



# Garden Notes

With the San Joaquin County  
Master Gardeners



VOLUME 1 ISSUE 3

JUL - SEP 2010

## San Joaquin County Master Gardeners

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## Welcome to our first issue

Laurie Berg Master Gardener

The lazy days of summer have arrived. Those rainy days that made spring seem more like winter have left us and the more characteristic hot valley days have finally taken their place. The good news is that the garden is making up for lost time and really looking lush. Everything that hasn't bloomed before is probably booming right now and some of us have started to harvest tomatoes and zucchini, the rewards of that plating after the last frost. That can mean long hours keeping ahead of the weeds and the new growth, tending to the deadheading of spent blooms and cultivating the vegetable garden; fertilizing and keeping the pests at bay. The amazing thing is we just don't seem to mind.

For these long full days of summer, we have gathered a collection of timely articles to help with seasonal concerns. In this issue of our newsletter we have an article on the tomato hornworm, an exotic looking but destructive garden pest. Have you ever wondered about the strange growths on your oak tree or the jumping galls that can bounce around on the ground underneath them? One of our farm advisors has the answers on these small beneficial wasps. Planning a cool season garden is something to be thinking about now, so we will be giving you a timeline and some information to that end. Also, we have included an insightful review of the writings of various authors on urban farming, a current trend trying to restore priority of food production. These authors provide a glimpse of what might be achieved in small spaces. Many of you may have heard the name of Luther Burbank but might be hard pressed to say much about him. A book detailing his life and achievements is discussed in this issue. And for all that garden produce we have included a recipe for V-8 juice and the ever popular and often necessary zucchini bread.

If gardening is a subject dear to your heart, then you may want to consider joining the ranks of your tribe. We will again be offering Master Gardener Training in San Joaquin County starting in February. Come join a group of other committed individuals who enjoy participating in a program that benefits our community and environment. Applications are now being accepted. With all that's happening in your garden right now it's actually not quite the lazy days of summer after all. Not for a gardener. Yes, a book and a tall glass of iced tea gazing out at the leafy green landscape sounds good.....just gotta get that one last weed!

## Growing Cool Season Vegetables

July 4<sup>th</sup> can be a very hot holiday, but it is also time to think beyond a cold beer to cold season gardening. July 4<sup>th</sup> is a good seed starting date for cool season Brassicas: broccoli, cabbage, cauliflower and brussel sprouts for winter harvest. These are all cultivars of one species, *Brassica oleracea* and reveal



human cleverness at plant selection and breeding. They do best in moist, rich soil. I use compost as a seed starter medium in wooden flats. Compost allows for good air circulation to the roots, good water retention and provides the nutrients to keep plants growing well until transplant time (Cont. pg. 3)



**“In our hot climate, summer apples often soon leave the tree after ripening so pay attention and pick daily.”**



**MGs using the microscope at the entomology training class.**

# Garden Chores Calendar

Lee Miller Master Gardener

July 4<sup>th</sup> is a time of patriotic celebration and is also a target date for starting my transplants for a cool season vegetable garden. It is a funny time of year to be thinking cool, yet the summer solstice is past, days are getting shorter and fall approaches though many hot days lie ahead. I start my seedlings in wooden flats filled with compost for cabbage, broccoli, cauliflower and brussel sprouts. These can be transplanted to the garden in late August-early September. Keep them well watered.

Onion seeds can be started later, about the 20<sup>th</sup> of August. Beets, kale, kohlrabi, carrots, chard, turnips, parsnips and lettuce are directly into my garden near the end of August. Sometimes using flats is a good defense against snail or slug attacks on small lettuce seedlings which are more vulnerable when seeded directly. For more information on cool season vegetable gardening, see the article on page 1.

If not done already it may still be time to prop up those or-

chard trees that are weighty with fruit to avoid limbs breaking. July is a time for harvesting Gravenstein apples and other summer apples. In our hot climate, summer apples often soon leave the tree after ripening so pay attention and pick daily. I usually store them for a few days until I have enough for several batches of apple sauce and jelly. One good feature of apples is they come with their own pectin for making jelly. In late August, the Red Delicious, Yellow Delicious, Fuji, Enterprise and other apples are also ripening. July is also the season for Santa Rosa, El Dorado and Howard's Miracle plums among others. These are great for eating fresh or making jam. Red Haven Peaches will be ripe in early July and will be a nice breakfast mate for your cereal. August will bring on Elberta, Faye Elberta, Rio Oso, O'Henry and other peaches and nectarines.

Yum!

It is a good time to do some summer pruning of apples and other fruit trees. It will keep tree size manageable; improve your crop for this year and next year too. There are some videos on YouTube that will show you how to do it.

In the garden, despite the cool spring, we can plan for tomatoes, peppers and eggplant harvests to begin. Peppers often sun scald in our hot climate. Hence taking off some of the blossoms early to retard fruit development will encourage the plant to grow more foliage to shade the crop. Corn, zucchini and other summer squash need to be picked frequently. It is not too late to plant some beans, pumpkins, hubbard squash, butternut squash and corn for fall harvest. Roma or San Marzano or Amish Paste tomatoes are excellent canned for those soups, beans and stews next winter and nothing beats the delicious sweetness of tomato juice made from home grown tomatoes.

## Do you want to be a Master Gardener?

Marcy Hachman Program Coordinator

Do you like to garden? Do you enjoy learning and surrounding yourself with people that have the same interests as you? Have you been thinking about becoming a Master Gardener? Now is the time to get your application in! The Master Gardener Program in San Joaquin County will be hosting a 2011 training beginning in February. Application will be accepted now through December.

All classes are taught by UC advisors at our Stockton office location. Upon completion of the training Master Gardeners volunteer time back in San Joaquin County.

For more information on the San Joaquin County Master Gardener Program and to download an application visit our web-site [here](#) or call the Master Gardener Office at 209-953-6112.

**UC Master Gardeners—Advice to Grow By!**

# Cool Season Vegetables (continued)

and beyond. If possible, use 4 inch deep flats to give roots lots of room to develop. What other crops can we grow in the cool season? This list is long. It includes onions, garlic, peas, kale, collards, chard, spinach, turnips, rutabagas, beets, carrots, lettuce, various greens, bok choy, parsnips, fava beans, radishes, artichokes. I will recommend some of the better, most commonly grown cultivars for our area. What you plant will depend mostly on what you and your family will eat. For cauliflower, the choices are: Fremont, 62 days; Snow Crown, 50 days; Snowball Y hybrid 80days; Amazing, 75 days. There are more choices including purple and orange colored cauliflower.

Brussel sprouts cultivar choices are important for this valley. I've had two years of crop failure with Long Island Improved and Robert Norris, Professor Emeritus at UC Davis and avid gardener, says it is a poor choice for the valley. He recommends Jade Cross Hybrid, an AAS winner, and I have had three successful years with it. He also recommends Bubbles (Reimer seeds), Vancouver (Vesey seeds) and Tasty Nuggets (Burpee seeds), none of which I have grown.

Kohlrabi can be colorful, so I like Purple Vienna, but the standard green type tastes the same. I like Russian Red Kale. It is beautiful, tasty, and open pollinated, which means you can harvest your own seeds next spring if you leave a plant or two for seed. Chard is rated one of the world's healthiest foods, an excellent source of antioxidants, vitamins, calcium, and iron and either colorful Rhubarb chard, Bright Lights or the standard Forkhook variety will do. Detroit Dark Red is a good beet and Ruby Queen is an AAS winner. Plant in August and they will be ready for harvest in November and December.

When it comes to beautiful plants, I also like colorful lettuces. Red Sails, Red Fire, Red Cross, Red Velvet, Merveille de Quatre Saisons, Forellenschluss, the list goes on and on. Forellenschluss is an old Austrian heirloom, the name means "speckled like a trout." The reds mixed with some just old plain green lettuces, like Black-Seeded Simpson, makes for an esthetic lettuce patch and colorful salads. Most of these seeds are getting easier to find as more seed companies carry them. Lockhart's in Stockton has some and others are available from Seed Savers Exchange Catalogue, Nichols Garden Nursery, Johnny's Seeds, or Territorial Seeds to name a few. A mesclun mix packet of seeds will provide a variety of leafy lettuces for the price of one seed packet.

Then there is a colorfully named lettuce "Drunken Woman Frizzy Headed Lettuce". Maybe whoever named this lettuce wanted to make gardening more exciting with an alluring name. It is a savoyed lettuce that is slow to bolt and is available from Territorial Seeds.

To round out winter gardening we need to start some onion sets in flats around mid-August. I keep them in the shade until after germination, as onions germinate poorly at high temperatures. At 38 ° latitude, we are in an intermediate area between short and long day length conditions. Hence we can grow the intermediate types of onions which are not great for long term storage, but are excellent fresh onions. The choices are: Stockton Red, Stockton Yellow and Fresno White onions and no doubt a few others, but if you try some short day onions like Texas Granos, or Vidalia, you may be disappointed by a lack of bulb formation. Onions are transplanted in October.

Carrot varieties selection should be based on soil type. For sandy soils, Nantes and Imperator varieties will work whereas for heavy soils Short 'n Sweet, Danvers, Red Chantenay are good. There are many new colorful carrot cultivars in purple, white and gold that could be worth a try. Loose, friable soil with lots of compost grows good carrots. One problem with carrots is keeping seeds moist until they germinate. Shading with a board or burlap can help keep soil moist until seedlings emerge. Start planting carrots in early August for winter harvest. Thinning carrots and turnips is a chore, but a necessary one if you want quality roots.

Well we didn't get to cover peas, garlic among others, so maybe we can do that in our next Newsletter.

Broccoli	Days to maturity/ Notes
Green Comet	40/ All American Selections (AAS) 1969, good flavor
Early Dividend F1 hybrid	45/ Very early, large 8 inch head, side shoots too
De Cicco non hybrid	48/ Long producing, non uniform maturity.
Packman F1 hybrid	50/ Early, large heads
Premium Crop F1 hybrid	58-62/ AAS winner 1975, resistant to Fusarium wilt.
Belstar F1 hybrid	66/ Medium bead, medium head, lots of side shoots.
Marathon F1 hybrid	68/ Widely planted in CA
Arcadia F1 hybrid	70/ Grown commercially in Central Valley
Waltham 29 open pollinated	74/ Widely adapted, drought tolerant, 4-8" head.
Diplomat F1 hybrid	75/ Fall and Winter medium heads with small beads.
Cabbages	
Red Express	62/ Open pollinated
Copenhagen Early Market	63/ Medium size, good for gardens
Early Jersey Wakefield	63/ Medium size. Pointed head.
Stein's Late flat Dutch	100/ Large 10 inch head
Danish Ball Head	125/ General purpose cabbage.

## Pests and Plants of the Season

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



## Spotted Wing Drosophila & Verticillium Wilt



Keep an eye out for a new garden pest that has arrived in San Joaquin County. The Spotted Wing Drosophila, SWD, has been found in County fruit trees and gardens. This pest infects a wide range of ripening soft fruit including: Cherries, Strawberries, Plums and Nectarines. The Spotted Wing Drosophila leaves tiny

pinholes in fruit when it punctures the fruit's skin to lay eggs. These eggs hatch into maggots which cause mushy rotten areas in fruit as it matures. Keep an eye out for such damage in your home grown fruit and any fruit you may bring into county. To slow the spread of this pest place infected fruit in sealed bag and dispose of it in garbage. Also make sure that all fruit in your home orchard is removed from trees and ground. For more information on and suggestions for control of this pest [click here](#)



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[Verticillium wilt](#) affects many herbaceous plants, woody shrubs and trees. It is an extremely common disease on Japanese Maples and Olive trees. Leaves infected with *Verticillium*



wilt and turn yellow, first at the margins and between veins; foliage then turns tan or brown and dies, progressing upwards from the base to the tip of the plant or branch. Browning of older leaves while younger leaves remain green is also characteristic. Woody plants are often affected first on one side of the plant or only in scattered portions of the canopy. Water-conducting tissue in branches and stems may darken in some hosts. Infection usually occurs during cool conditions but damage may not become apparent until warm weather when plants are more stressed. No pesticides are available to homeowner to treat this disease. The best management solutions are to avoid contamination of soil and to plant resistant species if Verticillium is present. [Click here](#) for disease resistant plants and [here](#) for more details on control.

## Nutgrass or Nutsedge

This highly invasive weed is often found in wet areas garden, but once established it can grow throughout the garden. If you see evidence of weed blades growing faster than you lawn in hot weather, this is a good indication of nutsedge. It often infests top soils brought in from river bottom sources. As with all sedges it can be identified by the triangular shape of its leaves and the round tubers found on its rhizomes. These tubers make control of this weed through pulling or cultivation difficult. The removal of the top part of the plant stimulates the growth of the tubers leaving several plants where you had only one. If cultivation is to be successful the plants must be removed before they develop 5 leaflets. This could be every 2 to 3 weeks. If you have a single large plant mass, it can be controlled by shoveling up and disposing of entire root ball. Non selective and selective herbicides available to the homeowner can be used to control this weed, but timing and persistence is required. Highly selective herbicides, such as "Sedge Hammer", are available to homeowner, but are expensive and can give variable results.

For more information on identification of various types of nutsedge [click here](#).



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## Dahlia & Bottlebrush - Plants of the season



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**Dahlia—*Dahlia* spp.**  
**Family Asteraceae (Sunflower family)**

### Plant Identification

Dahlias are perennial plants that are grown around shrubs, in borders, or in pots. Dahlias produce clusters of flowers in many different forms and colors. They bloom from early summer into winter. Dahlias have strong stems with divided leaves.

### OPTIMUM CONDITIONS FOR GROWTH

Dahlias do well in full sun but require light shade in the hottest areas. They require regular watering and need well-drained soil. For more information on pests and disorders associated with Dahlias [click here](#)

**Bottlebrush—*Callistemon* spp.**  
**Family Myrtaceae (Myrtle family)**

### PLANT IDENTIFICATION

Bottlebrush, a native of Australia, is an evergreen shrub or tree. The genus is identified by the colorful flowers that appear as long, bristly clusters of filaments around a stem. Bottlebrush is used as a formal clipped hedge, informal screen, or trained as a small specimen tree. Dwarf forms exist that make a lovely small hedge. For more info [click here](#).

### OPTIMUM CONDITIONS FOR GROWTH

Bottlebrush plants are adapted to temperate climate zones and can be damaged at temperatures below 20° F. They are somewhat tolerant of saline and alkaline soils but may exhibit chlorosis. Bottlebrush does best in full sun with well-drained soils. Once established bottlebrush requires little summer water, with the exception of weeping bottlebrush (*C. viminalis*), which does require ample water.



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## Olive —Plants of the season

**Olive—*Olea europaea*\***  
**Family Oleaceae (Olive family)**

### PLANT IDENTIFICATION

Olive trees are mostly evergreen trees that grow from 25 to 30 feet tall. Often multitrunked specimen trees can be found. Dwarf forms grow to 12 feet tall. Fruitless types are available. 'Swan Hill' is noted for little fruit and pollen. Fruiting types drop fruit, which will stain pavement and patios. The pollen is highly allergenic.

\*Olives are sometimes considered to be [invasive weeds](#).

### OPTIMUM CONDITIONS FOR GROWTH

Olive trees can grow in several climatic zones. They do best in full sun. They prefer little water once established. They are not tolerant of saturated soils or lawn conditions. For more information [click here](#).



Leaves and flowers of an olive tree

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# Galls—What are they?

Ed Perry UC Farm Advisor Stanislaus County

## Galls On Oak Trees Come In Many Sizes And Color

From time to time people call to ask about curiously shaped, often brightly colored swellings that occur on oak tree leaves and twigs. The growths, called "galls," are usually the result of tiny wasps known as cynipids or gallwasps. Trees such as willows and poplars may also have galls, but our native oaks - especially the Valley oak (*Quercus lobata*) - support far more different types of galls than any other plants. Look closely at a Valley oak tree and you'll see that no part of the tree, from leaves to branches, is free from galls

Each gallwasp forms a gall of a particular size, shape and color, and entirely different from the galls of other species. Most people are familiar with the large "oak apples," induced by the gallwasp *Andricus californicus* on Valley oaks. The pinhead-sized "jumping oak gall", formed by the gallwasp *Neuroteras saltatorius*, attracts a good deal of attention because it falls to the ground and jumps around for several days. This must be a good year for jumping oak galls, because I've had numerous calls from people fascinated by the seedlike things hopping around under oak trees. Other galls look like pink stars, reddish cones or tan wheels. One particular twig gall resembles a tiny loaf of bread.

The tiny gallwasp begins the gallmaking process in early spring by piercing a selected tree part with its egg laying device and depositing an egg inside the plant tissue. Fluids deposited with the egg cause the plant cell multiplication process to begin. The larva that hatches from the egg produces additional substances that maintain and control cell division. The larva develops within a cavity inside the gall, feeding on material produced in the cavity lining. At maturity, the larva transforms into a pupa, and later becomes an adult that chews its way out of the gall. By causing the tree to form a gall, the gallwasp has provided food and shelter for its offspring.

A variety of other insects inhabit or invade galls during or after the residency of the gallwasp. Some are parasites of the gallwasps. Others use the galls as a food source, or scavenge on materials left behind by the gallwasps or other inhabitants. If you place several galls in a glass jar, you're likely to see one or more species of tiny wasps and other insects emerge from the galls over a period of time.

A good deal remains to be learned about galls and gallwasps, because this area of biology has received little study. Most gallwasps are not harmful to oak trees, although several may cause scorching or spotting of leaves, and a few may result in the death of the twigs they infest. A healthy tree can support numerous galls without being seriously harmed.. For more information on galls visit [this web-site](#).



Hershey Kiss Gall



Jumping Galls



Urchin Galls

## Useful UC Web-sites



### UC Master Gardener Calendar of Events:

This is a great UC web-site if you are looking for Master Gardener classes or workshops throughout the state. You can search by county or a specific date and find all the details related to that event. [UC Calendar of Events.](#)

### UC CA Practical Gardener Blog

If you are interested in subscribing and following along with blogs this is a great blog full of gardening information updated regularly. [Practical Gardener Blog](#) For a full list of UC related blogs (including more garden related blogs) [click here](#)

### UC CA Backyard Orchard

Fruit trees are in full swing now and you may have some questions about your fruit, trees, or pesty insects and diseases. Find information from planting and pruning to harvesting and storing. [Check out the web-site here](#)

### San Joaquin County Master Gardeners

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! [Visit our web-site!](#)

## Garden Chores (continued from page 2)

When blackberry harvest is over, it is time to prune out the floracanes and tie the new primacanes in a vertical orientation and head them back at about 6 ft. If you have the trailing type, tie them to the wire horizontally. Remember to severely deadhead perennials such as, Coreopsis, Dianthus, Valerian and more blooms will sometimes be our reward. Roses will bloom much more vigorously this fall if we deadhead the spring blooms, but remember to deadhead back to a 5 leaf leaflet just as you would when harvesting. Dahlias need to be monitored for the appearance of spider mites. Water spray on the foliage to wash off dust will help keep them in check, but if they persista spray of Safer soap or



Neem oil will control them.

If you haven't already done it, mulching is in order for peppers, tomatoes, Dahlias and landscape plants, to conserve moisture. For the vegetables I use compost, for Dahlias- straw and for the landscape plants-wood chips or bark.

July and August is time for soil solarization to eliminate weed seeds. Wet the ground well and then cover and with clear plastic and seal the edges for about 6 weeks.

For lawns, mow high at 3 inches in

July and August during summer heat and keep the blade sharp.

If you haven't adjusted your irrigation controller for hot summer, higher irrigation needs, it is time. September is time to dethatch, aerate and fertilize for cool season lawns of fescue or bluegrass.

Mid-September is a good time to sow California poppies

and other wild flowers and time to plant annuals for winter color. Perennials such as Dianthus, foxglove, Coreopsis, Geum, Penstemon, Phlox, yarrow planted in the fall will get their roots down better with winter weather, or transplant to larger pots to let them grow larger before transplanting to the garden. Also time to order fall bulbs to get top quality ones for fall planting. Happy gardening!



Deadheading flowers



# Growing Knowledge

## Useful books and web-sites

Lee Miller Master Gardener

Luther Burbank  
was the first  
internationally  
known  
horticultural  
celebrity.

Home gardens  
in cities and  
towns are being  
put to work.  
Instead of just  
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to produce food

**Jane S. Smith, *The Garden of Invention: Luther Burbank and the Business of Breeding Plants*** (New York: Penguin, 2009), 354 pp. My knowledge of Luther Burbank before reading this book was limited. I had searched out his home in Santa Rosa once while visiting there and was rather disappointed that it was not open and there did not seem to be much left of the gardens either. I knew that the Santa Rosa plum was a product of his labors, but I knew little more. This book was not only enlightening about the man and his many contributions to horticulture and culture, but also a very delightful read.

Luther Burbank was born in 1849 in Lancaster, Massachusetts. His father owned a 100 acre farm that was rich in clay deposits, so the most important product was Burbank bricks. His childhood was close to nature and rural life. He was a shy child and this seemed to be overcome by the necessity of becoming a self promoter in business. He grew up in an age of industrialization and invention, but also read Thoreau, Emerson and Longfellow. He worked as a youth at the Ames plow factory and the family hoped he would be an inventor as he demonstrated some talent in that direction. In his twenties he was inspired by Charles Darwin's book, *Variation in Plants and Animals Under Domestication*, which gave him the idea that new useful forms of plant life could be created and put into commercial production by hybridization, selection and grafting.

His first efforts in selection were rather fortunate. He noticed a potato seed ball on an Early Rose potato and marked it with a strip of cloth torn from his shirt. When he returned to the scene later the seed ball had fallen off and he spent 3 days on hands and knees finding it. The seeds were planted and produced some flops, but also one very productive and disease resistant potato. It was appropriately named the Burbank after the rights to the sale and propagation were sold for \$150 to James Gregory, a New England seed company entrepreneur.

Soon thereafter, in 1877, Luther moved to California with a dozen potatoes he sought to propagate on the West Coast. He went to join his brother, Alfred, in Santa Rosa. He rented some land and began a nursery which afforded him little income at first, but after successfully filling an order for 20,000 prune plums by budding almond root stocks, his reputation was made and his future promising. He was able to purchase some land and begin his experimentation with developing new plants. Over his lifetime he developed over 800 new vegetables, flowers, grains, fruits and nuts. Among these were: Shasta daisies, Satsuma plum, Paradox walnut, Royal walnut, Burbank rose, Burbank early tomato, Burbank Crimson California poppy, hybrid sunflowers, new Gladiolus hybrids, July Elberta peach, a very impressive variety of plant breeding activities.

Luther Burbank was the first internationally known horticultural celebrity. He was given many honors for his work and acclaimed a miracle worker for the improvements his plants made in agriculture and gardening. Henry Ford and Thomas Edison visited him in Santa Rosa after "Thomas Edison Day" at the Panama-Pacific Exposition held in San Francisco in 1915. The three famous entrepreneurs formed a friendship that would define each of them in new ways thereafter. Burbank saw himself as a man equal to the others as an inventor. Edison in his last years researched plants for rubber production, a Burbank idea, and Ford purchased and installed part of Luther Burbank's childhood home in Greenfield Village in Michigan.

Luther Burbank died in 1927. One of his legacies was new Federal legislation to strengthen Plant Patent Laws which never were adequate to protect his investments in plant inventions during his lifetime. This has had ramifications today with Monsanto patenting bio-engineered plants. They have been sued by people concerned about adverse bio-engineering impacts on nature and the contamination of seed stocks which, when planted, are then considered a violation of Monsanto's patent.

I found the history fascinating as were the many twists and turns of Luther Burbank's amazing life. He was a marvel and a legend in his own lifetime, but knowledge of his contributions has been dimmed with time. Jane Smith's research and writing beam new light on the man and his contributions. I highly recommend this book.

# Growing Knowledge

Bob Cox Master Gardener

## When a Home Garden Becomes an Urban Farm

Change is underway in back yards (and some front yards) across America. Home gardens in cities and towns are being put to work. Instead of just looking good most of the time, they are again expected to produce food—in some cases, quite a lot of it. Literally and figuratively this movement goes “back to the roots.” Until a couple of generations ago, gardens around most homes were primarily used for food production—for growing vegetables, herbs and fruits, for raising chickens and other poultry, as well as rabbits, goats, and even pigs. Over the last fifty years, space and effort apportioned to food production in home gardens in American cities and towns has diminished markedly.

Three articles appearing this month in widely differing publications make the case for restoring priority to food production. Michael Pollan in “The Food Movement, Rising,” *New York Review of Books* (June 10) 31-33 provides details for his argument that “the food movement coalesces around the recognition that today’s food and farming economy is ‘unsustainable’—that it can’t go on in its current form much longer without courting a breakdown of some kind, whether environmental, economic, or both.” With the passing of cheap oil, food will become more costly to produce and distribute, and Pollan urges that what is produced should enhance, not endanger, the health of those who consume it. Pollan’s article provides an excellent overview of the “re-emergence” on a national level of the politics of food production. It goes well beyond advocating that we just grow more food and less turf in our home gardens; it should be noted that Pollan took that position decades ago with humor and grace in his memoir, *Second Nature: A Gardener’s Education* (New York: Grove/Atlantic, 1991). No one who has read his chapter on the history of the American lawn, “Why Mow?,” can ever again look at residential landscape the same way.

In “Don’t Call It Gardening: A *Wired* Guide to Domestic Terraforming,” *Wired* (June, 2010), 162-71, Dominique Browning offers earnest and technically astute “terraformers” encouragement and plans for four different levels of commitment and space to work in: the 3 x 5 foot apartment balcony hothouse, the 20 x 30 foot urban plot “with room to grill, grow food, compost and raise some feathered friends,” the 32 x 48 foot suburban spread, providing spaces for herbs, vegetables and fruits, as well as for mushrooms, bees, chickens and fish, for compost and vermiculature, and a biofilter for grey water from fishpond and house going into the garden. Finally there is the plan for the exurban farm, featuring, in addition to all of the foregoing, a grey-water marsh for ducks and fish, bordered by rice paddies, spaces for barley and hops, and a bat house, all within a 40 x 60 foot plot. Such plans set aspirational goals for most of us, but are suggestive of what might be achieved in relatively small spaces through careful and informed planning. See an excerpt of the article with illustrations [here](#).

Rob Goordier, in “The Future of Urban Agriculture” *Popular Mechanics* (June 3, 2010), looks ahead at two models that scale up urban farms for commercial viability. One, dubbed the “Urban Space Station” is an aerodynamic rooftop hydroponic greenhouse pod in symbiotic relationship with the building beneath it, circulating and renewing air and water that both use. The other is the “Vertical Farm,” a purpose-built skyscraper that “doubles as a water treatment and waste-recycling facility”; it is designed to produce more food than the pod, but probably at a greater cost. Its viability depends on changes in the economics and politics of food production and distribution that advocates (and commentators like Pollan) see coming. Goordier’s article is also available on line [here](#). Proposals for Vertical Farms can be viewed [here](#).

For those looking for ongoing news of developments and discussion of issues pertaining to urban farming, there are now two publications. The first issue of *Urban Farm* magazine appeared this spring. The summer issue is available by clicking [here](#). Begun by the publishers of *Hobby Farm* and other special interest magazines, it offers views on contentious matters such as raising animals for meat, as well as practical tips on urban farming. *City Farmer News: new stories from Agriculture Notes* aims higher and wider. It’s a respected non-profit resource based in Vancouver, Canada, featuring developments in urban farming across the world; see the [City Farmer Site](#).

For those looking for information and advice from practitioners of urban farming, two offer especially well-developed websites. Soilborn Farms Urban Agriculture Project in Sacramento and Rancho Cordova is a non-profit organization with a substantial commitment to youth education and community outreach activities that has also developed an impressive agricultural capacity at its two locations. [See Soilborn](#). Jules Devaes and his children in Pasadena, CA, are proprietors of perhaps the most famous subsistence farm in America on a small residential lot—approximately 66 x 66 feet—from which they harvest and consume (or sell) up to 6,000 pounds of herbs, vegetables, fruits and berries every year. See their website, Path to Freedom: the original modern urban homestead, pioneering a journey one step at a time [here](#). Also see their extensive [YouTube videos page](#).

Cont. pg 13

# The Help Desk

Susan Price Master Gardener



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Blossom End Rot  
on tomatoes

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](mailto:mgsanjoaquin@ucdavis.edu)

Adult tomato hornworm and telltale droppings below.



UC Statewide IPM Project  
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## The Help Desk Frequently Asked Questions for summer

### What is chewing the leaves on my tomato?

The most likely culprit is the [tomato hornworm](#) (*Manduca quinquemaculata*), one of the largest caterpillars you will find in the vegetable garden. They are known for chewing entire leaves and stems. They also may take a chunk out of the fruit. Tomato hornworms and tobacco hornworms (a similar species) also attack other plants in the nightshade family, including potato, eggplant, pepper and tobacco. The tomato hornworm has a distinctive look, with 7 chevron-shaped white stripes and a horn at its rear end (Figure 1). Although adult males may be 4" in length, they are hard to spot in the garden. Their pale green color easily blends with the tomato leaves. To locate them, look for leaves with large black droppings. The worms are likely to be found directly above them. In late May, I saw the telltale signs of hornworms in my own garden. I found twelve young larvae in the topsoil and on the lower leaves of a single tomato plant growing in a wine barrel (Figure 2). It was easy to handpick the worms and dispose of them, but seeing them in such numbers has made me more vigilant in my monitoring practices. To prevent tomato hornworm damage

next year, till the soil after harvesting. This should destroy the pupae in the soil before it reaches the larva stage. It also helps to rotate to a non-host crop, to interrupt tomato pest activity.

Hornworms are relatively easy to control by handpicking or snipping with shears. Natural enemies normally keep populations under control. Hornworm eggs are attacked by [Trichogramma](#) parasites and the larvae by [Hyposoter exigua](#). There are also several [general predators](#) like ladybugs and lacewings, which eat the pest eggs. [Bacillus thuringiensis](#) or [spinosad](#) are effective against smaller larvae.

### My Tomatoes have big sunken brown spots on the bottom.

This sounds like the work of [Blossom End Rot](#). Plants with blossom end rot show small, light brown spots at the blossom end of immature fruit. The affected area gradually expands into a sunken, leathery, brown or black lesion as the fruit ripens. Hard, brown areas may develop inside the fruit, either with or without external symptoms. The disease is not associated with soil contact or with damage to other plant parts.

#### SOLUTIONS

Blossom end rot results from a low level of calcium in the fruit and water balance in the plant. It is aggravated by high soil salt content or low soil moisture and is more common on sandier soils. To reduce rot, monitor soil moisture to make sure that the root zone neither dries out nor remains saturated. Follow recommended

rates for fertilizers. Some varieties are more affected than others. The disease is not caused by a pathogen; there are no pesticide solutions.

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For more information on common tomato problems in the garden and general management of tomatoes [click here](#)

# Coming Events

Corinne Bachle Master Gardener

## JULY

**July 10, 2010, 10:00 – 11:30 a.m.**  
Home Gardening Session with the San Joaquin UC Master Gardeners  
Fall Vegetable Gardening  
San Joaquin County Historical Museum (\$5.00 parking for non-Museum members)  
11793 N. Micke Grove Road, Lodi, CA

**Saturday, July 10, 2010, 10 a.m. to 1 p.m.**  
SF Botanical Gardens  
Plant Sale: Salvias and Shrubs  
[www.sfbotanicalgarden.org](http://www.sfbotanicalgarden.org)

**Saturday, July 24**  
UC Davis Arboretum  
Guided Tour: Meet the Mighty Oaks  
10:00 a.m., Gazebo, Garrod Drive, Davis, CA  
*Learn the stories of these magnificent trees and see recent upgrades in Shields Oak Grove.*  
<http://arboretum.ucdavis.edu>

## August

**Saturday, August 7, 2010, 8:00 a.m. – 2:00 p.m.**  
Fair Oaks Horticultural Center  
Harvest Day. Watch demonstrations and how-to sessions, listen to speakers, visit educational booths, and tour the Center's gardens.  
8010 Temple Park Road (near Madison Avenue & Fair Oaks Blvd), Fair Oaks, CA [Click here](#)

**August 14, 2010, 10:00 – 11:30 a.m.**  
Home Gardening Session with the San Joaquin UC Master Gardeners  
Keeping Your Roses Happy, Healthy and Beautiful  
San Joaquin County Historical Museum (\$5.00 parking for non-Museum members)  
11793 N. Micke Grove Road, Lodi, CA

**Saturday, August 14, 2010, 10 a.m. to 1 p.m.**  
SF Botanical Gardens  
Plant Sale: Shade Plants

**Saturday, August 14, 2010 10:00 a.m.,**  
UC Davis Arboretum  
Guided Tour: An Oak Oasis in August  
Gazebo, Garrod Drive  
*Enjoy the shady oasis of the oak grove on a hot summer day and discover why these trees are so special.*

**August 16-20th at the MA Center in Castro Valley**  
Soil Food Web and the Compost Tea Revolution with Dr. Elaine Ingham  
Sign up for individual days or the whole course. Organic meals included. Optional Camping. For more info [click here](#)

## September

**Saturday, September 11, 2010, 10 a.m. to 1 p.m.**  
SF Botanical Gardens  
Plant Sale: Native Plants & Succulents

**September 11, 2010, 10:00 – 11:30 a.m.**  
Home Gardening Session with the San Joaquin UC Master Gardeners  
Being Green in the Garden PLUS Kids' Class: Being Green and a special craft.  
San Joaquin County Historical Museum (\$5.00 parking for non-Museum members)  
11793 N. Micke Grove Road, Lodi, CA

**Saturday, September 11, 2010**  
UC Davis Arboretum  
Guided Tour: Discover Plants from Down Under  
10:00 a.m., Wyatt Deck, Old Davis Road  
Plants from Australia grow well in our Mediterranean climate. Learn about the fascinating flora of Australia and see what can grow in your yard.

**Saturday, September 11, 2010, 8:30 – 11:30 a.m.**  
Fair Oaks Horticultural Center  
Open Garden. Drop by to see the Center's gardens on your own and get ideas and advise from Master Gardeners on creating a

beautiful and productive river-friendly garden.  
8010 Temple Park Road (near Madison Avenue & Fair Oaks Blvd), Fair Oaks, CA  
[Workshop Schedule](#)

**Sunday, September 12, 2010**  
UC Davis Arboretum  
Guided Tour: Shade or Sun? Find the Perfect Spot for Your Plant  
10:00 a.m., Gazebo, Garrod Drive, Davis, CA  
Explore the Storer Garden top learn how sun and shade should guide where you locate plants in your garden.

**Saturday, September 18, 2010**  
UC Davis Arboretum  
Guided Tour: The Arboretum Terrace Garden  
10 a.m., Arboretum Terrace Garden, Davis Commons, First and D Streets, Davis  
*Take a guided stroll through the Terrace Garden to find great ideas for combining plants in beds and containers for year-round interest.*

**Saturday, September 25, 2010 10:00 a.m.,**  
UC Davis Arboretum  
Guided Tour: Outstanding Oaks!  
Gazebo, Garrod Drive, Davis, CA  
Fall is the perfect time to get to know oaks. Tour the Arboretum's world-class oak collection and learn about the special adaptations of these majestic trees.

**Sunday, September 26, 2010**  
UC Davis Arboretum  
Guided Tour: Perennials in the Garden  
10:00 a.m., Gazebo, Garrod Drive, Davis, CA  
Tour the Storer Garden and White Flower Garden and learn how to pick perennials to beautify your landscape this fall and beyond



# Product Stewardship

Dave Gorton SJ County Solid Waste Dept.

For more information on the Paint Product Stewardship Program in San Joaquin County [click here](#)

For information on where to recycle in San Joaquin County and for answers on what to do with hazardous materials [click here](#)



Product Stewardship is new to America, but the concept has been in practice for years in many countries around the world. “Product Stewardship”, also known as “Extended Producer Responsibility”, requires manufacturers to take responsibility for the costs associated with the products they make throughout its entire lifecycle. These lifecycle costs include the costs of disposal or the recycling of the product.

Why is it important that these costs are shifted to the manufacturer? A fictional story will help illustrate why Product Stewardship should be embraced in the United States. This scenario is not based in fact whatsoever:

Glassmat Industries, Inc. made a technological breakthrough which enables them to produce a battery that can power an entire household for a one year period. Once purchased, the battery allows home owners to save an average of \$500 per year on energy costs versus energy purchased through the utility company. This battery contains a newly discovered radioactive substance called Pollutonium which is cheap and easy to produce. Pollutonium costs one quarter of what Cleanium, a competing less toxic material, costs. Both Pollutonium and Cleanium are hazardous materials that are banned from the landfill and each requires special handling to process. Although Pollutonium is 10 times as hazardous and costs 100 times more to properly dispose of than cleanium, Pollutonium is the material that the manufacturer chooses to use in its products.

You may be thinking to yourself, “if Pollutonium is 10 times as hazardous and it costs 100 times more to dispose of than Cleanium, why have the manufacturers selected Pollutonium for their products?” The simple answer is: it makes them more money. Manufacturers don’t worry about end-of-life toxicity and disposal costs because they don’t have to pay those costs. Why would manufacturers make products that are more recyclable or less hazardous when there is no incentive for them to do so? Under our current system, taxpayers are on the hook for disposal costs. That’s right, manufacturers can make extremely hazardous products that are very difficult and expensive to properly dispose of and the general public picks up the tab for disposal. The burden of disposal costs should rightfully be placed on manufacturers and passed through to consumers that benefit from the product.

And that, my friends, is where Product Stewardship comes in. The Product Stewardship model shifts the end-of-life disposal costs of products from the taxpayer to the manufacturer and holds industry responsible for the disposal costs of the products that *they* manufacture. Once manufacturers are required to carry this burden, Cleanium starts to look pretty good when compared to the cost of disposing of that more hazardous Pollutonium. With Product Stewardship in place, manufacturers will design their products with disposal in mind, using less-hazardous substitutes and making products that are easier to recycle. Please support Product Stewardship and Extended Producer Responsibility for a more recyclable and less toxic future.



# Recipes of the season

## Zucchini Bread

(Makes 2 loaves)

Kathy Basque

- 3 eggs
- 2 cups granulated sugar
- 1 cup vegetable or canola oil
- 2 cups grated, peeled raw zucchini
- 3 tsp vanilla extract
- 3 cups all-purpose flour
- 1 tsp salt
- 1 tsp baking soda
- ¼ tsp double-acting baking powder
- 3 tsp ground cinnamon
- 1 cup coarsely chopped filberts or walnuts

Beat the eggs until light and foamy. Add sugar, oil, zucchini, and vanilla and mix lightly but well. Combine the flour, salt, soda, baking powder, and cinnamon and add the egg-zucchini mixture. Stir until well blended, and nuts, and pour into two 9x5x3-inch greased loaf pans. Bake in preheated 350° oven for 1 hour. Cool on a rack.



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to

## Aunt Donna's V-8 Juice Deluxe

Kathy Basque

- 1 Gallon tomatoes (washed, quartered & cored) no need to peel
- 1 Large onion sliced
- 3 Stalks celery, chopped with leaves left on
- 1 Green Pepper, chopped
- 1 ½ tsp. Worcestershire sauce
- 4 tsp. salt
- ½ Cup sugar
- 2 tsp. chili powder
- 1 tsp. ground black pepper
- 2 Bay leaves (removed after cooking process)
- 1 Fresh beet may be diced & cooked for added color

Combine all ingredients in a non-reactive stock pot and simmer for 1 ½ hour, until vegetables are tender. Remove bay leaves. Force mixture through a sieve, chinoise or food mill, discard pulp.

Ladle hot juice into sterilized jars leaving ¼" of headspace. Wipe the rims and add the lids, then tighten the rings just until resistance is met. Fill your canner about halfway full of tepid water. Arrange the jars around the base of the canner and add water, if needed, to cover the jars about 2/3 way up. Cover and bring to a full, rolling boil. Start timing at that point. Process jars for 25 minutes. Carefully transfer finished jars to a cooling rack or a towel on the countertop. Allow to cool overnight without disturbing the jars.

If the jars have sealed, the center of the lids will be tight when pressed gently. If the seal has failed, it will pop down and then back up when pressed. Any jars with failed seals should be stored in the fridge until used. The rest of the jars can be stored in a cool place for up to a year.

## Growing Knowledge Continued from pg. 9

Finally, two books provide well-written personal accounts of their author's development of a garden, which has, in effect, become an urban farm. Even though the two "farms" are within thirty miles of each other—one located in Los Altos, the other in "ghost town," an especially gritty neighborhood near downtown Oakland—they are worlds apart in almost every respect. So are the books. Indeed, it's hard to imagine books more different in format and style that nonetheless make the same point: put your garden to work—grow your own food. The first is the much anticipated and probably definitive revision of Rosalind Creasy's 1982 classic on edible landscape; it will be available later this year with the title *Edible Landscaping: How You Can Have Your Gorgeous Garden and Eat It Too* (San Francisco: Sierra Club Books, November, 2010). For nearly three decades Creasy has rethought and updated information in her earlier work, incorporating it in public lectures and subsequent publications. Her website, by the way, includes wise advice based on her experience raising chickens. See [here](#).

The second book is Novella Carpenter's *Farm City: The Education of an Urban Farmer* (New York: Penguin, 2009), which NPR gardening reviewer Ketzell Levine calls a "hands-down favorite of 2009 ... The cheekiest manifesto on homesteading you're ever likely to read." For the past seven years Carpenter has farmed a vacant lot next to her apartment on a dead-end street in Oakland. Strewn with trash and overgrown with four-foot high weeds when she began, after several years there were bees, chickens, ducks, a goose and rabbits, and "there was a lime tree near the fence, sending out a perfume of citrus blossoms from its dark green leaves. Stalks of salvias and mint, artemisia and penstemon. The thistlelike leaves of artichokes glowed silver. Strawberry runners snaked underneath raspberry canes." As the *New York Times* reviewer noted, however, this is not just a book about growing plump tomatoes. "In fact *Farm City* is a serious, if tragicomic, meditation on raising and then killing your own animals. She wants to have 'a dialogue with life,' she writes, and she realizes she can do that only by also having a dialogue with death." Carpenter is a superb writer and skilled gardener who, by virtue of this fresh and very funny book, has become a celebrated spokesperson for the urban farming movement with a full schedule of appearances. For a YouTube video of Novella Carpenter with Michael Pollan in the Berkeley Arts and Letters series see [this site](#). For Carpenter's own website, with a link to her Ghost Town Farm blog, [click here](#).

## San Joaquin County Master Gardeners

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sjmastergardeners.ucdavis.edu](http://sjmastergardeners.ucdavis.edu)



### Master Gardeners at Work in the Community

A few weekends ago the Master Gardeners, along with some neighborhood residents, spent a Saturday working on a xeriscaping landscape in Lodi.

Twenty volunteers in all helped put in the new landscape on Saturday, June 26, in the Pt. Chelsea walkway to English Oaks Park. About 8 people came out from the neighborhood to work, including a young family with 2 children.

Master Gardeners helped with the design, plant selection as well as the installation. This landscape design will be low maintenance and low water using while still be esthetically beautiful to look at.

## Top 10 Signs You Have Too Much Zucchini



10. You leave zucchini on your neighbor's doorsteps, ring the bell and run. (That'll teach them for running inside and pretending not to be home!)

9. You have a zucchini bread for breakfast, a zucchini omelet for lunch, zucchini casserole for dinner and chocolate zucchini cake for dessert.

8. You lie awake at night trying to think of new zucchini recipes. Zucchini wine? Chocolate covered zucchini?

7. The stores pay you to take some off their shelves.

6. Even the field mice and rabbits stop eating it.

5. You till under the Zucchini plants, but still have more today than you had yesterday.

4. Nightmares about a giant Zucchini wakes you in the night.

3. Your kids are using it for building blocks and other toys.

2. You spray your zucchini plants with sugar water to attract insects. But, they won't bite.

### And, the number one sign that you have too much Zucchini..

1. Your unpicked zucchini grows to the size of baseball bats, and you allow the neighborhood kids to use the zucchini for batting practice.

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# Home Gardening Sessions

with the  
**San Joaquin**  
**UC Master Gardeners**

<b>Month</b>	<b>Gardening Session with Master Gardeners</b>
January 9th	Bare root season- Fruit trees/berries/grapes/roses for the home garden.
February 13th	Landscape planning and eco-friendly landscapes.
March 13th	Spring Vegetable Gardening Kids Class* Gardening Basics and seed planting
April 10th	An Introduction to Integrated Pest Management
May 8th	Container gardening and gardening for small urban spaces. Kids class*: Beneficial in the garden and a Special Craft
June 12th	Growing citrus in your back yard.
July 10th	Fall Vegetable Gardening
August 14th	Keeping your roses happy, healthy and beautiful.
September 11th	Being green in the garden Kids Class* Being green and a special craft
October 9th	Create a more sustainable landscape with drought tolerant plants.
November 13th	Planning the next vegetable garden of heirlooms *Kids classes Open to kids ages 5-10

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 11:30 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



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