



# THE YOLO GARDENER

Winter 2021

A QUARTERLY PUBLICATION BY THE UCCE, MASTER GARDENERS OF YOLO COUNTY

## Welcoming the Rain!

Mary Stokes, UCCE Master Gardener, Yolo County

UCCE Master Gardeners, Yolo County, are collaborating with the City of Woodland on a rain garden project at Crawford Park that is designed to do just what the title suggests -- welcome the rain, and retain it, rather than rushing that much-needed water into the storm drains as quickly as possible.



The lower parts of the basin are planted with dense groundcovers which, once established, will exclude weeds and withstand both drought and periodic inundation.

What is a rain garden? Not a pond, though at first glance it might look like one. It's a shallow basin, with permeable gravel and soil layers beneath it, designed to infiltrate water into the soil and ultimately to the groundwater below. It is designed so that standing water drains down before mosquitoes have time to reproduce.

A rain garden can not only protect the neighborhood from street flooding and drainage problems, but also help to recharge the groundwater. It is carefully placed to intercept storm water runoff, slow it, and sink it.

The garden also serves as a small-scale water filtering system. In natural areas, wetlands and grasslands naturally shield downstream watersheds from many pollutants, even pathogens that can cause illness. For example, the parasite that causes Toxoplasmosis in

domestic cats has been carried by urban runoff to cause disease among the recovering sea otter population. With good design, our gardens can reduce runoff and filter water more effectively.

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**Bonus: Water Savings and a Carbon Sink**

Rain gardens are an attractive and practical way to conserve water. Replacing thirsty turf, native perennial grasses and flowering plants survive drought by in part with deep and dense root systems, which also create channels for water to percolate through. This underground ‘biomass’ also stores carbon and accumulates more of it every year.



*The heavy rainfall event in late October this year (>4" in 24 hrs.) gave the new garden a chance to show its worth in stormwater management.*

of this project visit [EnviroWoodland.org/RainGarden](http://EnviroWoodland.org/RainGarden). To learn about upcoming workshops and volunteer opportunities to work on the rain garden follow @EnviroWoodland on social media (Instagram/Facebook).

**Resources for More Information**

UC Davis Arboretum Teaching Nursery – Tour the demonstration gardens and check out their “Life After Lawn” blog posts.

*Rain Gardens*, UC Agriculture & Natural Resources, Publication 8531, booklet, 17 pp, free download. <https://anrcatalog.ucanr.edu/>

*Sustainable Gardens in California*, UC Agriculture & Natural Resources, Publication 8504, booklet, 21 pp, free download. <https://anrcatalog.ucanr.edu/>

*Rain Gardens: Sustainable Landscaping for a Beautiful Yard and a Healthy World*, Lynn M. Steiner, 2012, Paperback

Rain Garden videos: YouTube features several video clips including a segment of *This Old House* with landscape contractor Roger Cooke, and another hosted by the Nature Conservancy.

The Sonoma Master Gardeners has published *Food Gardening with Less Water*.

[http://sonomamg.ucanr.edu/Food\\_Gardening\\_with\\_Less\\_Water/](http://sonomamg.ucanr.edu/Food_Gardening_with_Less_Water/)



*After two days of soaking rains, the garden had completely drained by the morning of Tuesday, December 14th.*



## Disease Resistant Varieties May Be a Useful Garden Tool

*Michael Kluk, UCCE Master Gardeners, Yolo County*

If you have a garden, you have probably been challenged by diseases on occasion be they fungal, bacterial or viral. Or maybe you noticed the tell-tale signs of root knot nematodes (microscopic round worms that attack plant roots) when you pulled up your tomato plants at the end of the season. However, there are disease resistant vegetables and fruit trees may help to keep your garden and backyard orchard healthy with no effort on your part. Approaching the seed catalog and bare root fruit tree season, it is timely to look at these options. We won't have space to include annual and perennial ornamentals but for those of you interested, here is an article from Purdue Extension that discusses some disease resistant cultivars.

<https://www.extension.purdue.edu/extmedia/id/id-414-w.pdf>

From the outset, lets define a couple of terms; a **cultivar** is a hybrid plant that is produced and maintained by horticulturists and does not produce true-to-seed. Most disease resistant vegetables are hybrids that have been produced specifically to be disease resistant. (Those that are open pollinated will produce true-to-seed.) Most fruit trees have been bred selectively but are not hybrids. There is no accepted definition of **heirloom**. It tends to denote an open pollinated variety that was selected many years ago and saved year after year. Many heirloom vegetable varieties have interesting flavor or other qualities but not all. It is, in many respects, simply a marketing term.

Let's also be clear that we are not talking about genetically modified organisms (GMO). There are no GMO vegetable or fruit seeds, or plants sold directly to home gardeners. The following vegetable and fruit tree cultivars were all developed by traditional plant breeding techniques. Typically, a plant breeder will observe thousands of individual plants to see if any seem resistant to a particular pathogen that plagues the species. Finding one, he or she will propagate it through seeds or cuttings and then expose the daughter plants to the pathogen to see if any have continued the resistance and, with luck, are even stronger. This process can go on through many generations until the progeny are reliably resistant to a particular pathogen.



*Cucumber Mosaic Virus*

By simply selecting a resistant cultivar, you can enjoy healthier plants in your vegetable garden or orchard. This will continue for the season or, for perennials, years without any additional effort by you. This has significant environmental benefits since you will not need to regularly spray fungicides to control fungus diseases or insecticides to kill insects that may carry a particular bacterial or viral disease. You will run much less risk of inadvertently killing beneficial insects that can help control pests in the first place. For many fungal diseases, nematodes, and some insects, there simply are not any effective treatments available to the home gardener and orchardist. So, resistant cultivars may be your first, best and only line of defense.

For some, disease resistant cultivars may be less desirable because most are hybrids. They have been bred by crossing a disease resistant variety with another that may have better flavor, yielding a plant that has the best qualities of both. If you are a gardener who wants to grow only "heirloom" varieties, this may seem undesirable. (There are some disease resistant heirloom varieties, however. A few will be included below.) Consider that growing resistant hybrid varieties, for some diseases and nematodes, may, over time, eliminate the problem from your garden, allowing you to reintroduce nonresistant heirloom varieties. You can, of course, continue to grow some disease or nematode susceptible varieties, you will just need to put up with reduced production or increased

mortality. A significant downside to that approach is that disease organisms or nematodes will have an opportunity to perpetuate in your garden if they can find a susceptible host.

The use of resistant cultivars does not substitute for other good gardening practices. In many instances, resistance does not mean there is no vulnerability. Some resistant cultivars will still be negatively affected, but less than their more susceptible brethren. It is still important to maintain good garden sanitation. Many fungus spores are spread from the remnants of last year's infected leaves. Insects that carry disease may winter over in piles of leaves or under discarded boards. Nematodes can be spread from bed to bed in the soil clinging to tools.

Most plant diseases are caused by fungus, from peach leaf curl to powdery mildew. There is no surprise that fungus resistant cultivars are a focus of many plant breeding programs. Many bacterial and virus diseases are spread by insects that transmit the disease when feeding. But many others can blow in the wind and find entrance through a wound or are simply transmitted by contact. Tobacco mosaic virus, that affects a wide variety of plants, can be transmitted by plant-to-plant contact and even on the hands of a smoker.



*Peach Leaf Curl*

[mgyolo@ucdavis.edu](mailto:mgyolo@ucdavis.edu).

If you are trying to protect your plants from a pathogen you noticed last year, it is important to be able to identify it. There is, unfortunately, a bewildering variety. Sometimes it is difficult to identify whether symptoms are caused by a virus, bacteria or fungus and pinpointing the pathogen adds another layer of complexity. But it is a necessary effort. It won't do much good to plant a cultivar that is resistant to white rust if your problem is powdery mildew. Fortunately, there is a significant amount of helpful information readily available. First and foremost is the University of California Statewide Integrated Pest Management web site, <http://ipm.ucanr.edu/>. There you can find a list, including pictures, of common plant diseases, categorized by plant type. In the Quick Links you can find the Plant Problem Diagnostic Tool that will take you through a series of questions to help focus in on a particular pathogen. Yolo Master Gardeners can also help through the information line, (530) 666 8737, or by email at

You may be able to find disease resistant varieties locally as seeds, seedlings, or bare-root trees. In some instances, you may find a better selection through an online seed catalog or nursery. Most seed packages will tell you if that cultivar has any disease resistant properties. Vegetable seedlings sold commercially will normally have a tag telling you if the cultivar has disease resistance. For example, tags for tomato plants may say V F N resistant. That stands for verticillium and fusarium, soil borne fungal diseases, and nematodes. Fruit trees are a significant long-term investment. Some varieties are resistant to peach leaf curl (a fungus), fire blight (a bacteria) and several more. It pays to choose wisely.

The table below includes a few examples of disease resistant cultivars. This is a very small sample of those that are available. Many of these cultivars are available from multiple retailers. Some of the vegetables may be available locally, some are best obtained from an online source. For many more disease resistant vegetables see, <https://www.vegetables.cornell.edu/pest-management/disease-factsheets/disease-resistant-vegetable-varieties/> If possible, fruit trees should be sourced locally so that you can check for general tree health and sound roots. Also, consider that plums tend to have fewer disease issues in our area than other stone fruits and pomegranates, persimmons, jujubes and most citrus are also relatively disease resistant.



*Fusarium Wilt in tomatoes*

*A Few Disease Resistant Cultivars**Vegetables*

<b>Cultivar</b>	<b>Disease(s) Resistant To</b>	<b>Comments</b>
Bean- Malibu	Common Mosaic Virus, Curly Top Virus, Halo Blight	An open pollinated variety.
Bean- Seychelles	Common Mosaic Virus	I have grown this; very productive, long season
Cucumber- General Lee	Cucumber Mosaic Virus, Downy Mildew, Powdery Mildew, Scab	
Cantaloupe- Ambrosia F1	Downy Mildew, Powdery Mildew	Excellent cantaloupe
Watermelon- Sorbet	Anthraco nose, Fusarium Wilt	
Squash- Gold Star	Cucumber Mosaic Virus, Powdery Mildew	In my experience, moderately but not completely resistant to mosaic
Squash- Mexicana	Cucumber Mosaic Virus, Powdery Mildew, Papaya Ringspot Virus, Root Rot, Watermelon Mosaic Virus (Strain 2), Zucchini Yellow Mosaic Virus	Good resistance to mosaic virus
Pepper- Yolo Wonder	Tobacco Mosaic Virus	
Tomato- Super Sweet 100	Early Blight, Fusarium Wilt, Fusarium Wilt 1, Late Blight, Tobacco Mosaic Virus, Verticillium Wilt, Verticillium Wilt 1, Verticillium Wilt 2	Very sweet small red tomato, produces late in the year
Tomato- Ace 55	Alternaria Stem Canker, Fusarium Wilt 1, Verticillium Wilt	Open pollinated variety developed at UC Davis
Tomato- Celebrity	Alternaria alternata, Alternaria Stem Canker, Fusarium Wilt, Fusarium Wilt 1, Fusarium Wilt 2, Gray Leaf Spot, Root Knot Nematode, Tomato Mosaic Virus, Tobacco Mosaic Virus, Verticillium Wilt, Verticillium Wilt 1, Verticillium Wilt 2	
Tomato- Early Girl	Fusarium Wilt 1, Fusarium Wilt 2, Root Knot Nematode, Tobacco Mosaic Virus, Verticillium Wilt	Consistently produces early and late into the year
Tomato- Lemon Boy	Alternaria Stem Canker, Fusarium Wilt, Fusarium Wilt 1, Gray Leaf Spot, Root Knot Nematode, Verticillium Wilt	

*Fruit Trees*

Cultivar	Disease(s) Resistant To	Comments
Peach- Frost	Peach Leaf Curl	
Peach- Muir	Peach Leaf Curl	
Nectarine- Hardired	Bacterial Spot, Brown Rot	
Apple- Enterprise	apple scab, cedar apple rust and fire blight;	Requires a pollinator
Asian Pear- Shinko	Fire Blight	
Pear- Warren	Fire Blight	



**Grow Our Own**

*Jack Kenealy, UCCE Master Gardener, Yolo County*

I am always on the lookout for books and magazines related to gardens and gardening. Seven or eight years ago I found and subscribed by way of my Nook app to *Grow Your Own* magazine. This publication describes itself as the United Kingdom’s best-selling kitchen garden magazine and it’s easy to see why that might be. Gardening tips, articles on soil improvement, available new tools, and techniques, as well as information on flowers, birds and insects all find their way into its colorful pages. Each month four or five vegetables are given pages of detailed photos and instructions as the emphasis is on growing vegetables, nuts, roots, and herbs. The November 2021 edition, for example, discusses in detail garlic, sweet potatoes, strawberries, and blueberries.



Obviously, the conditions in Great Britain are unlike those in Yolo County and adjustments must be made. Crops and chores in October issues I treat more as things to do in December. Another adjustment concerns certain nomenclature. Aubergines and courgettes are eggplants and zucchini. A rototiller here is a rotavator there.

A recurring topic in *Grow Your Own* is “Jobs on the Plot”. Over the years I’ve read this as a recital of the seasonal chores all gardeners recognize. Recently though, I became intrigued as to what was meant by a ‘plot’ or ‘allotment’ and I wondered how such things compared to our own community gardens.

**Allotments**

In the U.K., allotments are small parcels of land rented to individuals for the purpose of growing food crops. While there is no standard size a typical allotment or plot is roughly three hundred square yards. The land itself is often owned by a local parish or town council, or self-managed by an association of allotment holders. Rent for a plot may range from an incredibly low six dollars a month to as much as two hundred dollars a month. The information which follows comes from allotment-garden.org, an amazing source for all things allotment. Available there are photo galleries from a long list of local allotment and gardening associations.

Allotments have a long and very interesting history. “In the late 1500s wool became an important commodity so in order to raise more sheep landowners began to enclose common lands that had previously been used by the poor for growing food and keeping animals. In compensation allotments of land were attached to tenant cottages. During the 17<sup>th</sup> and 18<sup>th</sup> centuries more and more people moved into cities as more and more land became enclosed and a subsistence economy evolved into a more industrial system. ‘General Enclosure Acts’ were enacted by the English Parliament in 1836, 1840, and 1845 all permitting the further enclosure of public lands. Without benefit of a social welfare system, it was possible for the poor to starve. Recognizing the danger



*Typical Allotment in Great Britain*

of civil unrest, even of revolt, the Act of 1845 also required provisions for the landless poor to have access to “field gardens” limited to a quarter of an acre. This was the origin of statutory allotments.

Over the years several enactments refined the system and made more and more land available for the “landless poor”. In the twentieth century the system was strengthened during the rationing of food during the two world wars. Food rationing existed in England as late as 1954. Today there exists a body of law regarding the rights and duties of owning an allotment much like our own laws of real property.

### **Community Gardens**

The purpose of allotments in the U.K. is to provide space for urban or city dwellers to grow their own crops. In Yolo County, any number of community gardens exist, the primary purpose of which is education. Community gardens are common in Yolo County, often found in schools, near churches, and increasingly they may be found by businesses and clinics. “From farm to fork” is the rallying cry of many proponents of local community gardens.

“Woodland calls itself the City of Trees”, says Linda Hanigan, founder of ‘Dinner on Main’, but, as a consequence of the number of its community gardens, it could rightfully call itself the “City of Gardens”. Dinner on Main operates the edible learning garden established at what was once a patch of lawn at City Hall in Woodland.

Recalling the initial construction of the garden in 2016 Hanigan cites City Manager Ken Hiatt as observing “we should be watering vegetables instead of lawn”. The food grown is donated to the shelter at Fourth and Hope but the garden serves a number of purposes. This and other locations are “edible learning gardens” where students learn the source of the food they eat at school and home.

Stephanie Burgos of the Yolo County Office of Economic Development observes that Yolo County is an agricultural powerhouse making it especially important our young people have a deep understanding of exactly where our food comes from. Community gardens help serve this purpose.

While public operated community gardens proliferate, privately operated gardens are growing in number. Communicare, a non-profit organization dedicated to providing for the underserved population, has created a learning garden the produce of which is distributed to their clients. La Tourangelle, an artisan oils producer whose bottling plant operates in Woodland, has created an edible learning garden on their premises. Clearly community gardens are becoming more and more popular.

Dinner on Main in Woodland, for example, celebrates our agricultural traditions each year, the third Sunday each September, by hosting a, yes, dinner on Main Street in Woodland. Each year it gets bigger and bigger with more than a dozen local restaurants serving appetizers and entrees to more and more people. Inarguably the educational aspects of community gardens cannot be understated. But is it enough?

I asked Stephanie Burgos to assume I was a tenant at an apartment complex in Woodland or Davis who wished to grow my own food. “Is there a place for me?” Sadly, the answer was no. Many years ago, I lived in Redding, CA at a time when Hmong were being relocated there. I found it fascinating that they grew vegetables otherwise impossible to find in stores almost anywhere. Even the right of ways for railways and freeways were cultivated. It seems to me that empty plots controlled by our local communities could and should be converted to an allotment style use. Walking by the old Courthouse in Woodland, for example, I find myself asking if it wouldn’t be better to water vegetables than that expanse of lawn.



## *Fun Facts About Trees – and How to Grow Them*

*David Studer, UCCE Master Gardener, Yolo County*

Let's start with some motivation. Memorize some of these "fun facts" and amaze your friends at parties. Here we go...

- According to the U. S. Environmental Protection Agency (EPA), tree shaded surfaces can be 20°F to 40°F cooler, evapotranspiration--which one can think of as the trees natural exhaling of water vapor--adds an additional 2°F to 9°F cooling, and trees shading the south or west side of the house in Yolo County can save up to 30% on air conditioning costs.
- Home and Garden Television (HGTV) sights studies that indicate mature trees in the landscape can increase a home's value 7%-19%.
- The Arbor Day foundation has a bunch of "tree facts" here's just one: One large tree can supply enough oxygen to support a two people.
- Trees are inspirational.

I think that I shall never see  
A poem lovely as a tree.  
—From "[Trees](#)" by Joyce Kilmer

(This is the first of many from the Poets.org website. Here's a link <https://poets.org/text/poems-about-trees> Enjoy. Artists such as Ansel Adams and Gregory Kondos are well known for trees featured in their artwork (check out the windows in Terminal A at Sacramento International Airport). Musically we have "Tie a Yellow Ribbon 'round an Old Oak Tree", "Talked to the Trees", and learned lessons from the lovely "Lemon Tree".)

- Backyard trees support a variety of birds, insects, and other small creatures with food (fruits, nuts, seeds, nectar, and even bark and leaves for some), shelter, and nesting sites and nest materials. Trees also serve as shelter from the sun or from predators and offer those same predators a perch from which to hunt.
- If you've been paying attention the last couple of months, the fall color in Yolo County has been spectacular. Some of the nicest trees for fall color are ginkgo (bright creamy yellow), Chinese pistachio (red like the sunset), maple (reds and yellows), and persimmon (golden orange and the fruit is wonderful to boot!)
- Grow you own fruit. I mentioned persimmons above but there are many other fruit bearing trees that grow well in Yolo County like all kinds of citrus (excluding grapefruit), apples, Asian pear, plums and more! Plant what you intend to eat leaving only a few on the tree for the birds.
- All of those fallen leaves make very good mulch for garden plants including the trees the leaves fell from. Rather than giving those leaves to the "claw" or putting them in your green waste bin, rake them into your compost pile and use the compost next spring as mulch.
- Trees can be used as wind breaks and privacy screens. They can reduce noise from nearby freeways by up to ten decibels (but not from the neighbor's barking dog--just kidding).

Now that you are motivated, here's how to plant a tree.

Remember, trees are investments, and they depend on you. If you love and nurture them, they will make you proud. Pick the right tree for the right place. A poorly located tree creates headaches, heaving driveways or walkways, excessive pruning work and job security for the local sewer “Rooter”. So, avoid planting too closely to underground utility lines and overhead wires. Plant *at least* five feet from the water line and ten feet from the sewer line.

Before you ask, the perfect rapid-growth-great-shade-no-mess-low-maintenance-spring-blooming-excellent-fall-color tree doesn't exist. Let that idea go now and your choice becomes easier. A survey of the neighborhood can identify healthy trees that you like. Notice the environmental conditions—sun exposure, wind exposure, space, water, drainage. Selecting a tree that fits the location and flourishes in the local environment increases its ability to survive and reduces stress on the tree and future problems.

Planting in the early spring or late fall months can minimize stress from extremes of heat or cold on the young tree and improve its ability to establish a good root system and flourish.

Dig the hole at least twice the width of the tree's original container but no deeper than the root ball—so that when placed in the hole the root ball rests firmly on the un-dug bottom of the hole and its top is level with the surrounding soil. Backfill around the root ball with the un-amended original soil. Finally, build a basin with the remaining soil that is initially no bigger than the root ball. Flood the basin to settle the soil. Widen the basin gradually as the tree becomes established and remove it after the first growing season.

Keep turf grasses and other plants away from the trunk of the tree to minimize competition for water and soil nutrients. Place a three to five inch ring of mulch about four to six inches deep around the base of your tree keeping it three to six feet away from the trunk. A good mulch layer will aid in weed control, moisture retention, and help moderate the soil temperature around the tree's root zone.

Water to a depth of 15 inches once a week for the first growing season, then less often as the tree becomes established. Deep watering is best, as frequent shallow watering encourages problematic surface roots.

A new tree may need staking if it cannot support itself or if it will be exposed to strong winds. Remove the training stake that comes with the tree--that 1/2" bamboo stake tied tightly to the trunk with plastic tape. Replace it with two new stakes or poles, one on either edge of the planting hole perpendicular to the prevailing wind direction. Provide support for the tree at the lowest height at which the will stand up straight. Use a soft flexible material such as tree tape or an old bicycle inner tube to protect the bark. and leave enough play in the ties to allow the tree to sway just a little in the wind. Swaying in the wind strengthens the tree's trunk as it grows. Check the ties periodically—they may need to be adjusted or replaced if they rub or cause injury to the bark. The stakes or poles should be removed as soon as the new tree is able to support itself.

If you decided to plant a bare root fruit tree, cut the trunk down to a place about 2' above the ground just above a "node" (a small bump from which branches can sprout). If you're unsure where this is, ask the nursery person for guidance. Happy gardening!

If you need more convincing, try these websites.

[https://ncseagrant.ncsu.edu/ncseagrant\\_docs/products/2010s/ss\\_trees\\_benefits.pdf](https://ncseagrant.ncsu.edu/ncseagrant_docs/products/2010s/ss_trees_benefits.pdf)

<https://www.arborday.org/trees/treefacts/>



## Ground Cover Trial: Part Three

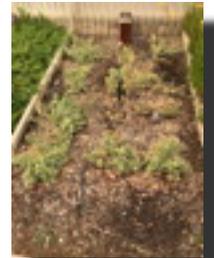
*Sue Fitz and Paula Haley, UCCE Master Gardeners, Yolo County*

In 2017, a ground cover trial was initiated at Woodland Community College to evaluate the best groundcovers for Yolo county's hot, dry climate. The first two parts of this article appeared in the Summer and Fall issue of the Yolo Gardener. This third article finishes up the evaluation of the thirteen plants chosen for the trial, recommendations based on the results, and a few tips on planting and establishing groundcovers.



9. *Bulbine* 'Hallmark' is a succulent from south Africa, forming grassy-looking clumps topped by almost continuous wands of salmon-colored flowers. The clumps expand at a fast rate, filling in quickly and suppressing weeds well. It propagates easily, a small stem, broken off the main plant and inserted into the ground roots quickly. One, overgrown one-gallon plant provided enough pieces to plant the whole area, which means it would be very inexpensive to initially start a planting, a factor if cost is an issue.

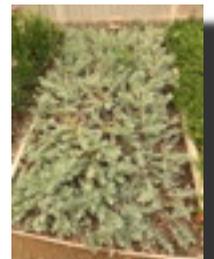
10. *Euonymus* 'Emerald Gaiety' is a trailing, vine-like shrub, that roots wherever the stems make contact with the ground. This is a variegated form, with white-splashed foliage. This has been disappointingly slow to fill in, after five years, there is still ground visible between plants. Other plantings of this on better soil have filled in within three years, and are dense enough to suppress weeds. It is also one of the few choices evaluated that will tolerate part shade.



11. *Myoporum* is a fast growing, almost rampant shrub that grows flat against the ground. It has small white flowers in early summer. It filled in within eighteen months, and completely excludes weeds. It does have a few major drawbacks, however. It is borderline hardy, dying back unattractively if we have a long, prolonged hard freeze. It will eventually recover, but it takes a long time for it to cover up the dead foliage. This has become less of an issue over time, as climate change is making such freezes a rarity. The other problem is it slowly builds up in height over time, rising to eighteen inches. The sheer vigor of the plant can be a positive or negative feature, it can fill in a large space quickly, making ideal to replace a large lawn, but also means it will need frequent clipping back if planted in a too small spot.



12. *Eremophila glabra* 'Grey Horizon' is a prostrate selection of an Australian native. It has grey leaves and pale-yellow flowers in spring. It filled in after three years, but is not dense enough to completely exclude weeds. This is a problem, for the stems of the plant are brittle and can't be walked on. It may also be hard to find, it is not a common plant in our area.



13. *Salvia mellifera* 'Terra Seca' is a prostrate form of a native sage, that has soft, gray-green leaves and pale lavender flowers in the spring that are attractive to bees. The plant filled in very quickly, then began to grow taller than the eighteen inches, which was its stated height. Debates ended about removing it due to the height being more than what would be considered a lawn replacing ground cover, when it suddenly died, probably from being given more water than it needed. It was replaced by-



14. *Tulbaghia violacea*, commonly named society garlic. This is a tough as nails clumper, with long slender leaves, and almost continuous stalks of lavender flowers. It has filled in quickly with eighteen inch spacing, and is dense enough to exclude weeds. Dividing one overgrown one-gallon pot of this, was enough to plant the entire area, making it a cheap choice if money is a consideration. Its only drawback is the powerful onion scent of the foliage if stepped on, so it's best not to place it right up against paths.

15. *Lobelia laxiflora* was already planted in the area decided for use for the trials. At first, it was going to be removed, but it was realized it met the conditions of a groundcover very well, so it was left in. It is an evergreen perennial, with bright red and orange flowers produced during summer and fall. Hummingbirds like it. It spreads by underground stolens, their speed determined by the amount of water it is given. It can top the height limit of eighteen inches, but that happens only if it is given abundant water.



#### **Recommendations:**

- For large-scale areas- *Myoporum*, *Lippia*, Society Garlic, Wire Vine, *Carex pansa*
- For small-scale areas- *Dymondia*, Oregano, *Verbena peruviana*
- For part shade- *Euonymous*
- For color- *Verbena peruviana*, *Bulbine*, *Lobelia laxiflora*, Society Garlic
- For a budget- *Myoporum*, *Lippia*, *Bulbine*, Society Garlic, *Carex pansa*

#### **Tips-**

- Start with a clean slate. Be sure there are no perennial weeds in the planting area, especially around the sides of the area. Nothing looks uglier than a groundcover spotted with Bermuda grass or Bindweed. If nutgrass is present, which is impossible to eradicate, use *Carex pansa*, the two plants look enough alike that the nutgrass should be undetectable.
- The soil should be loosened, and compost added if the soil is clay or heavy loam.
- Spacing of initial plants is dependent on budget restrictions, how fast the plants grow, and how long you're willing to have to weed. Eighteen inches is about the limit for slower growing plants and clumpers. For the faster growing plants like *Myoporum* and Wire Vine, thirty inches will do.
- If on a tight budget, buy what you can afford, and plant one section of the area to be covered. Mulch the rest. Once the plants have spread and doubled or tripled in size, you can divide them and use the divisions to plant the next area. Repeat until the whole area is planted. It's slow but keeps the cost and the weeds down.
- If you're planting something that can't be walked on, but needs occasional weeding even after filling in, place stepping-stone pathways throughout the bed before planting. If money is tight, foot square concrete pavers are cheap at box stores, and will not be that noticeable once the ground cover fills in and softens the paver edges.
- Use a time release fertilizer in the planting hole when planting. Do not broadcast fertilize at first, the weeds are aggressive enough without help. Broadcast fertilize a couple of times a year, once the ground is completely covered by the groundcover.
- Hand weeding is tedious and needs to be done monthly to keep the weeds from swamping the young groundcover starts. If you are generous with the water while the plants are establishing and filling in, the faster they will grow, and the period of hand-weeding will be greatly reduced.

- If you are not a purist, use a pre-emergent herbicide to control weeds. While not cheap, the time saved in not having to constantly hand weed for at least a year, possibly even two years, depending on the groundcover, makes the money well spent. They usually need to be applied every six months, until the plants completely obscure the soil.
- Once the plants fill in, gradually reduce watering intervals until the plants just start to look stressed. This will be in the neighborhood of every ten days to two weeks, possibly longer depending on how attractive you need the planting to be, which groundcover you used, and how heavy your soil is.
- Use drip with the clumping groundcovers, and drip can be used with the very low growing groundcovers by using microsprayers elevated on stakes. The taller, running groundcovers will need sprinkler irrigation.



## *Growing Better Tomatoes, Part One: Selecting Successful varieties*

*Tanya Kucak, UCCE Master Gardener, Yolo County*

How was your tomato harvest this year? I've been hearing some gardeners talk about poor harvests, while other gardeners say their yield was about the same as other years, or better. The main difference seems to be that if you grew mostly cherry tomatoes and hybrid varieties, it may not have seemed much out of the ordinary. Yet some neighbors at the community garden were even disappointed with their Early Girl F1 and Sungold F1 yields. Still, if you planted primarily heirloom and open-pollinated varieties, your harvest probably fell far short of expectations.

This year, the heat waves seemed earlier, hotter, and longer than previous years. Some of my plants produced no tomatoes, or only one or two. Temperatures above eighty-five degrees Fahrenheit can prevent pollination from happening, because the pollen becomes too sticky. But plants that are under stress can also abort flowers, according to tomato breeder Fred Hempel. The stress can come not only from extreme heat, but also from drought, if winter rains have been sparse and irrigation is insufficient.

Since I moved to Davis four years ago, I've been growing about sixty plants (fifty varieties) a year, almost all open-pollinated. My two bellwether varieties from the Bay Area -- Rose de Berne and Pruden's Purple -- have done almost as well here and have been almost as reliable -- until this year. In one Redwood City part-sun garden, even some cherry tomatoes had difficulty producing. But I had a steady harvest of Rose de Berne clusters there one summer, and it has been equally consistent in full sun. For at least a decade, Pruden's Purple was the earliest of my great-tasting large tomatoes in my Palo Alto gardens. This year, I had a measly twenty smaller tomatoes from Rose de Berne, and none at all from a large, thriving Pruden's Purple plant.

At least two-thirds of my varieties each year are new to me. I'm always searching for varieties that taste great and that will do well at my garden site. But over the years I've learned that it takes at least two to three years to determine if a particular variety is a keeper. At best, growing a single plant of each variety can tell you if you like that variety. If you're growing from seed, you can determine if the seed grows true. Other than that, it is risky to generalize from a single plant grown in a single year. With those caveats in mind, I polled Yolo Master Gardeners as well as backyard gardeners on the Gardeners and Homesteaders of Davis social-media page. Here are some comments on varieties that did better than average this year.

Patricia Carpenter, who has been growing tomatoes in Davis since 1973, grew nineteen mostly nematode-resistant varieties this year. Her three cherry varieties did the best. ‘Mortgage Lifter’, ‘Nova’ F1, ‘Celebrity’ F1, ‘La Roma III’ F1, and ‘Lemon Boy’ F1 also “did well this year, but generally better in 2020.”

Don Shor, owner of Redwood Barn Nursery, has been growing tomatoes near Dixon since 1976. He grew about thirty plants this year, about half hybrids. “Most had harvest comparable to previous years. A few were well above-average, a couple were well below average (all heirlooms except ‘Cherokee Purple’).” The best producers this year were ‘Blue Ribbon’ F1, ‘Bodacious’ F1, ‘Celebrity’ F1 (“consistent but prone to sunscald”), ‘Champion’ F1 (“always a top performer”), ‘Chef’s Choice Orange’ F1, Chef’s ‘Choice Bicolor’ F1 (“all in this series have done well so far, but the Orange is the best overall”), ‘Cherokee Purple’ (“this was a surprise”), ‘Early Girl’ F1 (“always consistent”), ‘Itz a Keeper’ F1 (“quite firm and stores well”), ‘Red Furry Boar’ (“high yields, small fruit”), and ‘Sungold’ F1 (“always yields well”).

North of Woodland, Treva Valentine has been growing tomatoes for thirty-two years. Of her fifteen plants this year, ‘Picus’ F1 was “the best canner we have ever grown.” Other standouts were ‘Woodle Orange’ (“the best orange variety we have ever tasted or grown; it did well, but usually produces longer than it did this year”), ‘Carbon’ (“a favorite black variety which also did fairly well”), ‘Galahad’ F1 (“by far the most productive of the six slicers”).

In South Davis, Michael Kluk’s tomatoes were “better than average this year.” He has been growing about a dozen plants a year for the past six years. This year, he grew fourteen varieties, including ten hybrids. ‘Early Girl’ F1, ‘Sungold’ F1, ‘Sweet 100’ F1, and ‘Chocolate Cherry’ were his “best varieties”; ‘Celebrity’ F1 and ‘Lemon Boy’ F1 were “less so but ok.”

Bonnie Berman grows six plants each year in North Davis, generally one or two heirlooms and the rest hybrids. ‘Celebrity’ F1, ‘Chef’s Choice Orange’ F1, and ‘Sungold’ F1 are “consistent performers.” This year was “very poor; last year was very productive.”

Julie Ekstrom Spiteri, who has been growing tomatoes in south Davis for seven years, grew up in Sacramento watching her dad garden. This year she grew four tomato plants: ‘Early Girl’ F1 (“a dud: tons of flowers and they all dropped”), ‘Celebrity’ F1 (“filled with fruit, beautiful and nonstop”), ‘San Marzano’ (“less than normal”), and an heirloom cherry (“not well cared for but did produce well”).

Other gardeners noted that in general, tomatoes were fewer and smaller than last year, though cherry tomatoes did well in nearly every garden. One gardener said ‘Black Krim’ did especially well.

In my garden, cherry tomatoes outproduced all others (‘Komohana Grape’, ‘Hibor’, ‘Pink Princess’, ‘Indigo Cherry Drops’), but still produced one or two hundred each, not the five hundred or a thousand of a good year. A few early determinate tomatoes produced well through July and August: ‘Early Wonder Pink’ and an Eastern European variety I acquired in a seed trade: ‘Saraev Vesennie Zamorozki’. Besides cherries, the only other tomato that produced as many as those two was ‘Purple Boy’ F1, mostly in August. A couple other determinates, ‘Zolotoe Serdtse’ and ‘EM Champion’, produced the biggest tomatoes of the season. ‘Jantarnij Kubok’, a small yellow tomato, produced well in August and September.

Two of Fred Hempel’s varieties, ‘Benevento’ F1 and ‘Rainbow Jazz Heart’, “did well during the extreme heat” at his farm in Sunol. “The rows planted in late May or later did the worst.” He conjectured that “weathering extreme heat was easier for the larger plants, maybe because they had better established root systems by the time the heat waves started hitting.”

Hempel also noted that tomato pathogens can build up in the soil, even when crops are rotated. Mustard cover crops can help, and ‘Kodiak’ mustard “is supposed to be particularly effective at reducing tomato diseases in the soil.”

This winter, I'll be experimenting with mustard cover crops. I'll also be planning fewer tomato plants so that I can rotate my crops.

Next time: tips for a better 2022 tomato season, including crop rotation, planting earlier (but not too early), watering well at planting time, mulching, shading during heat waves, and more. 

## *It's Holiday Time...Holiday Cactus Time, That Is*

*Sharon Schwarz, UCCE Master Gardener, Yolo County*

Whether you call them Thanksgiving, Christmas, Easter or just the generic term, holiday cactus, the care requirements of these budding beauties are generally the same. Although they are called 'cactus', they are not cacti at all. They are succulents that are native to the jungles of South America. Thanksgiving and Christmas cacti are both in the *Schlumbergera* genus.



*Thanksgiving cactus, Schlumbergera truncata have clawed leaf edges*

I would venture to guess that most gardeners have either given or received a holiday cactus at one time or another. Holiday cacti are very easy to find: your favorite nursery, the garden department of your local 'big box' store, or even the neighborhood grocery store usually carry them through November and December, then again in the Spring, a few weeks before Easter.

They come in a wide variety of colors – red, white, pink, yellow, orange, salmon, apricot and even fuchsia. With such a wide variety of color choices, they make a wonderful gift to brighten the holidays, as a gift for a favorite aunt, teacher, hairdresser, or any plant-loving friend. They are usually found in foiled covered pots for a desk or coffee table, or in dramatic large hanging baskets with cascading stems filled with beautiful blooms. Each flower lasts only a day or two but when a holiday cactus is loaded with buds the flower show can last for a month or two.

Once the holidays are over, they require little care throughout the spring and summer. Generally, they require bright indirect light (beware, full sun can burn the leaves); well-drained soil (keep soil slightly moist); never let the plant sit in water as root and stem rot can occur. A diluted half-strength balanced houseplant fertilizer applied monthly during the spring and summer is helpful. Holiday cacti prefer temperatures between 60-70 degrees F, along with moderate humidity levels. A bright bathroom is an excellent location or place their pot on a tray of pebbles to increase humidity.

Getting them to rebloom for the next holiday season can sometimes be a bit tricky. But if you mimic their growing conditions and start early enough you can force a beautiful flowering show just in time for the holidays. It's all about the bloom cycle and getting the buds ready to bloom. About six to eight weeks before you want the flowers to start blooming again, you need to allow the plant to enter a period of dormancy. This requires omitting fertilizer, decreasing water, decreasing light, and decreasing temperatures. The decreasing light requires that the plant receive about fourteen to sixteen hours of darkness per night for six to



*Christmas cactus, Schlumbergera bridgesii, has notched edges which are not as pointed as those of Thanksgiving cactus.*



*Easter cactus, belongs to the genus Rhipsalidopsis or Hatiora. Easter cacti have leaves with smoother edges and no notches. The flowers on an Easter cactus are flatter and star shaped*

eight weeks. Even outdoor streetlights shining into the window or turning on an indoor light can throw off the dormancy period. Temperatures should average fifty to fifty-five degrees Fahrenheit, during this same period.

My Trial: I started a dormancy period on November 1 and placed my holiday cactus in our unused guest room and turned off the heat to that room. The pots are small, so I can cover the plants each night with paper grocery bags to assure that the dark requirements are met. I even set a reminder on my cell phone to “cover Christmas cactus” and “uncover Christmas cactus”, eight hours apart. It might sound obsessive, but I wanted to see if this works, and if I could get them to bloom for Christmas. In just three weeks, I had eight buds forming.

If you are patient and follow the dormancy requirements and allow the bloom cycle to establish itself, you will be rewarded with a gorgeous flower show just in time for the holidays. Once the buds have set and begin to open, the lighting requirements may end. Additionally, Holiday cactus will often bloom better when they are pot bound.

On occasion holiday cacti will experience ‘bud drop’. This may be due to the natural self-limiting factor within the plant, which forces excessive buds to drop to make room for others to open. Other causes of bud drop can be a drastic change in temperature, changes in lighting or lowered humidity. Make your adjustments slowly when bringing a new holiday cactus into your home. Try to mimic the prior growing conditions as much as possible.

#### **Additional Resources:**

Christmas Cactus Diseases: Penn State Extension  
<https://extension.psu.edu/christmas-cactus-diseases>

Getting Christmas Cactus to Bloom: Michigan State University Extension  
[https://www.canr.msu.edu/news/the\\_secret\\_to\\_getting\\_a\\_christmas\\_cactus\\_to\\_bloom\\_temperature\\_and\\_light](https://www.canr.msu.edu/news/the_secret_to_getting_a_christmas_cactus_to_bloom_temperature_and_light)

Holiday Cactus Bud Drop:  
<https://www.gardeningknowhow.com/ornamental/cacti-succulents/christmas-cactus/christmas-cactus-bud-drop.htm>

Holiday Cacti: University of Minnesota Extension  
<https://extension.umn.edu/houseplants/holiday-cacti>



## *The Crown Jewel of the Mendocino Coast*

*Jim Fowler, UCCE Master Gardener, Yolo County*

Each year my wife and I endure the twisty narrow roads from the Central Valley across the coastal range to the Pacific Ocean in Northern California. We moan and grouse about the trip. But, when we reach the Mendocino Coast at Fort Bragg, all complaints stop. This destination has become our favorite go to place in all of California. The area is bounded by Mendocino in the south and Mackerricher State Park in the north. It is full of natural beauty, fun touristy things to do, and wonderful places to eat. The centerpiece of this experience is the Mendocino Coast Botanical Gardens on State Highway 1 just south of Fort Bragg.

Approaching the Gardens is a treat in and of itself. The entry is guarded by a lovely pond surrounded by examples of the kind of botanical treats that await the visitor inside the gates. Simply walking around the parking lot is enough to lift you spirits and to begin the anticipation of what is to come. Covid rules require that entry tickets be bought online before arriving, so check in at the door is quick and easy.



*Salvia leucantha*  
"White Mischief"

Once inside the visitor encounters a large garden with several salvia species as well as native plants, and a wide variety of other perennials. This year we were particularly struck by a white *Salvia leucantha*, a variety called 'White Mischief,' and by a *Salvia* 'Waverly,' neither of which I had encountered before, and by a *Cuphea ignea* variety called 'David Verity' that I fell in love with. The front area also contains a small succulent garden and more notably, a heather garden that includes 143 species of hybrids and cultivars of *Calluna*, *Daboecia*, and *Erica*. The heathers are gorgeous. Would that they could prosper in our Central



*Cuphea ignea* "David Verity"

Valley climate.

Moving deeper into the forty-seven-acre garden one encounters the Rhododendrons. This collection contains more than 124 species. During April and May more than one thousand of these rhododendrons are in bloom throughout the garden. So prominent is this collection that every year the garden hosts California's largest Rhododendron show. The garden also holds eleven cultivars and numerous species of Camellias, which comprises the largest species collection of camellias on the West Coast.



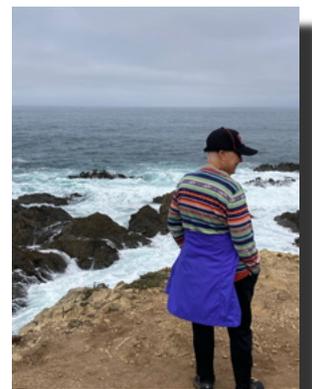
*Dahlias, dahlias, and more dahlias*

Moving down the path towards the ocean we pass through deer gates to encounter one of the most beautiful collections in the Garden – the dahlias. This collection contains more than 150 varieties of dahlias and is spectacular in late summer when we last visited. We spent more than an hour appreciating and photographing the individual flowers.

Reluctantly leaving the dahlias we meandered down the path, which passes through the Garden's conifer collection. Containing more than two hundred varieties of conifers this collection has been recognized as a "Reference Garden" by the American Conifer Society. Finally, the path takes to the bluffs overlooking the Pacific Ocean.

Strategically placed benches where we sat, contemplating the seemingly limitless ocean that stretches to the horizon and beyond, listening to and watching the endless foam-topped, blue-green waves break on the rocks below, observing the formations of gulls and pelicans as they went about their daily business, feeling the ocean breeze on our faces, and absorbing the warmth of the sun on our backs, contemplating our pasts and our futures.

There is still much more to see, ranging from a beautiful stand of Magnolias to a wild mushroom garden, from miles of narrow, intimate rain forest trails scattered along a creek and a canyon to an organic demonstration vegetable garden as well as to hidden garden rooms and wonderful garden art works.





*Begonias in the Mae Lauer Display House*

Two other not-to-be-missed parts of the garden are the Mae E. Lauer Display House and the garden shop. The display house contains a large variety of begonias and fuchsias that are extremely beautiful and photogenic. The garden shop has a large sample selection of the plants grown in the garden for sale. But be cautious. Some of the species and varieties might not survive in the Central Valley climate, so it is essential that you carry with you some kind of plant reference (phone or book) to curb your enthusiasm.

The Mendocino Botanical Coastal Garden also partners with the UCCE Master Gardener Program, Mendocino County, providing training space for MG classes, and classrooms for MG public presentations. UCCE Master

Gardeners lead tours of the garden and help to staff the library and to answer gardening questions.



*One of the many fuchsias on display*



## *My Persimmon Tree*

*Jan Bower, UCCE Master Gardener, Yolo County*

I just ate a piece of persimmon pudding. My neighbor shared the delicacy he made from the Fuyu persimmons I gave him. It tastes like apricots—sweet and delicious, with a hint of cinnamon and a thin coating of caramel. I am fortunate to have a few persimmons left from this season's harvest for such culinary delights.

My persimmon tree has been a problem this year. I had a huge crop, which drew a host of wildlife to the tree—rodents, birds, ducks, racoons, and opossums. The squirrels were the worst critters to wreak havoc on the tree. They were all over it, leaping from the roof, grape vine, and cherry tree. The squirrels would take a bite or two, then cast the green and ripening persimmons to the ground, and the ducks would fly in from the lake to devour some, leaving leaves, twigs, branches, rotting fruit, and feces to clean up.

I tried a few repelling tricks to try to keep some fruit for human consumption. I used an extended pole to push the squirrels out of the tree, but they just made high-pitched chirps at me, scampered out of reach, and left me frustrated. I dusted the green fruit with cayenne pepper. This worked well until wind and rain came. Then I wrapped Ziploc bags around the fruit on the lower branches, leaving the fruit on the upper branches for the scavengers. The bagged fruit was a good prevention tactic, and the bags hung on the tree until I couldn't stand their aesthetics anymore. When I hosted a Halloween/birthday party for my grandson in the backyard, I brought the bagged persimmons into the house to ripen.

My persimmon tree appears to bloom and heavily fruit every other year. It is an excellent shade tree, along with my cherry and pomegranate trees. Several years ago, I was able to give neighbors five-pound bags of cherries and leave crates of pomegranates and persimmons in the Gazebo for the taking. Now wild rodents, birds, and other animals seem hungrier than ever, and there are



*My persimmon harvest brought into the house to ripen to a bright orange-red sweetness.*

more of them. It is difficult to keep good yields from any of my fruit trees, except for the Valencia orange tree. Animals don't seem to bother citrus fruit trees. I recently purchased a Wilco live bait station and will set that up soon because squirrels/rats are also eating the tops off my sprinklers, resulting in irrigation problems and high-water bills.

**The Persimmon Cousins**



*American persimmon – note the small size.*

The American persimmon tree (*Diospyros virginiana*), known as the common persimmon, is attractive. Its scientific name means “fruit of the gods.” It has white, fragrant, bell-shaped flowers in late spring and drooping dark green, thick, glossy leaves in summer, which turn to shades of reddish-purple in autumn. The bark forms thick, dark gray to black, square scaly blocks that look like alligator skin. Early European settlers and Native Americans used the fruit, which hung on the trees during the winter, for food and its wood for fires. Now the wood is used to make golf club heads, flooring veneers, and billiard cues.

American persimmons grow wild in the southeastern states but are easily cultivated from seed or two to three-year-old saplings in agricultural zones 4-9, which includes Northern California. They are cold hardy to -25 degrees Fahrenheit and can grow up to 80 feet tall. The tree is generally hermaphroditic, which means it typically requires pollen from two trees, a male and a female, to produce. If there are no pollinators within a mile, a male branch can be grafted onto a fruiting female tree, or a male and female tree can be planted in the same hole. Some American persimmon trees are now being bred to be self-pollinating, as well as small, dwarf varieties, which makes harvesting easier.



*Hachiya Persimmon*

The Asian/Japanese persimmon tree (*Diospyros kaki*) has two varieties: the Fuyu and the ‘Hachiya’. The ‘Fuyu’ is similar to the American persimmon and the variety I have in my backyard. It is non-astringent, shaped like a tomato, honey-sweet, and delicious to eat raw, like a crunchy apple. The ‘Hachiya’ is astringent, shaped like a pepper or heart, and is best for cooking when fully ripe and mushy. Both varieties are dioecious, that is, self-fruitful, of one sex or the other. The Japanese persimmons are not as hardy as the American. Their



*Fuyu Persimmon*

hardness zone is 6-9 with a temperature of 10 degrees Fahrenheit and growth up to 30 feet tall.

Persimmons are relatively drought tolerant and disease and pest resistant, its fruit is tasty and nutritional, so with weird weather being the new normal, it is a popular fruit tree to plant. 

**Master Gardener Help Desk**

*Joy Sakai, UCCE Master Gardener, Yolo County*

For the past several months we have received many calls about sick and dying trees. Some are infested with boring insects; others have died from underwatering. We know that trees are more susceptible to insect infestation due to lack of regular water and heat stress.

One client lost a California native oak and was interested in ideas for replacement. The oak was planted in his lawn. After conveying the risks of planting trees in a lawn and how to ameliorate those risks (bare ground

around the tree, regular deep watering, etc), we recommended a few native California species to replace his tree. On that list was a California Bay (*Umbellularia californica*).

In response, the client posed a new question which was the most interesting question we received this month. He had heard that California bay trees were associated with Sudden Oak Death (SOD) and wanted to know if that was an issue. After some research, we learned that the initial appearance of *Phytophthora ramorum*, the pathogen involved in SOD, came from nursery-grown California Bay plants. Fortunately for us, Valley Oak, Garry Oak, and Blue Oak along with some Scrub Oak species – are not thought to be susceptible to Sudden Oak Death, and there are treatments available. If you in the market for a California Bay, be sure to avoid California Bay specimens with browned or spotted leaves.

We encourage gardeners in Yolo County to call or email your gardening questions to the UCCE Master Gardener Help Desk. Visit us (<http://yolomg.ucanr.edu/YMGHelp/>) and you can “ask a Master Gardener.” 

## Winter Garden Tips 2021

*Peg Smith, UCCE Master Gardener, Yolo County*

Yes, it is winter – and at last we have had some good rainfall, hopefully it will continue with nicely paced storms to steadily replenish the groundwater and our dams. I find myself after each rainstorm checking the website that shows the California dam levels and doing my happy dance with each percent increase. So far Shasta Dam, our main supply into the downstream Sacramento River, has come up 6% since October. Not to normal levels for this time of year yet but every drop counts. Both Davis and Woodland now rely on water supplies from the Sacramento River. <https://www.americangeosciences.org/critical-issues/maps/interactive-map-water-levels-major-reservoirs-california>

Understanding from where our water comes and the supply limitations can help us manage our gardens and household water use and understand why we are encouraged to conserve this precious resource.



*Headwaters of the upper Sacramento River*

North on Interstate 5 you can visit the natural spring headwaters of the Sacramento River in Mt Shasta City Park. Several rivers, the Pitt and the McCloud, and many tributaries also contribute to the capacity of Shasta Dam. Shasta Dam provides 17% of California’s water supply.

“According to a 2009 study ... water bubbling from Big Springs – from an aquifer of the same name – fell high on the slopes of Mt. Shasta more than 50 years ago.”

“The crystal-clear water flowing through the park begins its journey high on the snow-covered peaks of majestic Mt. Shasta, flowing through underground lava tubes until finally gushing forth into daylight at the City Park’s headwaters area.” <https://www.msrec.org/headwaters-spring>”

This year Mt Shasta had no snow at the end of the summer for just the second time in our recorded history. The unusual melt from Shasta’s glaciers, the most southern in this hemisphere, carved new contours in the Shasta peak.

In December of 2013, a gauge downstream from the Sacramento River Headwaters was installed to develop a baseline of flow and temperature conditions. One cubic foot per second of water equals approximately 646,000 gallons per day. Mt. Shasta Big Springs, in this three-month study, produced nineteen cubic feet per second, which amounts to the spring producing approximately 12,274,000 gallons per day. This flow is dependent on historic rain and snowfall and of course will vary from year to year. This seems a lot of water from one simple spring but with climate change, drought and the pressures of population and farming our ability to rely on this source will take conservation and management. When I look at Mt Shasta and see the snow levels rise and fall, I think of it as a ‘water bank’ as under all that stunning beauty, water is flowing and seeping as it takes its fifty-year journey to the spring to sustain the people of California. Even though we’ve had such lovely soaking rain there maybe areas of your garden or pots that are sheltered from the rain so check those regularly and water as needed.

The rainfall has come at the same time as many of our trees are shedding leaves. If possible, the best thing we can do with our leaves is use them for mulch or add them to the compost. One thing to watch for is a covering of fallen leaves on the crown of a plant as this can lead to various fungal and bacterial growth and may kill the plant. As always that regular walk around the garden to observe, preferably with a cup of coffee or tea in hand, will help you catch any maintenance tasks. It may look uniformly dull and as if nothing is happening but there is much small-scale beauty and discovery in a winter garden.



*Convergent Lady Beetles over-wintering in leaf litter*

When winter comes gardeners have a tendency to ‘clear the decks and rake everything but a slightly messy garden gives shelter through the winter to many of our beneficial insects so a moderate approach is useful to encourage these beneficials. Lift a scattering of leaves and you will most likely find overwintering lady beetles. Come the spring these very useful beneficial insects will emerge, lay eggs and then the developing larvae will consume large numbers of aphids when they emerge in hoards in the spring. But it is important to clean up any old fallen fruit as this will reduce the possibility of bacterial or fungal disease infecting the new spring growth or developing fruit. With the winter rains make sure pots and trays don’t accumulate standing water, mosquitos only need a very shallow

amount of water to lay eggs and produce larvae as soon as we have a warm period and the temperatures are ideal for them.

Enjoy doing some research and planning for the spring. What would you like to change or add to your garden? What new vegetable do you want to try to grow this year? Local websites such as [sacvalleycnps.org](http://sacvalleycnps.org) (California Native Plant Society) and [arboretum.ucdavis.edu](http://arboretum.ucdavis.edu) are great resources for ideas and plant varieties to transition your garden to a reduced water use landscape.

## WINTER CLEANUP

- Continue to remove fallen leaves, spent annuals and vegetable plants.
- Add disease free plants and leaves to your compost pile.
- Clean garden pots and store for future use. Turn all unused pots on end to prevent water collection and breeding areas for pests and diseases. Treat pots with a dilute solution of bleach.
- Sharpen, clean and oil garden tools.
- Properly dispose of any old or unneeded pesticides and herbicides. The Yolo County Landfill accepts household hazardous waste every Friday and Saturday from 7:30 AM – 3:30 PM.

## WATER

- Adjust the irrigation systems or turn off once the rains begin.
- Check potted plants for moisture, too much water and inadequate drainage can lead to root rot.
- Make sure pots sheltered from the rain by eaves get any supplemental watering needed.
- Consider collecting rainwater for watering plants during dry periods.

## PROTECTION

- Protect frost sensitive plants during heavy frost including citrus with a frost cover. (Plastic sheeting is not recommended to protect plants because it cannot breathe and traps moisture. Old sheets or commercial frost protection covers work well.)
- Adding a string of old holiday lights can provide additional heat. (The newer holiday lights (LEDs) do not generate enough warmth to be effective.)
- If the soil is dry watering will also help the soil retain heat and can help the plant's roots and lower branches survive. Well hydrated plants will survive a heavy frost better than a plant that is underwatered.

## PLANTING

- December is the last month to plant spring blooming bulbs such as daffodil, tulip, anemone, and crocus.
- What to plant now:
  - cool season annuals: Primroses, pansies, violas, snapdragons, calendulas and poppies.
  - cool season perennials: Cyclamen, Hellebores, Daphne and Iberia.
  - herbs: cilantro, flat and curly parsley
  - bare-root fruits and vegetables: strawberries, berries, rhubarb, grapes, fruit trees, artichokes, asparagus, horseradish, onions, and garlic.
- Keep up slug and snail abatement with hand picking and beer traps.
- Use row covers to protect seedlings if plants are sensitive to cold nights. Row covers will also protect plants from torrential downpours
- Extend your harvest time by planting vegetables every two weeks through the recommended planting calendar period. See: <https://ucanr.edu/sites/YCMG/files/206763.pdf>
- Late winter is the best time to plant or transplant most any shrub, roses, or tree.
- After you have discarded your summer vegetable plants, turn the soil over and add compost.
- Sow favorite vegetable seeds in trays early February for your summer garden.

## FERTILIZER

- Late winter apply a fertilizer to dormant roses to encourage bud break.

## PRUNING

- Roses can be pruned in late December through early February.
- Dormant prune fruit trees and grape vines.
- Spray deciduous fruit trees and roses with dormant oil to smother pests, such as insect eggs, mites, and scale.

## MULCH

- Spread three to four inches of mulch in the garden to retain moisture and prevent soil erosion from winter rains. Make sure that the mulch does not cover the crown (the interface area at the base of the plant where the branch growth emerges upwards and the root growth descends) of a plant. Covering that area with mulch will allow fungus and bacteria to thrive.

For further information on the above points refer to these websites: [www.ucanr.edu/sites/YCMG](http://www.ucanr.edu/sites/YCMG) and [www2.ipm.ucanr.edu](http://www2.ipm.ucanr.edu)

**RECOMMENDED BOOKS**

*California Master Gardener Handbook*-Second Edition.

This handbook will be your go-to source for the practical, science-based information you need to sustainably maintain your landscape and garden and become an effective problem solver.

*Home Orchard: Growing Your Own Deciduous Fruit & Nut Trees.*

Step-by-Step information from soil preparation and planting to watering and fertilizing; pruning and grafting to thinning pest control and harvesting.

*Western Garden Book of Edibles – Sunset Menlo Park*

Illustrates ideas for growing vegetables in spaces large and small. Gives details on the best season and growing conditions for a variety of fruits, vegetables, and nuts. Describes most common pests and diseases and their solutions for each crop.



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](mailto:mgyolo@ucdavis.edu)

**Web Site** ..... <http://yolomg.ucanr.edu>

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



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### The Yolo Gardener – Winter, 2021

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