edu/sites/YCMG/files/217956.pdf
- What is Wrong With My Tomato Plant https://ucanr.edu/sites/YCMG/files/217957.pdf

To keep vegetable crops continually blooming, harvest regularly, and continue inspecting for pests. In August, pinch back the plants to help the existing fruit to ripen before the cooler weather arrives. Harvest herbs just as the flowers begin to form for the most intense flavor. If your harvest is bountiful, dry your herbs, by hanging them upside down in bunches for future use.

Surprisingly now is the time to begin thinking about your fall/early winter vegetable harvest. Fall/early winter vegetables, such as broccoli, cabbage, and Brussel sprouts need to be seeded in late July then transplanted in August/September for your fall/early winter vegetable garden. Shelter these from the intense summer sun and any particularly hot Fall days. Shade cloth draped over a simple support frame will keep these plants strong and healthy to produce in the early winter.

- Vegetable Planting Guide http://ceyolo.ucdavis.edu/files/53274.pdf

Flowers

Flowers need to be deadheaded to encourage repeat blooming. Continue to fertilize your flowers, especially heavy feeding roses, every six weeks through October. For a full October bloom, prune your roses back by one-third in August. If you prefer the beauty of rose hips, then refrain from pruning your roses in August.

Potted plants and hanging baskets will develop well if given a weekly feeding of liquid fertilizer. They also require more frequent watering.

Tall herbaceous plants such as cosmos, and dahlias need to be staked or supported.

Prune spring blooming shrubs after the blossoms drop. Spring blooming vines such as lavender trumpet vine and clematis should be pruned after the blooms have faded Fertilize after pruning to encourage bud set for next spring

It is not too late to plant quick blooming summer seeds, such as sunflowers and cosmos. You can also plant summer blooming bulbs, such as cannas.

Continue to harvest your vegetable and herb crops on a regular basis, to promote and prolong summer's bounty.

Summer gardens bring enjoyable surprises and anticipation.
Try planting some new flowers, herbs, and vegetable varieties. You may discover that you have a new favorite to add to your tried-and-true plantings.

Tend to your summer garden regularly and it will provide a season of bountiful rewards and be a welcoming summer retreat.

California Gardens

As we transition back to more normal routines of life and travel consider visiting some of the wonderful gardens of California.

https://www.visitcalifornia.com/experience/must-see-gardens-california/
https://www.proflowers.com/blog/15-best-botanical-gardens-california/

HOW TO CONTACT US:

Like us on Facebook: UCCE Yolo County Master Gardeners.

Check our website for FREE gardening publications:
http://ucanr.edu/yolomg.

Email questions: mgyolo@ucdavis.edu

Telephone: 530-666-8143.

Questions about your garden?

We'd love to help!

UCCE Master Gardener, Yolo County Hotline.....(530) 666-8737

Our message centers will take your questions and information. Please leave your name, address, phone number and a description of your problem. A Master Gardener will research your problem and return your call.

E-Mail..... mgyolo@ucdavis.edu

Web Site ..... http://yolomg.ucanr.edu

Facebook.....UCCE Master Gardeners, Yolo County

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Send a Letter to an Editor!

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