

Seeds For Thought

Solano County Master Gardeners

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Photo by Melinda Nestlerode

Sweet Peas! *Lathyrus odoratus*, *Lathyrus latifolia*

Paula Pashby, U.C. Master Gardener, Solano County



Sweet Pea '*Lathyrus vestitus*'
All Photos in this Article Taken by Paula Pashby in Arnold, CA

After ordering lunch from one of our favorite places in the small town of Arnold, located up in the mountains, my husband and I took a short stroll around the area while waiting for our order. While we were walking around and enjoying the sites, I noticed a large, beautiful flowering plant that was covered in bumble bees and

favorite, blue. Also, if you are wanting to stick with California native plants, according to California Native Plant Society, there is a variety that is native to the area, called the *Lathyrus vestitus* (wild sweet pea).

Are sweet peas annuals, living one year, or perennials where they continually recur? When exploring this, at first the material was a bit confusing, but I discovered that there are both annual and perennial varieties. The annual is called *Lathyrus odorata* and the perennial is called *Lathyrus latifolia*. Most annual sweet peas are very fragrant, whereas the perennial versions have little or no fragrance. With their pea shaped petals, they tend to look like vetch, also part of the legume *Fabacea* (pea) family. It has also been noted that the older types, heritage and heirlooms, have the most fragrance, but have smaller leaves than newer varieties. On the plus side, both the annuals and perennials provide our pollinator friends with sugar rich nectar and protein rich pollen, so they are a top choice for them.

carpenter bees. I was pretty excited, as I had not seen many bumble bees or carpenter bees recently. They were happily buzzing from flower to flower, not aware of me and my camera trying to capture their beauty and elegance, as they visited these charming flowers of many colors. I thought that I would be very much interested in having this plant become a part of our garden, if possible in our location. I did a little sleuthing and found it was a sweet pea.



Sweet Pea '*Lathyrus vestitus*'

In my research, I found that the history of sweet peas is quite detailed, but here is a quick summary. Sweet peas (*Lathyrus odoratus*) get their name from the Greek word *lathyros* for pea (their pea shaped flowers), and the Latin word *odoratus*, meaning fragrant. Even though they are called peas, the sweet pea pod is toxic and should NOT be eaten. They were discovered by a monk in Sicily where the plant grows wild. Since they are from the Mediterranean region, they are very successful in similar California conditions. The original sweet peas were very fragrant, but had quite small blooms compared to sweet peas we find today. These flowers offer one of the most extensive variety of colors in the plant world, including my

There are many different reasons to grow sweet peas. I have heard people say that they give a garden that 'cottage' feel. Annual sweet peas will provide your garden with beautiful fragrance and color and you can continue to enjoy their charm when you bring them into your home as cut flowers.

You will have to replace the annuals every year, so if you don't want to replant them each year, and are willing to forgo the scent, plant the perennial variety.

In USDA Zone 9, the seeds grow best when started in fall or late winter, so NOW is the perfect time to plant them! If you are not in USDA Zone 9, your local Master Gardeners will be able to

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Sweet Pea (*Lathyrus vestitus*)

provide you with more specific information based on your location. Sweet peas like cool weather and it is best if they get at least 50 days of temperatures under 60 degrees for best blooms. I was thrilled to learn that they should do well in Zone 9, so I bought some seeds and plan to plant them in October, depending on the weather.

Sweet pea seeds tend to have hard covering coats, so choose one of the following to prepare the seeds: use a sharp tool to 'nick' the outer coat, rub the seed with sandpaper or similar item, or soak in water for around 24 hours and remove when the seed swells. They like well-drained soil and adding some compost and/or organic fertilizer to the soil will give them a great start. Once they become established, they should not need much water unless they are exposed to very hot, dry days. Add some mulch to help the soil retain water. They can grow in full sun to partial shade. Most varieties of this plant like to climb, so try to provide something for it to attach to with elevation. It is not picky about what it climbs, so the climbing material can be anything like a trellis, fencing, or even another plant. Plant the seeds around 3" apart and 1" deep. Once it has three to four sets of 'true leaves', thin them to around 5" - 6" apart. The first leaves

are part of the seed of the plant and usually look different than the 'true leaves' that look like the leaves of the plant. Deadhead (remove) the spent blooms to keep those blooms coming.

If your sweet peas are not flowering well, they may need more sun. Some of the pests and diseases this plant is susceptible to are snails, slugs and powdery mildew. For the snails and slugs use organic control like iron phosphate. The powdery mildew looks like white powdery growth. The University of CA Agriculture & Natural Resources Statewide Integrated Pest Management Program (UCIPM) advises that if this occurs, remove the damaged leaves and prune to provide more air circulation.



Sweet Pea (*Lathyrus vestitus*)

So, guess what I am doing this weekend??? ☺

References

University of CA Agriculture & Natural Resources Statewide Integrated Pest Management Program:
<http://ipm.ucanr.edu/>

Michael S. Reid
Department of Plant Sciences, University of California, Davis
<http://postharvest.ucdavis.edu/>

D.F. Braun, Jane Scuirich - UC Marin Master Gardeners http://marinmg.ucanr.edu/Our_Projects/Leaflet/Plant_sweet_peas_in_fall/

IT'S FALL-TIME TO PLANT SPRING-BLOOMING BULBS

Sherry Richards, U.C. Master Gardener, Solano County



Photo by Sherry Richards

Plant spring-blooming bulbs in the fall to give them time to grow strong roots by spring! Bulbs come in many heights, colors, and bloom times: late winter, early spring, mid-spring, or late spring. In fall, find spring-blooming bulbs in nurseries, stores, online from mail order companies or by mail catalog. See the chart on Page 3 for bulb types.

California native bulbs attract butterflies, hummingbirds, and beneficial insects! Look online for selections and where to buy.

Prechilling: Certain bulbs must be prechilled to simulate a winter chill (dormancy period), so they grow well in warmer climates like ours. Some gardeners paper bag these bulbs,

refrigerate in crisper section for a specific length of time simulating a winter chill, and then plant. Keep bulbs away from fruit in refrigerators as it gives-off ethylene gas and can damage bulbs. Label the bag.

The Sacramento Master Gardener's "[Bulb Planting Schedule](#)" has a list of common bulbs grown in this area, with details and those needing prechilling. Find the schedule at:

www.sacmg.ucanr.edu/Bulb_Planting_Schedule. You can also store in a very cool, dark, dry place or look for prechilled bulbs to buy online.

Planting: Follow bulb package instructions for planting time, bulb depth, spacing and bulb planting position. The top and bottom can be a little confusing! For splashes of color, plant in clusters of five or more bulbs; dozens of bulbs in drifts; or in clusters between existing plants. Bulbs planted too deeply may

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not grow; too shallow exposes them to weather extremes or other damage, and too crowded leaves no growing space.

Fertilizers: You will see recommendations to add fertilizer(s), such as bone meal (phosphorous source) or others to soil when planting bulbs. It's best to do a soil test before adding fertilizer to any garden soil because "...it is necessary to add only the ones that are deficient in a particular soil. Too little fertilization results in poor plant growth and appearance. Too much fertilizer, regardless of its source, is unnecessarily expensive, may cause plant injury, and may pollute groundwater or surface water."¹

Basic inexpensive soil test kits or hand-held soil probes to test pH, nitrogen, phosphorous and potassium/potash levels are available at nurseries, stores and online. For other soil test options call our Solano County Master Gardener Hotline at: (707) 784-1322. (Note: Bulbs prefer a 6 to 7 pH level.)

Either way you decide, with or without a soil test, if you use inorganic or organic fertilizers, please follow instructions on the bag/box.

Drainage: Avoid bulb rot in poor draining soil by planting on slopes, raised beds, pots or containers. If the soil is heavy, compacted and/or drains poorly, dig in organic matter into the top 12 to 18 inches. When in pots, use only potting soil made for pots/containers. It is formulated to drain well.

Watering: Water bulbs after planting. After that, supplement rainwater weekly if ground or container soils dry.

Pests: Pocket gophers, mice, ground squirrels and other bulb-eating critters a problem in your garden? Try fully enclosing bulbs in homemade or purchased hardware cages, or plant in pots/containers. Critters tend to avoid daffodil and narcissus bulbs because they taste bitter.

Alternatively, lay hardware cloth over large planting areas to discourage bulb-eating critters and those who uproot bulbs digging for food (plant roots, insects, or worms) and remove the cloth when bulb shoots appear. Tulip and bulb flowers are deer "lollipops." Plant where deer cannot wander!

Toxicity: If you have pets or small children some bulbs, plants, inorganic and organic fertilizers may be toxic to them and you!

- For people: Lists of toxic and safe plants by scientific or common name are available by Googling "ucanr.edu Safe and Poisonous Garden Plants" and following the links. The California Poison Control telephone number is on those pages. Google: www.calpoison.org for many safety tips.
- For Animals: Google: "UC Davis Plants Toxic to Animals" for links to information resources.

- Check fertilizer box/bags for toxicity information, or contact your doctor or veterinarian.

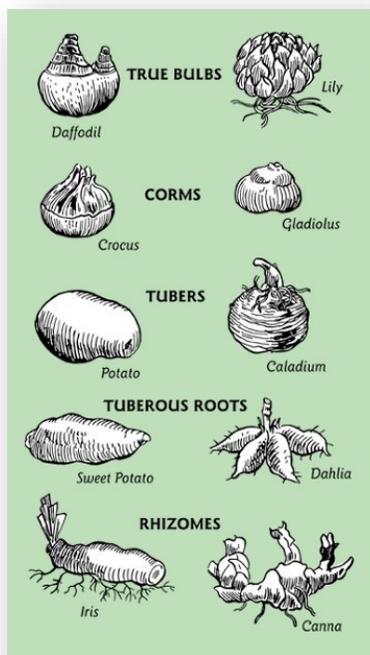
Sun: See package details for exposure needs. To add color to bare areas plant late winter or early spring bulbs under deciduous trees or shrubs where there is sun until the trees or shrubs "leaf-out" for spring.

Care/Division: Remove dead flower stalks after bloom leaving the foliage until yellowed. Bulbs use the dying foliage to gather nutrients for next year's bloom. Remove too early and next year the plants and blooms may be inferior. If you plant bulbs, where perennial plants return each spring, it can help cover dying foliage.

Some bulbs multiply, so every three years or so you may need to remove and divide them. Overcrowded, they may not grow or bloom well. Check online to see how and when to do this by bulb variety.

"Forcing" bulbs for indoor bloom during winter can be fun! This publication will get you started. Google: "*University of Virginia forcing bulbs hort-76np.*" ☞

¹ University of California (UC) Master Gardener Handbook, Publication 3382, Dennis R. Pittenger, Editor, Reprint 2017



References:

PennState Extension, "Plant Bulbs in the Fall for a Spring Celebration." 2020

University of Massachusetts Amherst, The Center for Agriculture Food and the Environment "Fertilizing Flower Gardens and Avoid Too Much Phosphorus" Tina Smith & Doug Smith, June 25, 2020

UC Butte County Master Gardeners "The Real Dirt Blog" October 18, 2013

UC Master Gardener Handbook, 2nd Edition Publication 3382, Dennis R. Pittenger, Editor, Reprint 2017

VALLEJO PEOPLES GARDEN

Spring Tseng, U.C. Master Gardener, Solano County

Not enough people know about Vallejo People's Garden (VPG). It is a hidden gem. In 2010, Vilma Aquino, Master Gardener of 1994, submitted a proposal for a community garden to Nature's Path, an organic food advocate. The proposal won a grant of \$25,000 which led to the birth of VPG. The mission of this garden includes: to educate the community about organic gardening, and to share produce with people in need.

Located on Mare Island, the quarter-acre garden is now thriving with fruit, vegetables and bee-attracting native plants. In addition, it has a shady grape pavilion for outdoor teaching, and an aquaponic farm with three bright blue tanks side-by-side.

The energy that powered this garden is tremendous. Many UCCE Master Gardeners and community volunteers put in their time and talent to bring it to life. A snapshot of a few of the volunteers, including which plant they would choose to be if given an opportunity, is below.



Volunteer and Master Gardener Elvira DeLeon

All Photos in This Article by Spring Tseng

Elvira DeLeon (Elvie) said: "If I have a choice, I want to be a sunflower. With my glorious sunny color, I can attract beneficial insects to come and pollinate my garden plants. I love to provide food for the birds, and bring joy to people as they take me inside their homes."

In 2010, as the executive director of Global Center of Success (GCS), Elvie helped secure the land behind GCS to be used by the garden. She loves wandering in the garden, talking to birds and tidying anything she notices. She gives guidance to volunteers and plays tour guide for visitors.

Inspired by Vilma, Elvie became a UCCE Master Gardener in 2018. Afterwards, she started teaching classes about growing organic vegetables. Her students include elementary school kids and less-fortunate families who live in homeless shelters. She practices Tai chi regularly and has helped write proposals to obtain grants for VPG and GCS since her retirement in 2015. Elvie has given so much to the community, it is not a surprise that people started calling her 'Sister Elvie'.

One of Steve Etter's passions is growing exotic plants. When asked what plant he would like to be, he said: "Oh, it is such a tough choice ... I like so many plants. Ok, I think I want to be a

voodoo lily. It is really exotic." He then added: "And the scientific name for voodoo lily is: *Amorphophallus konjac*."



Volunteer and Master Gardener Steve Etter Working on the Aquaponic System

Steve learned about this garden through the gardeners' grapevine. In 2012, by the time the garden was budding, he and his then 14-year old son planted many fruit trees in the garden. Thanks to good care, those trees have been producing abundant fruit.

Steve volunteers in the garden regularly. His current task is reviving the

aquaponic farm. This is a self-sufficient system: by feeding fish, their waste is transported and chemically converted into nitrogen that plants can use. The choice of fish, choice of plants, timing, and a lot of chemistry are involved in this very delicate system. Steve is having a lot of fun doing this because he spent his career working at the Chevron refinery, and he misses chemistry.

Steve was a 2011 UCCE Master Gardener in Solano Co.. He provided consultation at the Vallejo Farmer's Market and founded the Senior Gardener's Club at Florence Douglas Center in Vallejo.

Of all the plants in the world, Sandra Cervantes chose to be a calendula. She said: "Calendula is a type of marigold. It is very easy to grow. The flowers are beautiful and useful. I harvest the flowers to make specialty oil and soap."



Volunteer Sandra Cervantes Working in the Garden

Years ago, when Sandra and Vilma were colleagues, she was once invited to Vilma's house for tomato tasting party. They bonded right away. Sandra was motivated by Vilma's vision of an organic community garden and she helped out with garden projects before Day 1.

By volunteering in the garden and working with the UCCE Master Gardeners, Sandra learned a lot about plants and how to eat healthy. She grows organic vegetables at her home garden, serves fresh fruits and vegetables at home and shares her

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knowledge with friends and neighbors. Sandra is a mother of four. She visits the garden almost weekly to do some work and she always bring her kids along. The kids help out with small gardening chores. They also chase butterflies and play in the shade of the grape pavilion.

Volunteer Ravi Shankar wanted to be a redwood tree. He said: "It's many things I am: slow, steady and committed. For decades, I have dreamed to be a redwood tree rooted at the west coast of California. I want to live for a couple of thousand years, watch clouds drift by, birds making nest in my shade, and give oxygen to the land I love."



Volunteer and Master Composter
Ravi Shankar Turning Compost

Ravi studied in Santa Clara County in 1991 to be a Master Composter. In 2011, he picked up a flyer about this garden at the Vallejo Farmer's Market. Without delay, he paid a visit to the garden. He noticed the three compost bins needed care desperately. Ravi 'jumped right in' to kick off his journey of composting garden waste in VPG.

Turning and tossing, Ravi has worked most weekends since then. The compost generated from his hard labor has been used in the garden to enrich soil. He found peace and purpose from this extreme exercise. Ravi intends to keep this self-appointed job as long as the garden needs him.

Ravi helps out in many other community services. Among them, he is a board member of Vallejo Sister City Association. Do you

know Vallejo's sister cities include Akashi in Japan and Spetzia in Italy, among others?

When I see a sunflower, a voodoo lily, a calendula or a redwood tree, they remind me of the extraordinary people like Elvie, Steve, Sandra and Ravi. They gave their love and care to the plants, the garden and the community. They make the world a better place.

Vilma and her core team built a solid alliance with like-minds, including Kaiser Permanente, Tuoro University and homeless shelters, to share resources. This has been one of the channels the garden has used to attract volunteers. While Vilma continues managing the garden, the day-to-day maintenance has been taken care of by many volunteers.

As time goes by, the garden has grown to be a garden-lovers' gathering place, an escape to serenity for neighborhood folks, and a butterflies' paradise. Have you seen a bat house before? or a critter box? Can you identify a borage? And what are the three blue tanks in the garden for? This garden is full of mysteries.

You can be a volunteer, a donor, or an admirer. Whatever you are, come to see the garden. It is waiting for you, patiently. For more information about the garden, please check out its web site:

www.vallejopeoplesgarden.org. ☞



Vallejo People's Garden Founder Vilma
Aquino (Center) with Volunteers Joy
Jefferson (L) and Lucy Russell (R)

GROWING AND PROPAGATING FREESIAS

Patricia Matteson, U.C. Master Gardener, Solano County

Of all the perennial flowering plants in my Solano County garden, freesias are among the most exquisitely adapted to thrive with little or no care. The 14 species in genus *Freesia* belong to the iris family (*Iridaceae*) and are native to hot, dry regions of South Africa, which has a Mediterranean climate like ours. They are winter hardy in USDA Hardiness Zones 9-10, and can be grown as annuals in colder climates. Due to their pleasing scent, freesias are often used in fragrance products such as hand creams, shampoos, and candles. They also make elegant cut flowers and are favored blooms for wedding bouquets.



Freesia alba
Photo Credit Alejandro Gonzales Mas
All Other *Freesia alba* Photos in This Article by Patricia
Matteson

Every fall, plant nurseries sell ½ to 1-inch diameter Freesia corms in bags of single or mixed colors. Flowers of cultivated species in the genus *Freesia* and the numerous hybrids may be white, yellow, orange, scarlet, pink, blue, lavender, or various bicolors, as well as single- or double-petaled. As you may have noticed when browsing supermarket bunches, pure white or yellow hybrid freesias—the colors of most species *Freesia*--are generally more fragrant. As with many other favorite garden

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flowers, fragrance appears to have suffered from breeders' quest for a broader color palette.

Freesias grow well in both sun and part shade, in pots and in the ground. Plant the corms in October or November into soil that is rich and well-drained. Sandy loam amended with humus or compost is ideal. Place the pointed end of the conical corm an inch or two below the soil surface. Group at least six corms two to three inches apart for a nice floral display.

Autumn rains activate the corms. During years of normal rainfall, no irrigation is necessary to keep soil moist during the entire Freesia growing cycle. Unfortunately, long gaps in winter and spring rains are becoming more frequent. Only then might irrigation be necessary for freesias.



Corms Produced at the Main Corm and Base of Leaves

Each corm produces a spray of narrow leaves 4 to 12 inches long, followed in late winter and early spring by a sparsely-branched 4 to 16-inch stem carrying up to 12 trumpet-shaped flowers, often having a lovely perfume. Freesia plants have a tendency to lean, so some gardeners use stakes to support the slender, arching stems.

Since all the flowers open on the upper side of the stem, however, staking is not necessary to enjoy them.

When flowering has finished, Freesia plants turn pale gold and dry out, even in irrigated soil. The straw-colored leaves may be clipped off or left to form a natural mulch. Corms stay dormant until fall. In order to avoid a large Freesia bed lying empty all summer, transplant annuals into it or plant deciduous perennials that won't start shading the space until late spring. When leaves of potted Freesia start fading, I stash the pots in a dry, part-shade corner of the garden where they stay out of sight and out of mind all summer. Once rains have started again, summer heat has primed the corms for bloom and I am greeted by the new season's green leaves.

A freesia bonus is that the plants multiply naturally: vegetatively and—except for sterile hybrid cultivars—via seed. Vegetative propagation consists of harvesting and replanting cormels that sprout from the main corm or develop at the base of leaves. Plants from cormels produce only leaves at first, flowering after three or four years.

Vegetative propagation ensures uniformity between parent plant and offspring. According to the American Meadows bulb



Mature Plant With Green Seed Pods



Green Seed Pods on Flower Stalk

company, all commercially-grown Dutch freesias are propagated with cormels. Because I was accustomed to commercial hybrid freesias, propagating freesias from seed never entered my mind—until the robust seed pods produced by *Freesia alba* caught me by surprise. I

purchased this small but beautiful freesia (considered by some taxonomists to be *F. leichtlinii* subsp. 'alba') from Bill "the Bulb Baron" Welch after his 2018 presentation to Yolo-Solano Master Gardeners. The plants thrived in part shade in a southern exposure. In late winter, they produced fragrant white flowers with yellow-streaked throats and a purple wash on the outside. Bloom lasted into early spring.

The large green seed pods must be left on the plant to ripen. In my garden it took about two months of warm weather ending in a hot spell before they finally began to turn straw-colored. The dry pods cracked in early June, exposing shiny black, comma-shaped seeds. That is when to collect seeds for planting.

Sow seeds under cool conditions, either in spring or after summer heat has passed. Soak them in warm water for 24 hours, then place them ¼ inch deep in loose, fine, lightly moist soil or sterile seed-starting medium (equal portions of compost or leaf mold and sand serve well). Planting containers should be placed in a well-ventilated spot where the temperature stays between 60-70 degrees F. Keep the planting medium moist. Seed germination takes about 25-30 days indoors, and perhaps longer outside. Once young plants have two sets of true leaves, they may be transplanted. Fertilize them every two weeks or as needed. They usually flower within 1-2 years. ✕



Mature Seed Pods Beginning to Crack



Dry Pods and Mature Seeds

CLIMATE CHANGE/GLOBAL WARMING/CLIMATE REALITY

Jenni Dodini and Winona Victory, U.C. Master Gardener, Solano County

What is climate change? Catchy title? Political statement? Worry? Outright lie? It really doesn't matter what your opinion is if you follow the science. The data has been collected and evaluated for the last 30 years. What it shows: greenhouse waste, rising temperatures, rising ocean water temperatures and levels, and devastating storms.

But what does that have to do with you? Unless you have been disconnected on a desert island, you have been affected by climate change in some way just in these past few summer months and weeks. The fires and **HOTTER THAN (*^***)** weather here, as well as the lightning that



Fire Behind Rolling Hills Subdivision—August 19, 2020
Photo by Gordon Tehquechi

caused all these recent horrible fires, are not the norm for our area. We just went to Oregon. Usually passing Mt. Shasta during the summer is a sight to behold- she's shimmering in her snow-covered glory. This year, almost no snow on her at all!

Still, what does this mean for us personally? What is the bigger picture?

To start thinking about that, let's go to the "my yard" level. What is your "reality"? The simple definition of climate is the usual condition of temperature, humidity, atmospheric pressure, wind, rainfall, and other meteorological elements in an area over a long period of time. Then there is microclimate, defined as a small area in a climate zone where the climate is slightly different. For example, a natural microclimate is an oasis in the desert. A man-made microclimate is the result of modifying an area based on one's wants or needs, i.e. putting up a fence.

Its important to get to know your personal microclimate. First, you need to monitor your area for a while. What areas are getting baked in the 105-degree afternoon sun vs. the "shady" side? Then, just how much shade is it and for how long and which part of the day? What is your Sunset or USDA zone? Moving on to a new and possibly bigger question: have I caused a change or is NATURE causing a change? California has been in a state of drought for the better part of the last 20 years. Surely, that is not OUR fault, but is there something that we can do about it? Let's start with our yards and then, as Master

Gardener's and concerned citizens, our town.

Recently, Winona learned of a free online (virtual) training by The Climate Reality Project. Groups of individuals have come together for several years at Al Gore's farm in Tennessee and in various cities around the world. More than 20,000 individuals have completed this training and are sharing practices and strategies that are appropriate for their communities. Winona took the first online training which was offered in July and early August. To say this was powerful and energizing is an understatement. It turns out that the Bay Area counties have approximately 1,000 members. Each county from Santa Clara to Sacramento have officers and local meetups to plan activities and presentations to interested groups. Each month there are presentations from several working groups in Policy, Transportation, Social Justice, and Business. The goal is to take the audience to the good news, where it is happening.

Fossil fuel combustions is the primary source of gases that affect the earth's atmosphere. Investing in newer technology such as electrification of vehicles, installing solar panels, and wind turbines is already helping. Solano County is geographically well-suited for this. Each county in California has prepared a Climate Action Plan to respond to the need for quantification of reductions required by the 2020 deadline of the Paris Climate Accord. This document is available at Solano County Board of Supervisors web site. The results are pending but we should recognize that as this area is rapidly developing, we are at risk of increasing our contributions to the greenhouse gas totals.

It is up to us to encourage our businesses, farmers and developers to consider meeting green goals and to keep working to communicate how we make progress. As Master Gardeners and community members interested in healthy environments for the sake of protecting our future, this is an area of knowledge that we can communicate among ourselves and to the public. There are local members of the Climate Reality Leadership Team and many resources available to use in presentations. We urge you to consider your ability to speak and organize presentations on these topics. Please contact the Master Gardener office at (707) 784-1322 for more information. ☘



Photo by Jonbgem

TURN YOUR KITCHEN TRASH INTO NEW PLANTS

Kathy Low, U.C. Master Gardener, Solano County

Did you know that many of the vegetable and fruit scraps you've been throwing out can be used to grow new plants? If you have any of the common kitchen scraps, don't throw them out! Save basil and cilantro stems, the base of a head of lettuce, cabbage or bok choy, carrot tops, beet tops, green onion bulbs, the base of a bunch of celery, the top of a pineapple.

To regrow lettuce, cabbage or bok choy, cut off the plant's base (the bottom section that you would normally discard) to about an inch. Place it in a shallow bowl of water, cut side up, and add about ½ inch of water. Keep it in a sunny place, and change the water every few days. You should see some new growth from the crown in about four days. Once roots begin to develop, you can transplant it into soil.

Beet tops and carrot tops won't regrow a beet or carrot, but they will grow beet or carrot greens which can be used in salads. Simply cut at least ½ inch from top of the beet or carrot and remove any existing old beet or carrot greens from the top. Place it in a shallow bowl, cut side down, and fill the bowl with water so that the top is half way covered with water. Place it in a sunny location. Change the water daily. When the top develops new sprouts, you can plant it in soil, being careful not to cover the new sprouts.



*Sprouted Carrot Tops
Photo by Renee*

For celery, cut the stalks about one to two inches above the base. Place the base in a jar or bowl and add ½ inch to one inch of water. Place it in a sunny location and change the water every few days. When you notice roots growing at the base, usually after about two weeks, you can transplant it into soil.

To grow basil and cilantro, strip away three quarters of the

leaves from the stem. Place the stems in a jar of water in a sunny location. Change the water every other day. When the roots are about two inches long, you can plant them in soil.

Pineapple plants are most commonly propagated from the tops of pineapples. The next time you buy a fresh pineapple, don't throw away the pineapple crown. Instead, cut away any fruit left on the crown. Remove the bottom leaves, and let the crown dry out for two days. Then plant it in a six to eight inch pot in coarse soil and water it thoroughly. Place it in a warm location. Note that they are considered subtropical plants and do not tolerate temperatures below 28 degrees Fahrenheit. Mature plants grow three to five feet tall and up to four feet wide. Plants begin bearing pineapples in three to four years.



*Pineapple Plant
Photo by Kathy Low*

To grow a green onion bulb you'd normally discard, simply plant it in the soil.

This is just the tip of the iceberg of the many kitchen scraps you can grow. Potatoes, turnips, endive, and countless other scraps can also be grown. And remember you can also grow those discarded orange and lemon and other citrus seeds, as well as avocado seeds and melon seeds. If the melon seeds are not from heirloom melons, they will not grow true to type. But remember that old saying, "waste not, want not!" Growing kitchen scraps is a fun activity to do with kids, and also decreases your shopping bill. So go ahead and give it a try! ♪



*Watermelon Seeds
Photo by Kathy Low*



ALONG CAME A SPIDER!

Kathy Ramirez, U.C. Master Gardener, Solano County

It scared the bejesus outta me but I didn't run away!



Don't mistake me for a Black Widow! Yes we are black and both have spots. But I'm hairy with bushy eyebrows and ...better lookin'!

All Photos in This Article by Kathy Ramirez

I was pulling burr clover out of my century plant container and happened upon this HUGE HAIRY black spider . Now, I think spiders are pretty cool and without my glasses I couldn't make out what this critter was. It didn't seem alarmed by me and just hung out waiting for my next move. Well, heck, I did run ...but for my camera.

Turns out it's a Jumping Spider and, boy, there's quite a lot to know about them! As a Cursorial spider, meaning it doesn't make a web to catch its prey, they are especially

important to gardeners because they move around the garden on the hunt. Several studies have shown that these spiders consume a massive amount of garden pests, including aphids, mites, asparagus beetles, squash bugs, budworms, caterpillars, and earwigs, to name a few.

What I found fascinating was the teal colored chelicerae. Chelicerae, commonly referred to as "jaws", are shaped as articulated fangs and move like scissors. I thought they were a colorful extra set of legs until I got that close up shot. I need to clean my glasses!

Jumping spiders are generally recognized by their eye pattern. They have four pairs of eyes, with the front middle pair being particularly large and stereoscopic, similar to our vision. They have a 360 degree view of their world. I'd be dizzy if I had 8 eyes and fear I couldn't walk a straight line!

Other Important Facts About Jumping Spiders:

- * There are 300 species in North America.
- * They can jump up to 50 times their body weight by blood pressure forced into their back legs. They don't leave it to chance as they produce a drag line.
- * While not aggressive, if threatened to the point of bodily damage, their bite might almost feel like a bee sting and their venom is not usually harmful to humans.
- * Lifespan is a little less than a year.
- * They are one of the smallest arachnids in the world.
- * The male has plumose hairs and is brightly colored to attract the female which means he also has to be sure not to get eaten in the meantime.
- * They don't have ears but can hear very well by the sensory hairs on their bodies. ☘

Sources:
<https://ipminstitute.org/>
<http://entomology.wsu.edu>
<https://daviess.ca.uky.edu/>
https://en.wikipedia.org/wiki/Glossary_of_spider_terms

Another Reason to Avoid Insecticides and Pesticides!

I hope these two spiders find mates and that I delightfully find many more of these photogenic arachnids (one would think they enjoyed their photo shoots) taking care of my garden. So when next you see a jumping spider, don't be afraid, be happy! Know you are helping the balance of nature and our eight-legged friends will thank you for it!



One hairy dude with a lumpy head that are his eyes. The eyes can't move but the retinae can follow your movements.



See the iridescent chelicerae? So Cool!



Look how tiny this guy is compared to a very young snail. He decided this was way too big a meal...

A MESSAGE FROM THE UCCE STATEWIDE MASTER GARDENER PROGRAM

Covid-19 Impact



To reduce the rate and risk of community spread of COVID-19, the UC Master Gardener Program, UC ANR, and UC Cooperative Extension locations are working remotely.

UC Master Gardener volunteers are still available to support your home gardening questions by e-mail, telephone, or ZOOM. Please note that many UC Master Gardener Program public education events statewide are being rescheduled, postponed or moved to a later date.

Click <http://mg.ucanr.edu/FindUs/> to 'Find a Program' and be directed to your local county based program. You will be redirected to your local county website and contact information. The health and safety of UC Master Gardener volunteers, staff and our extended community is our number one priority. Thank you for your understanding.

Since 1980, the University of California Master Gardener Program has been extending UC research-based information about home horticulture and pest management to the public. The UC Master Gardener Program is a public service and outreach program under the University of California Division of Agriculture and Natural Resources, administered locally by participating UC Cooperative Extension county offices.

The UC Master Gardener Program is an example of an effective partnership between the University of California and passionate volunteers. In exchange for training from the University, UC Master Gardeners offer volunteer services and outreach to the general public in more than 1,286 demonstration, community and school gardens across 52 California counties. Last year 6,154 active UC Master Gardener volunteers donated 446,237 hours, and 6.8+ million hours have been donated since the program's inception.

MASTER GARDENER RESOURCES



The California Garden Web >>>

The [California Garden Web](http://cagardenweb.ucanr.edu/) serves as a portal to organize and extend to the public the University of California's vast collection of research-based information about gardening.

<http://cagardenweb.ucanr.edu/>



The California Backyard Orchard >>>

Visit [The California Backyard Orchard](http://homeorchard.ucanr.edu/) to learn about the home orchard and understand that it is, in fact, a living expression of genetics interacting with soils, weather, tree spacing, pests, and many other factors.

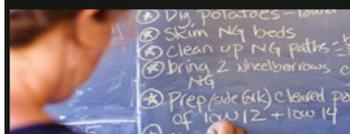
<http://homeorchard.ucanr.edu/>



Integrated Pest Management (IPM) >>>

[Integrated pest management](http://ipm.ucanr.edu/index.html), or IPM, is a process you can use to solve pest problems while minimizing risks to people and the environment. IPM can be used to manage all kinds of pests anywhere—in urban, agricultural, and wildland or natural areas.

<http://ipm.ucanr.edu/index.html>



ANR Publications >>>

Find quality peer-reviewed products produced by UC Division of Agriculture and Natural Resources (ANR) at the click of a mouse. Whether you're looking for advice on crop production, pest management, study materials for Department of Pesticide Regulation (DPR) exams, nutrition, or gardening, you'll find it in the [ANR catalog](https://anrcatalog.ucanr.edu/).

<https://anrcatalog.ucanr.edu/>



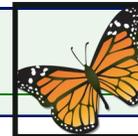
Arboretum All-Stars >>>

The horticultural staff of the [UC Davis Arboretum](https://arboretum.ucdavis.edu/arboretum-all-stars?id=4) has identified 100 tough, reliable plants that have been tested, are easy to grow, require little water, have few problems with pests or diseases, and have outstanding qualities in the garden. Many of them are California native plants that support native birds and insects. Most All-Star plants can be successfully planted and grown throughout California.

<https://arboretum.ucdavis.edu/arboretum-all-stars?id=4>



FALL GARDENING GUIDE



	OCTOBER	NOVEMBER	DECEMBER
P L A N T I N G	<ul style="list-style-type: none"> ◇ Edibles: Plant loose leaf lettuce and spinach, set out seedlings such as onion and garlic for next year's harvest. ◇ Ornamentals: Anything that's not frost-tender, including groundcovers, vines and perennials. ◇ Dig, divide and replant overgrown perennials after they finish blooming. ◇ Put tulip and hyacinth bulbs in the refrigerator for six weeks before planting. ◇ Buy and pot amaryllis or 'Paper White' narcissus bulbs for Christmas blooms. 	<ul style="list-style-type: none"> ◇ Edibles: Plant cool weather vegetable transplants such as broccoli, kale, chard and cauliflower. Plant radishes and peas from seed. Put in biennial and perennial herbs, such as chives, Greek oregano, parsley, marjoram, winter savory, lemon or common thyme. ◇ Plant spring-blooming bulbs and tubers. ◇ Winter and spring-blooming annuals available now include sweet peas, Iceland poppies, primroses, snapdragons, cyclamen, pansies and violas. ◇ Deciduous trees, shrubs and vines are often ablaze now, so shop nurseries for favorite color choices. Plant right away. 	<ul style="list-style-type: none"> ◇ Edibles: Plant bare-root berries and grapes, and dormant roots of asparagus and artichokes. Seeds of broccoli, cauliflower, cabbage and lettuce can be planted indoors. ◇ Plant for early spring color, with flowering quince, acacias, camellias, primroses and cyclamen. ◇ Decoratively pot living holiday gifts, including herbs, which grow well indoors in a sunny window. ◇ Plan spring deck, patio and porch plantings.
M A I N T E N A N C E	<ul style="list-style-type: none"> ◇ Keep deadheading shrubs and annuals. It will encourage annuals to bloom a bit longer and keep shrubs looking tidy. ◇ Fertilize roses for the last time this fall. ◇ Renovate a tired lawn by dethatching, aerating, fertilizing and over-seeding. Lower the blades of your mower to 1 inch after summer's heat. ◇ Add organic matter/compost to vegetable beds after double-digging and loosening soil to a depth of 24 inches. 	<ul style="list-style-type: none"> ◇ Adjust water schedule once rain begins. If no rain yet, keep vegetables irrigated. ◇ Apply dormant fruit spray to trees after leaves drop. Use 50 percent copper or lime sulfur product for peach leaf curl on peaches and nectarines. On apricots, use fixed copper spray rather than lime sulfur. ◇ Fertilize fall-planted annuals and vegetables with a high nitrogen fertilizer. Cut back mums to six inches above ground when they are finished blooming. 	<ul style="list-style-type: none"> ◇ Continue to fertilize fall-planted annuals and vegetables to provide needed nutrients for root development. ◇ Keep poinsettias in a warm, sunny location, away from drafts. Water weekly and feed monthly through April. ◇ Put your living Christmas tree outside until a few days before December 25, lessening stress. ◇ Before storing garden tools for winter, clean, sharpen and oil garden pruners and shears, and wash mud off shovels and rakes. Oil wooden handles of all tools.
P R E V E N T I O N	<ul style="list-style-type: none"> ◇ Remove fallen fruits, vegetables, diseased leaves and weeds from garden beds to reduce next year's garden pest and disease problems. ◇ If no rain yet, or very little, continue to irrigate. Once consistent rain begins (fingers crossed), check for areas of standing water, the breeding ground for mosquitos. ◇ Apply copper or other recommended controls if you see brown rot or citrus blast on your citrus trees. 	<ul style="list-style-type: none"> ◇ Bait for snails and slugs with an iron phosphate-based bait. ◇ Fight cabbage loopers by using floating row covers to keep the adult white butterflies from laying eggs on leaves. ◇ Apply pre-emergent weed control among plantings and on your lawn. 	<ul style="list-style-type: none"> ◇ Hoe and pull weeds diligently. Mulch to keep weeds down. ◇ Apply a dormant spray to kill insect eggs and pests such as aphids, mites and scale, as well as fungi and bacteria. ◇ If a freeze warning is in effect, turn off drip irrigation and remove the end plug for drainage.

**Seeds For Thought is produced by
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It is available through the internet for free download:

<http://cesolano.ucdavis.edu/newsletterfiles/newsletter130.htm>

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SEEDS FOR THOUGHT



**FALL
2020**