Fall is in the Air

Marcy Sousa, Master Gardener Coordinator

The days are shorter, the evenings are chilly, and there’s that feeling that fall is in the air! Soon we’ll be raking the fallen leaves and listening to their crispy crunch. Seeds are forming in preparation for the future and soon we’ll be putting the gardens to bed for the winter.

Fall is my favorite time of year. Things may be slowing down in the garden but our Master Gardener Program is as busy as always. We just wrapped up our biennial Smart Gardening Conference that was a big success. We are currently planning workshops and events for 2016 as well as participating in many school gardens in the county. The drought is still on our mind and continues to be the focus of many of the educational outreach activities that we provide throughout the county. Be on the lookout for some new community projects and our May Garden Tour.—details coming soon! The Master Gardener Office is as busy as always with calls and samples being brought in on a daily basis.

Fall is also the best time of year to plant trees and shrubs, especially during California’s drought. The warm days, cool nights and increasing rains ease the transition of the plants’ roots into the native soil of the garden, establishing a good start before real cold sets in. And when it starts to warm up in spring, those roots will already be at home, ready to support hearty new growth.

We hope you are enjoying this cooler weather and this issue of Garden Notes.

Oh, Yeah! Ollas!

Julie Schardt, Master Gardener

What could ancient King Solomon or a 2,000-year-old Chinese civilization possibly have to teach us about using water in our gardens? As Central Valley gardeners, we have in common with these ancient farmers an understanding that when water is scarce or too distant to irrigate our gardens, we need to find a better way to irrigate. Maybe it’s time to take a look at a system that worked in ancient times, and that many farmers today still find effective. Olla (OY-yah) in Spanish means clay pot, but the term has taken on special meaning in thirsty agricultural areas. Clay pot irrigation is a method which uses clay pots, or ollas, to deliver water to crop plants and trees. Ollas are unglazed clay/terra cotta pots that are buried in the ground with the neck exposed above the soil surface and filled with water for sub-surface irrigation. Once the olla is buried, plants or seeds are placed close enough to the olla to get the water they need when they need it.
October, November, and December
With summer heat behind us, the soil remains warm for planting trees, shrubs, most ornamentals and cool season edibles. If we are fortunate, rain may water your garden over the next few months.

**October Ideas**

**Plant -**

**Trees** planted in fall adapt to your garden over winter. For autumn colors of red, gold, or yellow choose Chinese pistache, Gingko, Tupelo, scarlet oak, red oak, Japanese maple, red maple, crepe myrtle, or redbud. Be sure to check the mature height and width of the trees so they will have room to grow in your landscape.

**Annuals** such as dianthus, Iceland poppy, pansy, primrose, snapdragon, stock, viola, and violets do well in cooler weather.

**Perennials and shrubs** planted in fall are easily established with the help of winter rain. Enrich your landscape with plants that attract pollinators such as hummingbirds and bees.

**Bulbs** scattered and planted now will provide natural, colorful spring displays. Nursery selections should include anemone, calla, Narcissus, freesia, Hyacinth, Muscari, or Dutch iris. Wait for the temperature of the soil to fall to 55° (when average night time temps are 50° or cooler for at least 2 weeks) to plant.

**Winter vegetable** transplants that do well now include Bok Choy, broccoli, Brussels sprouts, cauliflower, celery, onions, chard, kale, and kohlrabi. Lettuce, spinach, fava beans, and peas are easy to start from seed. Garlic cloves planted now produce an early summer harvest.

Sow wildflower seeds for flowers that attract butterflies and beneficial insects —California poppies are always cheerful when they bloom.

**Maintenance —**

**Trees** add value, both aesthetic and monetary, to our homes. They provide shade, oxygen, and just a place to sit near and relax, so saving them is critical to our homes and landscapes. Established trees need a good soak this month. Just wrap a soaker hose under your tree at least three feet from the trunk and within the drip line and soak the soil for several hours this month to keep your tree happy over the winter. If we have another winter without water, remember this trick every two to four weeks (depending on the water needs of your tree) starting again in early spring.

**Knock down water basins** around trees and shrubs to avoid standing water around the root crowns which encourages crown rot.

**To discourage** brown rot on citrus, prune the tree skirts 24" above the soil, clean fallen leaves and old fruit from under the trees, and mulch to prevent fungus spores from splashing up from the ground.

**Cut spent blooms** to extend the flowering period of your plants. Begin pruning back old growth and feed roses one more time to keep the blooms coming through the fall.

**Dig clumps of crowded** daylilies, iris, Shasta daisies, and agapanthus with a spading fork so the root-ball comes up intact, then use a spade or sharp knife to divide them (each division should have plenty of leaves and roots). Replant divisions in new locations immediately.

**Add a layer of mulch** to all of your plants for added protection this winter.

**Lawns -** Be sure to fertilize. Thatching could help control both Bermuda and bent grass, especially if you over-seed with a perennial rye and fescue mix to keep your lawn green through the winter. Cool season lawns, such as the popular fescue blends, are putting on a spurt of growth now. Mow often so that you are never removing more than a third of the total height of the grass blade. Reduce the frequency of watering by 50% to 75% as the weather cools.

**In November**

**Plant —**

**Put in** transplants after a light rain during calm conditions to make digging easier and help roots with hydration. Plant seeds just before a light rain on a calm day.

**Cool season annuals** like calendula, Iceland poppy, snapdragon, and viola can still be planted.

**Bulbs** can still be planted. Choose those bulbs that are plump and firm, and rhizomes or corms that feel heavy. Avoid soft or shriveled bulbs. Plant bulbs at least twice as deep as their height.
As was mentioned in last quarter’s newsletter, water running off your landscape to storm drains can contain harmful pesticide residues. This article describes in greater depth what pesticides might be involved and why we need to be concerned.

The current, most commonly used pesticides for control of home and garden pests are from a family of insecticides called pyrethroids. They have pretty much replaced previous organophosphate pesticides such as Dursban and Diazanon and organochlorine pesticides such as Chlordane for both homeowner and professional applications. The lethal chemistry of pyrethroids is based on the natural and organically accepted pesticide, Pyrethrum, which is derived from Chrysanthemum flowers. Pyrethroids, though considered reasonably safe for humans and most mammals, do have a downside. They are more persistent and more potentially toxic to nontarget aquatic organisms than natural Pyrethrum. This somewhat higher toxicity and considerably greater persistence has been found to lead to problems with many aquatic invertebrates. Those invertebrates, in turn, are a key food base for many higher aquatic animals and are a key component of aquatic ecosystems. While problematic to aquatic invertebrates, most governmental regulatory agencies have decided to try to mitigate harm from pyrethroids through requiring their more careful and responsible use (Best Management Practices) rather than simply banning them. One reason for this intermediate attempted solution is that banning them is just likely to lead to development of other families of pesticides with unknown potential harm. These Best Management Practices are included as instructions on all pyrethroid labels.

When you apply persistent pesticides like Pyrethroids to urban landscape areas where water can wash them into gutters, you are at risk of significantly polluting our rivers. This pollution can come from pesticides applied to hardscapes, such as driveways and sidewalks, or from lawns, and planted beds where irrigation or rain can wash or erode soil into gutters. This water, classified as stormwater, generally flows to gutters, not sewers, and is not treated before it is released into the river system. You may have seen fish symbol warnings on street drains about this water flowing to rivers. Besides pyrethroids, herbicides and fertilizers can also contribute to this urban drool pollution if applied incorrectly, excessively, or left on sidewalks after application. In 2003, the University of California entomologist, Mary Louise Flynt, released a study of urban pesticide use and local river pollution. It emphasizes the study of homeowners’ knowledge and practices when applying pesticides. To view this report, click here.

The basic findings of this study showed there were significant increases in pesticides and other pollutants downstream of where urban stormwater was released into rivers. Most of these pollutants were determined to be from residential applications being washed into storm drains. Levels of pesticides found were often higher than what is considered toxic to many fresh water and marine organisms.

Since that time, the University of California Center for Urban Horticulture has developed an outreach effort to educate people about how to minimize and eliminate this problem. The web site for this outreach can be found here. This site gives detailed information on some of the specific pesticides found and where they are doing harm. The pesticide industry itself, realizing the potential problem, has developed the Pyrethroid Work Group and Apply Responsibly Organization, to encourage more careful use of their products.

For more information on this topic, click on the links listed below.
Urban Pesticides and Water Quality
Mitigating Environmental Effects of Pesticides in Urban Areas
Urban and Agricultural Sources of Pyrethroid Insecticides to the Sacramento-San Joaquin Delta of California
Pests of the Season
Nadia Zane, Master Gardener

Weed: Yellow Nutsedge (Cyperus esculentus):
Yellow nut sedge (YNS) is a member of the sedge family, grasses known for their preference of riparian habitats. Leaves are arranged in sets of three stiff, thick, blades with pointy ends. It grows from small tubers produced by rhizomes growing 8”-14” down into the soil, making it very difficult to remove. When one attempts to dig them out, the little tubers break off easily to start new colonies that can grow to 10’ across! For this reason, tilling is not recommended as an eradication method; prevention is the best method. There are small, pale yellow flowers, but it is thought that tubers are the most significant source of new plants.

Sites with poor drainage, or where over-irrigation occurs, are favorable to YNS, which mimics their natural riparian habitat; adjust irrigation to prevent water-logged soil and check for leaks, which can be another source of excess water. For existing plants, try shading them out with large shrubs or other tall groundcover (low-growing ground cover will not work). Cut back new plants before they have a chance to produce tubers (less than 5-6 leaves), and repeat every 2-3 weeks so that existing tubers use up their energy stores. For more info, click here.

Pest: Household Ants:
Household ants are an annoyance most people deal with at some point. What often brings them indoors is the promise of water, food, and shelter from heat, cold, or flooding. If an infestation occurs, be sure to take the following steps: Determine what the ants are attracted to and remove the food source. Wipe up ant trails with soapy water, or spray with window cleaner to eliminate the scent. Locate entry points, then caulk openings or plug with petroleum jelly. Put out bait stations or apply gel bait at entry points. Baits take time to work, so continue to clean up trails. Removing the food source will make the bait traps more effective.

Avoid indoor sprays; ant stakes or small plastic bait traps available at hardware stores are much more effective in the long run. Ants carry poisoned bait back to the nest where it is fed to other workers and the queen(s), eliminating the colony. For more info, click here.

Disease: Camellia petal blight (Ciborinia camelliae):
There’s nothing quite like Camellia blooms in a winter landscape, but these beautiful flowers can be marred by Camellia petal blight (CPB), which causes petals to brown from the center outward, followed by premature dropping. Frost or wind damage and botrytis blight cause similar symptoms, but CPB is distinguished by browning around the petal veins. CPB is caused by fungal spores that survive in dead foliage and other plant debris. The fungus is promoted by wet, humid conditions, especially when temperatures hover between 59º to 70ºF during bloom, and spreads when rain droplets drip down through the plant.

The best way to manage CPB is to prevent it from entering your garden, since eradication. CPB is typically spread to new sites in the soil of infected nursery stock, particularly Camellia japonica, the most frequently planted species. Inspect new plants when they are in bloom, if possible, for signs of the fungus. Plant shrubs in a well-ventilated area to discourage the stagnant air that fungus likes. For existing infections, remove plant debris from around the Camellia and throw into the garbage (do not compost). Avoid disturbing the soil to keep fungal spores from getting stirred up. Apply a 4” layer of organic mulch to the soil surface when blooms are not present, leaving several inches around the trunk clear; avoid overhead irrigation. Remove plant debris and add a new mulch layer each year to keep fungal spores in check.
TREE: Zelkova serrata (Sawleaf Zelkova), Family: Ulmaceae

PLANT IDENTIFICATION: This deciduous tree is an Eastern relative of the elm. It is often used as a substitute for the American elm due to its improved resistance to Dutch Elm disease. It is a moderate to fast grower, reaching up to 60 ft. x 60 ft., with forms ranging from vase-like to spreading. The tree has smooth gray bark with narrowly oval, saw-toothed leaves. Fall color varies from yellow to dark red to dull reddish brown. Compact forms are available; one garden-worthy example is ‘Wireless’, a 25 ft. x 35 ft. cultivar with excellent red fall color.

OPTIMUM CONDITIONS FOR GROWTH: Zelkovas are good shade trees. They do best in areas with full sun. Provide moderate to regular amounts of water. Zelkova tolerates many different soil types, drought, and wind. Prune young trees to shape. Thin out crowded branches.

SHRUB: Ceanothus spp. (Wild Lilac), Family: Rhamnaceae

PLANT IDENTIFICATION: These showy groundcovers and shrubs bloom in colors ranging from whites, pinks and blues—and all shades in between. Most are native to California and bloom in early spring. Plants are evergreen typically with small, dark green leaves. There are as many as 75 varieties available at any one time but it is best to select only those grown and tested locally. Ceanothus ‘Ray Hartman’ is a popular cultivar for our area. It grows into a 12 ft. x 15 ft. small tree with medium blue, 3-5 in. flower clusters and big (2-3 in.) dark green leaves. C. maritimus ‘Valley Violet’ is one of the best small Ceanothus for Central Valley gardens. It grows 2 ft. x 4 ft. with clusters of dark violet flowers in early spring.

OPTIMUM CONDITIONS FOR GROWTH: Ceanothus can grow in most climatic zones. They prefer full sun, but can tolerate light shade in the hottest climates. After establishment, little water is required, but water is needed while it is still growing. Ceanothus should be planted in well-drained soils away from sprinklers. Ceanothus attract a wide array of pollinators and require little to no pruning. As a group, they tend to be short-lived (5-10 years) but this is likely attributed to over-watering. Most perform better and live longer with neglect.

PERENNIAL: Bouteloua gracillis (Blue Grama/Mosquito Grass), Family: Poaceae (Grass)

PLANT IDENTIFICATION: These narrow, grey-leaved, tough clumping grasses grow 1 ½-2 ft. tall by 2 ft. wide with distinctive flowers that resemble hovering mosquitoes hanging perpendicular to the stems. ‘Blond Ambition’ has chartreuse flowers on 2 ½-3 ft. stems that fade to blond. This fine-textured, airy prairie grass is often recommended as a substitute for Stipa tenuissima (Mexican Feather Grass), which may become invasive.

OPTIMUM CONDITIONS FOR GROWTH: The ornamental grass prefers full sun and little water once established. It makes a nice meadow planting for low traffic areas, blooming mid to late summer. This California Native grass retains its tidy, upright shape even when dormant. Cut back in mid-spring when new growth emerges. It grows easily from seed.
As we approach the holiday season, your thoughts might turn to wondering what to buy for your favorite gardener. There are so many items that would make great gifts that it’s hard to know where to begin!!

It seems like in the winter we are all thinking about the spring planting season, so coming up with something for your favorite gardener could mean finding a seed starter kit to give him or her the inspiration needed to plan a spring garden. If your gardener enjoys indoor plants, consider going to your local nursery and purchasing a few Amaryllis bulbs. Most nurseries and big box stores carry kits ready to plant. If you gift your gardener early in December with the bulb(s), it may be blooming in time for the holidays. The same is also true with paper whites and hyacinths which can be forced in water or soil. A blooming orchid is another dependable plant that will delight your gardener for weeks!

Maybe your gardener is enthusiastic about starting a new project like beekeeping, composting or worm farming. A fellow Master Gardener noticed that one of the large discount stores was selling beekeeping kits! Composting is a great hobby to start anytime of the year and can reap rewards in your garden by adding so many nutrients into your soil. Worm farms are also another project that requires time but reaps big rewards with the worm castings you can use in your garden. There are several sites online that carry all the supplies you will need to gift any of these projects.

One item almost all gardeners can use is a new pruner. The three choices are anvil, bypass and ratchet pruners. Pruners have come a long way through the years and some brands are better than others. Higher price doesn’t necessarily mean better quality, but there have been tests done on which brands perform best. Several brands you might want to consider are Corona, Felco, Fiskars and ARS.*

If your gardener has limited space, consider giving the components for a fairy garden. Most nurseries and even craft stores carry figurines and other components to put in a fairy garden. There are also several books describing how to put a fairy garden together. They can be portable and fit in a container as small as 10” around or square.

For a novice gardener there are many books which can give the beginner step-by-step instructions on how to plant and tend to a garden. In the same regard, there are also good books for children to learn gardening through illustrations and pictures. Young children are eager to learn gardening and love to see the rewards of things they can eat like peas, carrots, or tomatoes. There are also children’s gardening tools in a kit form.

Some other ideas might include birdfeeders, a birdbath, featherweight hoses, canning supplies, or extra-long garden gloves (gauntlet gloves) for pruning thorny plants. A gift certificate to a local nursery or online catalog website is always welcome! Have a gardener that travels a lot? Try purchasing some adjustable flow drip spikes. They are spikes that stick in the soil of your houseplant to which you attach a bottle of water (up to 2 liters) to slowly drip into the potted plant and can last for up to 2 weeks and you can adjust the flow of water!

For gardeners with mobility issues, there is a root and weed remover that is 40” long and allows the gardener to remove weeds, roots and all, and then has a tool that easily allows the weed to drop off, while you’re still standing. A garden kneeler is also a good aid for someone having a hard time getting down and up from gardening.

If you know of a someone unable to garden, consider hanging a bird feeder outside their window or even one of those bird feeders that attach to a window if there is someone that can maintain it if needed. For those who love to have fresh cut flowers, there are wonderful vases now made out of mason jars with “frogs” on the top of the jar to hold your flowers in place —great to show off your blooms indoors or out.

Don’t forget about your own creativity. Something you make or put together yourself is always special. You could also put together a packet of information to go along with your gift or as a gift itself for a beginning gardener or one with a special interest; make sure it is from a reliable source such as the UC Master Gardeners website. Other websites that offer gift ideas: Gardeners.com; PlowandHearth.com; WaysideGardens.com; UncommonGoods.com; Williams-Sonoma.com; and LeeValley.com. There are many stores, websites, and local nurseries waiting to delight you with new and unique items for your favorite gardener!

*San Joaquin Master Gardeners do not recommend or endorse any of these products or websites, they are just provided for information.
Nature is replete with beneficial insects, many of which are readily seen and identified. Yet we can easily overlook some nearly microscopic beneficial insects that inhabit our local ecosystems and gardens: parasitic mini-wasps. There are three main types of these wasps—Braconids, Ichneumons, and Trichogrammas—the last of which we’ll explore here.

Trichogramma wasps are solitary (not colony-forming) and extremely small, only 1/25th to 1/50th of an inch long. They resemble fruit flies, generally having compact yellow- to dark-brown bodies, reddish eyes, and short antennae. There are approximately 150 species of these wasps worldwide. The feeding habits of adult wasps aren’t well understood, but certain plants are known to attract them.

Female Trichogramma wasps lay their miniscule eggs inside the larger eggs of other insects, particularly moths, sawflies, and butterflies; some wasps parasitize eggs of other insects as well. A wasp hunts for recently deposited egg clusters, or sometimes latches onto a ready-to-lay female insect and waits until she lays her eggs. Each wasp injects one or more of her own eggs into a single host egg, and can lay up to 50 eggs.

Most stages of the Trichogramma wasp life cycle occur within the host egg. When the wasp egg hatches inside the other egg, the young larva feeds on the contents inside. Upon reaching full size and while still in the host egg, the wasp larva changes to a pupa, turning the parasitized egg black or dark-colored. When metamorphosis is complete the adult wasp emerges, chews a hole through the top of the host egg, and flies off to mate and renew the cycle. The entire process takes only 7 to 10 days, so numerous wasp generations can be produced in a single breeding season.

Some Trichogramma wasps are particularly important for agricultural pest control, since they parasitize the eggs of armyworms, bagworms, borers (corn, peach, squash), cabbage loopers, coddling moths, corn earworms, cotton bollworms, tomato hornworms, and more. The biological control these wasps provide is significant, since the pest eggs never hatch into caterpillars and chewing damage to crops is prevented. One species—Trichogramma palmeri—has reduced codling moth damage by over 50% (and significantly reduced pesticide use as a result) when released in California walnut and pome fruit orchards. Trichogramma wasps also destroy 80% of tomato fruitworm eggs in California.

Trichogramma wasps don’t swarm or sting and (like most other wasps) are completely harmless to people and pets. We can avoid harming them by eliminating the use of broad-spectrum pesticides, which are devastating to beneficial insects.

For more information:

UC Integrated Pest Management (IPM): Trichogramma spp.
University of Hawaii: Natural Enemies, Trichogramma Wasps
Farmer Fred: Plants that Attract Beneficial Insects (including a list for parasitic mini-wasps)

Useful Garden Websites

San Joaquin County Master Gardeners:
Our site is full of information on gardening. We are continually adding information to this site. Have questions? We have answers!

Nuts: Safe Methods for Consumers to Handle, Store, and Enjoy
Includes tips on handling and storing nuts as well as nutritional benefits.

UC Garden Web Landscape Trees.
Fall is the best time to plant trees. Learn how to pick the best tree, buying and planting tips.

UC CLUH Landscape Water Conservation and Irrigation Questions & Answers About Water Conservation and Drought in the Landscape
Growing Knowledge

A Plant Lover’s Guide to Dahlias by Andy Vernon 2014. Timber Press, Hardcover 256 p. This beautifully illustrated book is a great acquisition for the Dahlia lover, the wannabe Dahlia lover, or any lover of beautiful flowers. The author is British and the book was written in association with the Kew Royal Botanic Gardens. However, he does visit some Dahlia gardens in the U.S.A., including the Swan Island Dahlia farm in Canby, Oregon. There are not an abundance of books on Dahlias; hence this one, with the author’s perky and easy writing style, brings us a comprehensive book on how to grow and enjoy Dahlias.

It is packed not only with gorgeous pictures from the world of Dahlias, but also with knowledge to grow these fantastic flowers. The book informs on using dahlias in garden design, in containers, growing and propagation information, as well as ways to display them as a cut flower. He includes several pages of brief descriptions of flowering annuals and perennials that can be companions of Dahlias. He also describes the various types and sizes of Dahlias, a somewhat confusing array of information, but a necessary and useful guide to have when ordering Dahlias from catalogues.

Early on, he describes a few of the wild species Dahlias such as: Dahlia dissecta, D. imperialis, D. merchii, D. shearffii, and D. tenuicaulis. These species all have a single layer of petals, but have a delicacy not always found in the hybrid cultivars. He makes a case for the adventurous gardener to grow them as well as the hybrids. He then profiles over 200 hybrid varieties, organized by color, with information on type, height, and spread. Gorgeous color photographs bring the plants to life.

Being a Dahlia fancier, I had to count the number featured with the number that I have or have had in my own garden. Alas, I only had about 19 of the featured Dahlias and there were so many new beauties that I now want to acquire. I didn’t need this book to know that, as the Swan Island Dahlia catalogue each winter tempts me with an awesome array of choices. Although the author does not grow lots of Dahlias, he found lots of folks to share theirs with him and his camera.

Andy Vernon explained some things to me that I didn’t know about Dahlias. The reason there are so many sizes, forms and colors is due to polyploid chromosomes and the many possible resulting hybrids developed by breeders and hobbyists. Humans are diploid in chromosome pairing, but Dahlias have four times as many, being octoploid. This apparently gives them lots of genetic possibilities that we are still learning about. In addition many new cultivars are likely to be developed by plant breeders hybridizing new Dahlias from the 36 species of Dahlias found in the wild.

This makes it pretty easy for even an amateur to come up with a new Dahlia and breeders are doing that regularly. There are over 20,000 named Dahlias, so if you planted a hundred every year it would take you 200 years to see them all and by then there would likely be another few thousands introduced. Dahlias are mutation prone and I have seen Dahlias revert to one of their parents or something totally different from what I originally assumed I had planted. A Dahlia may have two differing flowers occurring from one tuber, apparently because of a spontaneous mutation.

The book winds down with sections on:
• how to store tubers effectively and efficiently;
• dealing with pests, diseases and disorders;
• information on how to hybridize Dahlias;
• avoiding the spread of viruses with unclean cutting tools.

If you are interested in Dahlias for landscaping or as a cut flower garden addition, or just want to know a lot about Dahlias, this book is a good place to start.
Living in a global economy provides wonderful benefits to American consumers. There’s literally nothing most of us can’t access. But when it comes to what we eat, maybe having access to all kinds of food anytime of the year isn’t such a good idea!

Many health experts and nutritionists now believe eating seasonal, locally grown food is important to healthy living. Some believe seasonal foods are a way of reconnecting our bodies with the way nature intended for us. The increasing number of food intolerances and allergies, along with higher levels of obesity and diabetes in adults and children, may be the result of not only eating highly processed food, but eating foods out of season.

Fresh, locally harvested foods have their full, whole flavors intact, which they release to us when we eat them. Produce picked when it’s ripe gives us the maximum vitamins and minerals content versus foods harvested before they’re ripe and then shipped long distances, according to Joyce Bishop, Family Nutrition Educator with UC Extension.

Non-seasonal foods require bending nature’s rules in order for them to survive. These foods often require pesticides, preservatives, and other chemicals used to allow foods to travel far distances and keep them looking fresh. Harvesting produce early so that it can endure long distance shipping may not have all the nutrients it might have had.

It costs less to provide and buy seasonal produce when they are naturally and readily available. Eating in season provides a variety of foods in our diets that will allow us to eat a more well-rounded and balanced diet. Many of us do that already without thinking. For example, we eat berries, peaches, and nectarines in the summer and apples, pumpkins and squash in the fall because they’re seasonal and plentiful.

To learn what’s in season, look at what’s being sold in the market or better yet, at the farmers market. It’s the basic law of supply and demand. When supplies are plentiful, the price is less. When prices rise, that’s a good indication fruits and veggies are out of season.

Check the website for the Master Gardeners of San Joaquin County for the vegetable planting guide to learn what’s grown in season locally. Visit Stockton has a Growing Guide on what you can expect in Stockton’s fields during each season.

Eating locally grown food supports local small farmers and is good for the environment too, Bishop said. Buying local reduces our carbon footprint by eliminating pollution from shipped or trucked foods.

Bishop said her office is getting more support from county school districts to buy their produce from local farmers which encourages healthy eating among students and supports area farmers.

Seasonal eating means two things: building meals around foods that have just been harvested at their peak, and adjusting our diets to meet the particular health challenges of winter, spring, summer and fall. While it may seem like a luxury to have any food we want, anytime we want it, eating foods in season offers many benefits.

Eating seasonally connects us to the calendar and often to one another, reminding us of simple joys — apple picking on a clear autumn day, slicing a juicy red tomato in the heat of summer, celebrating winter holidays by the fire. Bishop reminds us all to make our meals more healthy and colorful by filling half our plates with beautiful locally grown, seasonal fruits and veggies.
We are lucky gardeners to live in Northern California, blessed by wondrous climates and gardens galore. But with a regional drought entering five years, you are likely in the process of reimagining your yard and grounds for both water savings and beautiful surroundings.

With fall and winter coming on, consider visiting several nearby demonstration gardens for inspiration, ideas, and plant selections. One of the best is right here in our county and a number of others are just a few hours’ drive away. From the Learning Landscape at the Robert Cabral Agricultural Center near the Stockton Airport, to the University of California-Davis Botanical Garden in Davis, the Sunset Garden in Menlo Park, the Mendocino Coast Botanical Garden, and the Hakone Japanese Gardens in Saratoga – a host of destinations can make for a grand day-trip or multiple journeys for inspiration and up-close tours of new plants and techniques.

Here are favorites of local Master Gardeners:

The **Learning Landscape**, designed and maintained by the UC Environmental Horticultural Advisor and Master Gardener volunteers, located at the west end of the Robert Cabral Agricultural Center, 2102 E. Earhart Ave, Stockton, 95206. This local demonstration garden is periodically updated and features separate garden areas divided by plant types and function. You can walk through a garden of California Native plants, another that features pollinator plants to attract butterflies and bees, and another that features plants that thrive in our Mediterranean climate. Best of all, inside the Ag Center, the UC San Joaquin Master Gardeners staff a help desk, Monday-Thursday, 9:00 a.m.-12:00 p.m. For more info, check the web site, www.sjmastergardeners.ucanr.edu/, or phone (209) 953-6112.

Not much farther away is the wondrous University of California-Davis Botanical Garden at the **UC-Davis campus, Arboretum** headquarters is in the Valley Oak Cottage, a shingled building at 448 La Rue Rd., Davis, CA 95616. Gardens are open 24 hours a day, 365 days a year at no charge. The office is open Monday-Friday, 8 a.m.-5 p.m. Parking is free on weekends, and costs $9/day mid-week. The plants in the 17 gardens at UC Davis represent a living, botanical museum. Arboretum paths are popular with walkers, joggers, and bicyclists; the main path is a 3.5 mile loop (take your bikes!); the lawns at the west end near Peter J. Shields Grove are perfect for informal games and picnics. Picnic tables are located behind Putah Creek Lodge and in the Redwood Grove. While visiting this extensive garden, check out the Gazebo (at the Carolee Shields White Flower Garden), the Nature's Gallery Court, and the Arboretum Terrace Garden and Lois Crowe Patio. There is so much to see and do; for more info, www.arboretum.ucdavis.edu/ or phone (530) 752-4880.

The **Mendocino Coast Botanical Gardens**, 18220 North Highway One, Fort Bragg, CA 95437 is about 4.5 hours from our county. Open every day of the year, except the Saturday after Labor Day, Thanksgiving, and Christmas. Hours are March–October: 9:00 a.m. to 5:00 p.m., and November–February: 9:00 a.m. to 4:00 p.m. There is an admission charge. For more info, www.gardenbythesea.org or phone (707) 964-4352.
The Sunset Magazine Gardens, 80 Willow Road, Menlo Park, CA. Just two hours west from Stockton, these gardens have long been a favorite of Northern California gardeners. Gardens are open for self-guided walking tours from 9 a.m. to 4 p.m., Mondays through Fridays (except holidays, the last two weeks of May, and first week of June during setup for their annual Celebration Weekend festival). Groups of 10 or more should phone ahead for reservations.

The original Sunset display garden was designed by Thomas Church, a dean of Western landscape architects. It included a border that followed the contours of San Francisquito Creek, with distinct areas representing the major climate zones of the West, from the deserts of Arizona and Southern California to the cold, wet areas of the Northwest. Many of the original trees and shrubs still stand, retaining the regional flavor of the border. But a major renovation in early spring 2000, under the direction of Chris Jacobson and Beverly Sarjeant of Garden Art, brought a fresh new look to the garden.

Trees, shrubs, vines, ground covers, perennials, and ornamental grasses now show how foliage textures and colors can combine for beautiful effects. Flower color comes primarily from blooming shrubs and perennials. The garden features a Northern California section; the mild climate represented in this section is hospitable to a diverse number of plants.

For more information, www.sunset.com/garden, or call (650) 321-3600 from 8 a.m. to 4 p.m.

For those with an interest in Japanese-themed gardens, visit the Hakone Estate and Gardens, 21000 Big Basin Way, Saratoga, CA 95070, about 2.5 hours from Stockton. It’s one of the oldest Japanese estate and gardens in the Western hemisphere! The gardens are open March to October weekdays from 10 a.m. to 5 p.m., weekends from 11 a.m. to 5 p.m. From November to February, weekdays 10 a.m. to 4 p.m. and weekends, 11 a.m. to 4 p.m. (closed Christmas and New Year’s). There is an admission charge. For more info, www.hakone.com or phone (408) 741.4994.

Other northern California gardens to inspire include the manicured elegance of San Francisco’s Japanese Tea Gardens, the stunning Green Gulch Farm Beach at Muir Beach and the ornate delicacy of Filoli in Woodside. Plan a trip; take your walking shoes, notepad, and camera!
**How do ollas work, and how effective are they?**

Ollas offer an efficient method of plant irrigation due to the micro-porous material (unglazed, low-fired clay) used to make them. They don’t allow water to flow freely from the pot; instead, the suction force created by soil moisture tension and the plant roots themselves are what determine the flow of water. Therefore, the plant gets only the water it needs.

Ollas have been used in the Colorado Desert near the Salton Sea, where research suggests the method has great potential for re-vegetation and orchards in the desert. (Seedlings irrigated with buried clay pots in a research trial were viable after eight months. Those watered with other systems did not survive.) Similar results have been found for home gardens when clay-pot irrigation has been compared to hand watering with a conventional watering can, making it a desirable option for thirsty Central Valley gardens.

<table>
<thead>
<tr>
<th>CROP</th>
<th>% Water Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beans</td>
<td>55</td>
</tr>
<tr>
<td>Cabbage</td>
<td>70</td>
</tr>
<tr>
<td>Cauliflower</td>
<td>50</td>
</tr>
<tr>
<td>Corn</td>
<td>60</td>
</tr>
<tr>
<td>Onion</td>
<td>70</td>
</tr>
<tr>
<td>Tomato</td>
<td>70</td>
</tr>
</tbody>
</table>

**Why consider ollas for your garden?**

Ollas eliminate the runoff and evaporation common in modern irrigation systems (even the newest drip irrigation options). The system inherently checks against over-irrigation. Consequently, the erosion of soil and nutrients is virtually eliminated because of the slow wicking of water into the soil. The smaller quantities of water and less frequent watering required reduce the amount of labor necessary for irrigation. Weed invasion is reduced because the soil surface remains dry throughout the season (unless, of course, there is rainfall). Studies have shown up to 50% less fertilizer is required when applied with the water in the submerged clay pot. (It’s absorbed as solute via water movement to the plants.) Filtered graywater from kitchens or laundry can easily be used to fill the ollas. (Find out about treating graywater [here](#).) The ollas can easily be installed on uneven ground and do their efficient irrigating even on a hillside.

**Are there drawbacks to consider?**

Ollas have experienced a resurgence with home gardeners in some areas. They are available through websites and in some nurseries, though they can be expensive - as much as $30 for a 12” diameter vessel. They take time to install, and don’t offer the flexibility of drip irrigation systems. Clay pots can lose porosity due to the buildup of salts, especially when liquid fertilizer is applied with the water. Hard water can cause the same problem. Clay pots are prone to breakage, and should be removed each season if the ground has a chance of freezing. Periodic maintenance is required by digging up the olla and scrubbing it clean with a brush.

Look [here](#) for a diagram of a buried olla.

**How does an olla novice get started?**

Once a home gardener is convinced that an olla experiment is a good idea, implementation is fairly simple. Starting in a small garden area is advisable; a 4x4’ raised bed might call for an 12” diameter olla. Available research suggests that the optimal size and shape of the olla depends on the plants being irrigated. Olla porosity, size and shape should be matched to plants’ water needs, root size and root distribution. Smaller ollas tend to be better for container gardening; larger ollas are better for larger containers or garden beds outside.

Dig a planting hole about three times as wide and two times as deep as the clay pot. Break up the soil at the bottom of the hole. Break up clods in the soil that has been removed and mix in compost or aged manure and amendments as needed. Replace and firm sufficient soil mix in the hole so the top of the buried olla will be about one inch above the surface of the surrounding soil. Set the olla in place, filling in the remaining soil mix. Fill the buried olla with water and put the lid in place.
Seeds, cuttings, or plants should then be planted within ½ - ¾ inch of the edge of the olla in most types of soil. (A common mistake is placing plants too far from the “wetting zone” of the clay pot.) Leaving a space between the plants on one side of the clay pot will make it easier to lift the lid and refill the pot. How often the olla needs to be refilled will depend on the soil, the air temperature, and the plants used. Check the amount of water periodically to determine how often the vessel needs refilling to maintain at least 75% capacity.

Proper plant selection is important. Ollas are used for woody plants in some parts of the world, although they might suffer breakage as the roots grow in diameter. Herbaceous plants are less likely to damage ollas and are a good place for a novice to start. Here are a few of the plants that have been successfully irrigated by ollas:

<table>
<thead>
<tr>
<th>Basil</th>
<th>Lettuce</th>
<th>Potatoes</th>
<th>Rosemary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beans</td>
<td>Marigolds</td>
<td>Squash (bush type)</td>
<td>Sunflowers</td>
</tr>
<tr>
<td>Cilantro</td>
<td>Melons</td>
<td>Mint</td>
<td>Tomatoes</td>
</tr>
<tr>
<td>Corn</td>
<td>Onions</td>
<td>Peas</td>
<td>Tomatillos</td>
</tr>
<tr>
<td>Chiles</td>
<td></td>
<td>Poppies</td>
<td></td>
</tr>
<tr>
<td>Cucumbers</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Garlic</td>
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</tbody>
</table>

(Fast growing and spreading squash and melon vines with big leaves might not be able to get enough water in some situations.)

Spacing of the ollas will depend on size of the vessel and the number of plants chosen. Look here for a diagram of a suggested arrangement of ollas in a garden plot. Some gardeners have taken clay pot irrigation a step further by connecting ollas to their drip irrigation system to make filling the pots easier.

**What alternatives are there for expensive commercial ollas?**

Gardeners can be creative when it comes to figuring out easier or cheaper horticultural alternatives. With this in mind, ordinary clay pots have been used in place of more expensive, commercially available ollas.

Look here for step-by-step directions for making your own olla from commercial clay pots.

Using ollas for home garden irrigation in the Central Valley makes sense for the water wise gardener. Clay pot irrigation might be a new method to many of us, but its effectiveness has stood the test of time (4,000 years!). Why not give it a try? Maybe then you can say, “Oh, yeah! Ollas!”

**Resources**


[Ollas with Drip Irrigation Lines]

[Using ollas: video]
My onions were very small; some didn’t bulb at all. What did I do wrong?

From your description, it sounds like you may have planted the wrong variety for your area. Let’s go over the basics of growing good quality onions: to start, you need to know the latitude you live in. The day length determines when onions bulbs form.

In the Stockton area (37 degrees latitude), you can grow both short-day and the intermediate-day length varieties. So when buying seed or transplants, make sure you are choosing the correct type. You have the option of planting fresh viable seeds, sets, or transplants.

Starting from seed gives you the choice of trying more varieties than may be available from the nursery. Seeds are normally started in September so they are ready to transplant in October or November. Start in flats using potting mix, covering the seeds with about ¼ inch of mix. About two weeks after they germinate, fertilize with a ½-strength liquid fertilizer. Do this every other week until transplanting them into your planting bed.

Transplants are normally sold in bundles of 50 fresh, bare root plants. They are available at the nursery in October or November. For larger onions, plant as soon as they are offered.

Sets are small onions grown the previous year but not allowed to mature. They are more likely to bolt but can be used for green onions while you are waiting for your main crop.

Onions prefer to grow in full sun in a humus-rich soil. In the Stockton area, they are grown as a cool season crop and are harvested in late spring to early summer. They are shallow rooted, so be sure to incorporate a large amount of compost in your planting bed. It will help to hold moisture in the root zone. Plant about 3 to 4 inches apart. As your onions grow, pull every other one for green onions or spring onions when they start to bulb at 1 - 1½ inches in diameter. Final spacing will be at six to eight inches and will give your onions plenty of room to make nice size bulbs.

Irrigate often since 90% of the roots are in the top twelve inches of soil, and moisture stress will affect bulb size. Fertilize with an all-purpose dry fertilizer or a liquid fish emulsion. Once the neck starts feeling soft, do not apply any more fertilizer. This will be approximately a month prior to harvest.

Weed management is important because onions do not compete well with weeds. Shallow cultivation or hand weeding is necessary. Applying mulch will help to keep weeds down and regulate the soil temperature. One of the things I do is to plant through layers of newspaper and then cover with a layer of compost. This helps to keep weeds at bay through the winter. It is more difficult to plant that way, but it makes for easier weeding.

There are few insects that bother onions, but beware of gophers. They love them!

When the tops starts to dry and fall over, withhold water. Dig the onions when the tops are about half yellow. Cure on a wire screen in a shaded area until the tops are dry. You can braid the onions and hang to store or cut the tops about an inch above the onion and store in a cool dry place.

Short-day onions have a high sugar-to-pyruvate ratio which makes them sweeter. Unfortunately because of this, they do not store well, so plan to use them within a couple of months of harvest. This method should give you bragging rights with large sweet onions to share and impress your friends.
Drought-related Terms to Help Gardeners Become “Water Warriors”

One of the reasons that we are moving toward a water crisis is that our groundwater is severely depleted. All that water run-off from our property (down the driveway, overwatering landscape, and washing cars) is going into the sewers, not replenishing our ground water basin. Aim for little to no water loss from your property by using permeable surfaces, rain gardens, swales, and graywater reuse.

Keep in mind that water has to be moved, so reducing water use also reduces your use of electricity. The terms listed below expand the drought conversation and should provide some tools and tricks to help gardeners save water in both big and small ways.

- **Hydrozoning**: putting plants with similar water and sun needs in the same area. This allows gardeners using automated irrigation systems to target water applications based on water needs (high, medium, low, or very low) of individual zones, reducing water waste.

- **Swale**: a swale is a designed and graded section of the landscape that is lower than the surrounding area, is designed to be permeable, and is usually planted with flood-tolerant grasses, which allow excess water to slowly permeate the soil into the groundwater table. The grasses act as a water-purifying agent in the process.

- **Rain gardens**: A rain garden is a shallow depression that is planted with deep-rooted native plants and grasses. It is usually positioned near a runoff source like a downspout, driveway, or sump pump to capture rainwater runoff and stop the water from reaching the sewer system.

- **Graywater capture**: collecting and reusing non-potable water after in-house use to use in the landscape except on food plants. Graywater includes wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines and laundry tubs, but does not include wastewater from kitchen sinks or dishwashers. It excludes wastewater contaminated by toilet discharge or affected by any infectious, contaminated, or unhealthy bodily wastes. **Note**: 30 to 50% of household water use results in graywater that can be recycled into the landscape. More information can be found [here](#).

- **California Natives/Mediterranean Plants**: plants native to these areas which by nature are low water use. These plants can be found so labeled in nurseries and at the U.C Davis [website](#).

- **Lawn Replacement**: removing or shrinking existing high water need grass lawns with lower water use alternatives such as permeable surfaces, low water use plants, etc.

- **Mulch**: a 2- to 4-inch layer of materials over the soil surface to reduce evaporation and keep soil temperatures down during hot summer months. Natural mulches like grass clippings, dried leaves, and shredded bark offer the additional benefit of enriching the soil as they decompose.

- **El Niño**: is characterized by unusually warm ocean temperatures in the Equatorial Pacific, as opposed to La Niña, which is characterized by unusually cold ocean temperatures in the Equatorial Pacific. With the El Niño, the National Oceanic and Atmospheric Administration’s (NOAA) preliminary forecast for this coming winter predicts warmer than normal temperatures for north of the Mason-Dixon line, the West Coast, and Alaska with cooler than normal temperatures from New Mexico to South Carolina. Wetter weather is forecast for the winter for nearly all the U.S. coastal regions.

There are so many ways to save water on your own property. Some may be large retrofitting projects, but many of them may be simple and inexpensive. These require just a bit of thought, time, and energy. Take action. Move ahead. Become a Water Warrior!
Sweet and Savory Roasted Nuts

**Ingredients**

- 3 cups whole roasted cashews, unsalted
- 2 cups walnut halves
- 2 cups whole pecans
- 1 cup whole almonds
- 1/3 cup pure maple syrup
- 1/4 cup brown sugar
- 3 tablespoons orange juice
- 2 teaspoons ground chipotle powder
- 4 tablespoons minced fresh rosemary leaves
- Kosher salt

Preheat oven to 350°. Generously brush a cookie sheet with vegetable oil. Combine the cashews, walnuts, pecans and almonds, 2 tablespoons of the vegetable oil, the maple syrup, brown sugar, orange juice, and chipotle powder on the pan; toss to coat. Add 2 tablespoons of the rosemary and 2 teaspoons of salt and toss again.

Spread the nuts in one layer. Roast for 25 minutes, stirring twice until the nuts are glazed and golden brown. Remove from the oven and sprinkle with 2 more teaspoons of salt and the remaining 2 teaspoons of rosemary. Toss well and let cool to room temperature, stirring occasionally to prevent sticking as they cool. Taste for seasoning. Serve warm or cool and store in an airtight container at room temperature for up to a week. *Barefoot Contessa*

### Persimmon Waffles

**Ingredients**

- 1 ¾ cups flour
- 2 teaspoons baking powder
- ¼ teaspoon salt
- ½ teaspoon cinnamon
- 2 egg yolks
- 1 ¼ cups milk
- ¼ cup cooking oil (or melted butter)
- ½ cup persimmon pulp
- 2 Tablespoons orange juice
- 2 egg whites

In a large bowl, mix flour, baking powder, salt and cinnamon. In a separate bowl, beat egg yolks until light. Add milk and oil (or melted butter) to egg yolks, mixing well. Add egg/milk mixture all at once to dry ingredients, stirring just until combined. (Batter will be lumpy.) Mix persimmon pulp with orange juice and fold into batter. In a small bowl, beat egg whites until stiff. Gently fold egg whites into batter. Do not overmix. Bake in prepared waffle iron according to manufacturer’s directions.

### Persimmon Butter

**Ingredients**

- 2 cups persimmon pulp
- ¼ cup orange juice
- 1/3 cup honey
- ½ teaspoon cinnamon

Scoop out pulp from ripe persimmons. Place all ingredients in a non-reactive saucepan and cook over medium heat for about 15 minutes, stirring frequently. When desired thickness is achieved, remove from heat and ladle mixture into airtight containers.

Serve immediately or store in refrigerator for up to one week. May also be frozen. *(This recipe is not intended for canning as it lacks the necessary acidity.)*

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October

Saturday and Sunday  
October 10 & 11  
22nd Annual Fall Rose Show  
Saturday, 1:00 – 5:00 p.m.  
Sunday, 9:00 a.m. – 4:00 p.m.  
Awards will be presented at 3:00 p.m.  
This show is co-sponsored by the Mt. Diablo Rose Society & Alden Lane Nursery.  
Public entries welcome!  
Go to www.aldenlane.com for information on entering your roses.  
Alden Lane Nursery, 981 Alden Lane, Livermore, (925) 447-0280

Wednesday, October 14,  
9:00 a.m. – 12 noon  
Open Garden at the Fair Oaks Horticulture Center  
Wander the gardens, ask questions. Join the UCCE Master Gardeners of Sacramento County at this mid-week opportunity to learn about frost protection for citrus and how to prune herbs. See how cool season vegetables are progressing and get tips on succession planting. Watch us plant hardy succulents and bulbs in the water efficient gardens. Observe on-going compost and worm composting demonstrations.  
Fair Oaks Horticulture Center, 11549 Fair Oaks Boulevard, Fair Oaks, CA 95628, (916) 876-5338

Wednesday, October 14,  
9:00 a.m. – 12 noon  
Growing Citrus & Blueberries  
Ask a Master Gardener Help Table from 9 a.m. to 12 noon  
From 10:00 to 11:00 a.m., Ed Laivo of Four Winds Growers will speak. Ed knows all things citrus and blueberries.  
Come learn about selection, planting, care, pruning and harvesting of all kinds of citrus and blueberries.  
UC Master Gardeners - Contra Costa  
North Wiget Lane and Shadelands Drive, Walnut Creek, CA. ccmg@ucanr.edu

Saturday, October 17  
10:30 a.m. – 12 noon  
San Joaquin Master Gardener Workshop: Don’t Toss It, Compost It!  
Learn how to turn kitchen and yard waste into the ideal soil amendment for your garden.  
Manteca Library, 320 W. Center, Manteca  
Classes are free. All participants must register a week prior to the class at (209) 953-6100.

Saturday, October 17  
10:00 – 11:30 a.m.  
Terrarium Class  
Fun for all ages! You can make a lovely miniature garden, a fairy garden, or even a dinosaur habitat. Unleash your creativity!  
Your “funshop” includes a 12” round glass terrarium, plants for indoors, land-scaping materials, and all the elements to make this a unique, easy-to-care-for botanical gem. Visit us and see our sample… you will be inspired!  
The cost is $45.00 + tax. Please sign up early as the class fills up fast.  
Alden Lane Nursery, 981 Alden Lane, Livermore, (925) 447-0280

Saturday, October 24  
9:00 – 10:00 a.m.  
Revitalize Your Yard  
Could your landscape use a makeover? Check out some quick and easy upgrades to rejuvenate your outdoor living space.  
Green Acres Nursery, 9220 E. Stockton Blvd. Elk Grove, (916) 381-1625

Saturday, October 24, 1:30 – 3:00 p.m.  
Come and make a FELTED POT – Saturday, October 24th  
1:30 to 3 p.m.  
Join us and learn the ancient art of “felting” with a contemporary twist! We will be crafting a pot using raw materials, including dyed wool (many colors available), and shaping the pot over a stationary form for a unique, one-of-a-kind rounded 6” x 4” container. This creative art will be taught by our own Scottish craftswoman, Ruth Haddow, who has taught many of our staff felting techniques. Don’t miss this wonderful opportunity to learn this wonderful skill!  
Alden Lane Nursery, 981 Alden Lane, Livermore, (925) 447-0280

November

Friday through Sunday  
November 6, 7, and 8  
Holiday Open House  
Alden Lane Nursery, 981 Alden Lane, Livermore, (925) 447-0280

Saturday, November 14  
10:00 – 11:30 a.m.  
House Plants Made Easy  
Learn how to be successful growing indoor plants.  
City of Stockton Delta Water Supply Project, 11373 N. Lower Sacramento Road, Lodi  
Class size is limited. Please RSVP by the Wednesday before class at (209) 953-6100.

Saturday, November 21  
10:30 a.m. – 12 noon  
San Joaquin Master Gardener Workshop: House Plants Made Easy  
Learn how to be successful growing indoor plants.  
Manteca Library, 320 W. Center, Manteca  
Classes are free. All participants must register a week prior to the class at (209) 953-6100.

December

Saturday and Sunday  
December 5 & 6  
10:00 am to 4:00 pm  
Festival of Trees  
Enjoy 70 beautifully decorated unique Christmas trees at the San Joaquin County Historical Museum. Docent Council’s 24th annual Festival of Trees event. The Museum’s seven exhibit buildings will be brimming with dozens of festive trees, each decorated according to a unique theme by different individuals and groups from throughout San Joaquin County.  
Stop by and see the Master Gardener Tree!

General admission tickets are $10 for teens and adults and $1 for children 2 to 12 years old. Children under 2 are admitted free. Tickets may be purchased at the event or in advance (beginning Oct. 1) by calling the museum at (209) 331-2055 or 953-3460 or at the Music Box in Stockton or Lodi. By purchasing tickets in advance, the $6 parking fee is waived.  
11793 N Micke Grove Road, Lodi CA 95240
**Garden Chores (continued from page 2)**

**Plant blueberries** in acidic soil, preferably on the east side of a building for afternoon shade. They will succeed wherever you have azaleas that are doing well.  

**Maintenance -**  
Leave dahlias stems in place until spring. Some recommend cutting stems to about 3 inches and then covering them during the rainy season to prevent tuber rot. This seems like a lot of work when stems can be left unpruned so water doesn’t invade easily.  

Cover your frost-sensitive plants (being sure to keep covers from touching foliage) before sunset so that ground heat is preserved. Remove the covers during sunny days. Highly frost-sensitive plants such as Hibiscus and Begonia will be damaged at any temperature below 32° and will be killed by a freeze. Consider moving these plants to a greenhouse for the winter or your garage during cold spells.  

**Row covers** and water-filled containers surrounding young vegetable seedlings offer a warmer nighttime environment.  

**Keep container plants watered** because moist soil retains heat better than dry soil. Remove saucers from under your containers so pots can drain during rain.  

**Control earwigs and snails** by reducing the dark, cool, moist places they favor, and handpick or trap to eliminate them. Look for them under boards, pots, and broad leaf plants during the day.  

**Protect plants** near your home from becoming waterlogged by extending rain gutters with flexible pipe, specifically made for that purpose. Save the water run off for landscape watering in the spring.  

**Check outdoor faucets** and fix any that are dripping. Wrap exposed portion of the water pipes to protect them during freezing weather.  

**Drain water** from garden hoses and straighten them out to prevent cracking in the frost. Drain and turn off your irrigation system once the rainy season commences. Remove the batteries from your irrigation timer and store the timer for the winter.  

**Apply dormant sprays** to fruit trees after pruning. Spray after a period of rain or foggy weather—not during or just prior to freezing weather. Your local nurseryperson can direct you to appropriate products for your particular fruit tree variety. Sprays are tree-and pest-specific. **Read labels and follow directions carefully.**  

**Lawns** – Heavy dew on your lawn every morning is usually enough water for November.  

Rake fallen leaves from your lawn regularly to prevent a fungus infection or other damage from lack of sunlight. Raked leaves can be added to your compost pile or used as mulch. Raking your lawn regularly will warm you up this month, be beneficial for your lawn, and is less polluting to air quality and noise levels than using a leaf blower.  

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**December Notes**  

**Plant -**  
Camellias are beginning to bloom now. Select a color and bloom type to enhance a shady area.  

Horseradish and rhubarb are available in local nurseries this month.  

Acacia, clematis, flowering quince, foxglove, gaillardia, salvia, and winter Daphne are perennials to plant now for early spring bloom.  

**Bare root plants** are arriving in nurseries. Fruit trees, grapevines, cane berries, roses, strawberries, artichoke, asparagus, and horseradish make nice gifts for family members who garden. Boysen, Marion, and Olallie are blackberries that do well in the valley and should be available as bare root selections late this month. If you are going to add to or begin a rose garden, be sure to choose Grade 1 roses for vigorous first-year growth.  

**Poinsettias** are received as a holiday gift need the soil surrounding the pot removed to avoid root rot. Select one with an abundance of dark, rich green foliage that is undamaged, dense and plentiful all the way down to the soil line. Display away from heater vents in a spot that gets bright, indirect light or outdoors under an overhang next to the house. Temperatures below 45° can damage plants. Water when the top of the soil feels dry to the touch. Poinsettias can thrive inside through the winter when placed in a warm, sunny location, out of drafts. Water your poinsettias weekly; feed them monthly through April, then transplant them outdoors.  

**Living plants** that make good holiday gifts and grow well indoors in a sunny window include basil, lavender, lemon balm, marjoram, mint, oregano, parsley, rosemary, tarragon and thyme.  

**Maintenance -**  
Citrus trees can handle frost, but need to be covered in a hard freeze. Be sure your cover does not touch the leaves of your tree. Little, twinkling holiday lights will keep your tree warm and add sparkle to your winter garden.  

**Inspect your garden** after storms for broken branches, overturned pots, and wind damage.  

Clean, sharpen, and oil your pruners to be ready for the pruning season.  

Clean and oil shovels, rakes, and other garden tools before putting them away for the winter.  

Lawns will need little care in December. Use the time you would normally devote to your lawn to plan your spring garden.
Holiday Recycling

BE GREEN THIS HOLIDAY

Find convenient, local recycling locations for everything from batteries to electronics to fluorescent bulbs and more at: www.SJCreecycle.org

or Call (209) 468-3066

Free Services for Residents of San Joaquin County.

TIPS FOR A GREENER HOLIDAY SEASON:

- Be a creative wrapper. Use holiday fabric, paper grocery bags, comics, baskets or reusable bags.
- Take time to stop unwanted junk mail and catalogs this season.
- Bring reusable bags while shopping for holiday gifts and goodies.
- Use fluorescent and LED bulbs to save energy and money.
- Recycle your Holiday tree - be sure to remove tinsel and any ornaments.
- Got new gadgets? Recycle old electronics for free at all County solid waste facilities.
- Frying a turkey this season? Recycle used fryer oil.
- Give gifts such as movie tickets or a gift certificate to a nice restaurant.

UC Master Gardeners
2101 E Earhart Ave
Suite 200, Stockton, CA, 95206
Phone: 209-953-6112
E-mail: anrmgsanjoaquin@ucanr.edu
Web-site: http://sjmastergardeners.ucdavis.edu
Find us on Facebook!
Coordinator: Marcy Sousa 953-6100
For nondiscrimination policy, click here
San Joaquin Master Gardeners
2015 Workshop Schedule
City of Stockton
Delta Water Supply Project Building

January 10: Yardscaping with Fruit Trees
How to plant and grow fruit trees for a productive backyard orchard.

February 14: Big Flavor Small Spaces
Growing edibles in small spaces and containers with big results.

March 14: Handling Garden Enemies
Dealing with common garden pests and invasives in an environmentally friendly way.

April 11: Tips and Tricks for Drought Friendly Landscaping
Easy ways you can conserve water in your existing landscape.

May 9: Kidding Around in the Home Garden
Turning children on early to the joy of gardening.

July 11: Rethinking your Lawn
Turf alternatives for today's landscape.

August 8: Growing Root Flowers for Beauty
How to successfully plant and grow tubers, corms, bulbs and rhizomes.

September 12: Creating beauty with California Native plants
Tips and tricks in successfully planting and growing CA natives.

October 10: Don't Toss It, Compost It!
Learn how to turn kitchen and yard waste into the ideal soil amendment for your garden.

November 14: House Plants Made Easy
Learn how to be successful growing indoor plants.

Classes begin at 10:00 am and end at 11:30 am. Class size is limited to 30. You will need to RSVP by the Wednesday before the class to attend the workshop. Please call (209) 955-6100 to guarantee your seat.
San Joaquin Master Gardeners
2015 Workshop Schedule
Manteca Library Time
10:30 am -12:00 pm

Classes will be held at the
Manteca Library
320 W. Center Manteca, CA 95336
(209) 937-8221

January 17:
Yardscaping with
Fruit Trees
How to plant and grow fruit
trees for a productive backyard
orchard.

February 21:
Big Flavor Small Spaces
Growing edibles in small spaces
and containers with big results.

March 21:
Handling Garden
Enemies
Dealing with common garden
pests and invasives in an
environmentally friendly way.

April 18:
Tips and Tricks for
Drought Friendly
Landscaping
Easy ways you can conserve
water in your existing landscape.

May 16:
Kidding Around
in the Home Garden
Turning children on early to the
joy of gardening.

July 18:
Rethinking your Lawn
Turf alternatives for today's
landscape.

August 15:
Growing Root Flowers
for Beauty
How to successfully plant and
grow tubers, corms, bulbs and
rhizomes.

September 19:
Creating beauty with
California Native plants
Tips and tricks in successfully
planting and growing CA
natives.

October 17:
Don't Toss It,
Compost It!
Learn how to turn kitchen and
yard waste into the ideal soil
amendment for your garden.

November 21:
House Plants
Made Easy
Learn how to be successful
growing indoor plants.

Classes begin at 10:50 am
and end at 12:00 pm.
Classes are free.
All participants must register
a week prior to the class at
(209) 953-6100.