



University of California

Agriculture and Natural Resources

Master Gardener Program

2nd Quarter 2023

Happy 4th of July



**HELPLINE:** Look at the VMS to sign up for the Helpline, Monday afternoons and Thursday mornings. If you are a new Master Gardener, sign up for training if you haven't yet. Email [lizswenson11@gmail.com](mailto:lizswenson11@gmail.com) if you have ???'s.

*Merced County*

*Master Gardener*

*Annual*

*Membership Meeting*

*Monday July 10, 2023*

*Starting at 5:30 pm*

*UCCE Meeting Room*

*2145 Wardrobe Ave - Merced*

*CA 95341*

*5:30 p.m.*

*Social Time & Light Dinner  
(Provided)*

*6 - 7:30 p.m.*

*General Meeting*

- ♦ *\* The year in review*
- ♦ *\* Committee Sign-ups*
- ♦ *Goals for 2023-4*

## We Came, We Worked, We Celebrated Merced County Fair

Master Gardeners worked hard on its fair offerings and earned \$1425.00 in premiums: 1st place and most educational for the Educational Booth (\$375 plus \$50) and 2nd place for the Garden (\$1000). The horticulture area was awash with color and gardens this year. It was a truly a joy to see all the gardeners hard at work.

### Information Booth



## Garden To-Do's: July, August, September 2023

By Pat Shay

It's been a pleasure to enjoy milder temperatures this year. No doubt our gardens are also relieved – less irrigation, less mulching, less wilt, but temps still high enough to expect ripening/blooming on schedule. Uncharted territory, so we shall see....

### July

In a normal year we would be considering ways to maintain moisture levels and guarding against searing temps. We can probably expect the heat to hit, though perhaps not quite as hot, nor for as long duration. That said, mulching is still the order of the day. This practice helps plants maintain uniform moisture levels, supports plant health and leads to good harvests. As always, maintain a couple of inches of clear ground around the base of your plants – avoid letting the mulch touch plant material.

We cannot be lulled into thinking that the heat won't hit, so it is important to stay current with the weather forecast and adjust automatic watering systems accordingly.

As has been mentioned many, many times, IF you still have a lawn, it is much more efficient to set sprinklers for two rotations in the morning – one at around 5 a.m. for ten to fifteen minutes and again around 6 a.m. for the same amount of time. The lawn can absorb the water it receives and utilize it properly, as opposed to one 20 – 30 minute cycle which leads to waste, or the dreaded 'urban drool' when water goes down the drain rather than onto your lawn.

Again on the lawn – adjust your mower (or tell your gardener to adjust his) to a somewhat higher level – lawn will use less water than if it is 'skinned'.

Put some color in your yard – add salvias (reds, blues, purples) and other perennials and/or self-seeders such as coreopsis, gaillardia, rudbeckia or add annuals such as rock rose (portulaca) and zinnias. Both of the latter bloom like crazy for weeks and weeks and thrive in the heat.

Give your houseplants a vacation – put them outside! More delicate ones can go on a shaded patio or under an overhang on an east or north facing wall. Use the mist setting on a sprinkler to get rid of dust.

Give mature trees long, slow waterings with a bubbler once a month. The drought was VERY unkind to mature trees and this winter's wonderful rains have helped them considerably, but monthly deep watering will keep them healthy.

### August

We're moving toward the end of summer, so maintenance is the name of the game. Roses need to be deadheaded routinely to encourage re-bloom. Continue to fertilize per container label.

Fruit is near or ready for harvest. If your trees are loaded, use props to keep branches from breaking. Remove fruit that has fallen as quickly as possible. That lessens opportunistic neighborhood animals from scavenging and lessens the chance of insect and/or disease infestation. Once fruit is harvested, consider some summer pruning to manage size and shape.

Start winter vegetables, broccoli, cauliflower, chard, lettuce and spinach in flats. If you

## Garden To-Do's: Continued

plan to start them in a greenhouse, be sure that they are shaded from mid-day heat and that there is plenty of circulation.

Prune hydrangeas right after bloom fades. Cut stems back to 12 inches or less. Water in your choice of fertilize or fish emulsion to keep flowers blooming longer into fall.

Continue to deep water established trees. If you lost shade trees through the drought and want to replace them or add a tree or two to your landscape, summer is a great time to determine which areas can most benefit from new shade. Consider trees that will add the most to the ecosystem as homes to insects that attract birds. Hold off actual planting until September or October.

If you have hummingbird feeders, be sure to keep them clean and filled since the heat is as hard on our feathered friends as it is on us. Do the same with birdbaths. Put a small rock or two in birdbaths so that bees have a place to land when they come for water.

### September

As summer wanes, it is time to begin planning for spring! Now is the time to begin planting spring blooming bulbs, such as daffodils, anemone, iris and perhaps some less common ones like freesia and sparaxis.

Now is also the time to plant sweet peas. It is recommended that the seeds be soaked overnight before planting for best germination. A good idea, too, to plant in succession so that the boom period will last longer. Planting them in the right spot will result in self seeding for years to come. Morning sun and afternoon shade is best here in the hot Valley.

This is also the best time of year to plant California natives. Many chapters of the California Native Plant Society hold sales in September and October.

If you've decided to add a tree or two to your landscape, those which will contribute most to the biodiversity of your yard are oaks. Because they are very slow growing and become quite large, you might want to consider other choices. For suggestions visit [www.calscape.org](http://www.calscape.org) (website for the California Native Plant Society). You can enter your zip code and see plants that are native to your area. Look for the plant sales mentioned above, as well. From now through late fall, plant seeds or starts of winter vegetables.

To boost the color of blue hydrangeas, add 1 tablespoon/foot of plant height of aluminum sulfate to the soil around the plant or 1 teaspoon for a plant in a container. Depending upon whether you live in town or in a more rural setting, prepare for fire season. Mow or weed-eat open areas to keep grasses in check. Remove pruning debris. Leave some branches, etc. for birds and small critters to use for winter protection.



**sparaxis**



**anemone**

## Helpline Inquiry: Liz Swenson

Helpline Inquiry/Recommendation: Rethinking Redwood Trees

This spring, the Helpline has received three calls from folks with dying redwood trees. The Coastal Redwood is an extremely common landscape tree in the Merced area, but not well-suited to our climate in the long-run. Young trees may grow rapidly and do well, but as they age and water demands increase, they often begin to decline. The following article from the Master Gardeners of Tulare/Kings County is a useful resource.

**Coast Redwoods as Landscape Trees** by Michelle Le Strange, UC Master Gardener Advisor

California's coast redwoods (*Sequoia sempervirens*) are the tallest known trees in the world reaching over 350 feet and average a 600 year lifespan. When first described and collected by Europeans, old-growth forests covered about two million acres. Today, forests are much reduced, but the coast redwood is still a robust and vital species dominating favorable habitats. A redwood tree reaches 70-90 feet in about 25 years and grows rapidly (3-5 feet a year) the first five years. Tree height is shorter, if the conditions are not favorable for growth.

**Cultivars:** Nurseries sell about 10 cultivars of coast redwood. Some of the most popular are 'Aptos Blue' (blue-green foliage, dense growth, horizontal branches), 'Majestic Beauty' (blue-green foliage, dense growth, pendulous branches), 'Los Altos' (dark green, dense growth, arching branches), 'Simpson's Silver' (silver-blue, somewhat open growth habit, slower growing), 'Soquel' (medium green, finer texture, branches turn up at tips), 'Filoli' and 'Woodside' (blue, drooping branches, irregular shape), and 'Santa Cruz' (light green, softer texture, downward branches). Notice how most are named after coastal CA towns.

**Climate:** In nature redwood trees grow in mild climates with high humidity. Average winter temperature is 38°F with summer temperatures ranging between 57 and 80°F. Annual precipitation ranges from 25 to over 100 inches and most rain falls in winter months. Heavy summer fog is also characteristic of their preferred habitat, and helps prevent water loss from evaporation and transpiration. These trees cannot tolerate water stress during the dry summer months.

**Soils:** Redwood grows best in deep, well drained soils. Loam and clay-loam soils with the potential for good moisture storage are typical in coast redwood forests. Redwoods will not grow in soils containing large amounts of magnesium and sodium. Trees reach maximum development on alluvial flats where soils have been built up by successive floods.

**Favorable habitats:** The largest, most continuous and impressive coast redwood forests are found in the north where winter rainfall is highest and summer fog moderates the effect of the rainless California summer. Redwood is a relatively drought-sensitive species with leaf anatomy and thin leaf coatings which allow large volumes of water to be lost from the foliage.

On the coastline, ocean breezes carry large amounts of sea salts which can dehydrate and kill redwood foliage and seedlings. Where redwoods approach the coast, they are usually protected by stands of more tolerant trees, especially Sitka spruce and red alder, or by topography that diverts the wind flow up and over the coastal slope. Further inland, redwoods are completely replaced by Douglas-fir dominated mixed evergreen forests.

**Coast Redwood in Valley Landscapes:** With that said, there are many who plant coast redwood trees in our valley landscapes. In some neighborhoods the trees thrive, but there are also neighborhoods and

## Helpline Inquiry Cont.

cities where coast redwoods are a bad investment. They might look healthy for 4-8 years, but then suddenly all goes wrong and the tree browns up and dies.

Every month my office receives phone calls about coast redwood trees that are sick and dying. The problem is so widespread, especially in Kings County, that several years ago the Master Gardeners evaluated over 30 trees. They rated them for visual appeal and collected foliage, soil, and water samples which were analyzed by a laboratory. The results indicated that extremely large amounts of sodium collected in redwood leaves. In many instances both soil and water were quite high in soluble salts and pH was around 8.0.

Redwood dieback in Santa Clara County: Four tree experts investigated symptoms of chlorosis and necrosis of redwood foliage that was affecting many trees in several locations. The symptoms coincided with recycled water use. Six locations were studied: 3 irrigated with potable water and 3 with recycled water. They compared topography, exposure, size, and visual appearance of the trees at each site and collected foliage and soil samples for laboratory analysis.

They discovered the soil pH to be more alkaline and to contain more sodium and chloride at the recycled sites. Leaf samples contained sodium and chloride levels that were generally within the toxic range at recycled water sites. The amount of sodium and chloride in the leaves at recycled water sites was disproportionate to the concentration in the soil and water and the most affected trees were under moisture stress. However, the answer is not that simple. They would find healthy trees right next to severely affected trees.

Take home message to Valley gardeners: Coast redwood trees don't grow naturally in the San Joaquin Valley mainly because of our hot interior valley floor climate in the summer. Although they may do well in some landscapes, they may also fail miserably in others. If you have a soil that is neutral in pH, drains well and water that is low in alkalinity, then they might perform well. If your soil is heavy clay or high in pH and saline, then you will have less luck. Redwoods like lawn watering, but give them a deep irrigation on a monthly basis. It also helps to cut down on water evaporation from the soil surface by applying a thick layer of organic mulch. This will also modify the surface temperature and help keep their roots cooler.



**These are examples of dying redwoods. They are not in Merced, but if you look around, you'll find some near you.**  
<https://www.bing.com/images/search?view=detailV2&ccid=HPk6KFyL&id>



## Discovering Vivipary in Calendulas by MG Marilynne Manfredi

*Vivipary* is Latin for “live birth” in plants. Seeds germinate while still on or in the mother plant.

This past spring, after much rain, I found several calendula flowers in a large planter with small flowers growing out of the base of the flower circling the main bloom. I knew it wasn't normal, so I took photos and then did some research online. I wasn't getting answers, so I asked another Master Gardener and then Farm Advisor Scott Stoddard. He did a quick search on his phone and found it to be *vivipary*. This is a fairly common occurrence in fruits and vegetables. I have experienced this before when cutting into a ripe tomato. The seeds were sprouting and looked like little worms. I have also noticed this in winter squash and peppers. In an article by Carol Quish for UConn Extension says, “Vivipary happens when the hormone controlling the seed dormancy is exhausted or runs out, letting the seed grow in the moist environment inside the fruit.” Growing calendulas has taught me about vivipary, and if it happens again, I will plant the seed head and see if it grows into a mature plant.

Gardening is an adventure, and growing plants is an avenue for further education. I learned a new word, a new germination process and a new appreciation for the plants I grow and eat.



<https://news.extension.uconn.edu/tag/vivipary/>

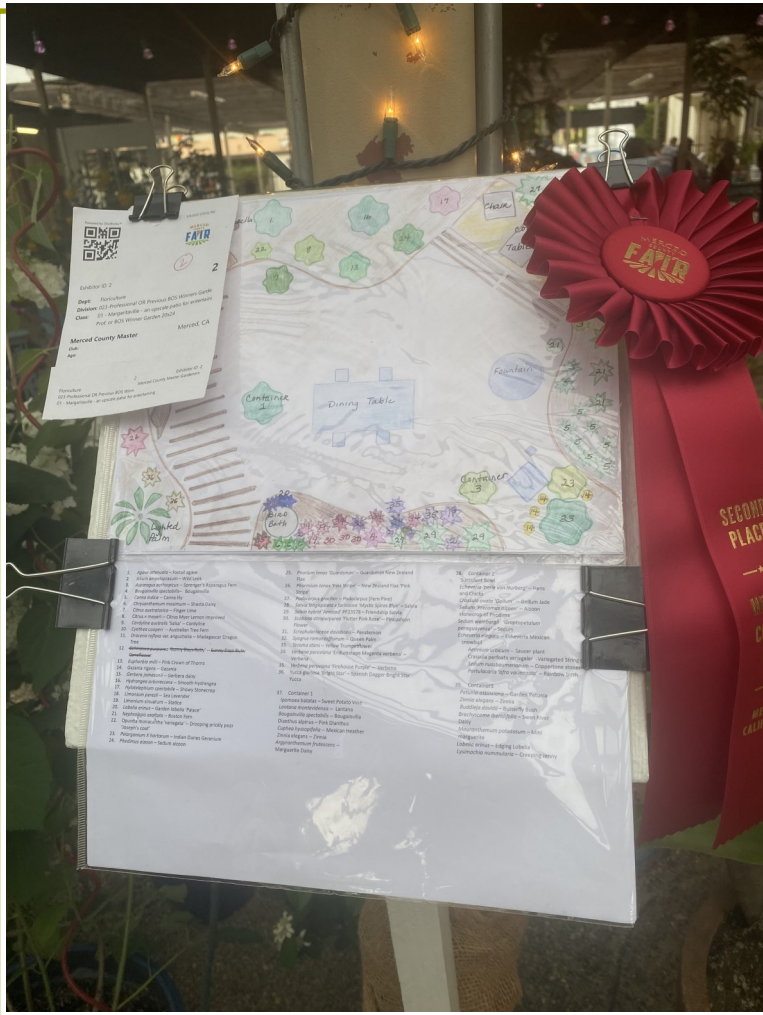
Check out some interesting vivipary pictures here: <https://www.buzzfeed.com/pablovaldivia/vivipary-plants>

### Strawberry News

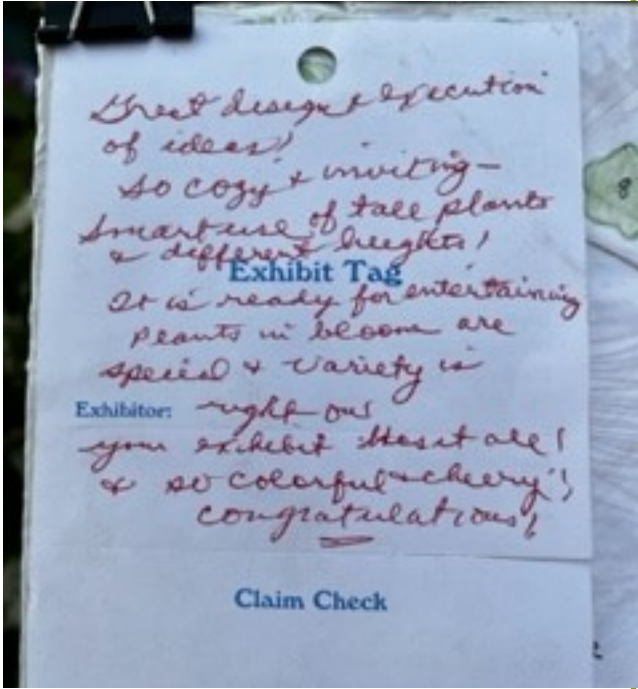
UC Davis has just released four new strawberry varieties which have a built-in resistance to fusarium, a strawberry disease which causes the plant to wilt and collapse. The new varieties are UC Golden Gate, UC Keystone, UC Eclipse, and UC Monarch. *The goal of the UC strawberry breeding program is to develop and release public varieties stacked with resistance to all four major soil-borne diseases in the crop—fusarium, macrophomina, verticillium and phytophthora.* Both fusarium and macrophomina appeared early in the last century when farmers stopped fumigating ground with methyl bromide.

Johnson, Bob. “Strawberry breeding effort boosts resistance to diseases.” *Ag Alert*. June 28, 2023. pp5, 8.

# Fair Garden Plot



The fair garden has to have a diagram with each plant defined and the botanical name indicated. This is one of the last steps the garden leaders do on Tuesday before the judging on Wednesday morning.



Judging comments were very positive.



Peter Maclaren takes to the ladder to hang lights. Under the watchful eyes of Zelda, Mary, Jay, and Judy.

Luwanda Jones checks out the metal flower.





**Educational Booth**

## Climate and Connected Reads

If you want to read about climate, I have recently finished several books for a reading group that you might want to try.

Fiekkowsky, Peter with Carole Douglass. *Climate Restoration: The Only Future That Will Sustain the Human Race*. Rivertown Books, 2022.

Voyles, Traci Brynne. *The Settler Sea: California's Salton Sea and the Consequences of Colonialism*. University of Nebraska Press, 2021.

If you are interested in the re-emergence of Tulare Lake, you might be interested in its history. If so, the book about J.G. Boswell presents plenty of information.

Arax, Max and Rick Wartzman. *The King of California: J.G. Boswell and the Making of a Secret American Empire*. Public Affairs, 2003.



The garden actually begins with meeting and a plan in early May. Project leaders Debbie Morrow, Jay Hawkes, and Marilynne Manfredi also visited the fair site to get a feel for the site. A lot of labor goes into the garden, including bringing in items from homes, some at the last minute. Some came to work all day while others dropped in long enough to climb the ladder and hang the lights. Everyone was needed and appreciated. It truly takes a village to complete this project. All days are critical but the Tuesday before judging is critical, as is the Monday after the fair for take down and clean up. We have to leave the site as we found it. Special thanks to Stepping Stone Nursery on Bell Avenue in Atwater for the loan of lots of beautiful plants.



## Master Gardeners of Merced County

Free Community Education Workshops for 2023 are scheduled for the second Saturday of each month (except September & October).

MONTH		WORKSHOP	DAY	LOCA-TION	TIME
July	8	Culinary Herbs	Saturday	Classroom	10-noon
August	12	Citrus**	Saturday	Classroom	10-noon
September	9	Seed Saving**	Saturday	Classroom	10-noon
September	23	House Plants	Saturday	Classroom	10-noon
October	14	Fall and Winter Veggies	Saturday	Classroom	10-noon
October	28	Vegetative Propagation**	Saturday	MCC	10-noon
November	11	Leaf Composting & Vermiculture	Saturday	Classroom	10-noon
December	9	Grow your Soils	Saturday	Classroom	10-noon

\*Visit us at the Merced Certified Farmer’s Market every first and third Saturday at Canal & 16<sup>th</sup>.

\*\*Workshops presented by community experts in their field.

All speakers are encouraged to include comments about climate change, IPM, safety, companion planting, and irrigation in their comments where appropriate.



**Merced Master Gardeners**

ucanr.edu

**MISC**

Newsletter: Delores Cabezut-Ortiz/Cathy Dunn

Contact: [mmgnewsletter@yahoo.com](mailto:mmgnewsletter@yahoo.com)

Column Contributors: Liz Swenson, Pat Shay, Marilynne Manfredi.

Want to write a column? Let me know the subject at [mmgnewsleter@yahoo.com](mailto:mmgnewsleter@yahoo.com)

**Slate of Officers:**

<b>Mindy Thompson</b>	<b>President</b>
<b>Judy Maclaren</b>	<b>Vice President</b>
<b>Luwanda Jones</b>	<b>Secretary</b>
<b>Mary Shasky</b>	<b>Treasurer</b>
<b>Lily Landros</b>	<b>At-Large</b>

**Tom Dinwoodie, Workshops; Marilynne Manfredi, Farmer’s Market; Liz Swenson, Kaaren Morgner, Helpline; Cathy Fossum, Technology.**

**Good to know gardening basics:**

**Merced/Atwater USDA Growing Zone. 9a ( low temperature range 20-25°F)**

**Average First Frost. 11/11-20 Average Last Frost. 3/11-20**