

THE YOLO

GARDENER

Summer 2024

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

Trees Benefit Us all

Ann Trump Daniel, UCCE Master Gardener, Yolo

It is inspiring to see how much interest and work is being done in communities across Yolo County to spread the word on the importance of trees and to ensure that we all do what we can to create healthy urban tree canopies in our communities. Scientific research continues to expand our understanding of the many benefits of trees, so all are beginning to grasp how significant are trees to our health and the well-being our shared environment.

- Shade from trees helps conserve water by slowing evaporation from thirsty lawns
- Strategically placed trees can cut summer air conditioning costs by up to 50%
- Trees combat climate change by absorbing CO₂, then storing carbon and releasing oxygen back into the air, and by offering cooling shade
- Trees filter particulates out of our air by trapping them in their leaves and bark
- Trees cool cities by shading our homes and streets
- Trees provide food and create wildlife habitat

If you have trees in your landscape that you are responsible for, please do all that you can to properly care for them. There are many tips and resources for tree planting and care on the <u>UC Master Gardeners of Yolo County website</u>. Trees are valuable assets that offer much to private landscapes, neighborhoods, and the public green spaces that we share.

All of our communities have urban forests that are critical to our well-being and that are cared for by our different municipalities. Trees promote health and well-being by making our outdoor spaces more enjoyable and creating spaces for socializing and civic engagement. Great pride is taken in designations like Tree City, and all towns and cities recognize that trees have economic and social value. The preservation and enhancement of our urban canopy is a huge responsibility. How does all the needed work get done?

There are several nonprofit groups working in partnership with city staffs to enhance and care for our urban forest across Yolo County. One group that has been active for more than thirty years is <u>Tree Davis</u>. This nonprofit organization started in 1992 with a mission to improve the health and resilience of our communities by

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Tree planting along Lake Washington Drive in West Sacramento with River City High School students and community members

appropriate planting climate trees and landscapes. While Tree Davis has historically partnered with the City of Davis and Davis for community volunteers educational programming and tree plantings and tree maintenance, it is branching out into other communities in Yolo County to work and collaborate with other "green space" loving organizations and community volunteers.

Tree Davis is very excited to be part of the Cool Schools initiative, working together with the <u>Texas Trees Foundation</u> and the <u>Woodland Tree Foundation</u> to significantly upgrade the green spaces of several school campuses in Yolo County. Research tells us that trees are proven to have positive effects on student learning and test scores by lessening stress and improving memory retention.

Enhancing school grounds with more trees and green infrastructure will make these better places of learning for our students. The partnership will focus on the following campuses in West Sacramento and Woodland—

Woodland School District	Washington School District
Beamer Elementary	Riverbank Elementary
Dingle Elementary	River City High
Freeman Elementary	Washington Middle College High
Lee Middle	Westfield Elementary
Maxwell Elementary	Westmore Oaks Elementary
Whitehead Elementary	Yolo High
Woodland Prairie Elementary	

The transformations will have both physical and social benefits. The schools will receive hundreds of new trees, irrigation systems, school gardens, rain gardens, outdoor classrooms, new playgrounds, and to be blunt, just more green space through removal of asphalt and other hard surfaces. These exciting changes will come about with the help of significant community input-- students, teachers, principals, parents, and neighbors will guide the changes. While the work is taking place, staff from Tree Davis will engage the students, parents, and the teachers to highlight the reasons for the improvements and changes and educating all about the physical and mental benefits of green spaces. To learn more about the Cool Schools Program you can visit www.texastrees.org/coolschoolsyolocounty/

In addition, there is a new companion program called the Schoolyard Greening, made possible by a significant grant by CAL FIRE. The support for the importance of adding more trees and green spaces in our communities is significant. Working alongside community members and school leaders, the professional staff of Tree Davis will bring its scientific knowledge and experience fostering community engagement to bear as it embarks on these transformative projects in Yolo County in 2024. To learn more about these initiatives and to find out ways that you can get involved and help to make a difference in your community, please visit www.treedavis.org

The Creation of the Japanese Memorial in Winters

Denise Cottrell, UCCE Master Gardener, Yolo County

Editor's Note: This article is a modified version of one that appeared in the Winters Express

History begins with stories. Stories integrated into our lives beyond memorizing dates and names from hundreds of years ago. We are all linked to historical events large and small through the stories of our family, our ancestors, and our community. The Historical Society of Winters provides our community's link to local history and creates a context for understanding how our lives have been affected and changed by larger events.

On May 4, 2024, the Winters Historical Society hosted a dedication ceremony for the Japantown Memorial in Rotary Park. The memorial, dedicated to the pre-war Japanese community in Winters, evolved from The Historical Society's exhibit "The Lost Japanese Community of Winters". The exhibit has been a catalyst for bringing together past and present residents of Winters and community organizations to help preserve a period in Winters history now largely lost.

On June 20, 2023, the Winters City Council approved the Historical Society's request to install the monument in Rotary Park. As the project developed several people and organizations have collaborated to create the memorial garden site to honor citizens of Japanese descent from Winters which provides a space for reflection and remembrance in Rotary Park.

For the design of the monument and the surrounding garden, the Historical Society of Winters collaborated with former Winters residents Floyd Shimomura and Howard Kato in conjunction with UCCE Master Gardeners -Yolo, Stephanie Myers and Ruth Shimomura, and Heather Nichols of Yolo County Resource Conservation District.



Volunteer Garry Douglas and UCCE Master Gardeners - Yolo: Stephanie Myers, Jean Witzman, and Susan Moore stood for a group photo after planting the Japantown Memorial site.

The site in Rotary Park was readied through the efforts of the City of Winters Public Works with help from community volunteers and UCCE Master Gardeners-Yolo. The UCCE MGs -Yolo also provided their expertise as part of the landscape design team in the selection of plants, creating the landscape design, installing the plants, irrigation, and mulch. Solano County Water Agency donated the mulch and Don Sanders delivered the mulch and helped with site preparations. La Tourangelle Artisan Oil producers in Woodland donated irrigation supplies. Winters Rotary Club, descendants of the Japanese families, and the Winters Community contributed to the funding. Winters Rotary Club donated the funds for the site infrastructure while the historical society donated funds for the plants.

Monuments express meaning through the form and shape, and the inclusion and placement of man-made features such as plaques, and the choice of plants and their symbolic

meaning. Monuments are designed and the site planted as symbols to convey meaning to visitors without words. The plants for the memorial site were chosen for their ability to represent the Japanese community and Japanese

motifs, in addition to the ability to withstand our inland climate, heavy public traffic, and provide low water use and maintenance.

In mid-March 2024 UCCE MG-Yolo and community volunteers planted four trees and fifty shrubs at the site. Two tree species were selected both with ties to Japan, the Japanese flowering cherry and ginkgo. Japanese flowering trees are an iconic symbol of Japan and have played a part of the US relationship with Japan through the decades including pre-war and up to now.

To the east of the monument is a single Japanese flowering cherry tree, an Akebono Yoshino Cherry, which was planted to provide spring bloom and eventually shade. This tree blooms in early April with mildly fragrant soft pink flowers that will fade to white when they are fully opened. The leaves of the tree are glossy, and dark green and in fall change to shades of yellow and orange. This deciduous tree will grow twenty feet tall and twenty-five to thirty-five feet wide.



View of planted site

On the west side of the site three Sky Tower Gingko trees are planted in a group. Ginkgo has been planted since ancient times in Japanese and Chinese temple gardens. Ginkgo are noted for their ability to stand the test of time and can survive adverse air quality in the urban environment. The three trees will grow upward in a tight column ranging in size from fifteen to twenty feet tall and five to ten feet wide. The leaves are light green in the spring and darken in the summer. In the fall, the Ginkgo will be ablaze with golden leaves.

Smaller plants of different heights were selected to fill in the site around the trees and planted in drifts to complement each other. Gold and Silver Chrysanthemum (*Ajania pacifica*), a native to Japan, are interspersed throughout the site. Although the plant was once popular with California gardeners, no local nurseries within a

fifty-mile distance of Winters had them for sale. Fortunately, Winters resident, Ellie Yeatman has them growing in her beautiful front yard and she allowed UCCE MGs- Yolo to take serval cuttings to propagate. The chrysanthemum will produce a late summer/fall bloom of small clusters of yellow flowers.

Three types of Germanders were selected to add additional blooming plants to the site. Germanders are originally from North Africa, Europe, and Asia and do well in our Mediterranean climate. Compact Bush Germander (*Teucrium fruticans*), a broadleaf evergreen shrub with gray-blue foliage and blue flowers, will contribute a fuzzy texture to the garden and grow three feet tall and four feet wide. The Germander's whorls of small deep blue flowers were selected to complement traditional blue and white Japanese fabric designs supplied by Ruth Shimomura, which will be painted on the utility boxes by local artist Jaime Montiel.

Wall Germander (*Teucrium chamaedrys*) and Majorican Teucrium (*Teucrium cossonii* [majoricum]) are two groundcovers which will add an additional size element to the site. Wall Germander is a "creeping" plant with displays of deep pink flowers on branches of glossy green leaves. This "creeping" plant grows one to two feet tall with a two-to-three-foot spread. Majorcan Teucrium will spread with rosy-lavender flowers throughout much of the growing season. It will grow less than one foot tall with a two-to-three-foot spread.

Two additional plants, Dwarf Mat Rush (*Lomandra longfolia*) and Santa Cruz Island Buckwheat (*Eriogonum arborescens*) complete the landscape. Dwarf Mat Rush is native to eastern Australia and can be recognized by the slender gray green arching leaves rimmed with white. This evergreen will bloom with creamy-yellow flowers and grow to two to three feet tall and wide.

Santa Cruz Island Buckwheat is a California native perennial from the Santa Cruz Islands. The plant will grow into a mounding shrub three to six feet tall and five to six feet wide. With its narrow pale gray-green leaves and red bark, you may notice in the last days of summer, the light pink flowers age into eye-catching reddish-brown seed heads attractive to pollinators especially butterflies.

These recently planted plants will eventually fill the site and provide a memorial and garden inspired by history and a community remembering the past. Local organizations working together have created new "stories" and enjoined the community to dream, blossom, heal, and mobilize. The exhibit, "The Lost Japanese Community of Winters" is currently on display at the Winters Museum until September 2024.

Made for the Shade

Michelle Haunold Lorenz, UCCE Master Gardener, Yolo County

Planting for shade is one of the most challenging tasks a gardener can face. Most perennials thrive in full sun, and the only challenge is how much to water. Planting shady areas in your garden is an entirely different beast. Not only does one have to find plants that *like* to be in the shade, but one must also determine whether they can withstand or thrive in dry shade (areas with little to no water), or need damp, moisture-rich shade.

Let's begin by defining several terms. First, let's discuss morning sun, which is a bright cool light. Morning sun comes from the east, generally only in the morning and only for a few hours. It is cool, bright sunlight, and won't scorch the leaves of tender plants; many shade plants can tolerate this type of sunlight.

Dry shade is an area that receives little or no direct sunlight. It may receive a few hours of dappled sunlight or morning sunlight. The soil stays dry, either due to heavy leaf cover from established trees or a covered area

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where rain and irrigation do not reach naturally. We also have partial shade which is an area where some sunlight filters through the leaf canopy, but no direct sunlight.

Look around your yard; there are likely blank areas that get little to no sun and you may have given up on ever finding plants that will grow there. Fear not, dear gardener! For every spot, there is a plant! The following plants are recommended for shady areas in your garden.

'Powis Castle' Artemesia *Artemesia arborescent* is sold as a plant for full sun, but this beauty does great in dry, part to full shade. It is a hearty mounding silvery-green plant with spicey-scented foliage that tolerates dry conditions. I dropped a tiny three-inch start into a shady dry area I didn't know what to do with. This hearty plant spread over the next two years to create a gorgeous silvery mound filling an eight-foot shady corner of my low-water yard. The morning sun gives this plant the sunshine most sages need, but for the rest of the afternoon, it is in full shade from a giant Deodora cedar.

Many ferns and ground covers can take dry shade as well. Southern sword fern *Nephrolepis cordifolia* forms dense stands of tall fronds reaching about twenty-four inches tall. It tolerates deep, dry shade but will look better with occasional water. It can also tolerate partial shade with morning sun but will burn in full sun.

Hellebore (*Hellaborus* spp.) is a flowering perennial that prefers full shade and low to moderate water. Spikes of cup-shaped flowers emerge each spring, generally around Easter. The common name is Lenten Rose for this reason. While the colors are muted, they make wonderful cut flowers.

Pig squeak (*Bergenia cordifolia*) has lovely dark green rounded leaves; spikes of purple flowers erupt in the late spring. Generally, this plant does well in deep shade with moderate water, but I have planted it in low-water gardens and have seen it perform well. It is a gentle spreading perennial that naturalizes to form a thick carpet in difficult-to-plant shade areas.

The unfortunate named Lungwort (*Pulmonaria* spp.) is another exceptional blooming perennial for partial to deep shade. It sports lovely lance-shaped silver-spotted leaves that grow in a mounding semi-evergreen clump. Early to late spring, spikes of deep pink, purple, or red flowers emerge and last for several weeks. This plant prefers regular water to perform well and must be kept in deep shade or the leaves will scorch.

One of my favorite deep-shade plants is Clivia or Kaffir lily. It is a member of the Amaryllis family and does fantastic in our Zone 9 climate. Often sold as a houseplant, we are

lucky that this plant thrives in moderate to deep shade in our area. Large, dark-green strappy leaves form perennial clumps that can spread up to three feet wide. Early to mid-February, clusters of deep orange flowers emerge and last for up to six weeks. These flowers make exceptional, long-lasting cut flowers. The plants are slow growing but produce baby plants from rhizomes that can gently be dug up and moved to expand your collection. These plants are very expensive in the nursery, but if you have a friend or neighbor who grows them, they are easy to share and establish quickly with low to moderate water. These plants also produce seed pods which can be planted, or just let the plant self-sow.



Probably the best-known shade plant is Fuchsia (*Fuchsia* spp. not to be confused with California fuchsia, *Epilobium canum*, a sun-loving perennial). The cartoon-like bubbly pink and purple flowers hang pendulously from gently arching branches. This semi-deciduous plant requires bright shade and regular water. It is a very tender plant that will burn with direct sunlight, although it can take morning sun. Generally seen as potted patio plants, these small shrubs thrive when planted in the garden and can grow up to three feet

tall with regular water. The bell-shaped flowers can be single, double, or frilled, and are highly attractive to hummingbirds. There is also a tall upright *Fuchsia* 'Gartenmeister' that spreads to create a hedge decorated with a continuous supply of reddish-pink trumpet-shaped blooms, also highly desired by hummingbirds. This fuchsia can take low water and deep to partial shade, but any hot afternoon sun will burn the tender leaves to a crisp.



Among annuals, many options for shade exist including impatiens, bellflower, and caladium. One of the most stunning is the coleus. Featuring chartreuse leaves with splashes of vivid purples and pinks, this plant is grown for its leaves, not its flowers. Most coleus are perennials and can overwinter in mild climates. However, they are extremely frost sensitive, which is why they are generally replanted each year and treated as annuals. They prefer partial to full shade and regular watering, with moist but not wet soil.

Begonias also do well in part shade. These gorgeous flowering plants are known for their stunning flowers and unique leaf shapes. Often treated as annuals, begonias can overwinter in mild climates and if not exposed to more than a few weeks of frost can come back year after year.

Create unique planters using shade plants, including button ferns, begonias, and coleus. These beautiful arrangements do well in pots and can brighten up dark corners of your patio and yard.

Gardening in the shade creates many unique challenges for gardeners, but the variety of plants that will thrive in the shadowy corner of your yard or patio is endless. The trick is to think beyond flowers: shade plants offer many distinct leaf shapes and colors which can be just as interesting and dramatic as a sun-filled yard bursting with blooms. Don't be afraid to experiment and push the boundaries. If a plant says "part sun" on the tag, that also means "part shade" so feel free to experiment. You may be surprised at what thrives in the shadows.

Beauty and Education Meet in the Garden

Carolyn Nordstrom, UCCE Master Gardener, Yolo County

What most people saw at the busiest corner in Esparto was a rocky, weedy, trash strewn patch of dirt. What a Master Gardener saw was potential for a beautiful and educational garden designed to attract pollinators and to be a resource for the community. The site is located in front of the RISE Preschool,



Site before work began.

between Esparto Elementary and Middle School, where community members pass by daily on the way to the school and ball fields.

Beginning in the fall of 2023, UCCE Master Gardener-Yolo, Carolyn Nordstrom began discussions with Esparto Middle School Ag Science teacher Erin Simons and engaged the Esparto Unified School District and the Yolo County Master Gardener program to gain support of this project to begin

turning this unused eyesore into a community asset.

The Esparto Community Schools program, which strives to engage the whole community with connections to educational programs and school sites, is engaged in the project, and local businesses and community members are also lending expertise and resources to the project.



Site after planting

In the fall, Middle School Ag Science students assisted with clearing excessive weeds and preparing the location for soil conditioning with cover crops. Esparto Unified School District landscape manager, Jim Eason. provided access to water. Durst Organic Growers donated cover crop seeds. Jim Durst recommended his favorite cover crops for this type of soil: tillage radish (daikon) and some type of grain (barley, wheat, or rye) with a fibrous root system. He noted these are very good for opening up tough soils and can be mowed down in the spring. The radish has white flowers when blooming and you can mow down the grain before it heads out.

Cover crops were planted in early winter to take advantage of the rains. They were mowed down and tilled in in early spring to

prepare for planting before the heat set in. OM Ranch in Capay donated their time and rototiller for this task.

The garden is designed to follow best practices for creating a pollinator habitat, including planting in masses, using a variety of plant types that will bloom throughout the year and with a variety of flower structures and that offer nectar, pollen or both; incorporating California native plants that are uniquely adapted to support native bees; and avoiding the use of pesticides. The plants also need to be drought tolerant, low maintenance and hearty enough to tolerate heat and traffic at the site. Some of the plants selected for phase one include:

- Echium wildpretii (Tower of Jewels)
- Ribes sanguineum (Red Flowering Currant)
- Romneya Coulteri (Matilija Poppy)
- Salvia canariensis (Canary Island Sage)
- Leonotis leonurus- (Lion's Tail)
- Buddleja davidii- (Dwarf Purple Butterfly Bush)
- *Teucrium fruticans* (Bush Germander)
- Ratibida columnifera- (Mexican hat)
- *Salvia spathacea* (Hummingbird Sage)

Plants were sourced from the Woodland High School FFA Spring Plant Sale and donations from local gardeners. Evergreen Arborists dropped off a load of wood chips at the site after they completed some tree trimming at the schools. The Ag Science students pitched in again in the spring to plant and spread mulch.

As the school year came to a close, many students and parents commented on how nice the area looked, and smiled and waved as they drove past. Bees are already beginning to frequent the area that was previously barren. This summer, the Community Schools Summer School program gardening class will visit the garden and

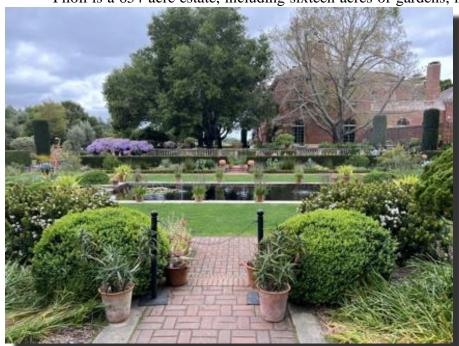
learn about pollinators and their habitat. Next steps include building a team of community volunteers who can help with these projects. Phase two will occur in the fall of 2024, planting and mulching the next section of the garden. Ms. Simons is also interested in adding a similar pollinator area at the Middle School near the existing food gardens. Gardens are contagious!

Notes from My Garden: Filoli

Joy Sakai, UCCE Master Gardener, Yolo County

Let me state up front that Filoli is not my garden, and it would be a disaster if it was. I was fortunate to have people in my life that influenced my attitude towards and knowledge of gardening. My grandmother was a gardener, my father taught me about California natives, and my father-in-law Yukio Sakai taught me virtually everything else I knew about gardening before UCCE Master Gardener training. It turns out that he also played a small but significant role at Filoli. We took the opportunity to visit the gardens and to learn more in late April.

Filoli is a 654-acre estate, including sixteen acres of gardens, in Woodside, California, built by William



The Georgian Terraces
Photo courtesy of Janet Gaard

Bourn II. Bourn had a credo; Fight for a just cause; love your fellow man; live a good life. This is the origin of the property's name and the basis for the core values of the organization that runs it today. It is an amazing space and inspiring to any gardener. Also on the property is a huge Georgianrevival style mansion built in 1917. In 1975 the property was donated to the Trust National for Historic Preservation as a horticultural and cultural center. Besides the gorgeous gardens, there is a productive orchard, acres planted in hay, and wild spaces that can be explored on a walk along the designated paths.

A couple of years ago a fellow Master Gardener and I had the privilege of meeting Jim Salyards, the Director of

Horticulture for Filoli, and we had the chance to sit down with him for a few moments to learn more about the gardens on our April visit. The gardens, managed by fourteen full time horticulturalists, are designed to show color year-around. There are several distinct gardens, including the Georgian-style terraces, a walled garden, and an English renaissance garden among others. To keep the gardens in bloom, Filoli has greenhouses and working

gardens for a constant supply of plants. They also grow and supply herbs and vegetables for the cafe and events that happen year-around.



One of the Filoli Bonsai Photo Courtesy of Cathy Tienken

My husband and I were especially interested in the Bonsai collection (pronounced bone-sigh, not to be confused with banzai, a Japanese toast), since we were vaguely aware that Yukio Sakai was somehow involved with the collection. Bonsai is the art of cultivating trees and some woody shrubs on a very small scale, to resemble the full-sized plant in its most esthetically pleasing form. Many Bonsai trees are very old and extremely valuable. When Yukio was getting older, he retired from full-scale gardening but continued to care for Bonsai collections at a couple of his client's homes in Hillsborough, California. As it turns out, one of those Hillsborough collectors decided to donate the collection to Filoli, but on the condition that a Bonsai gardening expert would care for them. The deal was made, and my father-in-law agreed to do the care. As his health began to fail, he enlisted others from his and other Bonsai clubs to volunteer. The Bonsai volunteer program continues to this day. That is how a four-hundred-year-old black pine, and a two foot tall Giant Sequoia continue to be a valuable and important part of the Filoli Garden experience. Take the time to visit someday soon and learn more at https://filoli.org/

An Undiscovered Treasure in Our Midst: Exploring the Berryessa Snow Mountain National Monument

Lorie Hammond, UCCE Master Gardener, Yolo County

Walking on walking,
Under foot earth turns.
Streams and mountains never stay the same.
- Gary Snyder

Beginning at the Berryessa Gap above Winters, a vast and largely untraveled landscape extends northward to Snow Mountain. A part of the Inner Coast Range which crosses through Yolo, Solano, Napa, Mendocino, Lake, Glenn, and Colusa Counties, the Berryessa Snow Mountain National Monument (BSMNM) has few roads and less visitors. Dedicated by President Obama in 2015, this monument was expanded on May 2, 2024, by President Biden, along with the San Gabriel Mountains National Monument. Both preserves hold cultural significance for Native American tribes and are wildlife corridors teeming with biodiversity.

Due to President Biden's expansion, the BSMNM now protects a striking eleven-mile ridgeline, sacred to the Patwin people. It was previously known as Walker Ridge, but has been renamed "Molok Luyuk", or "Condor Ridge" in the language of the Patwin people. Taken as a whole, the BSMNM embraces the intersection of conservation, climate, and Native American issues. President Biden has created five such national monuments as part of his pledge to conserve thirty percent of the nation's lands and waters by 2030.

Indigenous people often walk their watershed as an annual ceremony, carrying water from the headlands to the mouth, chanting blessings as they go. When I learned about this practice, it made me think about my river, which is Putah Creek. I have lived on Putah Creek and walked parts of it repeatedly over many years, but I had never traced its origins beyond the interruptive Berryessa Dam. I became interested in exploring its whole course, and was lucky to join a field trip last April, led by UC Davis Landscape Architect Emeritus Rob Thayer and organized by Ann Evans, a former UCCE Master Gardener of Yolo County. The purpose of this trip was to follow Putah Creek up to its source, then to return along Cache Creek to where it empties into the Yolo Bypass. At each juncture, Rob taught us about the history, geology, and ecological features of this environment. Most of this trip followed the largely unexplored landscape which makes up the south part of the BSMNM. I wanted to explore this place because I believe that it is important to know the context in which we live. As Yolo County residents, we are part of the Great Central Valley, which has a Mediterranean climate of cool, wet winters and hot, dry summers. We also live on the Putah and Cache Creek watershed, which originates in the BSMNM.

In 2020, a book entitled *Exploring the Berryessa Region: A Geology, Nature and History Tour* (Backcountry Press, Kneeland, California. 2020.) was written by several UC Davis centered researchers and environmentalists. Its subject is the Berryessa Snow Mountain National Monument. This book is a rich resource for anyone interested in the natural history of our region. It contains information about geography, nature, and cultural history. It also provides a detailed, mile-by-mile road guide for anyone who would like to take an exploratory excursion like the one we took. The information presented in the rest of this article is compiled from what I learned from Rob Thayer on my field trip and from *Exploring the Berryessa Region*.... Page numbers reference this book.



Watersheds gather confluences of different rivers coming together. This is where Bear Creek merges with Cache Creek in the Capay Valley

To those of us who live in Yolo County, the BSMNM encompasses the origin of the two main rivers that define our watershed: Putah Creek and Cache Creek. Putah Creek's name is probably derived from the Patwin word "Puta'to", which means "eastward flowing water." (p. 10) Both Putah and Cache Creek flow inland (east) from the Coast Range to the Central Valley, unlike many rivers that flow west to the sea or west to the Valley from the Sierras. Putah Creek drains from Snow Mountain, then is interrupted by Lake Berryessa. It re-emerges on the other side of the dam, to be partially diverted again at Lake Solano, and continues valiantly to the Bypass, supporting wildlife as it goes. Cache Creek is the main outflow of Clear Lake, the largest, natural freshwater lake in California. It flows through the Capay Valley into a settling basin near Woodland, from which empties into the Yolo Bypass.

Many factors make the BSMNM land unique. I have found it instructive to learn more about my region by exploring these factors. Among them are the following:

1. How Native American history molded this land -

Native Americans have inhabited this area for twelve thousand years. The landscape which we sometimes mistakenly think of as "wild" was formed with their collaboration. Native Americans managed

the land, increasing the natural production of crops such as acorns, grains and bulbs for food; sedges, willow and redbud for basket making; and tules for making clothing, houses and boats. They also burned the land on a regular basis to thin the forest, stimulate seed germination, and avoid big fires. Forest management agencies are just beginning to learn useful practices from Native Americans.

2. The unique relationship of this land to fire -

Fire has always been a feature of this seasonally arid landscape. In the past, fires were generally caused by lightning more so than man. Today fires are more frequent and destructive because our habitation patterns (in forests) and land management practices have not allowed for controlled burns. It is important to understand that "wildland fires are not intrinsically 'disasters' for native species, ecosystems and landscapes." (p. 20) "California ecosystems evolved with fire, and each plant and animal species in this biologically complex region is adapted for living and reproducing in fire-affected landscapes." (p. 16)

3. The rich biodiversity which defines the place -

Landscapes are often richer in biodiversity in places where several ecosystems meet. Such places are called "ecotones." The BSMNM marks the intersection of the Coast Range and the Central Valley, stretches a long distance north to south, and exhibits dramatic altitude changes. Exploring this landscape is exciting because it is remote and largely untouched by human settlement, and because there is so much variation within it. "The Monument contains around 1700 plant species, including several dozen plant species that only live there, and around 80 distinct vegetation types- making it more diverse than all of the other states in the country." (p. 16)

4. The varied geological features which come together in the BSMNM. -

Finally, one can learn a great deal from the complex geology which has formed the BSMNM. The Monument is positioned in the Northern California Inner Coast Range, east of the San Andreas Fault and west of the Sacramento Valley. This area has much to teach us about how California was assembled, as explained by Eldridge Moores, one of the founders of plate tectonic theory, in Exploring the Berryessa Region... In this Monument, rock exposures exhibit 150 million years of geological history, display evidence of tectonic collisions, and expose a rare seafloor volcano. Unusual serpentine rock areas have evolved plants specific to their place that are found in few or no other areas of the world.

The *Exploring the Berryessa Region*... *Tour* (p. 36-76) provides all you will need to explore the BSMNM on your own. I recommend this trip to all Yolo County residents interested in understanding the little-known watershed which nourishes the towns and countryside we know. So, pack a picnic lunch on a day that's not too hot, bring hiking boots and a hat, and venture into the beautiful Lake Berryessa Snow Mountain region. I guarantee that you will not be disappointed.

Summer Garden Tips 2024

Peg Smith, UCCE Master Gardener, Yolo County

Taking an early walk through the garden before the morning warms can often reveal insects that will not be observable during the day. These leaffooted bug nymphs were seen in numbers on ripening berries. Leaffooted bugs do their damage by extending their sucking mouth parts into fruits, nuts and vegetables.



Leaffooted bug

"... piercing-sucking mouthparts that extend more than half of the length of the narrow body. They use this mouthpart to probe into leaves, shoots, and fruit to suck plant juices. The depth of the probing depends on the size of the bug: small nymphs feed shallowly on superficial plant juices, whereas adult bugs probe deep into fruit in search of seeds. If a hard seed is found, such as an almond kernel or juniper berry, the bug excretes digestive enzymes from its mouthparts to liquefy a small part of the seed so that it can be ingested."

To achieve control: "When outbreaks occur, a variety of methods will likely be needed to manage this pest, which may include removing overwintering sites or the use of weed host removal, row covers, physical removal, natural enemies, and insecticides. Achieving good control will likely require some combination of these methods.

https://ipm.ucanr.edu/PMG/PESTNOTES/pn74168.html?src=302-www&fr=4503

'Drought tolerant 'or 'waterwise' does not mean 'no water needed'. At this time of the year, it is important to maintain regular watering for most mature ornamental plantings, watering is best done in the morning hours, a periodic deep soaking on a regular schedule, weekly or bi-weekly, early in the morning will carry most plants through the heat. Some less drought tolerant, younger plants or vegetables 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, because of the heat, to pull up enough moisture from the soil to counterbalance the amount of water the plant is losing through its leaves by evapotranspiration. 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 appear wilted because of too much water as well as appear wilted 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 https://ucanr.edu/sites/YCMG/files/362908.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 into the ground, fill about 2/3rds full with beer, 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 such as Central Park Gardens, UCD Arboretum, Woodland Community College demonstration gardens and Winters Library demonstration gardens also other drought tolerant home gardens that appeal and see if there are additional plants that will complement what you have created.

• Water

Be aware if your city applies water restrictions and do your part to save water. Remember to place plants with similar water requirements together in your garden to maximize watering efficiency.

Gardening with Hydrozones Effectively 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 https://ucanr.edu/sites/YCMG/files/386537.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 a good quality photo and email it to the UCCE Master Gardeners of 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. What do we mean by 'least toxic'? Least toxic means the method recommended to reduce or control a plant disease or pest that will introduce the least harmful components and effect to the eco-system and environment. It does not mean 'least toxic' to the pest disease or pest. Least toxic solutions are effective methods of reducing commonly found problems for gardeners.

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

Weeds

Get them small and get them often! This has been so true this year after our wonderful winter rains. Many of us have been a little overwhelmed with the speed and proliferation of weeds. 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 https://ucanr.edu/sites/YCMG/files/361668.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 bird deterrents 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 https://ucanr.edu/sites/YCMG/files/361669.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 https://ipm.ucanr.edu/PMG/PESTNOTES/pn74158.html

• 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 2 times a week. This helps reduce cracking, ridging and blossom end rot. Tomatoes will shut down blossom production when the temperature 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 Successfully Grow Tomatoes https://ucanr.edu/sites/YCMG/files/217956.pdf What is Wrong With My Tomato Plant https://ucanr.edu/sites/YCMG/files/217956.pdf

To keep summer vegetable crops such as tomatoes, peppers and eggplant producing throughout the season, harvest regularly, and continue inspecting for pests. For annual vegetables consistent harvesting is important. An annual vegetable grows, blooms, produces fruits, seeds, ripens, and the plant dies. As long as the day length and temperatures are within a plant's 'happy zone' as we continue to harvest, the plants will be stimulated to produce more fruit. Winter squash should be left to mature until fully developed and ripened, then should be stored in a

cool dry place until used. 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 seedlings 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 https://ucanr.edu/sites/YCMG/files/206763.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 1/3 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 application of liquid fertilizer. They also require more frequent watering during the summer.

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.

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

With the heavy winter rains and cool spring weather our home gardens and local public gardens have responded with wonderful displays. As we often travel in the summer months here are some local gardens to visit and a source for other California gardens.

The UCD Arboretum https://arboretum.ucdavis.edu

Central Park Gardens https://centralparkgardens.org

UC Berkeley Botanical Garden https://botanicalgarden.berkeley.edu,

 $\label{lem:mckinley-Park-Rose} \begin{tabular}{ll} McKinley Park Rose & Garden & $https://www.cityofsacramento.org/ParksandRec/Parks/Park-Directory/Central-City/McKinley-Park & $https://www.cityofsacramento.org/ParksandRec/Parks/Park-Directory/Central-City/McKinley-Parks/Park-Directory/Central-City/McKinley-Parks/Park-Directory/Central-City/McKinley-Parks/Park-Directory/Central-City/McKinley-Parks/Park-Directory/Central-City/McKinley-Parks/Park-Directory/Central-City/McKinley-Parks/Park-Directory/Central-City/McKinley-Parks/Park-Directory/Central-City/McKinley-Parks/Park-Directory/Central-City/McKinley-Parks/Park-Directory/Central-City/McKinley-Parks/Park-Directory/Central-City/McKinley-Parks/Park-Directory/Central-City/McKinley-Parks/Parks/Park-Directory/Central-City/McKinley-Parks/Pa$

Winters Library https://yolocountylibrary.org/locations/winters/teaching-garden/

Woodland Community College https://waterwisewoodland.weebly.com/wcc-demonstration-garden.html

Must-See Gardens in California https://www.visitcalifornia.com/experience/must-see-gardens-california/

The 15 Best Botanical Gardens in 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

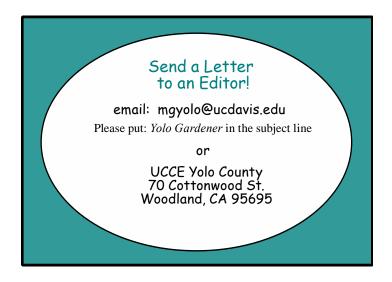
Telephone: 530-666-8143.

Questions about your garden? We'd love to help!



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The Yolo Gardener - Summer, 2024



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UCCE Master Gardeners, Yolo County

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This newsletter is a quarterly publication of the University of California Master Gardener Program of Yolo County and is freely distributed to County residents. It is available through the internet for free download:

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http://yolomg.ucanr.edu/