One year ago we published our first issue of the San Joaquin Master Gardener newsletter. We have now come full circle through the seasons in our county and touched on many garden related subjects pertaining to each of those seasons. And so here we are again in the bleakest month. And while the love of gardening is never put more to the test than in the frigid days of the new year, there is also the undeniable promise of greenness. This is the time we plan, prepare and plot our coming year in whatever space we have, frozen as it may be, with our sights hopefully set on that first new bud.

In this winter issue of the newsletter we have found many subjects to tempt and entice you, if not physically, then mentally into the garden. Considering that it may be too wet or too cold to physically get out in the garden, one article discusses how you can make use of your indoor time planning your seed buying and then seed starting. Choosing bare root trees is something to be considered now, as is the maintenance of your tools. For those thinking about next season’s rose garden, we have included an article on rose selection as well as some valuable resources. We have one master gardener’s account of his lifelong interest in organic gardening and another’s supporting the responsible use of pesticides.

Two books have been reviewed in our quarterly column; one covers edible landscaping, a subject of interest for many gardeners, and another discusses plant driven design. Also, we have articles on the pests as well as the plants of the season. The articles on growing fruit in a small space and how to improve your soil with organic amendments should provide ideas and information. We also have a list of garden-related events in our area. Finally, we have a recipe for making a stock from those kitchen scraps that might have otherwise been tossed on the compost pile.

As always, we hope we have given you some inspiration and food for thought. When it comes to all things garden related we are happy to share.

---

**Rose Selection Criteria**

Harry Dedini  Master Gardener, ARS Consulting Rosarian

January is a prime time to select new roses for your garden. Nurseries are jam-packed with bareroot roses of every shape and size, color and fragrance, old favorites and new introductions. It pays to arrive with your selection criteria in mind. This will lead to a thoughtful rose choice and, most importantly, a rose that will thrive in your landscape. Here are just a few things to consider:

**What is the intended landscape use?**  Will it be a focal point or specimen plant or one of many flowering shrubs in a border? Does it need to improve a view, cover an archway or climb?

*Cont. pg. 3*
It is the time of year when the garden catalogues start coming and dreams of new gardens are dancing or maybe germinating in our heads. The cold short days of January will soon yield to warmer, longer days in February when it is time to start seeds in the greenhouse or growing rack for another year of gardening. If you don’t have a greenhouse or seed starting rack, now is a good time to make the investment and start getting immediate gratification. But first you need to plan what to grow and the catalogues will inundate with great choices and ideas.

One thing that has happened in the last 20 years has been increased interest in heirloom vegetables, with many new seed companies devoted to their sales. Even some of the older companies are also carrying a line of heirloom tomatoes, peppers, lettuce, or other veggies, so take a good look and try something new and different to spice up your garden and your dining table.

A greenhouse can protect your tender plants from frost. This fall, I protected a Jade plant, 2 hibiscus plants, a begonia, a Hippeastrum and a Coleus by sticking them in my greenhouse in the nick of time.

It is bare root season for fruit and nut trees as well as roses and berries. Look for open sunny spots in your orchard or landscape for adding more fruit trees, berries, or roses. If you do plant roses remember to shop or order early and get them in the ground so the roots can start growing early. Don’t delay purchase until roses are all leafed out and their roots are drying out in the packing material. They may start selling them at a discount, but you may not get good results.

Camellia japonica will be blooming soon and it is timely to check with your nursery for new ones that fit your color or seasonal needs. According to Sunset’s Western Garden Book, C. japonica comes in early season (October-January), midseason (January-February), and late season (March-May) varieties, so plan an extended season of blooms and color. Red, pink and white are your color choices, but flower forms are more varied. If you want fall blooming Camellias, then Camellia sasanqua will fill that bill though flower longevity is less, but they tolerate sun a little better that C. japonica. Both like afternoon shade.

If you don’t already have your winter/spring annuals planted there is still time to plant calendulas, pansies, snapdragons, dianthus and English primroses, Iceland poppies or violas. Plant them in containers or in the ground.

January is a good time to prune your fruit trees and roses and apply dormant sprays providing rain is not imminent. Lime sulfur is a good choice. After pruning your fruit trees, you will need to apply dormant spraying. Lime sulfur is an excellent choice for most fruits.

Search “Seed Catalog Subscriptions” on the internet for a varied collection of catalogs to choose from.
Rose Selection Criteria (continued from page 1)

Is it to be part of a themed garden? Is the setting formal or informal?

What type of rose will fit this need? There are many types of roses based on their form, size and flowering habit. You’ll need to consider which type best suits your needs. Some of the most popular choices are hybrid teas, floribundas, tree roses and climbers. Even within these categories, many variations exist. In recent years, shrub roses (landscape roses) have gained in popularity.

What flower characteristics are you looking for? There is just about every color under the rainbow except blue, plus multi-colored versions. You’ll want to consider flowering habit, flower form, fragrance, variety and disease resistance. If you want cut flowers or plan to exhibit your rose, that will help limit your selection.

What are the basic cultural requirements for growing roses successfully?
Roses prefer at least 6 hours of sunlight, good soil drainage, and at least 10 gallons of water per plant per week in the summer to thrive. Yearly pruning is recommended for most types, but be sure to refer to the pruning guidelines for your specific rose type.

With these considerations in mind, here are some particularly worthy rose selections for our San Joaquin area:

**Climber:** Altissimo (red), Sally Holmes (white)
**Floribunda:** Betty Boop (red blend), Hot Cocoa (russet), Iceberg (white), Julia Child (yellow medium), Shelia’s Perfume* (yellow-orange blend)
**Grandiflora:** About Face (orange blend), Queen Elizabeth (pink medium)
**Groundcover:** Panda Meidiland (white), Scarlet Meidiland (red medium)
**Hybrid Tea:** Black Magic (red dark), Chrysler Imperial* (red dark), Gemini (pink blend), Lynn Anderson (pink blend), Mister Lincoln* (red dark), Peace* (yellow blend), Perfect Moment (red blend), Perfume Delight* (pink medium)

*These roses are fragrant.

Most of these varieties may be observed growing at the rose garden in Victory Park in Stockton.

If you want to learn more about growing roses, be on the lookout for classes and workshops offered this winter in Manteca and Lodi.

Other useful local resources are:
- American Rose Society (ARS) Northern California-Nevada-Hawaii District:
  - Local ARS Consulting Rosarians
  - Stockton Rose Society, contact: Arlene Galela (209) 599-3492
  - Lodi-Woodbridge Rose Society, contact: President: Marge Cordero 209-366-0439
  - Membership: Jen Ferrero 209-334-6080
- Local Library
- UC IPM Roses
- Roses in the Garden: Cultural Practice and Weed Control
- Roses in the Garden: Diseases and Abiotic Disorders
- Roses in the Garden: Insect and Mite Pests and Beneficials

For general information on roses:

Sunset book on Roses
- UC ANR publication: *“Healthy Roses”, 2nd Edition*
Pests and Plants of the Season

Olive Fruit Fly Maggot
*Bactrocera oleae*

Pest of the quarter is olive fruit fly maggot. If you have uncharted for fruiting olives, you probably are harboring this pest. The maggot of this pest infests the fruit and is causing difficulties throughout the state to both olive oil and olive processing growers. If you have fruiting olive trees, you might consider application of plant growth regulators which will keep the fruit from setting. If you are planting a new olive tree and don’t plan to harvest olives, choice of one of the fruitless cultivars is highly recommend. Be aware that some inexpensive olive cultivars are claimed to be fruitless by suppliers, but as trees mature, will bear large crops of fruit. Please see the following references for more information on choice of fruitless cultivars, application of growth regulators or insecticides to control this pest. If you have unharvested fruiting olive trees, remove and collect fruit from tree and ground and dispose of in sealed plastic bags.

Sooty Mold

Sooty mold is the common name applied to several species of fungi that grow on honeydew secretions on plant parts and other surfaces. The fungi’s dark mycelium gives plants or other substrates the appearance of being covered with a layer of soot. Sooty molds do not infect plants but grow on surfaces where honeydew deposits accumulate. Honeydew is a sweet, sticky liquid that is excreted by plant-sucking insects as they ingest large quantities of sap from the plant. Although sooty molds do not infect plants, they can indirectly damage the plant by coating the leaves to the point that sunlight penetration is reduced or inhibited. Fruits or vegetables covered with sooty molds are edible. Simply remove the mold with a solution of mild soap and warm water. Control of sooty molds begins with management of the insect creating the honeydew. To read more about sooty mold click here.

Creeping Wood Sorrel, *Oxalis*

This quarter’s weed is creeping wood sorrel, *Oxalis corniculata*, or what may be most often referred to as simply oxalis. This perennial weed looks much like clover and can be differentiated by a five-petaled flower, if in bloom. Otherwise, oxalis and clover leaves can be differentiated by the notch in the oxalis leaf, giving it a heart shape. A common source of introduction of this weed is from infested container stock from nursery. I have found that this weed is especially difficult to remove from infested nursery containers. Due to growth from both rhizomes and stolons, simply pulling the weed out of stock by hand usually doesn’t work. It is best to completely avoid use of any infested container stock. For more information, see the following UC-IPM sites:

UC Pest note
UC Weed Gallery

My green thumb came only as a result of the mistakes I made while learning to see things from the plant’s point of view.
~H. Fred Dale

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.
Daffodil — *Narcissus* spp.

**Plant Identification**
Daffodils are perennial plants that grow from bulbs. They bloom in late winter or spring into flowers that have six outer petals and a cup-like or trumpet-like structure in the center. Flowers may be white and yellow, orange, or pink. Daffodils are grown in containers, borders, ground covers, or around shrubs.

**Optimum Conditions for Growth**
Daffodils require full sun while they are in bloom and perform best when they receive some afternoon shade in hot areas after the bloom period. Daffodils need regular water during the growth and bloom period, but they do not need summer water. For best results, plant bulbs in the fall. For more info about daffodils, click here.

Ceanothus, Wild lilac — *Ceanothus* spp.

**Family Rhamnaceae (Buckthorn family)**

**Plant Identification**
Many species and varieties of ceanothus are available. These CA Natives and UC Arboretum All-Stars can be evergreen shrubs, small trees, or groundcovers.

**Optimum Conditions for Growth**
Ceanothus can grow in most climatic zones. They prefer full sun but can tolerate light shade in the hottest climates. After establishment, little water is required, but water is needed while it is still growing. Ceanothus should be planted in well-drained soils away from sprinklers. For more information about ceanothus click here.

Redbud — *Cercis* spp.

**Family Fabaceae (Pea family)**

**Plant Identification**
Redbuds are attractive deciduous trees or shrubs. Leaves are broad, rounded, and heart-shaped at the base. In the spring, clusters of sweet pea-shaped flowers bloom on bare twigs and branches. Blossoms are rose-colored or purplish-pink. Beanlike pods form after flowers. Leaves turn yellowish in fall before dropping. The Western Redbud is also a CA Native as well as a UC Arboretum All-Star.

**Optimum Conditions for Growth**
Redbuds do best in areas with full sun or with light shade. Most species require moderate to regular amounts of water. Plants need some winter chill for the best floral display. Prune during the dormant season or after bloom.
Why I Garden Organically

Lee Miller Master Gardener

I have been gardening organically for several decades. Why do I do this and why should anyone garden organically? Organic gardening means not using synthetic fertilizers, synthetic pesticides or genetically engineered seeds. It is based on keeping soil healthy using sustainable methods for soil enhancement. Let me take you on my journey to organic gardening. It started when I was quite young. My first awareness of the harm that pesticide misuse could do was in the 1940’s. There was a beekeeper that used the clover on our farm to make some great comb honey, the kind where you eat the honey along with the bees wax. My father started spraying the hay fields with chemicals like Dieldren after WWII. It killed the bees and we got no more honey because the beekeeper left with his hives. Then there was the DDT spraying of the dairy barn in 1946. It killed all the flies that year, but in the following year, DDT was no longer effective because the few flies that were resistant multiplied and replaced the population. My father was amazed and talked about it for years. It wasn’t until later as a graduate student in biology, that I fully understood the genetics involved.

As a graduate student I also read Silent Spring by Rachel Carson. It laid out how pesticides and herbicides were diminishing the web of life on earth. As can happen to any messenger bearing unwelcome news, nasty attacks ensued by the petro-chemical industry on Ms. Carson. She fought back, the environmental movement was born, and eventually DDT, dieldren, chlordane and other persistent pesticides were either banned or severely restricted in use. Later as a biologist, I learned that DDT, and its breakdown form DDE, would stay around for decades, but at least eggs were no longer breaking in the nests of our Bald Eagle. Though banned here we continue to export DDT to other nations. I also read Pesticides and the Living Landscape by Robert L. Rudd which described the pesticide treadmill. It goes like this: new pesticide, then resistant pest, then need for new pesticide, resistance again and the need repeats. Pesticides don’t eliminate pests, but they can create resistant ones. It is selection and evolution in action.

Another major problem with pesticides is that agriculture industry cannot assure that the pesticide only kills bugs. Pesticides contaminate the environment, the entire planet and leaves residues sometimes in our food. Despite the best estimates of scientists about what are safe residue levels in food, I prefer not to eat pesticides. The National Cancer Institute (NCI) and the National Institute of Environmental Health Sciences (NIEHS), list several pesticides that have been banned, but this quote is worth noting: “Studies of people with high exposures to pesticides, such as farmers, pesticide applicators, crop duster pilots, and manufacturers, have found high rates of blood and lymphatic system cancers, cancers of the lip, stomach, lung, brain, and prostate, as well as melanoma and other skin cancers. So far, human studies do not allow researchers to sort out exactly which pesticides are linked to which cancers.” The testing for cancer and other risks and re-registration of pesticides is way behind schedule; see this website for more information.

My mother subscribed to the predecessor of Organic Gardening magazine back in the 1950’s. She and my father had a few discussions about organic practices which my father didn’t agree with. When conventional farm practices were attacked, people got defensive. It is human nature. However, in the long run organic techniques and practices which did dominate agriculture for centuries may again prevail, because we are concerned not only with our personal health, but with the health of all our fellow biota on spaceship earth.

Why do I garden organically aside from the above? Composting is a green way to recycle my leaves and kitchen wastes and it is the best thing I can do for my soil, and I help Starbucks get rid of their coffee grounds too! No salts to build up in the soil or accidentally burning the plants with chemical fertilizers.

Organic gardening is a challenge. You try to outsmart insects which have very small brains, but are good at reproduction. Hitting them with pesticides and making them resistant is not a smart strategy, just as the indiscriminant use of antibiotics has not been a smart way to deal with Staphylococcus, E. coli and other bacteria. If you want to minimize pesticide use by employing brain power, there are many Integrated Pest Management strategies developed by Cooperative Extension which you can find here. One approach that works for killing caterpillars are the spores and crystalline insecticidal proteins produced by Bacillus thuringiensis, a naturally-occurring bacterium. I use it against cabbage moths every autumn.

I rotate crops in my garden as best I can, and try to keep my soil healthy and I try for a diverse landscape that supports beneficial insects. I use organic pesticides like Safer soap, lime sulfur, and Neem oil.

It also takes patience to win battles with insects. I have handpicked squash bugs and their eggs from my zucchini for 30 years. Two years ago I was finally able to kill all the overwintering adult bugs and their eggs early in the spring and I have now had two years of squash-bug-free gardening. Since they were a major pest, it is a victory I relish.

G A R D E N  N O T E S


Handpicking bugs from garden
Garden Chores (continued from page 2)

Click here for a vegetable planting guide for our area.

Pick off old flowers on camellias to reduce the chance of petal blight. You should finish pruning your roses by mid-February. Despite the warmer days, it's still winter. Leave freeze-damaged leaves on plants for a couple more weeks, to protect and insulate any new growth from a March cold snap.

March is a good time to start getting ready for full-time gardening. Check for snails in their hiding places: look beneath green leaves of low growing plants or under rocks and wood. March is the time to walk around the yard and determine which plants survived any early winter freezes. A shrub branch that bends indicates it may still be alive. If it snaps, that portion of the plant may be dead. Begin spring feeding of trees and shrubs.

Winter time is a good time for tuning up your tools. It’s a good time to sharpen your mower blades. Rub wooden handles with boiled linseed oil thinned with some turpentine for a nice protective finish for wood handles. Give shovels and hoes a sharpening with a grinder. I use a portable grinder after I put the tool in my bench vise. This works well and sharp tools will ease wear and tear on your body. Use a stone on your hand shears and larger pruning shears. If they are nicked badly a file can be used, but never put a grinder to fine cutting tools.

Weather permitting, February can be the time to plant asparagus roots, carrots, chard, beets and peas including Sweet peas. Divide daylilies if they are getting crowded and replant or give to friends. Winter is wet time and not a good time to be walking on your lawn. Compaction and loss of air spaces will likely mean a dead area in your lawn next year. Similarly, avoid compaction in your garden by keeping to paths or walk on boards to minimize compaction.

Get Involved In a Local Gardening Club

Linden Garden Club  web-site
Manteca Garden Club  web-site
Ripon Garden Club  
email: ttremayne@aol.com
Lodi Garden Club  
email: wikfwb2000@aol.com
Stockton Garden Club  
email: pat ken@comcast.net

Stockton Cactus & Succulent Society  web-site
San Joaquin Orchid Society: Contact Barry  
465-5454
Stockton Rose Society  Contact Arlene Galela,  
948-4362
Lodi/Woodbridge Rose Society  
President: Marge Cordero, 366-0439
San Joaquin African Violet Society  524-2169

spray for peach leaf curl and is an antifungal for roses too. Your last chance to spray for peach leaf curl here is around Valentine’s Day. After that buds start opening.

February is time to start lettuce in the greenhouse or in flats where temperature can be elevated for germination. Planting out can be done early so that cool season lettuce is ready for salads by mid-March and April. Leeks, tomatoes, peppers, eggplant, herbs and flowers e.g., Echinacea sp., Coreopsis sp., Rudbeckia sp., should also be started in February. Heating cables under your tomatoes, peppers and eggplants is essential and supplemental lighting is important in February and early March because the day length is still too short to optimize growth. Without supplemental light of 14 hours or so, you will have some leggy, wimpy looking tomatoes instead of the stocky ones you desire. Florescent bulbs on a timer will provide the light you need. I use one warm white bulb and one cool white one to provide an adequate spectrum.

If you want to try some new potato varieties, January is time to order so they will be shipped for a March planting. Try some Russian Banana fingerlings, Carola, Rose Finn Apple, Yellow Finn, German Butterball or other potatoes for excellent flavor and texture. Potatoes do well here when planted early in March and they mature in June before hot weather sets in. As the New Year comes in, remember this gardener’s lament: So many seeds, so little time! Happy Gardening!
Rosalind Creasy’s *Edible Landscaping: Now You Can Have Your Gorgeous Garden and Eat It Too!* (Sierra Club Books: San Francisco, 2010) is an updated and thoroughly rewritten revision of her long out-of-print 1982 classic, *The Complete Book of Edible Landscaping*. The current book actually comes closer to being “complete”: Creasy’s nearly three decades of added experience as a leader in the “edible landscaping” movement—a term she herself coined for the earlier book—is evident on page after page. Her knowledge of specie and cultivars of herbs, vegetables, fruits, nuts and berries has grown with travel and acquaintance with other gardeners throughout the world and from continuing experimentation in the now celebrated gardens surrounding her home in Los Altos.

Early chapters of *Edible Landscaping*, like its predecessor, offer suggestions on garden design and how to use both historical practice and current approaches here and abroad to develop a landscape plan tailored to individual needs, desires and circumstances. Three new chapters focus on designing gardens with culinary herbs, with vegetables, and with fruits, berries and nuts—seventy pages of information and guidance based on Creasy’s experiences as gardener and designer, as well as the expert advice of others she has worked with. Topics in each chapter are illustrated with photographs of her garden and of other gardens she has visited and each concludes with a “gallery of design ideas.”

The middle section of *Edible Landscaping*, like its predecessor, provides “An Encyclopedia of Edibles,” nearly a book in itself at 128 pages. Each entry, alphabetically arranged by a plant species’ common name, continues with its botanical name, an “effort scale” (ranked 1 to 5) of difficulty growing and using its edible portion, its USDA hardiness zone, a summary of its principal characteristics, suggestions on how to use it both in the kitchen and in a landscape, how to grow it with remarks on climate, requirements for exposure, soil, planting, fertilizing, watering, pruning, susceptibility to pests and diseases, comments on harvesting, purchasing, finding a reliable supplier, pollination needs, rootstocks, and finally a detailed discussion of desirable varieties. Each entry integrates first-hand experience with expert knowledge and often includes photographs.

The final section of the book begins with four appendices. The first, “The Big List of Edible Plants,” summarizes key information from the “Encyclopedia of Edibles” in a 30-page table for ease of use by garden designers and landscape professionals. The second, a 4-page table of “Edible Plants for Small Gardens,” focuses on planting in spaces like patios and container gardens. “Planting and Maintenance,” the third appendix, covers up-to-date gardening practices “establishing and caring for an edible landscape,” including soil management, composting, planting, fertilizing, mulching, watering, weed and pest control (e.g. Creasy recommends boiling water to kill stubborn weeds coming up between pavers), pruning and overwintering. There is a special section on container gardening. The final appendix, “Pests and Diseases,” considers control measures appropriate for food plants (e.g. use diatomaceous earth graded for garden use as an irritant barrier to control slugs). The section ends with a lengthy list of “Sources and Resources,” for specialized seed and equipment supply companies, an annotated bibliography, and a very complete index to the whole book.

Has ornamental (i.e. non-edible) residential landscape become irresponsible? While Creasy encourages mixing ornamentals with edibles, she makes a powerful case for restoring edibles to residential landscape. Her argument proceeds on aesthetic, practical, and—quite subtly—on moral grounds. Her eighteen books, and this one in particular, represent thirty years of effective advocacy. That is her legacy. This book is indispensable for anyone willing to meet the challenge she presents.
Growing Knowledge

*Plant Driven Design: Creating Gardens that Honor Plants, Place, and Spirit* (Scott Ogden & Lauren Springer Ogden, Timber Press, 2008) is a treasure-trove of information and inspiration was a pleasure to read. The book promotes the idea that plants should come first, not style or architecture. Plant lovers will embrace the authors’ passion for gardens and those who love them—the “gardenmakers.” Scott Ogden, nurseryman, horticultural consultant and garden designer, and his wife, Lauren, also a horticulturist and designer, share their vast experience and knowledge in this comprehensive planting design book. Much of their writing challenges many of the tired design principles of the last several decades. For example, the authors view the low-maintenance garden as a garden that is “static and un-engaging.” A garden-lover’s garden, instead, “changes with the seasons, piques our curiosity and invites interaction.” It has an “ebb and flow, with seasonal change and rhythms that reflect a sense of place.”

There are many examples of such gardens provided in the book, all beautifully photographed. Most are of the authors’ designs, some of which are from their own gardens in Colorado and Texas. Design examples from Europe, Asia and South Africa are also offered, especially where parallels can be drawn to U.S. regions, where similar climates may make plants adaptable. Ideas abound for plants to use in difficult situations, and those with special features like silver foliage, bold leaves, weeping forms, etc. Grasses and native plants are given their due as well as some under-utilized and/or under-appreciated plants. Plant enthusiasts will appreciate that the extensive lists of plants include both botanical and common names along with cultural details. There are many unconventional ideas and creative suggestions that will inspire.

We would like your feedback! Let us know what you think of our newsletter. Is there a topic you would like us to write about? E-mail the newsletter team mdhachman@ucdavis.edu

Useful Garden Web-sites

<table>
<thead>
<tr>
<th><strong>Better Homes and Gardens Great Pruning Tools</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you ever wondered what the difference is between a bypass pruner and an anvil and what you use different types of shears for? This site explains the difference in pruning tools and what to use them for.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>UC CA The CA Backyard Orchard</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Now is the time to be spraying your fruit trees as well as planting and pruning them. This site is full of information on training and pruning (even over grown fruit trees) along with other management topics related to fruit trees.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Cyndi’s Catalog of Garden Catalogs</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The home gardener’s one stop to find all the mail-order gardening catalogs in the US and Canada - over 2000 of them! Check here first to find the company and see its ratings for quality, service, price and breadth of varieties.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>San Joaquin County Master Gardeners</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Our county program web-site has a new look! Our site is full of information on gardening. We are continually adding information to this site. Have questions? We have answers!</td>
</tr>
</tbody>
</table>
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

The Help Desk

Susan Price Master Gardener

“I have a small yard and would like to convert it to an edibles landscape. What fruit trees will grow best in my small space?”

Fortunately, there are quite a few options for gardeners who want to grow their own fruit but have limited space. For starters, there are an ever-increasing number of dwarf and semi-dwarf fruit trees available. Typically, dwarf forms max out at 8-10’ with semi-dwarf forms reaching about 15’-20’. Many of these reduce-sized trees do nicely in containers. Citrus do particularly well. The key is to plant in a sunny spot in light, well-drained soil, with adequate moisture and fertilization. Containers should be at least 1 ½ ft. in diameter and at least as deep. Half wine barrels are a popular choice. Advantages to growing in containers are the flexibility of moving plants around, especially when it is necessary to move frost-tender plants to protected areas. Disadvantages to growing in containers are that they dry out faster than those grown in the ground, requiring more frequent watering. Since container-grown plants are dependent on the grower for all their nutrients, more frequent feeding is usually required. Monthly feedings are often necessary during the growing season. Trees grown in containers may also need to be pruned more often to stay within bounds. Typically, containerized trees need root pruning every 2-3 years. This process of cutting back the roots and refreshing the soil allows the gardener to continue to use the same sized pot indefinitely. Blueberries may also be grown in containers. Their small size, 3’-7’ at maturity, and shallow root system make them excellent candidates. Plus, they require acidic soil, a condition not typically found in the ground in our native clay soils. Container soil mixes can be amended with peat or sulfur to achieve the soil pH of 4.5-5.5 that blueberries desire. The best varieties for San Joaquin County are southern highbush types that tolerate our hot summers and low winter chilling. ‘Reveille’, ‘Misty’, ‘Sunshine Blue’, ‘Bluecrop’, and ‘O’neal’ are just some of the varieties known to do well here. Other ways to grow fruit trees in limited space have more to do with creative pruning. The most common approach is espalier training—where the tree’s main branches are trained along a wall or trellis. Apples, pears and Asian pears are particularly well-suited to this style. The key is to do the training and pruning early to develop the structure. Another path to home-grown fruit, when space is limited, is to grow your fruit tree as a bush. This can be done with virtually any fruit species. While semi-dwarf forms are best, even full-sized fruit trees can be grown as bushes. Periodic summer pruning is required to keep the tree in the bush form. The advantage to this method is the variety of fruit you can grow and the ease of harvest without a ladder. The disadvantages to this method are that it requires more frequent pruning (which means a bit more green waste) and the slightly reduced crop yields. Other, even more creative options are available. For example, you can place multiple fruit trees in one hole and prune it as if it is one tree, with new branches facing outward. Fruit cocktail trees are another popular option. Such trees are typically offered with 2-4 different fruit varieties grafted onto a single rootstock. There are many exciting combinations available, but the fruit varieties must come from the same family, e.g., apples and pears or peaches and nectarines, to be compatible. The drawback to this approach is that sometimes the stronger varieties outgrow the weaker ones. With all these options, small yards can become full-fledged edibles gardens—fruit trees and all. Gardeners just need to seek out smaller varieties and perhaps apply some creative pruning. For more information on growing fruits in containers refer to:

UC Home Orchard
UC CA Garden Web Growing Blueberries or Dave Wilson Nursery

Espalier apple tree

For more general information on fruit tree care visit:

UC IPM Fruit, nuts and berries
UC Backyard Orchard
UC CA Garden Web
Coming Events

Corinne Bachle  Master Gardener

January 7-9, 2011
California State Home & Garden Show
Schedule: noon-7 p.m.
Cost: Free to the public
Location: Sacramento Convention Center, 1400 J Street, Sacramento, CA 95814
Website: http://www.ascshows.com
Description: The California State Home & Garden Show will be held in the Exhibit Hall at the Sacramento Convention Center. This event is free and open to the public.

January 8, 2011
Master Gardener Community Workshop (Lodi) – Roses 101: Selecting, Pruning and General Rose Care
Schedule: 10:00-11:30 a.m.
Cost: Classes are free with $5 admission to park and museum.
Location: Micke Grove Regional Park, 11793 N. Micke Grove Road, Lodi, CA 95240

January 15, 2011
Master Gardener Community Workshop (Manteca) – Basic Vegetable Gardening
Schedule: 10:00-11:30 a.m.
Cost: Free
Location: Manteca Library, 320 W. Center Manteca, CA 95336
Spring is coming. Plan your summer vegetable garden now.

Saturday Jan. 15, 2011
Lodi Woodbridge Rose Society Rose Pruning Workshop
Location: Rae House Museum
204 Oak Ave. Galt 10:00 a.m.
RSVP: By Wednesday Jan. 12
Marie Cordero 209-366-0439
Elanore Ackerman 209-794-8110

January 28-30, 2011
Northern California Home & Landscape Expo
Schedule: Fri. 12 p.m.-7 p.m., Sat. 10 a.m.-7 p.m., Sun. 10 a.m.-6 p.m.
Cost: Adults $7, Children 12 & under free. Friday only special: 60 years & older $2
Location: Cal-Expo, 1600 Exposition Blvd., Sacramento, CA 95815
Website: http://www.homeandlandscapeexpo.com
Whether you are planning to build, remodel or simply redecorate, the Home & Landscape Expo promises to bring you the largest gathering of professionals to help you with your home project. The majority of details pertain to the 2010 Show, so please check back for updates on the 2011 event.

February 4-6, 2011
Lodi Home & Garden Show
Schedule: Fri. 12 p.m.-6 p.m., Sat.-Sun. 10 a.m.-5 p.m.
Cost: $3.00
Location: Lodi Grape Festival Grounds, 414 E. Lockeford St., Lodi, CA
Phone: (209) 941-1880
Website: metroexpositions.com
Over 100 exhibits featuring everything from home remodeling services to garden plants, plus cooking demonstrations, seminars, and more.

February 12, 2011
Master Gardener Community Workshop (Lodi) – Basic Vegetable Gardening
Schedule: 10:00-11:30 a.m.
Cost: Classes are free with $5 admission to park and museum.
Location: Micke Grove Regional Park, 11793 N. Micke Grove Road, Lodi, CA 95240

February 19, 2011
Master Gardener Community Workshop (Manteca) – Roses 101 Selecting, Pruning and General Rose Care
Schedule: 10:00-11:30 a.m.
Cost: Free
Location: Manteca Library, 320 W. Center Manteca, CA 95336

March 4-6, 2011
Stanislaus County Home & Garden Show
Schedule: Call or check website for details
Cost: $3
Location: Centre Plaza, 1000 L St., Modesto, CA

Phone: (209) 941-1880
Website: www.metroexpositions.com
Whether you’re interested in solar paneling or spas, find the tools for your inspirations or the inspirations for your tools at this gathering of hundreds of merchants.

March 5-6, 2011
Camellia Society of Sacramento Show
Schedule: Sat. 3 p.m.-6 p.m., Sun. 10 a.m.-5 p.m.
Cost: Free
Location: Memorial Auditorium, 1515 J St., Sacramento, CA
Phone: (916) 447-1969
Website: www.camelliasocietyofsacramento.org
Thousands of camellia blooms, Sacramento’s official flower, compete for trophies and ribbons in this annual show.

March 5-7, 2011
Sacramento Home and Garden Show
Schedule: Fri. Noon-6 p.m., Sat. 10 a.m.-6 p.m., Sun. 10 a.m.-5 p.m.
Cost: General Admission: $7, 12 and under with adult: Free
Location: Cal-Expo, 1600 Exposition Blvd., Sacramento, CA 95815
Go Green, Save Green, At The 29th Annual Original Sacramento Home & Garden Show
Headlines everyday mention our area’s soaring utility bills and shrinking supply of natural resources, especially water. Head to the 29th annual Original Sacramento Home & Garden Show at Cal Expo to discover that “Going Green” is not only good for the planet, it’s also great for your wallet as a way to dramatically reduce water and power bills.

March 12, 2011
Master Gardener Community Workshop (Lodi) – Spring Garden Chores
Schedule: 10:00-11:30 a.m.
Cost: Classes are free with $5 admission to park and museum.
Location: Micke Grove Regional Park, 11793 N. Micke Grove Road, Lodi, CA 95240

Cont. pg. 18
Use of Organic Soil Amendments to Sustainably Improve Soils

Steve Sanguinetti, Master Gardener

This time of year, when there are less immediate chores to do in the garden, allows us to take time to reflect upon some of the basic ideas behind successful gardening. One of the unavoidable requirements of a sustainable garden is a healthy soil beneath it. Each soil will have: good water-holding capacity, good drainage, and the ability to furnish (or at least maintain), adequate nutrients. It also must be free of substances and conditions which would be toxic to either the plants or those of us working the soil. Attainment of a healthy soil for your garden will provide you with probably the best return on investment for both your time and money spent on gardening.

Many native soils, where rich ecological communities have been allowed to develop naturally, have formed and maintained healthy soils. However, when we move into areas with sparse vegetation or over-cultivate, scrape, grade, compact and otherwise abuse our good agricultural soils, much of this is lacking. To that end, various soil amendments are available in a wide and sometimes confusing variety of products that are meant to overcome such deficiencies. The purpose of this article is to focus on how the non-mineral, otherwise known as organic, types of amendments such as composts, manures and planting mixes can help remedy these problems.

Since soil is a vital part of any ecosystem, it is useful to think of it much like a living organism which needs a balanced set of components to maintain its health. First among these components is soil structure. Optimum structure comes from a proper mix of the textural components; sand, silt, clay, organic matter, moisture and airspace arranged in an aggregated granular configuration. This structure allows access of water, air, nutrients and easy root penetration and is referred to as soil tilth.

To obtain an optimum soil structure the addition of organic soil amendments is often needed. These animal or plant based amendments can consist of: commercial planting mixes or individual constituents used in planting mixes such as compost, ground up wood and bark, animal manures, bio-solids, and various uncomposted plant materials like peat moss, coir and kelp. Such materials contribute to improved soil structure in a couple of ways. First, they provide an economic source of large particles which are necessary for good structure. Possibly more important though, is the enhanced bioactivity created by growth of earthworms and soil microbes that feed on the carbon source provided by these soil amendments. This growth produces byproducts of sticky gums and mucilage compounds which contribute greatly to binding the aforementioned soil aggregate together. The formation of these compounds also adds directly to soil’s ability to hold moisture and nutrients.

However, sources of these types of amendments can be a concern. Both uncomposted animal manure and bio-solids that have not been screened by various certification agencies might contribute undesirable constituents, such as disease causing microorganisms, toxic heavy metals and arsenic, viable weed seeds, excessive salinity and even residual herbicides. This is more of a problem if you are using amendments from noncommercial sources, as most states have a minimum set of standards these ingredients must meet to be sold to the public. To that end it is recommended that you evaluate the composition of the amendment or mix under consideration to determine if its constituents are tested to be free of these problems. Ask or look for certifications by organizations such as The Mulch and Soil Council² for most planting mixes and mulches or the U.S. Compost Council Seal of Testing Assurance³ for compost. Another good way to reduce the possibility of components negatively affecting your soil is to look for an organic certification from a third party such as the Organic Materials Review Institute, OMRI.

Beyond the above qualifications, some factors to consider when choosing the type of amendment to be used include:

- How long the amendment is expected to last versus how quickly you would like to achieve an improvement given the soil type and conditions.
- If and how particle size of material will affect seed growth or incorporation into lawn or ground cover.
- Whether the material is to be used primarily as topdressing or incorporated into soil.
- The need for nitrogen sources in your amendment mix to overcome loss of nitrogen from the decomposition of uncomposted components, like wood chips and bark.

(1) This is more of a problem if you are using amendments from noncommercial sources, as most states have a minimum set of standards these ingredients must meet to be sold to the public. To that end it is recommended that you evaluate the composition of the amendment or mix under consideration to determine if its constituents are tested to be free of these problems.
• The degree of need for nutrient matrices versus the associated higher salt levels associated with these components.

• The need for establishment of a new soil biotic population through addition of mycorrhizae or need to discourage unwanted organisms in soil. (4)

• The need for other potential chemical or physical side effects of organic amendments, such as minor pH adjustments, increasing the soils nutrient holding capacity and the binding of heavy metals or toxic wood preservative chemicals. (5)

Generally the amendments with larger particles will last longer and are more useful as top dressings or to break up heavy clay soils. Finer materials may not last as long, but can provide quicker improvement of soil and are recommended for improving the nutrient holding capacity of sandy or low fertility soils. Use of large portions of coarse particles may require you to add a higher volume of amendment to achieve equivalent results. Claims have been made that combination of peat moss with composts can enhance the life of the compost significantly. (6) It also makes sense that uncomposted, or finely ground amendments should be avoided in heavy, poorly aerated and waterlogged soils where their decomposition further reduces soil oxygen. This could lead to formation of plant toxic substances. Another ill advised use would be to apply any kind of uncomposted animal manure before planting a seed bed.

You can choose to use individual amendments such as compost, which can provide a range of particle sizes, bark fines, which may provide a richer microbial food source and manures, which can provide nutrients to balance out nitrogen consumption by microorganisms. Specific mixes, often termed planting mix, have a combination of amendments so that gardeners can achieve a balance of the above requirements without having to provide the individual constituents. These mixes can be helpful with the transition of moving the plant from the primarily organic nature of nursery medium to the primarily mineral nature of most soils. Other specific amendments, like peat moss, are usually included in acid loving plant mixes such as Azalea and Camellia mixes. However a considerable amount of peat moss would be required to make a significant pH change. (7) Use of a mineral amendment such as soil sulfur should be considered if you are attempting to make a larger drop in pH. Additional information on choosing amendments is also available from the Mulch and Soil Council. (8) Once you have chosen an acceptable amendment, it needs to be added in sufficient quantity over the entire area to be planted. Further it needs to be incorporated into the soil to a sufficient depth to resolve the structure problems in the root zone of intended plantings. This depth can be up to 24-30 inches for trees and shrubs, but generally 6-9 inches is the practical limit. Amending the entire area to be planted reduces the chance of excessive moisture wicking into the planting hole, reduces the chance that soil (where planting was made) will settle below the surrounding area, and increases the likelihood of roots expanding out beyond the original planting hole. If this is not possible, and your soil definitely still requires amending, extend and amend the planting hole to three times the diameter of the root ball. Do this preparation several days before planting to allow soil to settle. The net result should have your plant’s crown at or slightly above the surrounding soil. Proper soil moisture is also important for effective incorporation of any amendment chosen. Most soils should be moist, but crumbly, and definitely not soggy. Excessively dry soils won’t form the aggregation needed for good structure and therefore should be moistened before tillage. For more details on an easy procedure to hand test for moisture see reference. (9)

The amount of amendment to be added to achieve good soil texture varies a great deal with the type of soil texture (sandy, loamy, clay) and type of amendment to be used. For example, if using compost to amend a clay soil, you should expect to add at least a 30% compost to obtain a substantial change in soil structure. To reach this level of amendment for the top three-inches of a clay soil, 2.75 cubic yards. of compost should be applied for every 1000 sq ft. If the soil is to be amended to 30% level (up to a six-inch depth) twice the amount of compost would be required. More information on amounts to add can be found in the California Master Gardener Handbook (10) and references (11, 12) below.

You will probably need to maintain or improve your soil further once plants are in place. Mulching and “top dressing” with amendments finer than usually used as mulch should be considered. A couple things to keep in mind are to incorporate amendments as best as possible into the soil and to do repeated applications. It is preferable to add smaller doses more frequently than single large doses. Where possible, allowing healthy leaves and debris to remain under plants provides a natural source for amendments. The key is to mimic nature by providing a continual source of organic matter to maintain soil structure and feed soil organisms unless or until your plantings can provide them on their own.

As a final note I wanted to include that much of what is collected as “green waste” from municipal suppliers cannot be used as base for compost used in commercial planting mixes. This is due to the excessive amount of non green waste, foreign matter, too often disposed of in garden waste containers. Municipal green waste found to have excessive foreign matter is relegated back to landfill. Such carelessness adds to the cost of disposal and is not sustainable. Be thoughtful about what you throw into your green waste containers and you may want to remind your neighbors to do so as well.

References: Please see pg 18
Stock Up!

Saving all of your kitchen scraps and leftovers to compost? Good for the earth, good for you, and good for your garden! How about one more step so that you can also make it good for your tummy?

Instead of stashing your vegetable trimmings in the compost container by your sink, stash them in a freezer bag marked “For Stock.” Continue adding all your trimmings to the bag. When you have a large amount, you can toss them in a pan or stockpot with water to cover. And I do mean all, including onion and garlic skins, trimmed off root ends—everything! The only things to avoid in large amounts are strongly flavored or red colored veggies like broccoli, beets, cabbage, etc. If you don’t have enough carrots, celery or onions in your stockpile, toss some in also. Bring to a boil, lower to a low simmer, and go about your business for a couple of hours.

Simple from here—strain through a colander, pour into containers or ice cube trays, and freeze. Now you have a multiple use flavor enhancer! And the strained out remnants can go—guess where—right into the compost pile! Use your stock for a soup base, to deglaze pans, to cook vegetables or grains like rice, in stews and casseroles — essentially wherever you would use water in cooking.

For carnivores, save and freeze poultry bones, skins and trimmings after picking off and freezing separately any meaty bits. Toss them in with your veggie trimmings and process the same way. Put this stock in the fridge overnight and you can easily lift off the fat from the top, then store. While you’re at the saving and freezing business, save all of your bits of leftovers from meals in separate labeled freezer bags, even very small amounts. For example, cooked rice, veggies, that little bit of taco filling left in the pan, beans, greens for sure, stews—almost anything! Since these are already seasoned, you’ve got lots of good flavors to start a soup, not to mention the good nutrients that you’re adding.

So this is your reward. Use all of these reserved treasures for easy, quick, always delicious, and always different soups!

Just this week, with nothing much appealing for dinner, I made a toss together soup that was marvelous! I diced up a couple of stalks of celery, a carrot, an onion—sauté these or not—added a couple of containers of stock (pints) a can or two of diced tomatoes, some leftover chicken taco filling, and also some leftover Mexican flavored rice. I cooked it up, tasted for flavor. It didn’t even need anything else. There was plenty of flavor from the taco filling and rice. If not, I would have added compatible items: Mexican spices like cumin, oregano, chili, etc.

You’ve got the idea! Start with your basic “mirepoix” (“meer-pwa”—fancy cooking channel term!) of diced carrots, celery, and onions. Add whatever stock you want, some canned tomatoes (or not), beans, any compatible bits of frozen leftovers. Cook it up, taste along the way, add compatible spices, salt and pepper as needed, maybe a splash of wine. Such good tastes! Have fun!
Lest the article by Lee Miller in this newsletter leave you with the impression that Master Gardeners encourage only organic methods, I would like to offer the following comments. Both the University of California Extension Service Master Gardener program and the modern conventional pesticide industry promote Integrated Pest Management, IPM, rather than purely organic methods. First, I need to let you know that besides being a Master Gardener, I am a licensed pesticide applicator. As such, I am part of the conventional pesticide industry. Our industry uses many organic practices and some organic materials, but remains skeptical of the conclusion that all synthetic pesticides should be avoided. The modern pesticide industry is not only legally required to follow IPM practices, but does so in its own self interest for long term survival. It both certifies and promotes responsible, IPM, based pesticide use through organizations such as Green-Pro and the IPM innovator awards. IPM and organic adherents have many practices in common such as the need for proper pest identification, knowledge of the biology of the pest, its host, and natural enemies and the need for use of ecologically sound management methods for pest control. Organic and IPM methods actually have grown more similar in the past few years and they may, some day, become indistinguishable from each other.

Secondly, I hope to get the point across that much of what is criticized by organic adherents about past misuse of pesticides shouldn’t be interpreted to apply to modern IPM based use. While the criticism of past misuse is valid, that misuse should not be associated with modern practices. It would be much like blaming modern Japanese and German citizens for World War II. The only thing the modern IPM focused pesticide industry has to do with the mistakes of the 40’s to 60’s is the need to learn from and avoid their mistakes if we hope to maintain a viable industry. Most of the pesticides used today are entirely different types of materials and all are applied with far more sophisticated methods and restrictions than in the past. With proper application, pest resistance is not inevitable and use of persistent pesticides is highly restricted. Organic practices do allow for some use of pesticides such as sulfur pyrethrins. In fact, use of organically approved pesticides is growing more common by the conventional pesticide industry whenever they are found to be effective. However, not all of these organically approved agents are less dangerous than their synthetic alternative. Just because a label states that contents are organic does not mean that they are benign to the environment or nontoxic to humans. Any pesticide material should be applied with care, not only because the law requires this, but because it is the most beneficial in the long run. Such care should be expected from individual users of pesticides as well as anyone they hire to apply them.

Some individuals, primarily “mow and blow” type gardeners, may not know how or why to take the same degree of care as mentioned above, because they are not licensed applicators. Anyone hired to apply any pesticide in California must work for a company licensed by the state as a pesticide business. This includes application of all herbicides and fertilizer pesticide mixes. They must also register with the county within which they intend to apply pesticides. Unfortunately, these county agencies tasked with enforcing this law, are often underfunded and unable to thoroughly enforce this licensing. You can check on licensing status of any potential pesticide business at California Dept. of Pesticide Regulation, CDPR, website. The UC IPM website also offers advice on hiring pesticide applicators, find this info by clicking here.

In conclusion, I can certainly understand the attraction of using only organic methods. Complete adherence to their practices makes sense if you believe that all use of synthetic pesticides is unwarranted. Perhaps, if the organic certification authorities could be less arbitrary on what they consider acceptable synthetics, the conventional industry would be able to follow their program more closely. In the meantime, please know that the University of California supported IPM method requires that, if used, pesticides be less persistent, more selective, and only be applied according to CDPR approved label instructions. Click here to see how to read pesticide labels. The CDPR offers explanation of their purpose regarding evaluation and use of pesticides here. They also provide the following pertinent quotation: “Toxicity is an inherent property of all substances and all chemical substances can produce adverse health effects at some level of exposure. Risk of adverse health effects is a function of toxicity and exposure.” The conventional pesticide industry and the CDPR continually evaluate new and existing pesticides for degree of harm they may cause and adjusts their practices accordingly.

To visit the UC IPM web-site please click here.
**Gardening Sessions for San Joaquin County Historical Museum at Micke Grove**

**2011 Workshops**

<table>
<thead>
<tr>
<th>Month</th>
<th>Gardening Session with Master Gardeners</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 8</td>
<td>Roses 101 Selecting, pruning and basic rose care</td>
</tr>
<tr>
<td>February 12</td>
<td>Basic Vegetable gardening – Spring is coming, time to start planning your summer garden</td>
</tr>
<tr>
<td>March 12</td>
<td>Spring Garden Chores</td>
</tr>
<tr>
<td>April 9</td>
<td>Plant a drought tolerant landscape for the valley</td>
</tr>
<tr>
<td>May 14:</td>
<td>IPM - The 10 most wanted bugs and how to deal with them</td>
</tr>
<tr>
<td>June 11:</td>
<td>Weed Control and prevention</td>
</tr>
<tr>
<td>July 9:</td>
<td>Attracting Birds and Beneficial's to your garden</td>
</tr>
<tr>
<td>August 13:</td>
<td>Composting and green waste reduction, building a healthy soil</td>
</tr>
<tr>
<td>September 10:</td>
<td>Turf grass 101; managing a healthy lawn</td>
</tr>
<tr>
<td>October 8:</td>
<td>Landscape trees and shrubs; selecting planting and training</td>
</tr>
<tr>
<td>November 12:</td>
<td>Winter garden chores</td>
</tr>
</tbody>
</table>

**Classes will be held at the**

**San Joaquin County Historical Museum**  
11793 North Micke Grove Road, Lodi, CA 95240-9426 • (209) 331-2055

Classes begin at 10:00 am and end at 11:50 am.  
There is a $5.00 parking fee into Micke Grove Regional Park.  
Classes are free with regular museum admission  
All participants must register a week prior to the class at (209) 331-2055
Gardening Sessions for Manteca at the Manteca Library 2011 Workshops

<table>
<thead>
<tr>
<th>Month</th>
<th>Gardening Session with Master Gardeners</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 15:</td>
<td>Bare root fruit trees and berries selecting, planting and training bare root plants</td>
</tr>
<tr>
<td>February 19:</td>
<td>Roses 101 Selecting, pruning and basic rose care</td>
</tr>
<tr>
<td>March 19:</td>
<td>Basic Vegetable gardening – Spring is coming, time to start planning your summer garden</td>
</tr>
<tr>
<td>April 16:</td>
<td>Intro to Container Gardening</td>
</tr>
<tr>
<td>May 21:</td>
<td>IPM - The 10 most wanted bugs and how to deal with them</td>
</tr>
<tr>
<td>June 18:</td>
<td>Water conservation in the home landscape</td>
</tr>
<tr>
<td>July 16:</td>
<td>Attracting Birds and Beneficial's to your garden</td>
</tr>
<tr>
<td>August 20:</td>
<td>Composting and green waste reduction, building a healthy soil</td>
</tr>
<tr>
<td>September 17:</td>
<td>Turf grass 101; managing a healthy lawn</td>
</tr>
<tr>
<td>October 15:</td>
<td>Landscape trees and shrubs; selecting planting and training</td>
</tr>
<tr>
<td>November 19:</td>
<td>Winter garden chores</td>
</tr>
</tbody>
</table>

Classes will be held at the

**Manteca Library**
320 West Center, Manteca, CA

Classes begin at 10:00 am and end at 11:30 am.
Classes are free.
All participants must register 1 week in advance by calling (209) 953-6100
The University of California prohibits discrimination or harassment of any person on the basis of race, color, national origin, religion, sex, gender identity, pregnancy (including childbirth, and medical conditions related to pregnancy or childbirth), physical or mental disability, medical condition (cancer-related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or service in the uniformed services (as defined by the Uniformed Services Employment and Reemployment Rights Act of 1994: service in the uniformed services includes membership, application for membership, performance of service, application for service, or obligation for service in the uniformed services) in any of its programs or activities.

University policy also prohibits reprisal or retaliation against any person in any of its programs or activities for making a complaint of discrimination or sexual harassment or for using or participating in the investigation or resolution process of any such complaint.

University policy is intended to be consistent with the provisions of applicable State and Federal laws.

Inquiries regarding the University’s nondiscrimination policies may be directed to the Affirmative Action/Equal Opportunity Director, University of California, Agriculture and Natural Resources, 1111 Franklin Street, 6th Floor, Oakland, CA 94607, (510) 987-0096.
Check out these web-sites

San Joaquin County Household Hazardous Waste Facility

Be Green San Joaquin

Holiday Recycling Guide (Includes trees, electronics, batteries, even leaves)

San Joaquin County Solid Waste Web-site (not just garbage but full of information on recycling, disposal and facilities)

FREE TIRE RECYCLING

First 4 passenger tires only!

For residents of San Joaquin County and its Cities.
Not available for businesses.

Rims okay. Charges will apply to larger tires.

Golden Scrap Tire recycles our waste tires into rubber bark, horse stall mats, outdoor furniture, and crumb rubber.

Your tires can last longer and help you save gas.

Find more information on RECYCLING at www.BeGreenSanJoaquin.org

Residents of San Joaquin County, Stockton, Tracy, Lodi, Manteca, Ripon, Lathrop & Escalon, RECYCLE YOUR LEFTOVER LATEX PAINT FOR FREE!

AT ANY OF THE FOLLOWING CONVENIENT LOCATIONS:

Stockton
Color Center
943-1617

Stockton Ace Hardware
951-8050

Glidden Professional
Stockton
466-8038

Schemper’s Ace Hardware
599-2141

Valley Lumber & Supply Co.
Stockton
464-4565

Tracy Color Center
835-9720

Van’s Ace Hardware
835-8268

True Value Hardware
727-3791

Lodi Color Center
334-3907

Offer for San Joaquin County households only. Sorry, no contractors or businesses. Limit 5 gallons per visit. Paint must be latex (water-based), in original, non-leaking containers with readable labels. For more information call (209) 468-3066 or visit www.BeGreenSanJoaquin.org.

Funded by a grant from the Department of Resources Recycling and Recovery (CalRecycle).

NEW! PAPERLESS COUPON!!!
Tell the cashier you saw the "paperless coupon" in the Master Gardener Newsletter!

Expires 6/30/11

San Joaquin County Household Hazardous Waste Facility

Check out these web-sites

San Joaquin County Household Hazardous Waste Facility

Be Green San Joaquin

Holiday Recycling Guide (Includes trees, electronics, batteries, even leaves)

San Joaquin County Solid Waste Web-site (not just garbage but full of information on recycling, disposal and facilities)