UC CE University of California Cooperative Extension

Garden Notes

with the San Joaquin County Master Gardeners

Master Gardener University of California Cooperative Extension

JULY-SEPTEMBER 2013

San Joaquin County Master Gardeners

INSIDE THIS ISSUE

Congratulations to the 2013 Master Gardener Class!

Marcy Sousa Master Gardener Coordinator

After 18 weeks of training, our 2013 Master Gardener Training is complete. We started off as a quiet group of people who didn't know each other and their and by the last class many new friendships and connections were made. We had a great group of trainees and excellent speakers and topics. The master gardener classes are taught by UC advisors and specialists and cover a range of gardening topics from soils and compost to fruit trees, insects and turf. There were weekly quizzes and reading assignments and a take home final at the end of the class. Each week these trainees would come back eager to learn more. They are now ready to start their 50 hours of volunteer time within the Master Gardener Program. If you are interested in becoming a Master Gardener you can fill out an application on our web-site and we will contact you once the next training has been set. The next class will be in 2015.

Got Mulch? Using Mulch in the Landscape

Karrie Reid UC Environmental Horticulture Advisor

Anything used to cover the surface of the soil is called mulch. It may be inorganic, like rock or chipped rubber; it may be organic like straw, shredded leaves, chipped wood or bark.

Mulch is often confused with compost, but while compost may be used as a mulch, its primary use is as a soil amendment. Larger sized materials used for mulch, however, generally should not be dug into the soil.

Why mulch? Much research has been done over the years to determine the effects of using different types of mulch.

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Garden Chores Calendar

Sue Davis Master Gardener

You can click on any of the blue underlined words in any of the articles to go to a web-page and learn more about that topic!

July, August, and September

Summer is marked by high temperatures, children out of school, gardens in high production, and a few things that can be done to keep your garden and landscape healthy and attractive.

July Ideas

Plant -

Create a border to attract beneficials. Keep your vegetable plot healthy this summer 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.

Spruce up shady areas. Try experimenting with different types of coleus in a shady area. They need regular watering through the warm months, and provided you pinch off flower spikes as they develop, coleus will add splashes of leaf color in both beds and pots. Coleus acts pretty much like an annual in our area, so be prepared to plant again next year. Impatiens and begonias are other plants that brighten shady areas.

Start seeds. 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 didn't already do so in spring, 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 it against stems and trunks.

Support fruit tree branches. Apple, peach, pear, and plum trees may be laden with fruit this month. To prevent limb breakage, use wooden supports to brace sagging branches. Also, regularly clean up and discard fallen fruit, since it might harbor diseases and pests.

Water. Check container plants daily. Deeply irrigate mature fruiting and most ornamental trees every other week if you have clay-loam soil, more often if you are in an area with sandy or sandy-loam soil. Mature drought-tolerant trees need deep watering only once a month or so.

Protect oaks. Make sure the ground under the canopy of mature native California oaks gets no irrigation because summer watering can kill these trees. The danger of root rot is greatest when you water close to the trunk. If you can't keep the entire area under the tree dry, be sure no water gets within 10 feet of the trunk.

Prune flowering vines. Do you have wisteria, passion vine, or Hardenbergia adding beauty to your landscape? 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.

Lawns. If your lawn develops brown spots, be sure that it isn't an irrigation problem before assuming it is a pest or disease. Damage from lack of water will usually result in a faded edge with some gunmetal gray turf around the perimeter. During these hot summer months (June through mid-September) watering three times a week is normal. If you have sloping lawns or heavy clay soil, you might want to reduce runoff by splitting your lawn irrigation to two times each watering day at half the amount of time. Avoid daily irrigation, as it encourages shallow, unhealthy rooting and encourages pests and diseases.

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

Cont. pg. 18 & 19

Sunset Celebration Weekend

Dick Griffith Master Gardener

Sunset is arguably the most popular home and garden magazine in the west, particularly California. Located in Menlo Park, ***Sunset*** opens its grounds once a year, in late spring, for an open house, or "Celebration Weekend." The 2013 celebration took place on June 1 and 2. It features seminar stages for presentations on garden and outdoor living, cooking, home design and entertaining, travel and even music. A wide variety of vendors populate a large booth area. This year, there were more than 190 vendor booths and stages. General Electric, Safeway and Weber Grills, for example, always have a strong presence. There are also hands-on activities for children and adults.

Flowers and gardening are a focal point of the weekend. This year the Garden and Outdoor Living Stage offered presentations on new additions to the Sunset plant collection, living outside, growing fish and food together, succulents, healthy compost piles, starting from seed and what's new in citrus. The speakers are local and regional experts, including representatives of major nurseries, as well as Sunset Staff. The opening presentation by Janet Sluis, Curator of the Sunset Western Garden Collection, introduced "Exciting New Additions to the Sunset Plant Collection." It highlighted 26 new plants in the 2013 collection. These plants are described here.

Janet Sluis, Curator of the Sunset Western Garden Collection and Kathy Brenzel, Garden Editor, Sunset magazine

When visiting the web site, be sure to check out the plant of the year: *'Soft Caress' Mahonia*. *'Soft Caress'* has everything we love about *Mahonia*, without the pesky thorns! Compact enough to use in containers, yet large enough for foundation plantings or borders, they provide fabulous texture to the shade garden.

For the culinary crowd, the new Sunset plant collection offers *'Chef's Choice'* rosemary, an outstanding new rosemary specially selected for its higher oil content and spicy flavor. With a compact, mounding habit, this is now the rosemary of choice for container, herb and kitchen gardens.

One feature of the weekend is the Test Garden that provides a display of new plants in the garden collection. This 3,000-square-foot area is jammed with the latest plants, devices, and projects being evaluated for coverage in Sunset. Divided into four test plots, the garden is an example of how to achieve high performance in tight spaces. Since food crops make up many of their plantings, they use nontoxic pest controls. They also use unframed raised beds and amend the soil with organic matter before planting. Plant clippings are recycled into compost. More than 50 percent of the Sunset garden photography is taken in this area.

The General Electric and Safeway cooking stages are a very popular way of connecting production of fruit and vegetables in the garden with preparation of attractive, tasty and nutritious meals. Headliners this year were TV Chef, Fabio Viviani, and Jamie Purviance, Corporate Chef for Weber Grills. Jamie had a great presentation that stressed the growing versatility of the backyard grill. Fabio, who has become a YouTube star with a wide range of short, quick recipes, struck a very practical note with the preparation of egg pasta in 2 minutes, and "lazy meatballs" from Italian sausage. Other, well-known restaurant and corporate chefs filled out each daily program.

'Soft Caress' Mahonia

A final note - the ***New Sunset Western Garden Book*** is now available in interactive digital form as an Apple Application for iPads, iPods and iPhones.

Sunset Celebration – Great weekend! You can find additional detail on the weekend web site.

Tomato Curly Top & Eucalyptus Lerp Psyllid

Steve Sanguinetti Master Gardener

Pests and Plants of the Season

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.

You can click on any of the blue underlined words in any of the articles to go to a webpage and learn more about that topic!

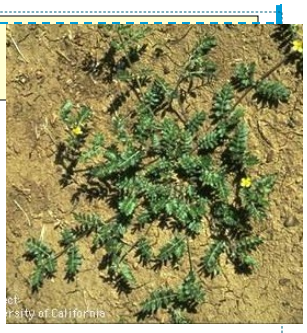
Tomato Curly Top

As if tomatoes didn't have enough maladies, this year they have an additional concern, Curly Top. Symptoms are stunted plants, yellow to bronze leaf color with purple tinge and most definitive, green fruits turn red, regardless of age, usually very prematurely. The disease is caused by a virus which is spread by the beet leafhopper, *Circulifer tenellus*. While primarily a disease of commercial tomatoes, it can be found in home grown tomatoes. UC Vegetable Crop Advisor Brenna's Aegerter comments were that this is the worst incidence of Curly Top she has seen in this part of the valley in her 18 years of experience. She suggested that we might begin to see it on other vegetables such as peppers and cucurbits (melons, cucumber and squashes). Chemical treatment for leafhopper to prevent this disease is not recommended as hoppers will transmit disease immediately on feeding. For more info, click here.

Eucalyptus lerp psyllid

Yes, unfortunately, any Eucalyptus found in California is an introduced foreign plant which is on the verge of or officially considered invasive. But, they are so well adapted to our climate and have become so widespread as to come pretty close to having their own biological niche and ecosystem. One problem associated with moving a plant out of its natural habitat is that it takes time for all their other accompanying organisms to catch up with the foundation species. You will need a certain number or concentration of any foundation species to support the accompanying organisms from its original habitat. First, the Eucalyptus were brought in, and then the blue gum lerp psyllid, *(Glycaspis brimblecombei)* arrived to feed on the Eucalyptus. Only more recently has the parasitic wasp, *Psyllaphaegus bliteus*, been brought in to control the lerp psyllid. Thus we have the common and very messy problem of Eucalyptus trees dripping honeydew on our paved areas, outdoor decks and automobiles. I have seen instances where this pest has done enough damage to a poorly situated Eucalyptus tree to kill it. Systemic chemical controls are available, but inconsistent due to size of trees and the fact that many Eucalyptus are grown in very dry environments where absorption of the systemic is reduced. Not all Eucalyptus are affected. See below for more information on resistant cultivars.
UC IPM Eucalyptus Redgum Lerp Psyllid

Puncture Vine



If you have ever had to walk your bike from a flat tire along a country road, or rescue a limping dog while walking along a canal, you have run into puncture vine, *Tribulus terrestris*. This pernicious weed has been making a comeback over the last couple of years, even in landscapes. It is usually found in compacted soils along roads or pathways where it doesn't have to compete with other plants, but can be found in more intensively cultivated areas. The reason for its comeback is that the preferred method of biological control was so complete that the predator weevils that feed on it disappeared due to lack of a food source. Cultural, physical and chemical controls are available and included in the information below. However, control of young plants before they go to seed is critical. If plants have already gone to seed, try to remove them intact with seeds and dispose of in garbage. Mature plants will almost always have some seeds fall off, so inspect the area covered by this weed for remaining seed carefully after removal. For more information, click here.

Jacaranda Tree & Sedum

Adrian Anthony Master Gardener

TREE: Jacaranda (*Jacaranda mimosifolia*)
Family Bignoniaceae (Bignonia family)

PLANT IDENTIFICATION:
Native to South America, Jacaranda is a deciduous tree, with bipinnate compound fern-like leaves (resembling that of Mimosa) and blue-purple, tubular flowers in 8" long clusters. Flowers late spring to early summer. Can withstand occasional temperatures down to 20° F. Gains hardiness with maturity. Grows 25 to 40 feet high and 15 to 30 feet wide.

OPTIMUM CONDITIONS FOR GROWTH:
Likes heat and humidity. Prefers full sun and well drained, sandy soils, but can tolerate a wide variety of soil types. Forms multi-trunked tree and benefits from aesthetic pruning,thinning awkward limbs back to strong laterals. Requires moderate water. No serious insect or disease problems.
For more information:
UC Jacaranda
Sunset Western Garden Book – 2012 edition, pg. 383
Missouri Botanical Garden

PERENNIAL: Stonecrop, Sedum (*Sedum herbstfreude*)
Family Crassulacaea

PLANT IDENTIFICATION:
This succulent herbaceous perennial grows 1 to 2 feet high and wide and is available in a variety of cultivars, offering a range of pink, red and copper flowers and leaves that are solid green or margined in white or gold. The most widely available variety is 'Autumn Joy' (pictured). Long blooming flowers from August to November provide colorful winter interest.

OPTIMUM CONDITIONS FOR GROWTH:
Full sun, moderate water and well-drained soil preferred. Can tolerate some clay. Very drought and heat tolerant once established. In shade, stems tend to fall over from weight of flower heads. Attracts butterflies. Fairly pest and disease resistant but watch for mealy bugs, scale and aphids.

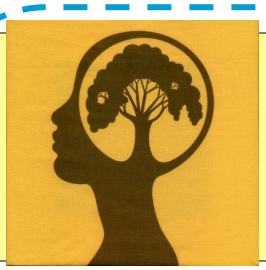
Fine Gardening
Missouri Botanical Garden
Sunset Western Garden Book – 2012 edition, pg. 598

Snowmound Spirea

SHRUB: Snowmound Spirea (*Spiraea nipponica* 'Snowmound')
Family Rosaceae (Rose Family)

PLANT IDENTIFICATION:
This bridal wreath type Spiraea has graceful, arching branches with small alternate blue-green leaves. A profusion of white flowers, about 1" in diameter, cover the branches in late spring orearly summer. Wonderful as a single specimen or grouped as a hedge. Grows up to 5 feet tall and wide.

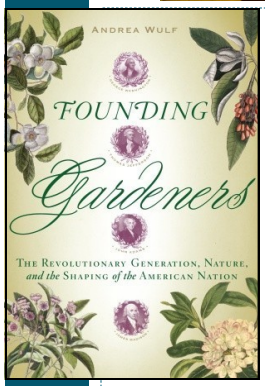
OPTIMUM CONDITIONS FOR GROWTH:
Performs best in full sun in moist, well-drained soils, but is very tolerant and adaptable to a wide variety of soils and partial shade. Prune to thin in winter. For more information, click here.
Sunset Western Garden Book – 2012 edition, pg. 610



Growing Knowledge

Useful Books and Websites

Lee Miller Master Gardener



***Founding Gardeners**, the Revolutionary Generation and the Shaping of the American Nation* by Andrea Wulf, Vintage Books, paperback, 2012, 349 p.

This is not a book about gardening per se, but a riveting read about the love of agrarian pursuits and the contributions made by some of our Nation's founders. Featured are the gardening lives of George Washington, Thomas Jefferson, John Adams and James Madison who each in their pursuits contributed greatly to landscaping, gardening and farming in America. All were innovative in bringing new practices, new plants and new ideas to the American home and farm. All of them shared seeds and plants with each other. The author's thorough research put into sharp focus these founders' love for an agrarian lifestyle and their desire to improve farming practices.

George Washington on the eve of the battle for New York City was writing to his estate manager of the need to plant only American native trees in two groves to be established at Mt. Vernon. He instructed him to find poplar, white pine, cedar and Alabaster dogwood, and transplant them from the forests to the groves at Mt Vernon. After the War for Independence was successful, Washington wanted to eschew all power and return to Mt. Vernon where the condition of the soil and thoughts of spring were on his mind upon his return on December 23, 1783.

He continued efforts to create an all-American garden and landscape by asking for American plants from near and far. He thus departed from the traditional copying of English Landscapes by Virginia planters. In other efforts, he took a more pragmatic approach to improving agriculture. He experimented with hay seeds from the West Indies, wheat from the Cape, English walnuts, cherries, and European pears. Because tobacco planting had degraded so much of Virginia's soil, Washington experimented with various materials to attempt to restore soil fertility, settling on manure as one of the best remedies.

Jefferson and Adams were together in France during the war and later in England to negotiate trade relations with our former enemy after the war. They joined in pleasurable outings to English gardens after being stymied by the British lack of interest in negotiation. They accumulated notes on English gardens, farms, and plants which they took home to apply in America. Adams was particularly enamored with composting and manures to improve soil. Jefferson and Adams visited farms, gardens, and nurseries for a period of six weeks and learned that the English landscape owed much to the importation of American plants.

All of these founders played important roles in the development of Washington as the new capital of the Nation. It is hard for us today to imagine the site as a wilderness, but it was when work started. All wanted a botanical garden to be part of the new city, but it didn't happen until much later after these founders were gone. Adams wanted a garden planted at the executive mansion, before he moved in as the first president to live there, but this was not to happen for lack of funds. After leaving office and returning to his residence, Peacefield, Adams settled back into a life of farming.
Jefferson took great personal interest in the Lewis and Clark exploration of western lands and most items secured by the expedition were sent directly to Jefferson at the White House. Jefferson personally sorted and distributed this bounty of plant specimens, fossils, artifacts, and seeds. Many seeds were tried at Monticello including a variety of corn, grown by the Mandan tribe of Native Americans. This variety was grown at Monticello for several years.

Madison was a landholder of thousands of acres managed from the family home, Montpelier. He was troubled about the loss of forests in North America at a time when few were concerned. He had many trees planted at Montpelier, a very early reforestation project. Both he and Jefferson, as Washington had before them, lamented the ruin of the land by excessive tobacco farming which caused a decline in soil fertility. In 1818 almost 500,000 acres in Virginia were for sale as farmers were selling out and moving south to new fertile soil west and south. The Agricultural Society of Albemarle was founded to improve agricultural knowledge and practices in 1817. Madison was elected president and gave a speech to the Society in 1818 that put him in vanguard of progressive agriculture and gave warnings about the relationship of humans to nature that was far ahead of his time. His speech was an early warning about humans damaging the environment.
If you have interests in early American history, gardening, and horticulture, this is an excellent book that I highly recommend.

Genus? Species? What The Heck Is That?

Susan Mora Loyko Master Gardener

If I were Queen of the World, the clerks at the nursery would know exactly what plant I am looking for when I say, "I want to plant a Black-eyed Susan in my yard. Where can I find it?"

Unfortunately for me, I am not Queen of the World and I know I will only be met with "What kind of black-eyed Susan do you want?" To which I would respond, "You know…the orange one!" That "orange black-eyed Susan" could be a Rudbeckia hirta (one of the many perennials) or a Thunbergia alata (the vine).

So what's a Queen to do if she wants to locate a specific type of black-eyed Susan or any other plant? Luckily for us all, by taking a little time to research, you and I can find exactly what we are looking for, thanks to botanical or scientific classifications given to all plants that are more precise and help to clarify "common" names for similar plants.

Thunbergia alata

In the botanical classification system, the scientific binomial name of a plant consists of two parts – the genus, followed by the specific *epithet,* sometimes incorrectly called the species. Together, the two words are referred to as a "species." Latin is the primary language used for these terms because it was the language used when the scientific classification system was created. Scientific names are italicized or underlined. Genus names are nouns and are always capitalized, whereas the specific epithets are usually adjectives and are always lower case.

Often times, plants are named for the person who founded or first described it. Many times, names will be used to describe a physical characteristic of the plant. And there are names that are so similar to English they are self-explanatory. So, my black-eyed Susan could be a Rudbeckia hirta, a perennial named for scientist Olaus Rudbeck, and hirta that translates to "rough, hairy" as with its stems and leaves.

Descriptive parts of botanical names are often used to further describe a plant. Some examples are: for a plant's color (rufus – ruddy); a plant's parts (dendron – tree); the form of a leaf or folius (parvifolious – small); a shape of a plant (contortus – twisted); plant peculiarities (imperialis – showy); or place of origin (japonicas – Japan).

Taking some time to become familiar with the botanical classifications may be a little time-consuming in the beginning, but will better ensure you'll get exactly the plant you want.

Rudbeckia hirta

The UC IPM Tree and Shrub site has quite a collection of plants listed by common and Latin name including pictures. Click here to go to that site.

Fine Gardening has created a helpful tool that gives the Latin pronunciation of many plants. To hear some of your favorite plants, click here.

Oregon State has a helpful guide with pictures. Click here to go to that site.

Wild Bird Aviary

Norma Yeoman Master Gardener

Gives animation comparable to Disney's forests

One needs only a food supply, water and a safe resting place for the birds to have a wild bird aviary in your garden. I inadvertently have three. My Christmas aviary has a supply of luscious large red berries on my 30-foot English holly. The birds stay within the holly all day eating, only to leave for water in a nearby gurgling fountain and to attend another necessary function. My walkways, vegetation, garden art and outdoor furniture are blessed with bird-given design. However, a broom and water easily remove their blessings. The animation and sound in the holly lightens up the grey winter garden.

My second aviary is supplied with a charming bird feeder, easily viewed from my kitchen. The resting place is a carpet rose intertwined with a potato vine (realistically a potato tree). In the late spring months, its prolific pink roses and blue potato vine flowers are further embellished by small birds of many species. They chirp and move back and forth between their safe harbor, water and the wild bird feeder hanging on the limb of a nearby tangerine tree. It is a charming site looking out my kitchen window.

In the fall, my 85 year-old grape vine, trained on a redwood arbor, supplies my big birds with a myriad of red grapes in various stages of ripening. One can see the aviary structure is the arbor entwined by the grape plant whose leaves have turned burgundy, gold and orange. The grapes are their food. Below the arbor, an ancient wall fountain supplies their cold water. The combination produces an uncommon elixir. I wish I could tell you that the birds then stay in their safe aviary structure after their cocktail, but no. Some birds do, but others swoop the garden in wild chaotic arcs. It is almost puzzling. Only the sensitive fish in the pond know.

The view from the loggia at the opposite end of the garden is not serene but dramatically colorful and exciting.

Look in your garden to see if you can make or already have a wild bird aviary.

Tips to Attract Birds

Food: A good food source is the most important thing you need to attract birds. Food sources can be naturally occurring or supplemental sources such as feeders. Offering several different foods will attract a greater variety of birds. Not all foods will attract the same birds. For the best results, learn which birds are present in your local area and choose foods to attract them to your yard.

Water: Water is critical to birds' survival and adding water to your backyard will quickly attract birds. Types of water features that are attractive to birds are: Bird baths, misters, ponds, waterfalls, and streams. Moving or flowing water will attract the most birds because it is more visible and they can hear it from a great distance. Water should be kept fresh and clean, but no chemicals should be used to purify water because they can be harmful to birds.

Shelter: Birds will not stay in a location where they do not feel safe, and adding backyard features that can offer them shelter will help attract them to your yard and keep them there once they have found it. Common bird shelters include: Trees, shrubs, brush piles, and overgrown grassy areas. Provide shelter at different levels for birds that prefer both high and low shelters. More dense plant growth is popular with small and medium bird species, while larger birds prefer perches where they can scan nearby areas for predators and other dangers. Shelter near feeders is especially popular since birds can quickly retreat if they feel threatened while feeding. Stuff mesh bags with pieces of yarn or string, straw, pet fur, hair from your comb, small bits of cloth, and anything a bird can use to make a nest.

Mosquito Management for Ponds, Fountains and Water Gardens

Andrew Sutherland, UC IPM Program

M. L. Flint, UC

Many gardeners are adding fountains, ponds, and other water features to their landscapes. Water gardens are beautiful and calming, but, if not managed properly, can add an unpleasant element to the landscape—mosquitoes. How can you prevent mosquito infestations? First, it is important to understand mosquito biology. Mosquitoes are small flies that lay their eggs in, on, or near stagnant water. The larvae, or wigglers that hatch from the eggs live in water and feed on organic debris until they transform into a motile pupa, or tumbler, and finally into the familiar adults. This process, from egg to adult, requires as little as one week when conditions are favorable. Emerging females must mate and ingest blood in order to produce new eggs. Mosquitoes can be managed using an integrated approach that relies mostly on prevention, using biological and chemical controls when necessary.

The key strategy is to eliminate all potential breeding sites; even one ounce of standing water can support a population of larvae. What can be done, however, when an outdoor space contains a water element? Here are a few tips you can try to keep your water feature mosquito free. Water features in the landscape will invariably attract adult mosquitoes, but attempting to control them or prevent their egg laying is difficult. Larvae are easier to manage, since they are concentrated in known areas, don't yet bite, and can't fly away. Larvae prefer shallow water that is less than 24 inches deep, so suggest to your customers that they install water features that are deeper than 2 feet. Ponds or features that provide a steep slope or have vertical walls that quickly drop off into deep water will also be less favorable to mosquitoes. Suggest adding a fountain, waterfall, or other device that increases water circulation and reduces the stagnation that allows mosquitoes to breed.

J. K. Clark, UC

The mosquito fish, Gambusia affinis, and four mosquito larvae with breathing siphons

Remove excess vegetation and organic debris that provide mosquito larvae with food, shelter from the sun, and hiding places from predators. For larger ponds, a pond skimmer will help keep mosquitoes and the algae that favors them under control. If fertilization is required, use pond spikes designed to prevent algae blooms. In natural environments, bacteria, nematodes, other insects, crustaceans, and fish often keep numbers of mosquito larvae low. Encourage beneficial predators such as dragonflies and backswimmers which may have colonized ponds by avoiding broad-spectrum insecticides and consider introducing fish. San Joaquin County vector control services provides free mosquito fish, voracious consumers of mosquito larvae and pupae. Never release mosquito fish into natural water bodies, since these fish aren't native to California and can disrupt ecosystems.

Although these measures will prevent problems in most cases, mosquito larvae may still develop in some ponds. In gardens with lots of plants growing in still water, it may be impossible to keep mosquitoes from breeding. You should regularly check your water features for larvae, which periodically come to the surface to breathe through abdominal siphons. Watch for the larvae's characteristic wriggling movement, or use fine dip nets to monitor for larvae. It is important to act quickly to kill mosquitoes when they are small, easiest to manage, and before they become adults and start biting. For more information on managing mosquitoes visit the UC IPM website.

This article was adapted from an article in the UC Retail Nursery and Garden Center IPM News.

Got Mulch? (continued from page 1)

For more information on mulches:

Bay Friendly Landscapers Guide to Mulch

Mulches for Landscapes, Cornell Univ.

The following benefits of organic mulch have been repeatedly confirmed:
1.Less water is lost from the soil. With the surface covered, less evaporation happens, reducing your water need.
2. Soil temperatures fluctuate less. Soil stays cooler in summer and warmer in winter. This is a healthier environment for root growth and function, and fewer plants die from heat stress or frost. This is especially important for shallow-rooted plants.
3. Weeds are reduced. Excluding light reduces the number of weed seeds that sprout, and those that do are easier to remove.
4.Water infiltration increases. Covering the soil surface prevents the crusting that causes water to run off before infiltrating.
5. Soil and plant health is improved. Soil nutrient levels, structure, beneficial microbial activity, and other factors of soil health are all increased over time with the use of organic mulch.

Organic vs. Inorganic Although inorganic mulch may have some of the same benefits as organic (reduced water loss and weeds), it does not add anything beneficial to the soil's health over time. **Rocks** are appropriate for specific landscape situations, such as dry river beds, sections for succulents and other rock garden plants, or gravel for paths that allow water to infiltrate. Rocks absorb and hold a great deal of heat, and care should be taken to locate only heat-tolerant plants in or adjacent to rocks. **Rubber mulch** application should be reserved for under jungle gyms where its greatest feature, shock-absorbency, can be of use. It adds nothing beneficial to the soil, and may release toxic heavy metals into the soil or runoff water, especially if the source of the rubber is recycled truck tires.

What's the best source? The North County sanitary landfill contracts the recycling of all wood and greenwaste delivered to the site. A wide variety of high quality chipped and screened products is available for sale there at very reasonable prices. They are located at 17720 E. Harney Lane in Lodi, and are open the same hours as the dump: Monday - Friday, 7-4; Saturday, 8-4. The best source is the one you can afford that also meets your needs. Several landscape supply businesses around the county have variously sized products for sale by the cubic yard. Most deliver and waive the delivery fee for yardages over a certain minimum.

What type and how deep?
Larger chunks stay put in windy areas and are perfect for large-scale landscapes and for under trees. The weight and size can cause them to roll off steep slopes, though. With large shrubs and trees, a 3 to 4-inch layer should last about 3 years before needing to be topped off. Be sure to keep the mulch about 3 inches from the base of the trunks to prevent rot. The shredded "gorilla-hair" type product weaves together and holds best on slopes. Smaller bark nuggets or chipped wood works nicely in beds with smaller or delicate plants like annuals or tender perennials. A 2 to 3-inch layer will provide benefits without smothering plants. Be aware that it will break down and need to be replaced about every other year. In very windy sites, it may also be prone to blowing away.

NEVER USE MULCH RIGHT NEXT TO THE STREET CURB. This is a violation of the state's Water Efficient Landscape Ordinance: In heavy rains the mulch floats away, clogging storm drains and adding an excess of solid material if carried into the storm water system. Use black-dyed mulch only in shade. If used in sun, the mulch absorbs heat and actually raises soil and surface temperatures high enough to scorch plant leaves it contacts. Mulch large landscape pots and planters. Though often overlooked, large landscape pots, like those used in commercial developments for small trees, shrubs, topiary, or seasonal color, benefit greatly from the addition of a 1 to 2-inch layer of organic mulch. Water use is significantly reduced by covering the pot soil. It also hides drip heads and reduces losses from the occasional "shooting" dripper.

How much do I need? There are on-line calculators that will tell you how many cubic yards you need depending on how deep you want the material. You can calculate it yourself easily if you know the area in sq. ft. :
CUBIC YARDS = (Area in sq. ft.) × (# in. deep) ÷ 324 Example: (9' × 25') × (3" deep) ÷ 324
225 × 3 ÷ 324 = 2 cubic yards.

Getting The Best Results with Yellowjacket Traps

Michael Rust, UC Riverside Entomology

With the onset of warm weather and outdoor eating, expect an increase in call requests for help managing yellowjackets We recommend lure traps, but it is important that customers know if they work and how to use them.

University of California, Riverside entomologists recently tested yellow lure traps in picnic areas in parks in Southern California and demonstrated that proper use of traps can provide protection of local areas, such as eating areas, in many situations. Traps don't eliminate large populations but can help reduce numbers of localized foraging workers. Lure traps contain a chemical that attracts yellowjackets into the traps, but the common lure in traps, heptyl butyrate, attracts primarily the western yellowjacket, Vespula pensylvanica, the most commonly encountered species in California, but not other species. Meat such as fresh chicken can be added as an attractant and is believed to improve catches of the German yellowjacket, V. germanica, and V. vulgaris. Periodically check the trap to remove dead yellowjackets and make sure workers are still attracted to the trap. Lures need to be replaced periodically; follow trap directions regarding replacement. If you added meat to your trap, replace the bait frequently, because yellowjackets aren't attracted to rotting or dried meat.

To reduce the number of yellowjackets foraging in specific areas such as patios, place lure traps with hepytl butyrate around the periphery. In backyards, place the traps along the edge of the property line as far away from the patio or other protected area as possible. It is important to place the traps between the area to be protected and the native landscapes serving as nesting sites to intercept foraging yellowjackets. Typically yellowjackets will forage about 1/4 mile. Consumers should be reminded that to get the best effect from traps, they should remove other yellowjacket attractants such as trash, rotting fruit on or under trees, soda cans, and outdoor food.

Water traps generally are homemade and consist of a 5-gallon bucket, string, and protein bait such as turkey, ham, fish, or liver. Fill the bucket with soapy water, and suspend the protein bait 1 to 2 inches above the water. A wide mesh screen over the bucket will help prevent other animals from reaching and consuming the bait. After the yellowjacket removes the protein, the yellowjacket flies down and becomes trapped in the water and drowns. Like the lure trap, these traps also work best as queen traps in late winter to early spring. In summer and fall they might assist in reducing localized foraging workers but usually not to acceptable levels. Place water traps away from patio or picnic areas, so wasps aren't attracted to your food as well.

For more information about yellowjackets and their management, see the UC IPM Pest Note Yellowjackets.

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!

UC Guide to Healthy Lawns
This is a helpful site if your are planning on putting in a new lawn or are renovating an existing lawn. Find answers on fertilizing, irrigating, insects, diseases and more.

National Center for Home Food Preservation: is your source for current research-based recommendations for most methods of home food preservation. Find information on canning, pickling, drying, freezing and more.

UC Heat Illness Prevention
Helpful tips and articles on recognizing and preventing heat illness and stress.

Planning and Planting a Cool Season Vegetable Garden

Lee Miller, Master Gardener

Timing is very important when it comes to growing vegetables in the garden. Everything has its season and it is imperative to be ready with the right plant or seeds at the right time in order to get the best results. July 4th is when we celebrate our nation's birth, but it is also the best time to start, from seed, many of our winter vegetables such as broccoli, cauliflower, cabbage and Brussels sprouts. In fact, Brussels sprouts can be started a week sooner. These should be planted in labeled flats to start transplants for the fall garden. I use compost for seed starting medium. If too crowded, thin the plants or transplant to another flat so each plant will have some space to grow, though some crowding is inevitable. I usually transplant them to the garden in late August or early September and often enjoy broccoli by mid-October. These plants all do best in enriched soil, so add lots of compost or aged manure to the soil before planting.

Getting ready for a fall garden requires some advance preparations. I always try to buy seed well ahead so it is available at planting time. For example, a Brussels sprout variety that does well here is Jade Cross and is not easily found locally, so it needs to be purchased online or using a catalogue

If you want to enjoy a weed-free winter garden, July is also the time to solarize some of your soil where you will plant the fall crop if you have some crop-free space. To solarize, it is important to thoroughly irrigate the soil before covering with a clear, UV-resistant plastic film and sealing the edges with soil. Apply this plastic for six weeks and then remove and plant with as little disturbance as possible to avoid bringing up weed seeds from deep in the soil. Solarization kills most weed seeds and pathogens to a depth of 6 or more inches. Find more information here. I did this last year and was pleased with the results --- few weeds and healthier more robust plants.

What other crops can we grow in the cool season? This list is long. It includes onions, garlic, peas, kale, kohlrabi, collards, chard, spinach, turnips, rutabagas, beets, carrots, lettuce, various greens, bok choi, parsnips, fava beans, radishes and artichokes. For more information on specific varieties that do well here you can look at a previous article on winter gardening (July-Sept, 2010)
.
What you plant will depend mostly on what you and your family like to eat. Last year, I was disappointed in the cabbage variety, 'January King.' The head was large and attractive, but the leaves were very tough. It won't be planted again.

If you wish to seed onion sets, the time to start those is in mid-August, again planting in flats. Transplant them in late October or early November. I always plant red onions, which are mild and delicious in salads or grilled, and yellow or white onions for cooking. Harvest time is about mid-May.
I get asked a lot about when to plant garlic. Garlic should be planted the first week in October to get a growing start before cold weather arrives. Harvest is in late May. If you grow hard-neck garlics, AKA rocambole, the garlic will sprout a long curly neck to produce bulbils in the spring called a scape. Scapes should be removed in the spring to put more of the plant's energy into the bulbs. These scapes can be used in frittatas, stir fries, soups, or spaghetti sauce. Check out recipes online. Harvest and use the scapes while fresh, young and tender. By the way, rocambole garlics are not the kind you braid. That would be the soft neck varieties.

Peas are also best started in October so they will be productive before hot weather comes along and shuts them down in the spring. Pea foliage sometimes disappears in the winter. I think the culprits are sparrows. This past fall I covered the peas with bird netting and had a much more successful crop. Lettuce, turnips, kale, collards, beets, carrots and chard can all be direct seeded into the garden in late August. Snails and slugs can devour young seedlings necessitating replanting and a delay in harvest. Snails are usually less of a problem in the fall if you have been diligent in removing them from the garden in the spring.

California is truly "The Garden of Eating," as gardening can be a year-around proposition. Celebrate this by planting a winter garden. Just remember planning and planting starts in summer.

Links

For more information on growing vegetables, click here.

The Garden Gate - Local Garden Clubs

Growing Strong … Part 2

Julie Hyske Master Gardener

As an audience of gardeners, you clearly recognize the many hours of fulfillment gardening has brought to your lives. I bet you can all give testimonials of increasing your own joy of gardening when brought together with like-minded people who share your interests and enthusiasm. As gardening enthusiasts, we never seem to learn enough nor lose the desire to know the trade secrets of other successful gardeners. If you've got the gardening bug, the perfect place to get a dose of beneficial therapy is by joining a local gardening club. Whether you are a dirt gardener or a flower arranger you can explore a wide range of interests with fellow members!

The Modesto Garden Club has the bragging rights to being the largest garden club in California, with over 500 members. The Modesto group not only has a club house but also offers visitors nine living demonstration gardens. These include a cottage garden, Asian garden, formal garden, heirloom garden, herb garden, California cool garden, shade garden, foliage garden and raised garden, which all exhibit the true passion of seasoned gardeners. Education, an integral facet of the club, continues on for members and guests with informal snack-and-learn sessions during monthly meetings with topics ranging from olive oils to summer veggies. Professional guest speakers at main meetings cover the gamut from "Gardening Up—Innovative Ideas for Limited Spaces" to "Love Affair with Roses."

The Modesto Club is also recognized by its commitment towards community involvement. Civic standing projects include the beautification of downtown street corners, with 200 pots designed for color and texture, planted twice yearly by the club. Over 40 hanging self-watering baskets line downtown, filled with lush overflowing flowers. The only living mantel-style clock in existence at Center Plaza is planted and maintained with annuals. The Victim's Garden, located at the courthouse, is dedicated to victims of crime as a garden of contemplation and peace. Meanwhile, at Five Points there is a small garden planted at the site of the iconic "American Graffiti" statue. School partnership gardens, with small grants from the Club, allow children hands-on gardening experiences. Meanwhile, senior gardeners participate in therapeutic gardening at local assisted living, senior housing and rehab facilities where raised garden beds are tended by volunteers with the aid of residents.

These are just a few of the notable examples of how the Modesto Garden Club is set apart from many garden clubs by their large volunteer membership and ability to be actively involved within the community on so many levels. Perhaps, it may seem daunting to become part of such a large organization, but no worries. The Modesto Club even has a solution for that "getting lost in the crowd" anxiety. You can join the Budding Gardener Groups designed for pullout from within the larger membership. The goal here is to personalize the member's experiences, allow for development of new friendships, and have members share gardening interests inside a smaller circle. Most importantly, new members are always welcomed and invited to join the Modesto Garden Club. So, why not grow in your love of gardening while helping the community blossom?

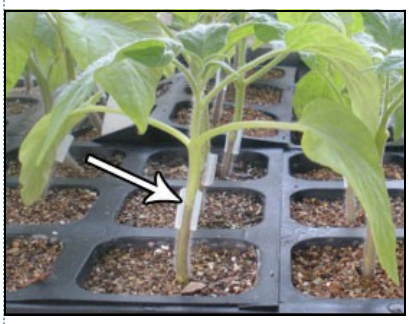
Modesto Garden Club, Inc.
Area served: Stanislaus and surrounding counties
Date of Inception: 1924 Membership: 502
E-mail:email@modestogardenclub.org Website: www.modestogardenclub.org
Meetings: 2nd Thursday of each month, Sept-May except December/ Guests $10.00
Time: Hospitality: 10:15-12 Noon
Snack & Learn: 10:45-11:30 am
Meeting: 12-1:45 pm
Location: Bethel Church, 2631 Scenic Drive, Modesto

The Help Desk

Susan Price Master Gardener

I'm starting to see grafted tomato plants in my seed catalogs. Are they worth the price?

Pictured right: The scion grafted onto a different rootstock



While grafting of tomatoes is fairly new in the U.S., European and Asian countries have been doing it for years. The process is much like the grafting done on fruit trees. The tomato scion (top) of a less hardy but highly desirable plant is grafted onto a disease-resistant, vigorous rootstock. If successful, the newly formed plant combines the best qualities of each--from the rootstock, robust, disease-resistance—from the scion, great tasting heirloom tomatoes.

Mail order seed companies, including Territorial Seeds, Burpee, and White Flower Farm, have only begun selling grafted tomatoes in recent years. The selection is growing rapidly. Among current offerings are: Cherokee Purple, Mortgage Lifter, San Marzano, Brandywine and Indigo Rose. Some also include grafted peppers and eggplants. The claimed advantages listed in Territorial Seed's catalog include:

- Better quality crops and increased fruit production
- Increased water and nutrient uptake
- Extended harvests
- Increased disease resistance, including resistance to early and late blight and blossom end rot
- Increased overall plant vigor
- Increased tolerance to environmental stresses (extremes in heat and cold, salinity, etc.)

Prices for grafted tomatoes are often $7 or higher, $13.95 for double grafts—2 heirlooms grafted onto one rootstock. Paying 2-3 times more for a grafted tomato versus its non-grafted counterpart is clearly a "hard sell," especially for home gardeners. This, no doubt, limits its appeal and is probably why Jeff Nelson, Owner of Port Stockton Nursery, has not seen much interest. Brenna Aegerter, U.C. Cooperative Extension Farm Advisor, says growers in San Joaquin County are only just beginning to consider grafting. The strongest interest is from an heirloom tomato grower, with severe soil disease problems, wishing to reduce their chemical use. Brenna recommends grafted plants only when: 1) non-disease resistant varieties (like heirlooms) are desired, and 2) serious soil-borne diseases have killed or stunted tomatoes in your garden in multiple past years (such as root knot, nematode, or Fusarium wilt).

There may be many real advantages to grafted tomatoes in other regions, but these advantages are less pronounced in areas like ours that have good soil, long growing seasons and ideal weather. For now, grafted tomatoes seem to be more of curiosity. In the future, as prices come down and more hard-to-grow heirlooms are offered, grafted tomatoes will have more appeal. That's when adventuresome gardeners (including myself) will be growing grafted plants alongside their non-grafted counterparts--just to see how many of those claimed advantages are really true.

If you have a gardening question, call the Master Gardeners Tuesday-Thursday 9:00 am-12:00 pm at 209-953-6112 or by e-mail mgsanjoaquin@ucdavis.edu

Recipes of the Season

Trish Tremayne Master Gardener

Summer Squash Salad

Ingredients:

3 Tbsp whole almonds, toasted then chopped
1 lb. summer squash (a mix of green and yellow)
3 Tbsp extra-virgin olive oil
2 Tbsp fresh lemon juice
1 tsp lemon zest
1 minced garlic clove
Sea salt and freshly ground black pepper
Pecorino Cheese

Directions:

In a large bowl, whisk together extra-virgin olive oil, fresh lemon juice, minced garlic clove, lemon zest. Season with sea salt and pepper to taste.

Trim the ends off summer squash. Using a mandoline thinly slice the squash lengthwise into strips and transfer to bowl with dressing. Toss lightly.

Shave a little Pecorino over the squash and toss. Garnish with the crushed almonds. Serves 4 to 6

Pasta with Fresh Tomato Sauce

Ingredients:

3 cups cherry tomatoes, halved or quartered
1 shallot, finely diced
1 garlic clove, minced
3 Tbsp good quality olive oil, or more to taste
1 Tbsp of balsamic vinegar
2 Tbsp capers, soaked in water and drained
6 basil leaves, torn or slivered
Sea salt and freshly ground black pepper
½ lb. small shaped pasta, like Orrecheta, shell, or small penne
Parmesan Cheese to taste

Directions:

Bring a pot of water to a boil for the pasta. Meanwhile, mix the tomatoes in a large bowl with the shallot, garlic, olive oil, balsamic vinegar, capers, and basil. Season with a little salt and pepper.

When the water is boiling, add salt and cook the pasta following package directions. Drain the pasta, shake off the excess water, add the hot pasta to the tomatoes, and toss. Add salt and pepper to taste and serve with a good quality Parmesan cheese.

Grilled Eggplant with Herbs and Capers

Ingredients:

4 Japanese eggplants halved lengthwise
1 clove garlic, minced
1/4 C capers, rinsed, drained and chopped
1 Tbsp finely chopped mint leaves
1 Tbsp finely chopped fresh basil
Freshly ground pepper
2 Tbsp freshly grated Pecorino, Romano or Parmigiano Reggiano
1/2 C extra-virgin olive oil, more or less

Directions:

Preheat the grill.
Halve the eggplant lengthwise. Using a small paring knife, make a series of cross-hatches to the cut surface of each eggplant, cutting into the flesh but not through the skin. Salt lightly and let sit about 5 minutes while making the herb mixture.

In a medium bowl, combine the capers, mint, and basil and mash lightly with a fork to make a coarse paste. Stir in grated cheese and pepper (both the capers and cheese are salty so I don't add additional salt but you can if you prefer) and mix well.

Rinse the eggplant with water and pat dry with paper towels. Brush the eggplant well with olive oil. Press the herb mixture into the cuts in each eggplant. Drizzle each stuffed eggplant with a bit of additional olive oil.

Place the eggplants, cut side up, on a grill. Brown lightly, then move off the direct heat and continue to cook about 8 to 12 minutes until the eggplant is soft. You can sprinkle with additional cheese before serving. Can be served hot or at room temperature. Enjoy!

Coming Events

Corinne Bachle Master Gardener

July

July 12th
"Successful Culture of Carnivorous Plants in the Central Valley"
from 7:00 pm - 8:00
Oak Grove Nature Center
Class is free with $5.00 admission into Oak Grove Park
Live plants will be available for viewing and for sale ($5 - $15.00)

Saturday, July 13
San Joaquin Master Gardener Class: Mow No More
10:00 – 11:30
Classes are free
City of Stockton Delta Water Supply Project
11373 N. Lower Sacramento Road, Lodi
Class size is limited to 30. All participants must register by the Wednesday before the class at (209) 953-6100 to guarantee your seat.

Saturday, July 20
San Joaquin Master Gardener Class: Mow No More
10:30 – 12:00
Classes are free
Manteca Library
320 W. Center, Manteca
All participants must register a week prior to the class as (209) 953-6100

August

Saturday, August 3
Fair Oaks Horticultural Center's Harvest Day 2013
8:00 – 2:00
Event is free
11549 Fair Oaks Boulevard, Fair Oaks
http://ucanr.edu/sites/sacmg
Sacramento's biggest one-day gardening event. Featured speakers, demonstrations, educational booths, open gardens, produce tastings, a plant clinic and more. Bring your friends and enjoy!

Saturday, August 3
Alden Lane Orchids 101
10:00 – 11:30
Event is free
Alden Lane Nursery
981 Alden Lane, Livermore
www.aldenlane.com

Saturday, August 10
San Joaquin Master Gardener Class: Healthy Soil, Happy Plants
10:00 – 11:30
Classes are free
City of Stockton Delta Water Supply Project
11373 N. Lower Sacramento Road, Lodi
Class size is limited to 30. All participants must register by the Wednesday before the class at (209) 953-6100 to guarantee your seat.

Saturday, August 17
San Joaquin Master Gardener Class: Healthy Soil, Happy Plants
10:30 – 12:00
Classes are free
Manteca Library
320 W. Center, Manteca
All participants must register a week prior to the class as (209) 953-6100

September

Saturday, September 14
San Joaquin Master Gardener Class: Small Space Harvest
10:00 – 11:30
Classes are free
City of Stockton Delta Water Supply Project
11373 N. Lower Sacramento Road, Lodi
Class size is limited to 30. All participants must register by the Wednesday before the class at (209) 953-6100 to guarantee your seat.

Saturday and Sunday, September 14-15
Alden Lane Tomato & Salsa Weekend
All day
Event is free
Alden Lane Nursery
981 Alden Lane, Livermore
www.aldenlane.com

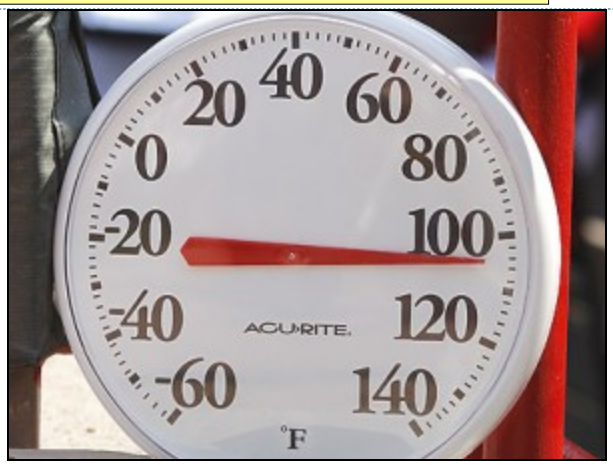
Saturday, September 21
San Joaquin Master Gardener Class: Small Space Harvest
10:30 – 12:00
Classes are free
Manteca Library
320 W. Center, Manteca
All participants must register a week prior to the class as (209) 953-6100

Saturday, September 28
San Joaquin Master Gardener 3rd Annual Smart Garden Conference
Join the Master Gardeners for a day full of workshops geared towards sustainable and smart gardening. Details will be coming soon to our website.
2101 E. Earhart Ave, Stockton

Saturday and Sunday, September 28 and 29, 2013 9 a.m. –3 p.m.
CA Native Plant Society Sacramento Chapter Plant Sale
Shepard Garden and Arts Center in McKinley Park, 3330 McKinley Blvd., Sacramento

10 Key Points about Heat Stress

By Howard Rosenberg, UC Cooperative Extension specialist emeritus



1. Functions of the human body depend on blood circulation and chemical reactions that best occur at about 98.6 degrees F. Your body has natural ways of gaining or losing heat to maintain that "normal" temperature.
2. The main source of heat that may stress you is your own body. In using its stored energy for physical work, about three-fourths of the energy turns into heat, only one-fourth into motion. An active body usually generates more heat than it needs and therefore has to release some.
3. The harder you work, the faster you generate heat, and the more your body has to get rid of. Hot weather, high humidity, and insulating clothes increase your risks of stress mainly by slowing the transfer of excess body heat to your surroundings.
4. When you produce heat that raises internal temperature, your heart rate quickens and vessels expand to bring more blood to the outer layers of skin, from which heat it carries can gradually flow to the environment.
5. If excess heat is not released fast enough this way, your sweat glands become more active. They draw water from the bloodstream to make sweat that carries heat through pores and onto your skin surface, where it evaporates and releases the heat.
6. When more blood flows toward your body surface for cooling, less is available to serve your muscles, brain, and other internal organs. And as prolonged sweating draws water out of the bloodstream, it further reduces capacity to deliver nutrients, clear out wastes, lubricate joints, and cool you later. You can expect to sweat out one quart of water or more during an hour of heavy work in hot weather, 3/4 quart during moderately strenuous work.
7. Continual loss of water makes you increasingly likely to experience symptoms of "heat illness" -- general discomfort, loss of coordination and stamina, weakness, poor concentration, irritability, muscle pain and cramping, fatigue, blurry vision, headache, dizziness, nausea, confusion, and unconsciousness. These and even milder effects of heat stress also increase your chance of accidental injury.
8. The single most important way to reduce heat stress risks while working is to steadily replenish the water you lose as sweat. Drinking small amounts frequently, such as 6-8 ounces every 15 minutes, is more effective than taking large amounts less often.
9. Relying on thirst as the signal to drink is dangerous. Most people do not feel thirsty until their fluid loss reaches 2% of body weight and is already affecting them.
10. If you notice heat illness symptoms, rest to stop generating heat, get fluids, and tell a supervisor as soon as possible. A person whose fluid loss is 8% of body weight is likely to have a core temperature above 104 degrees and serious risk of heat stroke -- a life-threatening emergency in which the brain is deprived of oxygen and the body can no longer cool itself. Please don't let yourself or a co-worker get to this condition. But if you do, call for medical help right away.

Garden Chores (continued from page 2)

Disease or pest problems will usually appear as spots in your lawn and have a more defined edge to the damaged area. If you suspect a pest is the problem, they are most likely found along green grass just outside of the damage. Evidence of caterpillars, caterpillar scat, or grubs can be found just under the surface of the green grass right outside of the damaged area. If the damaged area is not spreading, treatment to destroy the pests is unnecessary. It won't bring back dead spots and the pest is probably gone by the time you treat the lawn. If pest problems persist, look into what cultural changes you could make to reduce susceptibility in the future.

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

In August

Plant -

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

Plant saffron. This pricey spice comes from easy-to-grow saffron crocus (*Crocus sativus*). Plant corms late this month or next and then harvest the saffron about five weeks later by plucking the three orangey red stigmas from each lilac-purple flower.

Start root vegetables. Sow seeds for fall and winter harvest. Beets, carrots, turnips, and fast-maturing potatoes planted now should yield a crop by Christmas. You will want to read Lee Miller's article in this issue, *Planning and Planting a Cool Season Vegetable Garden*, for additional information.

Beet varieties that do well in our area are those with a short number of days from seed sowing to maturity (generally those with 60 days or less as listed on the seed packet).

If you love carrots, this might be the year to seed some colorful ones such as white, yellow, orange-red, or purple.

Late August is time to plant lettuce for fall salads as well as kale, bok choy, Chinese cabbage, and kohlrabi. A large variety of heirloom lettuces are available for planting at this time.

Maintenance -

Care for flowers. To keep warm-season annuals blooming through the end of summer and into fall, water and fertilize them regularly with fish emulsion or other fertilizer. Remove spent flowers before they go to seed.

Cut back hydrangeas. Most hydrangeas produce flowers on the previous year's growth. To shape and control the plants' size, and to avoid cutting off next year's flower buds, prune stems back to 12 inches right after the blooms fade. Fewer, but larger flowers will grow next spring if you cut back some stems to the base of the plant.

Prepare beds. 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 which will provide castings for spring soil amending.

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, keeping the strongest canes - 5 to 8 per blackberry plant, 8 to 12 per raspberry plant - and removing the others. Prune ever-bearing varieties after the fall harvest.

Water citrus. Potted trees must be watered at least once a week, especially in summer heat, but mature citrus in the ground can go longer between watering. Check soil moisture at the root level — 18 or more inches down — with a moisture meter, and keep soil on the dry side of moist (the soil surface doesn't need to be damp). Water deeply and slowly when necessary.

September Notes

Plant -

Plant more of your favorite perennials. Set out transplants of campanula, candytuft, catmint, coreopsis, delphinium, dianthus, foxglove, penstemon, phlox, salvia, hollyhocks and yarrow.

Plant spring flower bulbs now. Bulbs appear in nurseries right after Labor Day. They're most effective in big flower pots and in kidney-shaped drifts at the front of gar-

Garden Chores (continued from page 2)

den beds. Some excellent choices include bluebells, daffodils, grape hyacinth, hyacinth, and tulips.

Plant trees and shrubs. Shrubs, trees, and groundcovers get a head start when planted in fall. Nature does most of the watering for you, and plants have fall (and winter in mild climates) to send out roots. Your plants will be well established by the time spring growth starts.

For cooling your house, plant a tree on the structure's southwest side, where it will provide the most-needed shade. Use a deciduous tree for summer shade and winter sun. Chinese hackberry, Chinese pistache, ginko, Japanese pagoda tree, 'Raywood' ash, and red oak can be good choices.

Apply several inches of organic mulch around the plants (don't let it touch the trunks) and keep roots moist if rainfall doesn't do it for you.

Grow your own salad. Tasty blends of young leaf vegetables are easy to grow. Continue to plant lettuce every few weeks so you can harvest fresh salad greens over a long season.

Maintenance -

Fertilize the lawn. Early fall feeding thickens top growth to crowd out weeds and strengthens grass roots for winter. Combination lawn fertilizers are a good choice. They contain a small amount of fast-release nitrogen for a quick green-up, 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.

Know when to harvest melons. Cantaloupe is fully ripe when it slips off the vine easily. With other kinds of melons, a strong, pleasant aroma at the blossom (not stem) end is the best indicator of ripeness. A watermelon is a bit more difficult, but good indicators of ripeness include: The ground spot (the underside where the watermelon laid on the ground) turns from white to pale yellow; the tendril opposite the stem of the melon has dried and withered; the skin of the watermelon has turned from shiny to dull; and there is a dull "thunk" when the melon is rapped with your knuckles in the morning.

Information for this article has been gathered from:
www.ipm.ucdavis.edu
www.sunset.com/garden
www.farmerfred.com

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Coordinator: Marcy Sousa 953-6100
For nondiscrimination policy, click here

Do you have a professional landscaper that takes care of your yard or do you have a friend that has a landscaping business? You may want to share this training information with them. The Green Gardener Program educates and certifies residential landscapers in resource efficient and pollution prevention landscape practices. Certified Green Gardeners utilize practical, sustainable landscaping skills to reduce water use, to select the most appropriate plants including California natives, to build nutrient-rich soils by promoting plant's natural cycles, and to prune selectively and properly to compliment the natural form and needs of the plant. They are also trained in integrated pest management and the use of alternatives to pesticides and herbicides

Who should participate in the Green Gardener Training Program for Professionals?

The Green Gardener Program educates and qualifies in-the-field landscape professionals who maintain, install, and design:
Commercial landscapes
Residential landscapes
Municipal landscapes
Schools, parks, and recreational amenities