



Photo by Melinda Nestlerode

05/28/2016

Seeds For Thought

Solano County Master Gardeners

Summer 2017 Vol. 12 Issue 3

WATER FOR BIRDS IN YOUR GARDEN

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

It is hard to say who finds the scent, sound, and sight of water most irresistible--people or birds. Probably birds! Especially during the heat of summer. Water in the garden is a great way to attract birds and to help them thrive.

What do birds like? Water music (drips, tinkles, burbles), shallow water, and a quiet pool or slight water flow. A rough surface provides secure footing while landing, drinking, and bathing. The ideal is a basin sloping gradually to two inches water depth, with a rim or beach for perching and perhaps a gentle waterfall or fountain "shower."

An ambitious gardener can install a pool or a stream with falling water and shallows for bathing. Simpler bird baths take a myriad of forms. A hollow rock or hollowed-out log is attractively rustic. Any kind of shallow dish can be put on the ground or a pedestal, set into the ground, placed on the



Photo by Sharon Leos



Photo by Sharon Leos

windowsill or deck, or suction cupped to a window. A water-filled bucket with a nail hole in the bottom can be hung overhead for a slow drip.

Many birds including hummingbirds love to fly through mist or a fine spray. Hang a hose with the nozzle set at mist spray over some raised support. Turn the water on at regular times of day so birds will know when to expect it. Sprinklers on a timer work too.

Make sure that the birds' water is free from toxic chemicals. Avoid pesticide drift onto the water surface. Never apply algacides, insecticides, or antifreeze to water where birds drink and bathe. Prevent mosquito

breeding with non-toxic biological controls. Mosquitofish or other insect-eating fish are an option where there is deep water. If fish are not practical, garden centers sell "mosquito dunks," dry cakes containing spores of the bacterium *Bacillus thuringiensis israelensis* (B.t.i.) to place in water of any depth periodically as a preventive measure. B.t.i.

kills larvae of mosquitoes and closely related flies but is harmless to everything else—people, pets, fish, frogs, even other kinds of aquatic insects like dragonflies and water striders.



Photo by Jennifer Baumbach

(Continued on Page 2)

Water for Birds in Your Garden..... 1
Preservation Pointers: Time for the Tasty Tomato 3
Caution! Coming Soon! Asian Citrus Psyllid..... 4
Critter Protection..... 5
Sustainability Through Permaculture in Solano County..... 7

Bee Bullies 8
Sugar-Free Berry Jam Recipe 8
Master Gardener Plant Exchange..... 9
Spring Gardening Guide..... 10
Gardeners in the Community..... 11

(Continued from Page 1—Water for Birds in Your Garden)

If you observe birds closely, you've probably noticed that they are creatures of habit. The reliability of a water source is important. Keep it available at all hours and seasons if possible. Put the bath within easy reach of a garden hose so you can clean and refill it often. Check it daily in hot weather unless it is fed from a reservoir using a recirculating pump. For a pump use an outdoor power outlet with a ground fault interrupter (GFI) to prevent electrical shock.

A shady spot keeps the water cool and slows down evaporation. Where best to place water features for birds may also depend on predators such as cats. A bird preoccupied with bathing and slowed down by wet feathers is easy prey. Shyer birds prefer secret pools with leafy cover, but that scenario allows enemies to hide and pounce. If your garden is a hunting ground, consider a tall pedestal for the bird bath, a wall-mounted fountain, or a hanging bath. Water features that are low to the ground are safer near, but not next to, shrubs and overhanging branches. A high perch and cover 10-15 feet away from the water allow birds to watch for possible danger and return to that refuge for preening.

Last but by no means least, put the birds' water where you can enjoy watching them! Consider a spot within view of a garden bench or the patio. Observe in comfort through the kitchen or dining room window or glass doors to the outside.

Rejoice at the beauty and fascination of birds and water! ☀



Photo by Sharon Leos



DID YOU KNOW?



Many people fear or dislike spiders, but, for the most part, spiders are beneficial because of their role as predators of insects and other arthropods, and most cannot harm people.

Spiders that might injure people—for example, black widows—generally spend most of their time hidden under furniture or boxes, or in woodpiles, corners, or crevices. The spiders commonly seen out in the open during the day are unlikely to bite people. Unlike mosquitoes, spiders do not seek people in order to bite them. Generally, a spider doesn't try to bite a person unless it has been squeezed, lain on, or similarly provoked to defend itself. Moreover, the jaws of most spiders are so small that the fangs cannot penetrate the skin of an adult person.

Excerpted from Pest Notes Publication 7442—University of California Agriculture and Natural Resources



TIME FOR THE TASTY TOMATO

Pearl Eddy, U.C. Master Gardener and U.C. Master Food Preserver, Solano County

Tomatoes are one of the biggest crops grown in Solano and Yolo



<http://justsimpleear.blogspot.com/2012/08/chipotle-tomato-jam-and-green-apple.html>

Counties, and the home gardeners here grow

their share, also. At home, we make two common mistakes—over watering and over fertilizing. Too much water can cause yellowing of leaves and other problems, and too much fertilizer can cause too much leaf growth and fewer flowers. The plants need deep, infrequent watering (when needed), which will help avoid problems such as blossom end rot.

Tomatoes are very nutritious with vitamins A and C, potassium, and antioxidants. The skins have a high concentration of carotenoids, so don't peel them when eating fresh. Consuming tomatoes with fat, such as avocado or olive oil, greatly improves absorption of nutrients. Tomatoes are the most concentrated food source of lycopene which helps reduce the risk of heart disease, and it is best absorbed after cooking them.

When canning tomatoes, the skin can become a choking hazard so it is best to peel tomatoes if you plan to can them.

Canning is a favorite way to preserve our extra tomatoes, but because tomatoes are borderline or low in acid, home preservers need to add some acid to each jar. For each pint, preservers must add 1 Tbsp. lemon juice* or ¼ tsp. citric acid or 2 tablespoons 5 percent vinegar before processing in a water bath canner. To can tomatoes safely and successfully, refer the [USDA Complete Guide to Home Canning, 2015 edition: http://nchfp.uga.edu/publications/publications_usda.html](http://nchfp.uga.edu/publications/publications_usda.html)

Tomatoes are also easy to freeze and make up into recipes later. Simply rinse and seal whole in plastic bags and freeze. When defrosted, the skins will slip off easily. Follow directions from the National Center for Home Food Preservation: <http://nchfp.uga.edu/how/freeze/tomato.html>

Editors Note: Always use bottled lemon juice in canning recipes, as the acid content of fresh lemon juice varies.

My favorite salsa recipe is printed in the [USDA Complete Guide to Canning, Guide 3](#), and by the Solano Office of the University of CA Cooperative Extension:

Salsa

For 6 to 8 pints of salsa you will need:

- 5 pounds chopped tomatoes, (peeled and cored)
- 1 pound chopped onions
- 2 pounds chopped peppers (hot or milder)
- 1 cup lemon juice* or 1 cup 5 percent vinegar
- ½ tsp pepper and 3 teaspoons salt

NOTE: Weigh the vegetables after chopping to get the proper measurements.

Simmer the vegetables in a kettle for 10 minutes, pack into clean, hot pint jars, seal and process 15 minutes in a simmering water bath. Never reduce the amount of tomatoes or lemon juice or vinegar. Yield 6 – 8 pints.

You might enjoy sun-drying tomatoes. It's so easy to do. Thinly slice any tomatoes, or cut small meaty types such as Roma into halves. Place on racks, cut side up, sprinkle lightly with salt (can be omitted), and dry them in the sun for several days. If insects are a problem, screens or cheese cloth coverings will help. It takes about 17 pounds of fresh tomatoes to make one pound of dried tomatoes. Refer to the following directions from the National Center for Home Food Preservation: http://nchfp.uga.edu/publications/uga/uga_dry_fruit.pdf

To store fresh, ripe tomatoes, find a cool area away from the sun. Avoid storing them in the refrigerator as that changes the starch content which changes flavor and consistency. At last, it is the time to enjoy a real vine-ripened tomato. ✪

References:

- * National Center for Home Food Preservation: <http://nchfp.uga.edu/>
- * United States Department of Agriculture's Complete Guide to Home Canning, 2015 Revision
- * Agriculture Information Bulletin 539

CAUTION! COMING SOON...! ASIAN CITRUS PSYLLID

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

A tiny invader and its minuscule bacterial cargo are an imminent dangerous threat to our favorite fruit and we need to be prepared! Oranges, limes, lemons, grapefruit, mandarins and other citrus-related plants in California are in danger of catching this disease. “Huanglongbing”, which means “Yellow Dragon Disease” in Chinese is the culprit. The common term is citrus greening disease (*Candidatus Liberibacter asiaticus*). The bacteria are certain death to infected trees and plants!

History



Asian Citrus Psyllid

The scourge and its carrier is the Asian citrus psyllid (*Diaphorina citri*), a small, mottled-brown sucking insect about the size of our common aphid. Botanists believe its origin was Asia or India, and it has been spreading rapidly around the world. In June 1998, in Palm Beach County, Florida, it was discovered on nursery stock of the orange jessamine (*Murraya paniculata*). By 2001, specimens had spread to 31 Florida counties, probably spreading by hitchhiking on citrus related stock. By 2005, all commercial citrus orchards and many backyard trees were infected. As of 2001, orchardists in most southern states, Hawaii, California and Mexico have reported the psyllid's presence. Other areas include Puerto Rico, Guam and the US Virgin Islands.

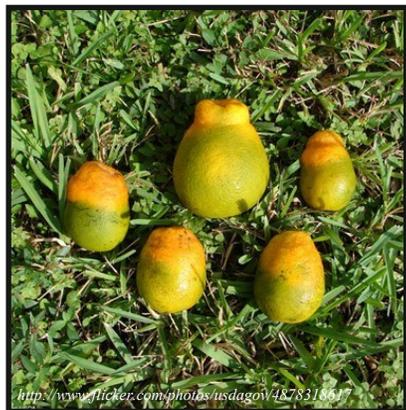
In March 2012, Huanglongbing bacteria was found in a citrus tree in Los Angeles. It probably came from grafting of an infected bud, though other sources include spreading the psyllid by being legally or illegally imported from areas where both the insect and the disease are present. The psyllid has traveled to central and northern California, infesting orchards in the San Joaquin Valley. Recently, in October 2016, the pest was trapped in a tree in Lincoln, in Placer County. Our area, Sunset Zone 9 for the most part, is mostly a non-commercial citrus-growing zone, but prime for infection soon.

The Insect and Its Damage

Asian citrus psyllids (ACP) suck sap from citrus shoots and leaves. The immature forms are called nymphs and feed on the sap. Their 1/6 to 1/8 inch body is winged, with a pointed front end, red eyes and short antennae. The insect injects toxins into the plant as it feeds. Feeding nymphs secrete honeydew, which promotes sooty mold. The honeydew attracts ants who farm the psyllids and protect them. The insect can live for 1 to 2 months, and females can lay several hundred tiny yellow-orange eggs during their lifetimes. Adults feed head down and can jump if disturbed. Shoots and leaves become stunted and malformed. This is not good for the tree, but even worse is that ACP can inject the bacteria Huanglongbing, which destroys the tree and is incurable. Citrus greening produces yellowed, blotchy leaves and bitter small partially green misshaped fruit that can't be sold, and the tree must be cut down to prevent the spread of the scourge. Citrus greening has already caused the destruction of millions of trees in Florida's groves. If left alive the tree will die within 5 years.

Detection and Control

Psyllids, though tiny, are visible on plant parts. Their unusual feeding position; head down, body at a 45 degree angle, is like no other sucking insect, such as aphids. Droppings are white and waxy. Shoots will be yellowing as will be leaves in mottled areas. Branch tips will look burnt and the leaves are twisted, sparse and small. Fruit is lopsided, bitter and green with small undeveloped seeds.



Fruit affected by Huanglongbing

Because of the imminent danger, the California Department of Food and Agriculture (CDFA) has a program that monitors areas by hanging yellow sticky traps in citrus trees, visually examining suspect plants, and, setting up quarantine zones throughout the state where no hosts of the ACP, plants or fruit, can be removed from the area. There are maps on their website that delineate the zones. The public, especially gardeners, are asked to be alert and report any suspicious sightings in private gardens. Look at tiny new leaves, even in the winter, for signs of feeding and damage, twisted leaves, waxy droppings, honeydew, sooty mold and ants. Adults can jump or fly if

(Continued on Page 5)

(Continued from Page 4—Caution! Coming Soon...! Asian Citrus Psyllid)



bothered. Call the CDFA Exotic Pest hotline at 1-800-491-1899 immediately to report sightings or contact your county Agricultural Commissioner at 707-784-1310. The CDFA will confirm ACP presence, set up a quarantine area

and treat the affected plant with approved insecticides. Home gardeners may choose to use a foliar pyrethroid insecticide to kill adults, and a ground-drenching systemic for sustained control of nymphs if psyllids are seen. Organic compounds such as oils and soaps may be used to reduce the population of ACP. Also, control ants around trees by using trunk barriers on trees. The CDFA is trying biological controls by releasing predatory wasps in some areas. They are harmless to people, but their larvae eat the ACP nymphs. We can also buy citrus

only from reputable, licensed California nurseries and not transport citrus fruit into or across the state.

The Outlook

With diligence from nursery people, government and the public there is hope that the quarantines and inspections will stop the spread of ACP any further. We can all work to prevent the infection of Huanglongbing in California’s gardens and billion-dollar citrus industry. ☀



Nymphs with waxy tubules

CRITTER PROTECTION

Gene Ekenstam, U.C. Master Gardener, Solano County

Gardeners not only love their plants, they often love animals, including birds, cats, dogs, chickens, and more. But those two interests can be in conflict or competition. Take cats for example. A beautiful raised bed can appear to a cat to be just one large kitty box. Or, in our case, the vegetable beds or berry barrels can be either an all-you-can-eat salad buffet bar or the perfect dust bath location to our four chicken ladies. How do you protect one from the other? Exclusion seems the only option.

Building some form of fencing exclusion is certainly not a new idea, but in my case, I had to develop some kind of transportable enclosure because I try to rotate the vegetables among several locations. I discovered that, while chickens don’t try to eat garlic or onions, the soft ground was ideal for their dust bathing spot. (So far, only one has tried out the swimming pool, by accident, I am sure.)

I saw a product at a school garden supported by an MG colleague which introduced me to a pretty simple solution—masonry ladders. I actually didn’t know what they were, so I had to describe them to a worker in a home center. The product is simply two heavy-gauge wires laid parallel about 2 inches apart, then held together by a cross-piece of wire welded every 18 inches or so. They come in 10-foot lengths and are stocked in the cement aisle.



Masonry Ladder

All Photos in this Article by Gene Ekenstam

(Continued on Page 6)

(Continued from Page 5—Critter Protection)

They are used is to hold the joints together when constructing block or brick walls,. But for my purposes, they are a lightweight strut that can be arched to make a Quonset-type support for chicken wire. I use half-inch Schedule 40 PVC pipe for the base. A layout for one I recently made that is four feet wide and ten feet long is in the photo to the right.



The masonry ladders are attached by drilling holes in the PVC frame that are only slightly larger than the gauge of the wire. After the wires are pushed through the frame, they can then be bent underneath so the structure will sit flat on top of the raised bed or they can be left to protrude below the

PVC and provide a kind of anchor directly in the ground.

The covering can be simple netting, but I have elected to use chicken wire.

I affix the chicken wire to the struts with pig rings, a product that is like a large fence staple and squeezed together with a special tool resembling a pair of pliers. A friend accomplished a similar result by using cable ties.

This particular one is ten feet long, with a center brace to give some stability as the frame is moved. It is 45 inches tall, because I did not cut back the 10-foot length of the masonry ladder (See photo on Page 7). The ends are closed with the same chicken wire, and I either move the whole assembly to the side or tilt it up in order to work or harvest the bed.

Advantages are:

- Substantial enough to prevent entrance to an area, but too flexible to be a roost
- Relatively inexpensive (a 4'x6' version 45 inches high would cost about \$50.00)
- Doesn't inhibit air movement, yet will not sail away in our Benicia winds
- Easily moved from spot to spot
- The frame is strictly a cut-and-glue job—no carpentry skills required
- The light weight allows for lifting or moving for harvesting and cultivating

Materials List for a 4' x 6' Enclosure:

- 2 schedule 40, ½ inch PVC 10' long
- 4 ½ inch PVC elbows
- PVC glue
- 2 rolls chicken wire 3' wide, 25' long
- 3 masonry ladders 10' long

Equipment List:

- Tape measure
- Hacksaw or reciprocating saw
- Snips/wire cutters
- Drill and bit
- Wire/cable ties/pig rings

Here are a few hints should you want to make one:

- ◇ The masonry ladders can be cut to any length needed for the height of the enclosure, but ordinary pliers or wire cutters won't work. I used a small version of a bolt cutter to shorten them.
- ◇ The ideal length is probably no longer than six feet; the ten-foot version I made is too bulky to move easily.
- ◇ Masonry ladders come in three sizes. I used the smallest one in which the parallel wires are about two inches apart.
- ◇ With all the gluing, cutting, measuring, and attaching the chicken wire, one of these can be produced in about four hours.



While our version has not been raccoon-or opossum-tested, it is substantial enough to keep the doves and crows, as well as our chickens, off the strawberries. ☀



SUSTAINABILITY THROUGH PERMACULTURE IN SOLANO COUNTY

Tina Saravia, U.C. Master Gardener, Solano County

It all started for me in September 2014, when I attended a talk on Permaculture in Benicia with another Master Gardener friend. I have heard of Permaculture for years, but it always seemed like a foreign concept to me. I did not know anyone, in my broad circle of urban horticulturally-inclined individuals, who practiced Permaculture. The fact that it was in Benicia, a 20-minute drive from my house, made it more real.



All photos with permission from www.sustainablesolano.org

What is Permaculture? Permaculture is a word originally coined by Bill Mollison and David Holmgren in the mid 1970's to describe an "integrated, evolving system of perennial or self-perpetuating plant and

animal species useful to man" (Holmgren Design. <https://www.holmgren.com.au/about-permaculture/>).

Permaculture is a design system based on ecological principles. The word originally referred to "permanent agriculture." It has more recently expanded to stand for "permanent culture."

Permaculture can be defined and explained in many ways. It encompasses many aspects. In its simplest form, it is a design system that can be adapted anywhere in the world, in any setting — urban, suburban or rural, no matter the size of the property.

One of those design aspects that is easily adaptable is Food Forest Gardening, which is what the local grassroots organization, Sustainable Solano, started in Benicia. They help homeowners create their own sustainable food forest. The gardens feature edible plants in varying heights and sizes, mimicking a forest. The gardens use a combination of drip irrigation and greywater — laundry water. Swales or depressions, topped with wood chips, were dug to direct water

from downspouts to also help water the gardens, which also helps refill the groundwater.

A few words about Sustainable Solano. It started out as Benicia Community Gardens. As the programs expanded beyond Benicia, the board decided to rename it Sustainable Solano in May 2016. They maintain a couple of community gardens, a

community orchard, seven permaculture demonstration food forests, Community Supported Agriculture partnerships, a "Land Caretakers" sustainable landscaping education program, a food donation Share Plot, and a beloved monthly "What's for Dinner?" educational cooking potluck series.

The most recent demonstration food forest installations were done in Vallejo, next is Fairfield. According to their website, sustainablesolano.org, they will be accepting applications starting in June through August for prospective demonstration food forest keepers in Fairfield. ☀



Editors Note: The video recently produced by Sustainable Solano demonstrates the benefits obtained through practicing permaculture techniques. You may review this informative video at:

<http://sustainablesolano.org/wise-water-informative-video-sustainable-solano/>



BEE BULLIES

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

Having a garden opens one's eyes to a whole new world of creatures. For the last two weeks I have been observing a patch of lamb's ears (*Stachys byzantina*) that has been blooming like crazy. Three-foot high gray-green stalks studded with orderly rows of small purple flowers have risen from the low growing fuzzy-leaved plants that my grandkids love to touch. The plants are native to Turkey, Armenia and Iran, so they prosper in our Mediterranean climate; so much so that I sometimes yank out whole sections to uncover the stepping stones! Some planting guides suggest that the flower stalks should be pruned out so that the foliage can be enjoyed. However, if that is done the whole spring show of bees would be lost. Bees love the nectar and the yard buzzes all day with their activity. But not just honeybees enjoy this plant —bumble bees, carpenter bees, and, most interesting to me—wool carder bees (*Anthidium manicatum*).



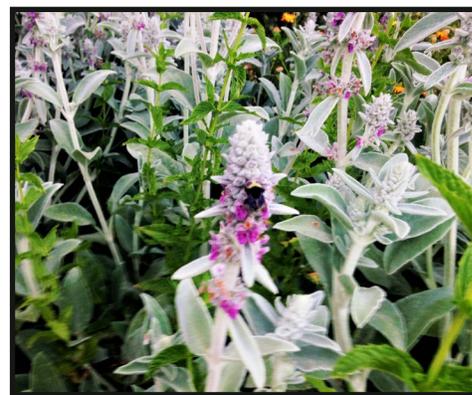
Wool Carder Bee

Photo used with permission from Kathy Keatly Garry

Relative newcomers to California, first noticed in the mid 2000's in Sacramento, wool carder bees are natives to southern Europe, are solitary bees, and do not live in hives. They nest in preexisting cavities off the ground such as hollow stems or cracks in fences and walls. Wool carders are attracted to lamb's

ears for more than just the pollen and nectar. The females build brood nests, which they line with fluffy fibers pulled from the fibrous leaves, thus the moniker of "wool-carder". The females scrape (card) cottony bundles from the undersides of the leaves, placing pollen and an egg in the padded cell to become the next generation.

While I have not seen the actual carding, the male bees put on an entertaining show. The brightly striped black and yellow guys are fiercely territorial, defending their sections of lamb's ears against all others, even the much larger carpenter bees. They zoom busily and charge into the other bees, sometimes knocking them to the ground. Worse, male wool carder bees have sharp spurs on their abdomens that can stab, injure or even kill honey bees. I have found several wounded, crawling under the foliage. They also mate with any female to be found by pouncing on top of them for just a few seconds.



Bumble Bee on Lambs Ears

Photo by Kathy Klobas

Now the lamb's ear flowers are fading, but I look forward to seeing wool carders cavort on the mint, oregano and sedum. I love to watch these zippy little bee-bullies! ☀

Sugar Free Triple Berry Freezer Jam

4 cups strawberries
2 cups raspberries
1 cup blueberries
1 ¾ oz. package pectin for low or no sugar preserves
20 packets Equal® or 2 Tbsp. Equal® Measure

Mash strawberries, raspberries and blueberries to make 4 cups of fruit pulp. Stir in the pectin; let the mixture stand 10 minutes, stirring frequently. Transfer the mixture to a large saucepan. Cook and stir over medium heat till mixture comes to a rolling boil. Cook and stir 2 minutes more. Remove from heat; stir in Equal®. Skim off foam, if necessary.

Ladle into freezer containers or jars, leaving 1/2-inch head-space. Seal the jars or containers and label the product with name and date of preparation. Let stand at room temperature 4

to 6 hours or till set but no longer than 24 hours. This jam may be stored up to 3 weeks in the refrigerator or 6 months in the freezer. Makes about 4 cups (64 one-tablespoon servings).

Nutrition information per serving: 9 cal, 0 g pro., 2 g carbo., 0 g fat, 0 mg chol, 3 mg sodium Diabetic Food Exchanges: Free food. Adapted from the "Simply Sweet" recipe book published by the NutraSweet Company 01993

This recipe was contributed by Diane Metz: Emeritus Nutrition, Family and Consumer Science Advisor, Solano and Yolo Counties. The recipe provides a sugar-free alternative to the freezer berry jam recipe published in the Spring 2017 edition of *Seeds for Thought*



UC Master Gardener Plant Exchange & MarketPlace



September 16, 2017
9am Sharp Until 12 Noon
501 Texas Street, Fairfield

Plant Exchange—Bring a plant, take a plant. We will also have yard sale-type items like garden tools pots, magazines, books, etc., as part of the exchange; bring them if you have them. Please come, even if you have no plant to share.

We will have our MarketPlace where you can purchase items made by or donated by the UC Master Gardeners. Proceeds will go to supporting the Master Gardener Program in Solano County.

CASH OR CHECK ONLY

NOTE: The last 30 minutes of the plant exchange will be a “green light” special and you may take unlimited plants.

NO invasive plants, pokey plants, pesticides, herbicides, fungicides , or fertilizers!

Information: Jennifer, (707) 389-0645 (texts ok) or jmbaumbach@ucanr.edu

UC Master Gardener Plant Exchange & MarketPlace



September 16, 2017
9am Sharp Until 12 Noon
501 Texas Street, Fairfield

Plant Exchange—Bring a plant, take a plant. We will also have yard sale-type items like garden tools pots, magazines, books, etc., as part of the exchange; bring them if you have them. Please come, even if you have no plant to share.

We will have our MarketPlace where you can purchase items made by or donated by the UC Master Gardeners. Proceeds will go to supporting the Master Gardener Program in Solano County.

CASH OR CHECK ONLY

NOTE: The last 30 minutes of the plant exchange will be a “green light” special and you may take unlimited plants.

NO invasive plants, pokey plants, pesticides, herbicides, fungicides, or fertilizers!

Information: Jennifer, (707) 389-0645 (texts ok) or jmbaumbach@ucanr.edu



SUMMER GARDENING GUIDE



	JULY	AUGUST	SEPTEMBER
P L A N T I N G	<ul style="list-style-type: none"> ◇ For summer-to-fall color, choose ageratum, celosia, coleus, marigolds, and zinnias ◇ Continue planting warm-season vegetables until midmonth: beans, corn, tomatoes ◇ Start perennials from cuttings: dianthus, geraniums, verbena ◇ Sow seeds of columbine, coreopsis, forget-me-nots and foxglove 	<ul style="list-style-type: none"> ◇ Start seeds of cool-season crops: broccoli, cabbage, lettuce—to set out in August ◇ Direct-sow edibles: carrots, onions, peas, radishes ◇ Start sowing seeds of cool-weather bedding flowers in flats now: calendula, candytuft, pansies, snapdragons, stock 	<ul style="list-style-type: none"> ◇ Seed: try a selection of colorful salad greens, which are easy to grow at home ◇ Time to start thinking of what tree to buy. Consider fall color and shop when the leaves color up ◇ Shop for bulbs now to get the best selection ◇ After midmonth, sow seeds of California poppy and clarkia
M A I N T E N A N C E	<ul style="list-style-type: none"> ◇ Control weeds—pull or hoe them as soon as they appear ◇ Deadhead (remove old flowers) from dahlia, rudbeckia, rose and other perennials ◇ Fruit trees: brace limbs that are sagging with fruit. Clean up any fallen fruit ◇ Continue to irrigate plants, especially when hot and windy weather is forecast 	<ul style="list-style-type: none"> ◇ Deep-water trees. Use a soaker hose and place at drip line of tree ◇ Fertilize warm season annuals ◇ Deadhead spent blooms ◇ Refresh hanging baskets with new transplants. Succulents work well ◇ Continue to harvest vegetables for maximum production 	<ul style="list-style-type: none"> ◇ Get flowering annuals and perennials as well as fall-planted vegetables off to a strong start by incorporating a high-nitrogen fertilizer into the soil before planting. Fertilize again in 2–4 weeks, or follow label instructions ◇ Later this month is one of the best times to rejuvenate bluegrass, fescue, and rye grass lawns. Rake and reseed. Be sure to irrigate and keep moist
P R E V E N T I O N	<ul style="list-style-type: none"> ◇ Budworms—inspect plants for holes in buds and black droppings. Use organic pesticide, such as Bt (<i>Bacillus thuringiensis</i>), to control ◇ Deep water trees. Midsummer heat can cause drought stress. Deep water citrus, fruit and flowering trees once every week or two. Water less thirsty trees one a month ◇ When foliage dries completely, dig up spring-flowering bulbs and tubers. If daffodils and Dutch iris appear crowded, dig them up too. Store bulbs in a cool, dry place until fall planting or bring to MG Plant Exchange in September! ◇ Dig and divide overcrowded bearded iris clumps. Share with friends and neighbors 	<ul style="list-style-type: none"> ◇ Continue to deep water all plants to avoid sunburn and other damage from hot weather ◇ Continue garden clean up. Remove fallen fruit and garden debris ◇ Inspect plants for signs of spider mites. Apply a blast of water spray to undersides and tops of leaves to dislodge dust mites 	<ul style="list-style-type: none"> ◇ Use a selective pre-emergent herbicide on lawn to keep winter weeds under control ◇ Clean up fallen fruit and leaves to keep diseases at bay ◇ Clean up old vegetables to prevent over-wintering of insects and disease



UC MASTER GARDENERS WILL ANSWER QUESTIONS AND PROVIDE INFORMATION THROUGHOUT THE SEASON

FARMERS MARKETS

Vallejo Farmers Market
Saturday's 9:00am to 1:00pm
Georgia and Marin Streets
Year Round (Rain Cancels)

Vacaville Farmers Market
Saturday's 8:00am to 12:00pm
Main Street Between Dobbins & Parke
Through October 7, 2017

Benicia Farmers Market
Thursday's 4:00pm to 8:00pm
90 First Street
Through October 26, 2017



FAIRFIELD HOME DEPOT

Every other Saturday
April 1 Through October 7, 2017
10:00am to 2:00pm

2121 Cadenasso Drive

Dunnell Nature Park and Education Center
3351 Hillridge Drive, Fairfield
10am until 12 noon

August 12-Round Table, ask Master Gardeners questions you have about your garden

September 9-Fall Gardening/ how to plant a fall garden

WHO ARE MASTER GARDENERS?

Since 1981, 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 50 California counties. Last year 6,237 active UC Master Gardener volunteers donated 328,540 hours, and 5+ million hours have been donated since the program's inception.

"To extend research based knowledge and information on home horticulture, pest management, and sustainable landscape practices to the residents of California and be guided by our core values and strategic initiatives." - UC Master Gardener Program Mission Statement

**Seeds For Thought is produced by
the UC Master Gardeners-Solano**

EDITOR

Melinda Nestlerode

FEATURE WRITERS

PEARL EDDY, GENE EKENSTAM, KATHY KLOBAS,

PATRICIA MATTESON, TINA SARAVIA

SPECIAL CONTRIBUTOR: DIANE METZ



Have a comment or question about *Seeds For Thought*?
Contact us!

By email: mgsolano@ucdavis.edu

Please put '*Seeds For Thought*' in the email Subject line.

U.S. mail:

UCCE Master Gardeners-Solano

501 Texas Street, 1st Floor

Fairfield, CA 94533

The University of California prohibits discrimination or harassment of any person on the basis of race, color, national origin, religion, sex, gender identity, pregnancy (including childbirth, and medical conditions related to pregnancy or childbirth), physical or mental disability, medical condition (cancer-related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or status as a covered veteran (covered veterans are special disabled veterans, recently separated veterans, Vietnam era veterans, or any other veterans who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized) in any of its programs or activities. University policy is intended to be consistent with the provisions of applicable State and Federal laws. Inquiries regarding the University's nondiscrimination policies may be directed to the Affirmative Action/Staff Personnel Services Director, University of California, Agriculture and Natural Resources, 300 Lakeside Drive, 6th Floor, Oakland, CA 94612-3550 (510) 987-0096.

References in *Seeds For Thought* to trademarked products, commercial websites, and businesses are provided as a courtesy for the reader's consideration and do not constitute the endorsement of any products or services by the U.C. Master Gardeners.

Seeds For Thought is a quarterly publication of the University of California Master Gardener Program of Solano County and is freely distributed to County residents.

It is available through the internet for free download:

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

Jennifer M. Baumbach
Master Gardener Program Coordinator



**U.C. Cooperative Extension
UC Master Gardeners-Solano County**

501 Texas Street, 1st Floor

Fairfield, CA 94533

SEEDS FOR THOUGHT



**SUMMER
2017**