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Coordinator Corner

Marcy Sousa, Master Gardener Coordinator

Happy Summer! Many of you are enjoying the bounty of your summer vegetable garden or perhaps figuring out what you are going to do with all those peaches that will soon be ripe! Our Master Gardener Program is busy planning our fall events and we are working on the details for our 2019 Master Gardener Training that will begin in January. We are excited to announce that we will be hosting a dual county training as we help Stanislaus County get their new program up and running, so spread the word to your friends in Stanislaus County! If you have been thinking about becoming a Master Gardener, now is the time to get your application in before the September 28th deadline. For more information about our next training, [visit our website](#). If you are out at the local Farmers' Markets, stop by and say hello! We will be attending at the Thursday & Sunday markets at Weberstown Mall, Thursday nights in Lodi and at the Swenson market in Stockton every-other week. We have some great summer workshops lined up as well as new topics that we are excited to cover. You can find our calendar of events on [page 13](#). We hope you enjoy this issue of our newsletter!



2017 Master Gardener Trainees learning about weed management .

Successful Habits of Happy Gardeners

Louise Christy, Santa Clara Master Gardener

Habit Number 1: FEED THE SOIL

Happy and successful gardeners know that taking care of the soil (and learning to love our clay soil) is the first priority.

Soil has three main parts. The first is the mineral component, which soil scientists divide into sand, silt, and clay based on particle size. The important thing to know about sand, silt, and clay is that the clay particles are the smallest, and they are really small. The super-small size of the particles makes clay soils highly nutritious for plants.

The second component of soil is the organic matter. Good, healthy soil is teeming with life, from big earthworms and pill bugs, to billions of living micro-organisms, fungi, and bacteria.

Healthy soil also contains a lot of organic matter, for example decomposing leaves or grass clippings. It is the job of the living organisms in the soil to breakdown the organic matter and return its nutrients, especially nitrogen, to the soil.



The third component of soil is the space in-between the mineral and organic particles. This pore space is filled with water and air which are both essential to healthy soil. Plant roots need oxygen in addition to water and all those worms and bees

and protozoa and bacteria that are busy breaking down organic matter need water and air to stay alive.

"Feeding the soil" means replacing the water and organic matter and [Continued on pg. 16](#)

Summer Garden Chores

Sue Davis, Master Gardener

The long, lazy days of summer just beg us to come outside and play in the garden~

July Ideas

Plant –

If you are growing your own vegetables, keep your vegetable plot healthy by planting flowers nearby that attract beneficial insects. Good options include coreopsis, cosmos, goldenrod, marigolds, sunflowers, and yarrow. Dill, golden marguerite, coriander and Queen Anne’s lace are especially attractive to lady bugs. Plant the flowers in clusters near your vegetable plot and water with a drip line. If you haven’t already set up a drip system with a controller, you’ll want to do so right away to conserve water and still enjoy delicious edibles.

Broccoli, cauliflower, cabbage, and Brussels sprouts should be seeded in flats around July 1st. They can be transplanted to the garden at the end of August or early September.

Maintenance –

Mulch if you haven’t already done so. Spread a 2- to 4-inch layer of organic matter (such as fine or shredded bark) over garden beds now to conserve moisture, cool plant roots, and discourage weeds. To prevent rot, don’t pile the mulch against stems and trunks of plants.

Summer watering can kill mature native California oaks. If you can’t keep the entire area under the tree dry, be sure no water gets within 10 feet of the trunk. The danger of root rot is greatest when the area near the trunk is wet.

Every other week (14 days) deeply irrigate mature fruiting and most ornamental trees if you have clay-loam soil. If you are in an area with sandy or sandy-loam soil, you will need to irrigate more often. Mature, drought tolerant trees need deep watering only once a month or so. Check your container plants daily.

Apple, peach, pear, and plum trees may be laden with fruit this month. To prevent limb breakage, use wooden supports to brace sagging branches. Regularly clean up and discard fallen fruit to discourage diseases and pests.

Mophead Hydrangeas (those with the big, round blooms) produce flowers on the previous year’s growth – the “old wood.” To shape and control the size of a mature plant (5 years or more) and to avoid cutting off next year’s flower buds, prune stems back to 12 inches right after the blooms fade this month. Fewer, but larger flowers will grow next spring if you cut some of the stems back to the base of the plant.



Prune flowering vines such as wiste-

Hardenbergia

ria, passion vine, or Hardenbergia. Summer pruning of new growth keeps vines under control and increases flowering next spring. To extend the height or length of the vine, select some of the new streamer-like stems and tie them to a support in the direction you wish to train the plant. Then cut back the rest to within 6 inches of the main branches.

A quick irrigation audit of your lawn area will be worthwhile to determine if your sprinklers are matched and working properly. There have been numerous efficient sprinklers introduced in the last few years. Some only require a change of the nozzle, not the entire sprinkler head when repairs are needed. Check with your local water provider to see if they are offering partial or complete rebates for changes to efficient sprinklers. Information on checking the output of your lawn sprinklers can be [found here](#).

Lawn disease or pest problems will usually appear as spots that have a more defined edge to the damaged area. If a pest is the problem, it will most likely be found along green grass just outside of the damage. Evidence of caterpillars or grubs can be found just under the surface of the green grass right outside of the damaged area. If the brown area is not spreading, treatment to destroy the pests is unnecessary. It won’t bring back dead spots and the pest is probably gone. If pest problems persist, look into what cultural changes you could make to reduce susceptibility in the future.

Shocking your lawn with a high nitrogen fertilizer at this time of year can cause negative results. Fertilize only if needed with either a slow release or an organic fertilizer.

In August

Plant –

Perennials for late-season color in our area include aster, chrysanthemum, coreopsis, daylily, gaillardia, sage (such as *Salvia guaranitica*), summer phlox, and verbena.

Sow root vegetable seeds for fall and winter harvest. Beets, carrots, turnips, and fast-maturing potatoes planted now should yield a crop by Christmas. Beet varieties that do well in our area are those with 60 days or less from seed sowing to maturity (as listed on the seed packet). Carrot lovers might try growing white, yellow, orange-red, or purple varieties from seed. Lee Miller’s article, *Planning and Planting a Cool Season Vegetable Garden*, in the 2013 summer issue of this newsletter, provides additional information.

Lettuce, kale, and Chinese cabbage planted now will mature for fall salads. Try some heirloom lettuces this year to brighten both your garden and your salads.

[Continued on pg. 17](#)

Community Connections—Urban Forestation in Stockton

Patty A. Gray, Master Gardener

Trees are one of a community's greatest assets. Not only are they beautiful, they also bring concrete benefits to society. Trees provide cooling with their shade and warming with their wind protection, reducing energy costs. Trees sequester carbon dioxide, removing a harmful greenhouse gas from our atmosphere. They improve air quality by absorbing particulate matter in their leaves. And as any homeowner understands, having trees on your street can raise everyone's property values.

California boasts 173 million urban trees, but this actually puts California in last place across the country in terms of urban tree canopy per capita – on average, we have only 5 trees for every city resident. Even worse, there are an estimated 236 million vacant tree sites. Our recent severe drought, coupled with pests and disease, has caused us to have far fewer trees in our urban landscapes than we once had – and should have.

Two local nonprofit organizations in San Joaquin County are doing their part to contribute to increasing our urban tree canopy: Puentes/Boggs Tract Community Farm and Fathers & Families. Both organizations recently received grants from Cal Fire programs designed to support the planting of urban trees. The grants target disadvantaged communities in particular, to provide trees as well as educate residents about the benefits of having trees in urban spaces. They also train residents how to plant and care for trees.

Fathers & Families won a grant of around \$50,000 from the California ReLeaf Urban Forestry Program to plant 241 trees in San Joaquin County. California ReLeaf is a Sacramento non-profit organization whose mission is to “preserve, protect, and enhance California's urban and community forests.” Fathers & Families kicked off its project by planting thirteen trees on a vacant lot in downtown Stockton, at the corner of Lafayette and Sutter Streets. They will give the rest of the trees away to area residents. The whole point is to begin a much needed restoration of Stockton's Urban Tree Canopy.



Volunteers water in a newly-planted tree at Boggs Tract Community Farm

Photo Credit: Jennifer Wood



Urban Forestry Coordinator Javier Gardea (left, in hat) coaches a group planting a tree at Boggs Tract Community Farm during the recent Earth Day Arboranza. Photo Credit: Jennifer Wood

Puentes also received a grant from the same Cal ReLeaf program, and in addition, they applied for and obtained a much larger Urban Forestry Grant from CalFire. Of the 23 grantees in this program, Puentes was the only grantee in San Joaquin County. This 3-year grant for over \$650,000 will allow Puentes to provide 1,271 trees for planting in the County. Disadvantaged communities will receive 75% of them.

Under the heading of the San Joaquin County Urban Tree Canopy Revival Project, Puentes began in 2016 to develop a coalition of partner organizations in their urban forestation effort, all of whom will help facilitate planting of trees. Eleven Stockton Unified School District schools will benefit. Javier Gardea serves as the coalition's Urban Forestry Coordinator, able to provide training in both English and Spanish. Landscape Architects Jeffrey Gamboni and Christine Jepson serve as consultants. So far, the coalition has planted 299 trees.

If you visit Boggs Tract Community Farm, you can see the tree nursery that Puentes has been developing. This April, they held their second annual Earth Day Arboranza, drawing a cross section of Stockton residents to get their hands dirty getting some of those young trees planted at the farm. George Washington Elementary School, located in close by Boggs Tract, receives special attention; Puentes facilitated a Community Tree Planting Event at the school on May 23 this year. Workshops and other events will be ongoing, and anyone can participate – just follow the [Puentes Facebook](#) page to find details.

Pests of the Season

Christeen Ferree, Master Gardener

Weed: Creeping Woodsorrel - *Oxalis corniculata*

Creeping woodsorrel is a low-growing, broadleaf, perennial weed with spreading stems up to a foot long. It prefers moist, shady conditions but will also grow in the sun. It can be found in turf, gardens, fields, and container plants brought home from the nursery. The leaves of the creeping woodsorrel are clover-like and its year-round, 5-petaled yellow flowers arise from a common point originating from the leaf axils. The dark green to reddish leaflets are broadly heart-shaped and typically fold down at midday and at night. Creeping woodsorrel reproduces in two ways: by seed, contained in reddish brown capsules; and from its creeping stems that root at the nodes. Each of its cylindrical seed capsules open explosively to eject from 10 to 50 seeds up to several feet away. The seeds germinate throughout the year, especially when conditions are moderately warm and moist. Creeping woodsorrel seeds require light for germination. Therefore, landscape fabric and/or organic mulching can inhibit seed regrowth. To manage this weed, remove seedlings before they flower and set seed. Hand-pulling mature plants requires constant attention since this weed can regrow from severed roots or stems. Pre-emergent and post emergent herbicides may ultimately be necessary and may be effective even in turf. However, label instructions must be carefully followed to avoid unintended consequences. For additional information, see UC IPM Pest Note [here](#).



Creeping Woodsorrel

Pest: Flea Beetles – Various Species

Plant damage from adult flea beetles shows up mostly on leaves of newly planted flowers and vegetables. Damage ranges from tiny pits or small holes at feeding sites to leaves covered with bleached, pitted areas and ragged holes. Flea beetles can also remove the plant's leaves altogether. There are various species of flea beetles but most are small (less than 1/10 of an inch long), dark or metallic in color, with enlarged back legs for jumping. Flea beetles are common pests on seedlings of tomatoes, potatoes, eggplant, peppers, turnips, radishes and corn. They mainly attack leaves except, depending on the species, damage to potato tubers may also occur. Their small, white, wormlike larvae may also feed on foliage but usually attack a plant's roots. Adult flea beetles are particularly attracted to eggplant leaves and can defoliate the entire plant up through the fruiting stage. They jump like fleas when disturbed and jump or fly onto vegetable plants from surrounding weedy areas, where they also overwinter. Therefore, getting rid of weeds and debris helps control this pest. To manage flea beetles, concentrate on protecting young plants from attack by using protective coverings or reflective mulches. White sticky traps may also be used to capture adult flea beetles. Older, vigorous plants (with the exception of eggplant) can usually tolerate some flea beetle damage. Insecticides are not usually effective. Where infestations have already occurred, rotating crops in subsequent years will help with future control. For additional information, see UCANR Pest Note – Flea Beetles [here](#).



Adult flea beetles, Epitrix sp., chew small holes in leaves.

Photo by Jack Kelly Clark.

Disease: Disease – Damping-Off

A common gardening question is: "Why didn't my seeds come up this year?" Seeds sometimes fail to germinate or seedlings may die soon after they emerge. In the latter case, you should first rule out other causes of seedling damage, such as earwigs, snails, cutworms, or flea beetles. If there's no evidence of garden pests, soil borne diseases may be the culprit. Collectively, these soil-borne diseases are referred to as damping-off. Seeds may rot, shoots may decay before they develop into seedlings, or seedlings may decay at the soil line. Damping-off is most likely to occur when old seeds are used or seeds are planted in cold, wet, poorly drained soil or are planted too deeply. Seeds affected by damping-off diseases become soft, turn dark, and decay without emerging. If seedlings do emerge, damping-off diseases cause the stem tissue near the soil line to wither. Interestingly, the pathogens that cause damping-off are present in most soils. However, they can become a problem when the soil is wet and compacted. You can reduce the incidence of damping-off by using good quality seeds, ensuring good soil drainage, using well-decomposed compost, and planting when soil temperatures are warmer as these conditions are more conducive to rapid seed germination. Or, you may want to start seedlings indoors and transplant them when mature into warm, properly draining soil. Once seedlings have a chance to mature, they are less susceptible to damping-off. For additional information, see UCANR Pest Note: Damping-off Diseases in the Garden [here](#).



Pseudomonas sp. on lilac

Plants of the Season

Sue Davis, Master Gardener

Tree: Burgundy Desert Willow (*Chilopsis linearis* 'Burgundy')

This low water, low maintenance plant is valued for its abundance of hummingbird-attracting nectar. Grown as either a large shrub or small tree, the willowy branches have long, narrow leaves highlighted in spring and summer by fragrant, trumpet-shaped flowers that are dark pink or burgundy in color. This open, airy plant is a moderate grower that can reach 15 to 20 feet in height and in width.

As its name implies, the Desert Willow is native to the California desert, but grows well in a variety of soils including those in the San Joaquin Valley, and appreciates an area where it will enjoy full sun and only occasional watering once it is established. Equally at home as a container plant, a border plant, a privacy screen, a specimen plant, or part of a wildlife garden, the Desert Willow is bird and hummingbird friendly, an easy care plant, waterwise, and is resistant to a variety of pests and disease. This deciduous tree appreciates a little fertilizer before new growth begins each spring and some light pruning in the fall of the year.



Shrub: Bonsai Blue Jacaranda (*Jacaranda mimosifolia* 'Sakai 01')

Considered a dwarf in relation to other Jacaranda specimens, this shrub will quickly grow 10 to 12 feet high and 6 to 8 feet wide. It is semi-evergreen, heat and drought tolerant, loves a spot with full sun, and, once established, only needs occasional water. Working just as well as a container plant, a border, or a specimen shrub, the Bonsai Blue Jacaranda has bright green, fern-like foliage and, from spring through early summer, displays large, tubular, deep purple flowers. The foliage of this plant takes well to pruning in late winter, before flowering begins, to maintain size or to remove an errant branch to enhance its rounded shape. With enriched and well-drained soil and some fertilizer before new growth begins in the spring of the year, this easy-care shrub will provide beauty and attract beneficials to any landscape.

Vine: Arabian Jasmine (*Jasminum sambac*)

The national flower of the Philippines, Arabian Jasmine is also used in floral leis, garlands, and to flavor jasmine tea. This vine has lush foliage, and small, fragrant white flowers that open at night and close once it is morning. The heady fragrance makes this plant a natural in containers near doorways, on patios, as a fragrant border specimen, or in the landscape under windows that might be opened for a little night breeze. With support, this vine-like plant can quickly grow from 6 to 8 feet tall and 3 to 4 feet wide – so select a large container or a spacious area in the landscape.

Arabian Jasmine appreciates well-drained, regularly watered (weekly), evenly moist soil and a location that will provide partial shade to full sun. This plant is known for being both fast growing and easy care. With a little fertilizer in the spring before new growth begins and some judicious pruning in fall to maintain the rounded shape, Arabian Jasmine should provide years of summer fragrance as well as year-round interest.



Pest Management from Early Stone Age to Today

Norena Norton Badway, Master Gardener

Introduction

Although early humans have ranged this planet for over 2 million years, agricultural cultivation of plants is relatively recent so pest management was not an issue for the first 99% of human life on the earth. For very early humans, subsistence was mostly a matter of chance and some of their efforts seem almost silly to us today, grounded more in superstition than science. However, evidence reveals amazing ingenuity among our ancient forbearers, and slow but steady progress in pest management. This article discusses that advancement, from the Stone Age to today. There are vast sources of information related to the anthropology of mankind, history of agriculture, archaeobotany, and pest management; this article is intended to whet readers' appetites for more information rather than offer a complete study.

Early humankind

It's hard to wrap our minds around how long *hominids* (very early primates including *homo sapiens sapiens*) have lived on Earth. For the first two million or more years (Early Stone Age/ Early Paleolithic Period), hominids subsisted by gathering and scavenging: they gathered seafood, eggs, nuts, tubers, insects, fruits, and scavenged animal carcasses that had been killed by predators or had died of natural causes.ⁱ Hunting did not begin for millennia: hominids lacked the endurance for running and the specialized tools necessary for hunting. Ancient scavenger-gatherers were nomadic in search of seasonal foods suitable for human consumption, ranging over many miles and climate zones. Social groups were small (ten or twelve adults and their children) to avoid exhausting local food supplies, and families carried housing and possessions on their backs from one camp or cave to the next.

The transition from scavenger-gathering to hunter-gathering to agriculture varied by location, but anthropologists believe Stone Age humans were reluctant to give up their lifestyle. Plant cultivation required more labor than scavenging/hunting and gathering, and although early agriculture improved the reliability of the food supply, Stone Age humans hedged against the ever-present threat of starvation by combining planting with hunting and gathering.

The earliest evidence of agricultural communities dates from ~ 23,000 years ago near the Sea of Galilee, where archaeobotanical researchers have identified "proto-weeds" from which cereal grains such as wild emmer (wheat), barley and oats evolved.ⁱⁱ Between 8,000 and 3,500 B.C.E.,¹ humans in many locations increased reliance on cultivated crops and domesticated animals for subsistence.ⁱⁱⁱ By 7,000 B.C.E., tools and skills had developed sufficiently for agricultural humans to support large towns with over one thousand people in the Fertile Crescent. Over ensuing centuries, Stone Age peoples learned to grow a variety of crops, including legumes such as peas and beans, fruits, and olives. Dating from 3,000 B.C.E., early varieties of figs, wheat, barley, and peas have been traced to regions around the Mediterranean Sea, rice and millet to China, and squash to Mexico.^{iv} Agricultural cultivation triggered such a change in the way people lived that it's termed the *Neolithic Revolution* because a reliable food supply revolutionized patterns of living and diet.^v

As humans collected into villages and began planting selected food crops near rivers in fertile valleys, pests became an increasing challenge. Through trial and error, people applied control practices to reduce potential damage to foodstuffs, such as destroying crop refuse, tilling to expose and eliminate soil insects, removing pathogens and insects, culling diseased plants, timing and optimum placement of planting, and crop rotation.

From 2,500 B.C.E. to the dawn of the Common Era, Neolithic humans practiced aspects of pest management strategies used today — chemical, cultural, physical, and biologic controls. Sumerians used sulphur to limit insects and mites, and Greeks sprinkled plans with amurca (liquid waste remaining after olive oil is produced) to combat blight. Planting became planned by seasons (cultural control) and physical controls can be seen in the first rat-proof granary constructed in Rome. The Chinese originated biologic controls by using predatory ants to manage caterpillars and large boring insects, and by 300 C.E. bamboo bridges between citrus trees allowed colonies of ants to move between plants. Arabs transported predatory ants from mountains to oases to control date palm pests. As tools were invented, hoes were used to remove weeds and for cultivation.

When the efforts of mankind were not sufficient to manage pests, higher powers were invoked. In the 15th century, Swiss cutworms and Valencian caterpillars were banished by church courts, a novel though not highly effective approach. Practices we take for granted today, such as growing crops in rows to facilitate weed control, didn't occur until mid-1700s. Even with an agricultural revolution in Europe, potato blight and disastrous government policies led to widespread famine in Ireland.

The 20th Century

The dawn of the 20th century was marked by diverse discoveries and "firsts". Lead arsenate was introduced for insect control; iron sulfate became the first selective herbicide; the first disease resistant strains of cotton, cowpeas and watermelon were developed; aerial spraying was first used; the Mediterranean fruit fly in Florida was the first pest eradicated over an



Encased in Amber

[Continued on pg. 11](#)

Beneficials —Pirate Bugs

Kathy Ikeda, Master Gardener

If you're a fan of "Talk Like a Pirate Day" (September 19) or the Pirates of the Caribbean, ye might be pleased to know that our landscapes can provide a home for pirates: pirate bugs, that is! As their name implies, they are powerful natural predators, sending many a garden pest to "Davey Jones' locker."

Pirate bugs prefer to prey upon the larvae of thrips, but they also feed upon insect eggs, whitefly pupae, and small insects such as aphids, scales, leafhoppers, and tiny caterpillars. Pirate bugs are commercially raised for biological pest control use in greenhouses, where they control thrips and spider mites, and they are also important in reducing pest levels in many agricultural crops. Two specific examples are the Minute Pirate Bug (*Orius tristicolor*), which is most common in the western states, and the Insidious Flower Bug (*Orius insidiosus*), a Midwestern species that preys upon the corn earworm.

Pirate bugs belong to the Anthocoridae family of insects, a name derived from the Greek words "anthos" (flower) and "korus" (bug). This name reflects the fact that pirate bugs feed upon flower pollen when insect prey is scarce or unavailable. It might also refer to the egg-laying habits of the females, who deposit their translucent white eggs inside plant tissue, often in the base of flower petals but also in leaf petioles and veins.

Female pirate bugs can lay 2 to 4 eggs each day, and most will lay between 80 and 100 eggs during their 3- to 4-week-long adult lifespans. The small pear-shaped nymphs that hatch from these eggs are yellow, but change color to brown in later nymphal stages. Adult pirate bugs are very small—only 1/12 to 1/5 of an inch long—and have flattened, winged, oval-shaped black bodies with angular white markings.



Pirate bug attacking an aphid

Source: <https://s-media-cache-ak0.pinimg.com/736x/89/e0/2b/89e02b67504085556d600cc910813c1f.jpg>

The feeding habits of pirate bugs are rather gruesome: they use their long, narrow, beak-like mouthparts to pierce a hole in their victim's body, inject saliva, then suck up the digested remains. Unfortunately, pirate bugs occasionally inflict a painful bite that can swell and/or redden, so it's best to use caution around these very effective garden predators.

For more information:

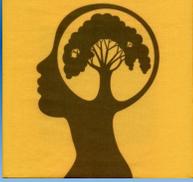
[UC IPM: Minute Pirate Bugs](#)

[Garden Good Guys – Minute Pirate Bugs](#)

[Virginia Tech Cooperative Extension: The Minute Pirate Bug \(Orius\)](#)

[Cornell University, Biological Control: Orius](#)

Reprinted from the 2105 summer newsletter



Growing Knowledge

Sue Davis, Master Gardener

Although the latest revision of this book was in 2012, and most of us probably have this edition or an earlier one, it is worthwhile to take a slow turn through the pages of one of the gold standards of gardening information, *The New Sunset Western Garden Book*.

Beginning the journey are several pages of designer gardens showcasing landscapes that exemplify smart, savvy, surprising, small, edible, and regional gardens. Each section presents photographs of various gardens, including plant names, that symbolize the headings. Landscape design is certainly an art that can be appreciated by browsing this section.

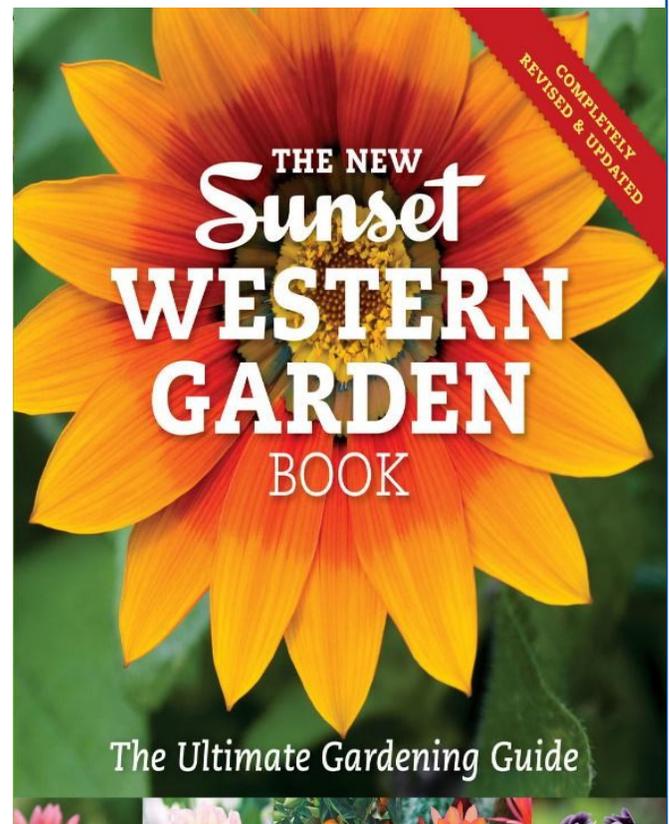
Once “the masters” have peaked an interest, a section on climate zones helps readers discover the climate zone of any area in the western United States. The book defines, in part, a climate zone as “a broad range of factors, such as cold, heat, humidity, wind, proximity to the Pacific Ocean, snow cover, and the length of the growing season.” The San Joaquin Valley is in climate zone 14; but, if friends or family members live in other areas of the western US, a reader can use the detailed maps to quickly determine the proper climate zone to assist a beginning gardener in selecting plants best suited to their area.

Once an actual climate zone is determined, the book offers a “plant finder” section where plant possibilities, along with many pictures, are grouped into three categories to help gardeners narrow possible selections. There are “problem-solver” plants, “earth-friendly” plants, and “plants for special effects” through which to browse. Even if there is no problem to solve, some of the choices in this section tempt a trip to a nursery.

Taking this book along to the nursery on a buying trip is a good idea. The next section holds 537 pages of detailed information on plants from A to Z. Beginning with *Abelia*, a generally three- to five-foot-tall and wide shrub that, depending on the variety, can be deciduous, semi-evergreen or evergreen, and ending with *Zoysia*, a perennial grass that does best in sun, but will tolerate some shade. There is an index which helps the reader convert the common name of a plant to its Genus name for ease in locating within this section. Each plant description includes information on varieties of that plant, if applicable, the zones in which the plant will flourish, the sun and water needs, and the care requirements of the plant. Interspersed among the pages are windows of information such as how to grow clematis, the best peach and nectarine varieties to grow, how to grow raspberries, and how to prune roses.

At the back of the book is a section on “Gardening, Start to Finish.” This section offers information on how to plan, dig, and plant a garden. It includes tips for growing every type of plant from annuals and bulbs through wildflowers and goes on to offer information on water, fertilizer, and the management of pests, diseases, and weeds. Finally, there is a pronunciation guide to help with all those difficult plant names, a glossary of terms used throughout the book, and of course, the plant index to help in locating a particular plant within the abundance of information between the covers.

Once the slow journey through the pages of *The New Sunset Western Garden Book* has come to an end, it is time to take a deep breath, peruse your landscape, and make out a shopping list for the nursery.



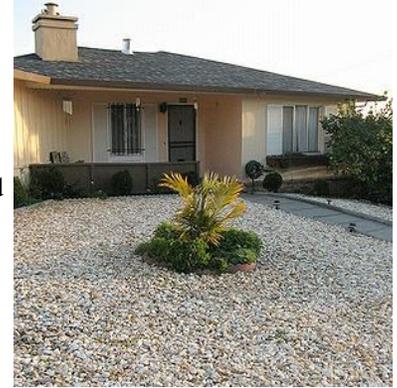
A Quick Look at Drought

Francha Barker, Master Gardener

"This drought emergency is over, but the next drought could be around the corner," said Governor Brown in April last year. "Conservation must remain a way of life."

Myth 1: We need to replace our lawns and plants with rocks and gravel.

Fact: California residential landscape watering accounts for 7% of total statewide water use. A judiciously irrigated landscape provides psychological well-being, energy saving shade, rain capture, dust and erosion control, carbon dioxide reduction, oxygen generation, enhanced property values, wildlife habitat, and beauty. Research has shown that significant water can be saved simply by decreasing the amount of watering of lawns. Irrigation can be reduced 20% to 30% for several weeks without killing the turf. Warm weather grasses (Bermuda grass, zoysia grass, St. Augustine grass) use about 20% less water than the commonly used tall fescue grass.



Myth 2: All native California plants are drought resistant.

Fact: Some native plants need more water when planted in an urban environment because of the radiant heat and air pollution not found in their native habitats. The market place has bred many non native cultivars which are well adapted to drought conditions.

Myth 3: Xeriscape means rocks and cacti.

Fact: Xeriscaping means landscaping and gardening that lessens or eliminates the need for irrigation. Xeriscaping includes lawn areas but tries to limit them to areas of use rather than make lawns the major landscaping design. Xeriscapes can be less costly but just as beautiful as traditional landscapes.

Mirth Myth: "They always say to Californians that we don't have seasons. Of course that isn't true. We have fire, flood, mud, and drought." Phyllis Diller

Pest Management from Early Stone Age to Today (cont. from page 6)

Norena Norton Badway, Master Gardener

entire area; and dichloro-diphenyl-trichloroethane or DDT became the first synthetically produced pesticide. DDT became a panacea, emblematic of the power of science over scourges in the 1950s and 1960s. It saved countless soldiers from malaria and typhus during World War II, and was soon used to broadcast as an agricultural and domestic insecticide.

But in 1962, Rachel Carson published *Silent Spring*, chronicling the adverse effects of DDT and heralding what has become known as the "Environmental Age." The public outcry about the impact of DDT on bird deaths and possible links to cancer led to the National Environmental Policy Act (1969) and eventually a nationwide ban of DDT in the United State (1972).

As is often the case, California was in the vanguard of environmental protections. At the University of California, entomologists developed the concept of "integrated control," a combination of biological and chemical controls. UC introduced the economic threshold for determining *if* control approaches are necessary or if the problem is tolerable, and has now established the comprehensive concept of integrated pest management that is based on prevention and creating an ecosystem that is inhospitable for pests. UC scientists have also led efforts to produce disease resistant cultivars, which add a fifth dimension to pest management that integrates biological, cultural, physical and chemical controls.

Conclusion

The ancient and more modern history of pest management lies at the intersection of necessity, mankind's creativity, and scientific discovery. Until early humans organized themselves around cultivation, pests and people did not converge: the idea of pest control did not exist. As populations and cultivar varieties have expanded, humans have devised integrated systems of pest management, allowing us to make informed decisions that solve pest problems while minimizing risks to people and the environment.

1. [Hirst, K.K. \(2018\). A Beginners Guide to the Paleolithic Period of Stone Age. Thought Co.](#)
2. [Snir, Nadel, Groman-Yaroslavski, Melamed, Sternberg, Bar-Yosef, and Weiss \(2015, July 22\). The origination of cultivation and proto-weeds, long before Neolithic farming. PLOS ONE 10 \(7\).](#)
3. Tudge, C. (1998). *Neanderthals, Bandits and Farmers: How Agriculture Really Began*. New Haven, CT: Yale University Press.
4. [Cornell University \(1973\). Brief history of integrated pest management.](#)
5. [What is IPM?](#)
6. [Landis, T.D. and Dumroese, R.K. \(2014, Summer\). Integrated pest management: an overview and update. Forest Nursery Notes.](#)

The Help Desk—Attracting Hummingbirds to your Garden

Trish Tremayne, Master Gardener

Who doesn't enjoy watching birds and butterflies as they flit about in the garden? A common question at our help line is how we can encourage more of nature's marvels to visit our gardens, especially hummingbirds. The best way to attract them is to give them what they need: food, water and shelter! The tiny hummers are adorable. Quite often you will hear them before you see them. Their wings beat so fast, about 70 beats per second when flying and more than 200 times per second when diving, that they make a humming sound. There are several species of hummingbirds common to California. They include Allen's, Anna's, Black-chinned, Caliope, Costa's, and Rufous.

Food

Because they are so energetic, hummingbirds need large quantities of food. Up to 90% of the hummingbird's diet is made up of nectar. They use their long bill and grooved tongue to probe the flowers. Hummingbirds must eat every 10 to 15 minutes and visit between 1,000 and 2,000 flowers each day. Several plants have evolved to use the hummingbird as their primary pollinators, and their flowers share such characteristics as color, scent, shape, and nectar. By planting red, orange and blue nectar-producing flowers, you will encourage more hummingbirds in your garden. Some of their favorite flowers include bee balm, coral honeysuckle, cardinal flower, butterfly weed, columbine, sages, cape honeysuckle, and blood-red trumpet vine. In shady areas, plant giant yellow hyssop, columbines, Dutchman's pipe, foxgloves, hardy fuchsia, coral bells, and hostas, and flowering currant as these all work well. Extend the season by planting early, mid-season, and late bloomers of both annuals and perennials.

If you are providing a hummingbird feeder in your yard, here are a few tips to make sure that they are safe and nutritious. An inexpensive red plastic feeder works well. Keep your feeders clean using a solution of one part white vinegar with four parts water and clean the feeder once a week. Rinse well. Hang near a window so that you can enjoy watching them without disturbing them. To make hummingbird food: 1) mix 1 part sugar with 4 parts water and bring to a boil to kill any bacteria or mold present; 2) cool and fill feeder 3); store extra sugar water in a refrigerator (never use honey); 4) avoid using red dye. Hummers also need protein and can snatch small insects in the air. Mama birds will feed their babies small spiders almost exclusively. All species are territorial and will fight off other birds that try to take their food.



Water

A source of water is also important. Especially attractive to hummingbirds are misting devices, shallow puddles, dripping faucets.

Nesting

The female hummingbird builds her nest and raises her young without the help of her mate. Hummingbirds will nest in trees, shrubs or vines. The important thing is to disguise their walnut-sized nest from predators and to keep their offspring safe and dry. Hummingbirds build velvety, compact cups with spongy floors and elastic sides that stretch as the young grow. They weave together twigs, plant fibers, and bits of leaves, and use spider silk to bind their nests together and anchor them. The inside is lined with soft nesting material like animal hair, cottonwood fluff, cattail fluff, plant down, and spider silk for their pea-sized eggs.

Use these tips to encourage more hummers to spend time in your garden!

For more information:

[Audubon Society—How to Create a Hummingbird Friendly Yard](#)
[Birds and Bloom—Expert Tips for Attracting Hummingbirds](#)

A Taste of the Season

Julie Hyske, Master Gardener

Welcome to summer where freshness awaits with an abundance of fruits and vegetables. The first selection, orzo salad, makes a light and refreshing summer main dish ready to be served on the patio. The chicken and summer vegetable tostadas utilize your corn and squash supply from the garden for a nice easy addition. Now follow this up with lavender cookies, one of our most requested recipes from past garden tours and public garden days. Complete with a large pitcher of iced tea garnished with mint or lemon wedges and dinner is accomplished with little effort!

Lavender Shortbread Cookies

Ingredients

1 cup butter (2 sticks), softened
¼ cup granulated sugar
¼ cup powdered sugar
¼ tsp salt
2 cups all-purpose flour
1 ½ tsp chopped fresh lavender or 1 tsp. dried lavender

In a stand mixer fitted with a paddle attachment, cream the butter, granulated sugar, powdered sugar, and salt until thoroughly combined, about 3 minutes. In a separate bowl, sift the all purpose flour. Mix the flour into the butter mixture in 3 additions, scraping down the sides of the bowl in between each addition.



Add the lavender and mix to just combine. Roll out the dough to a ½ -inch-thick rectangle. Wrap in plastic wrap and refrigerate for at least 4 hours.

Preheat the oven to 350°F. Cut the dough into 2 x 1-inch bars and place on a parchment-lined baking sheet. Bake the cookies until just golden at the edges, about 20 minutes. Remove from the oven. If you wish, immediately ice with a mixture of powdered sugar and lemon juice. Let cool completely before serving.

About 2 dozen cookies

Chicken and Summer Vegetable Tostadas

Ingredients

3 tsp canola oil
1 tsp ground cumin
¼ tsp kosher salt
¼ tsp black pepper
12 ounces chicken breast tenders
1 cup chopped red onion (about 1)
1 cup fresh corn kernels (about 2 ears)
1 cup chopped zucchini
½ cup salsa verde
3 tbsp chopped fresh cilantro, divided
4 (8-inch) fat-free flour tortillas
Cooking spray
4 ounces Monterey Jack cheese, shredded (about 1 cup)



Preheat broiler. Combine the cumin, salt and pepper stirring well. Heat oil in a large nonstick skillet over medium-high heat. Sprinkle the spice mixture evenly over chicken. Add chicken to pan; sauté for 3 minutes. Add onion, corn, and zucchini to pan; sauté for 3 minutes or until chicken is done. Stir in salsa and 2 tablespoons cilantro. Cook 2 minutes or until liquid almost evaporates, stirring frequently.

Working with 2 tortillas at a time, arrange tortillas in a single layer on a baking sheet; lightly coat tortillas with cooking spray. Broil 2 minutes or until lightly browned. Spoon about ¾ cup chicken mixture in the center of each tortilla; sprinkle each serving with ¼ cup cheese. Broil an additional 2 minutes or until cheese melts.

Orzo Salad with Chicken, Kalamata and Feta

Ingredients

½ cup extra virgin olive oil	1 box orzo uncooked pasta (1 lb.)
3 cloves garlic minced	1 cup finely chopped yellow and red pepper
½ cup fresh lemon juice	2 cups finely chopped chicken breast
¼ cup red wine vinegar	2 ½ cups baby spinach
Salt and pepper to taste	¾ cup finely chopped red onion
1 ½ cups crumbled feta cheese	2 cups halved kalamata olives
1 tbsp finely grated lemon zest, or more to taste	

Stir together the dressing ingredients in a small bowl. Season to taste with salt and pepper.

Cook the orzo in a large pot of boiling, salted water until al dente, about 9 minutes. Drain pasta completely in a colander, running under cold water. Transfer orzo to a bowl, stir in the olive oil mixture, and let cool. Stir in the bell pepper, chicken, olives, spinach, red onion and crumbled feta until well combined. Serve salad when well chilled. This salad is delicious when made the day before for blending of flavors.

Serves 6-8



Coming Events

Corinne Bachle, Master Gardener

JULY 2018

Saturday, July 7 11:00 a.m.
Pickling Class

In Season Market and Nursery, 215 E. Alpine Avenue, Stockton, (209) 949-2499
www.inseason.store*

Learn how to pickle your summer bounty.



Monday, July 9 10:00 – 11:30 a.m.
San Joaquin County Master Gardener Workshop: Gardening for Life - Adaptive Gardening

Lodi Library, 201 W. Locust Street, Lodi

Saturday, July 14 11:00 a.m.
Making Hypertufa Pots

In Season Market and Nursery, 215 E. Alpine Avenue, Stockton, (209) 949-2499
www.inseason.store*

Learn the art of making your own hypertufa pots.

Saturday, July 14 10:00 – 12 noon
Home Winemaking

Delta Tree Farms, 12900 N. Lower Sacramento Road, Lodi

Blake Bomben, Senior Winemaker with The Wine Group, will discuss making wine at home.

Saturday, July 14 9:00 – 10:00 a.m.
Alden Lane Academy - Let's Talk Citrus (\$10.00)

Seasons Building, Alden Lane Nursery, 981 Alden Lane, Livermore

From limes to grapefruit, there's a lot to understand about these wonderful, nutritious orbs! Soil, feeding, pruning, and frost protection are just some of the subjects discussed in this tutorial.

Saturday, July 21, 10:30 – 12:00 noon
San Joaquin County Master Gardener Workshop: Common Vegetable Pests and How to Manage Them

Manteca Library, 320 W. Center, Manteca

Saturday, July 21 11:00 a.m.
Pressure Canning

In Season Market and Nursery, 215 E. Alpine Avenue, Stockton, (209) 949-2499
www.inseason.store*

Here's another way to preserve your summer harvests for enjoyment throughout the year.

Saturday, July 21 11:30 a.m. – 1:00 p.m.
Natural Pest Management

Boggs Tract Community Farm, 466 S. Ventura Street, Stockton



Hypertufa Pots

Tuesday, July 24 10:30 – 12 noon
San Joaquin County Master Gardener Workshop: Happy Healthy Lawns

San Joaquin County Agricultural Center, 2101 E. Earhart Avenue, Stockton

Saturday, July 28 10:30 – 12 noon
San Joaquin County Master Gardener Workshop: Water, Wind, and Weed Eaters...Oh My!

Tracy Library, 20 E. Eaton Avenue, Tracy
How to identify common abiotic (physical, not biological) disorders of plants.



Saturday, July 28 11:00 a.m.
Hugh Lily, vegetarian and nutritionist, presents "Change your Diet, Change your Life."

In Season Market and Nursery, 215 E. Alpine Avenue, Stockton, (209) 949-2499
www.inseason.store*

AUGUST 2018

Saturday, August 4 11:00 a.m.
Seed Starting for your Fall Garden

In Season Market and Nursery, 215 E. Alpine Avenue, Stockton, (209) 949-2499
www.inseason.store*

Monday, August 6 10:00 – 11:30 a.m.
San Joaquin County Master Gardener Workshop: Preserving Tomatoes Class is taught by UC Master Food Preservers

Lodi Library, 201 W. Locust Street, Lodi
Learn how to preserve your bounty of tomatoes.

Saturday, August 11 11:00 a.m.
Dehydrating to

[Continued on pg. 15](#)

Coming Events (cont. from pg. 14)

Corinne Bachle, Master Gardener

Preserve your Harvest

In Season Market and Nursery, 215 E. Alpine Avenue, Stockton, (209) 949-2499
www.inseason.store*

Saturday, August 11 9:00 – 10:00 a.m.
Alden Lane Academy – Shade Container Gardening (\$10.00)

Garden Store Deck, Alden Lane Nursery, 981 Alden Lane, Livermore

Picture a bold colored pot brimming with shade-loving plants thriving on your porch or patio. We can help you achieve the look by teaching you the combinations that will flourish together as well as complement each other visually.

Saturday, August 18 10:30 – 12 noon
San Joaquin County Master Gardener Workshop: Cool Season Vegetable Gardens

Manteca Library, 320 W. Center, Manteca



Saturday, August 18 11:00
Food Preserving: Making Corn Relish

In Season Market and Nursery, 215 E. Alpine Avenue, Stockton, (209) 949-2499
www.inseason.store*

Saturday, August 25 10:30 – 12 noon
San Joaquin Master Gardener Workshop: Integrated Pest Management

Tracy Library, 20 E. Eaton Avenue, Tracy
Earn environmentally sensitive methods of controlling pests

Saturday, August 24 11:00
Time for Fall Veggies 11:00 a.m.

In Season Market and Nursery, 215 E. Alpine Avenue, Stockton, (209) 949-2499
www.inseason.store * How and what to plant.

Tuesday, August 28 10:30 – 12 noon



San Joaquin County Master Gardener Workshop: Understanding Fertilizers

San Joaquin County Agricultural Center, 2101 E. Earhart Avenue, Stockton

SEPTEMBER 2018

Saturday, September 8 11:00 a.m.
Melon Fest!

In Season Market and Nursery, 215 E. Alpine Avenue, Stockton, (209) 949-2499
www.inseason.store *

We've been growing heirloom melons all summer! We will have samples and music, all to celebrate summer melons!

Saturday, September 8 9:00-10:00 a.m.
Houseplants 101 (\$10.00)

Seasons Building, Alden Lane Nursery, 981 Alden Lane, Livermore

Houseplants are not mysterious and difficult! We will discuss the facts about watering (what and when), the types of plants for high light and low light, pests, soils, and repotting.

Monday, September 10, 10:00-11:30 a.m.

San Joaquin County Master Gardener Workshop: Gardening for Pollinators

Lodi Library, 201 W. Locust Street, Lodi
Sunday, September 16 11:30 a.m.
Corn

Boggs Tract Community Farm, 466 S. Ventura Street, Stockton

Saturday, September 22 10:300 – 12 noon

San Joaquin County Master Gardener Workshop: Growing Fabulous Citrus

Tracy Library, 20 E. Eaton Avenue, Tracy

Saturday, September 22 11:00 a.m.
Fall Veggie Class

In Season Market and Nursery, 215 E. Alpine Avenue, Stockton, (209) 949-2499
www.inseason.store * What to plant and how to plant it.



Tuesday, September 25, 10:30 – 12 noon
Gardening with California Native Plants

San Joaquin County Agricultural Center, 2101 E. Earhart Avenue, Stockton

Saturday September 29 11:00 a.m.
Composting: Making plant food out of your garden debris

In Season Market and Nursery, 215 E. Alpine Avenue, Stockton, (209) 949-2499
www.inseason.store *

*In Season Market and Nursery charges for some of their classes. Call (209) 949-2499 to confirm

Successful Habits of Happy Gardeners (cont. from pg. 1)

Louise Christy, Santa Clara Master Gardener

preserving the air by not overwatering or compacting the soil. Happy and successful gardeners follow this maxim for improving soil: compost, compost, compost, mulch, mulch, mulch.

Compost improves the structure of the soil and makes it crumbly and easier to work. Spread compost all over the soil a couple times per year. If the soil has not been gardened recently, you may want to dig the compost into the soil several inches down. The other key to feeding your soil and increasing the organic matter is to use organic mulch. The most popular mulches seem to be wood chips or bark, but you can also use grass clippings, leaves, straw, or once again, compost.

When working with clay soil, avoid overwatering, and let it dry until it is moist and crumbly before you dig. Do not add sand to clay soil. Sand plus clay equals concrete.

Great garden soil with lots of clay, organic matter, and microorganisms will be dark brown and crumbly and will smell earthy. It can be dug easily with a trowel, and it will have worms. Be patient and persistent. Building great soil can take years, but with careful treatment and feeding, "impossible clay" can become lovely garden soil.



Habit Number 2: LEARN BEFORE LOPPING

Happy and successful gardeners know pruning is a good thing and fun to do, but it can be complicated, so they make a point to learn before lopping.

Many gardeners have pruners with them constantly for clipping and trimming their plants. There are many good reasons to prune and clip plants including training young plants, grooming for appearance, to control the shape and size of a plant, to influence flowering and fruiting, to invigorate stagnant growth, and to remove damaged or infested growth. However, improper pruning can ruin or destroy plants.

Not all plants respond to pruning in the same way. Happy and successful gardeners are careful to research and learn how their plants will respond to pruning before they prune. This is especially important when talking about a large and valuable tree. Badly pruned large trees may drop branches or die, resulting in hazardous situations and expensive removal costs.



Habit Number 3: Embrace Failure

Gardening is a learned skill. Compare it to medicine. Just like no one is born knowing how to perform a liver transplant, no one is born knowing how to garden. Like any other skill, there is a world of knowledge and technique that when learned, over time, will lead to success.

Happy and successful gardeners like to experiment in the garden and have learned to embrace failure. A dead or sick plant is a learning opportunity. They're always curious, always wondering what's going on in the garden, and eager to learn. For the most part, happy and successful gardeners aren't very sentimental about their plants. If a plant is sickly, a good gardener knows it's time to move it or remove it--which means, it's time to go shopping!

Habit Number 4: Shop Carefully

There is nothing more delightful than a few hours at a great nursery. It's like having all the benefits of a garden without the work. Experienced gardeners look for specific things when buying plants.

- 1) Look for plants that are healthy and vigorous. The plant should have sturdy stems or branches, show evidence of new growth with no sign of insect infestations, disease, or injuries.
- 2) Look for plants with good shape and structure.
- 3) When choosing annuals and vegetable transplants in small pots, look for young, small plants, not ones that seem to be mature or already have flowers.
- 4) Buy transplants when there is only one plant per pot. Experienced gardeners have learned to recognize crowded transplants and avoid buying them.
- 5) Look for a healthy, well-developed root system. Roots should usually be white or light colored, not brown, slimy or mushy. If there is a small mat of roots at the bottom, but otherwise the plant looks vigorous, it's probably OK.



Habit Number 5: Put the Right Plant in the Right Place

If you ask experienced gardeners for their favorite gardening tip, it is usually "Right plant, right place."

Plants that are well suited to the location where they are planted will be faster to put out new roots and new growth. They will be healthier and better able to withstand insect pests and diseases than if they were planted in the wrong place. They will perform well, grow well, look better, and require less attention from you.

We have what's called a Mediterranean climate which means dry summers, rainy winters, some frost, and minimal freezing. The majority of San Joaquin Valley is in Sunset Zone 14 and USDA Hardiness Zone 9.

Evaluate the planting spot by thinking about the following questions:

Does the area get full sun, part sun, or shade? Is the area more wet or dry? Where is the water source? Does the spot get high traffic or is it out of the way? Is the area near a wall or fence that reflects heat? What is the amount of horizontal and vertical space available? Is the space on a hillside? Check the Sunset Western Garden Book, the nursery label, or books and sources online to determine the right plant for your place.

Summer Garden Chores (cont. from page 2)

Sue Davis, Master Gardener

Maintenance –

Mature citrus trees planted in the ground can generally go about 10 days between watering in the summer heat. Potted citrus trees will need water at least once a week during the summer. Although the soil surface doesn't need to be damp, the soil needs to remain on the dry side of moist. Check soil moisture at the root level – 18 or more inches down – with a moisture meter. Water slowly and deeply when water is needed.

Before fall planting, amend soil with compost and soil conditioner. Worm castings, though expensive, are worth the price. Choose pure castings or a mix of castings and compost. Now is also a good time to start a worm bin to provide castings for spring soil amending. Information on worm composting can be found at www.ucanr.org.

Prune cane berries. Canes of single-crop blackberries and raspberries that have finished fruiting should be cut to the ground. Thin out the new growth. Remove all but 5 to 8 of the strongest blackberry canes and 8 to 12 strong raspberry canes per plant. Wait until after the fall harvest to prune ever-bearing varieties.

September Notes

Plant –

Set out transplants of campanula, candytuft, catmint, coreopsis, delphinium, dianthus, foxglove, penstemon, phlox, salvia, hollyhock and yarrow.

Plant spring flower bulbs now. Bulbs appear in nurseries right after Labor Day. They are most effective in big flower pots and in kidney-shaped drifts at the front of garden beds. Some excellent choices include bluebells, daffodils, hyacinth, grape hyacinth, and tulips. Bulbs should bloom beautifully in spring with just rain water.

Shrubs, trees, and groundcovers get a head start when planted in fall. Plants send out roots in fall and winter while nature does most of the watering for you. Plants will be well established by the time new growth starts in spring.

Plant a tree on the southwest side of your home where it will provide welcome shade during the summer months. Use a deciduous tree for summer shade and winter sun. Chinese hackberry, Chinese pistache, ginkgo, Japanese pagoda tree, "Raywood" ash, and red oak can be good choices depending on the space available. Note the mature size of the tree before you purchase it to be sure there is ample room for it to grow into the beautiful specimen you expect.

Organic mulch applied several inches thick around plants will help keep roots moist if rainfall is sparse this year. Keep the mulch 3-5 inches from the trunks of your plants to avoid problems with rot.

Plant lettuce every few weeks to extend your harvest over a longer season. Tasty blends of leaf lettuce are easy to grow from seed.

Maintenance –

Harvest cantaloupe when it slips off the vine easily. A watermelon is a bit more difficult, but good indicators of ripeness include a pale yellow ground spot (where the melon laid on the ground), the tendril opposite the stem of the melon has dried and withered, the skin is dull rather than shiny, and, there is a dull "thunk" when you rap the melon with your knuckles in the morning.

Now is the time to fertilize your lawn in order to thicken top growth, crowd out weeds, and strengthen grass roots for winter. Combination lawn fertilizers are a good choice. They contain a small amount of fast-release nitrogen for quick greening, and a larger portion of slow-release nitrogen. By regularly using a mulching mower which chops the grass blades into fine pieces, and leaving your grass clippings on the lawn to decompose and release nitrogen into the turf, you can eliminate one lawn feeding or more per year.



Demo Garden

Cherie Sivell, Master Gardener

The Learning Landscape, aka, the Demo Garden is showing its colors in full force. Come out to visit and catch the foliage garden in high color, the flower display in the Edibles garden (see picture) and one of the All-Stars highlights, Rosa "Corbin" Iceberg at its showiest ((see picture). Open daily for your viewing pleasure. The garden is located at the Robert J. Cabral Ag Center, 2101 E. Earhart Avenue, Stockton.



Have a gardening question? Call our hotline!

San Joaquin County Master Gardeners

Phone: 209-953-6112

2101 E. Earhart Ave.

Suite 200, Stockton, 95206

E-mail: anrmgsanjoaquin@ucanr.edu

Web-site: <http://sjmastergardeners.ucdavis.edu>

Program Coordinator: Marcy Sousa 953-6100

Find us on Social Media

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Pinterest: pinterest.com/sjucmg

Garden Notes is published quarterly by the University of California Cooperative Extension Master Gardeners of San Joaquin County.

For nondiscrimination policy, [click here](#)

[UC IPM website](#)

Integrated pest management, or "IPM," is a process you can use to solve pest problems while minimizing risks to people and the environment. IPM can be used to manage all kinds of pests anywhere.

[Click here for more info.](#)



Do You Enjoy Gardening?

Are you willing to volunteer your time and talent?



The San Joaquin UC Master Gardener program is now accepting applications for our 2019 training.

Application deadline is September 28th.

Visit our website for more information and to download an application.
ucanr.edu/sjmg2019



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2018 San Joaquin UC Master Food Preserver Training



Do you want to learn more about safe home food preservation methods? Are you willing to share your skills & knowledge?

We are now accepting applications for our next training that begins **September 2018.**

Visit our website for more information.

ucanr.edu/sjmf2018

Space is limited.
Application deadline is
August 11th.

