Coordinator Corner

Marcy Sousa, Master Gardener Coordinator

The weather is beautiful, the bees are buzzing, and I hope you are enjoying some gardening! Spring is the busiest time of year for our Master Gardener program! We just celebrated the half-way point of our 19-week training program for our new group of Master Gardener trainees. If you are out and about, you may see us at some of the local community events taking place like the Lodi Arbor Day celebration or the Earth Day event at Victory Park. Check out our calendar of events to find out what we have going on throughout the community. We have been involved in both the SICL program at Delta College and OLLI at UOP, giving gardening classes to their participants. We will also host a mini series of classes at the Lodi Public Library (check the calendar for more info). Master Gardeners will soon have a table at the local farmers’ markets in the county, stop by and say hello!

We are really excited about our spring Open Garden Day which will take place April 22 from 9-12. We will have tomato plants for sale, tool sharpening, and several other displays along with our Master Gardeners who will working in the garden and will be available to answer your gardening questions. For more information, click here.

At the end of this newsletter, you will find the Master Food Preserver Newsletter attached. This is a new project for them and if you are interested in food preservation, I strongly suggest signing up here to receive their quarterly publications. They are also accepting applications for their upcoming training classes.

I hope you find this edition of Garden Notes full of helpful gardening info and tips! Happy Gardening!

Understanding Plant Labels

Corinne Bachle, Master Gardener

Plant labels can be the key to many successes in your garden. It is important to understand what all that means when selecting and growing plants. If you don’t understand all that lingo, you’re certainly not alone!

Labels differ widely depending on the grower, and some have a good deal more information than others. Here are some common words and what they mean to you:

The COMMON NAME is the name the average gardener uses to refer to the plant. An example would be Dwarf Swiss Mountain Pine. A major hint in the common name is “Dwarf” which indicates the plant is going to remain small. If you are looking for something larger, you can take this hint and move on.

The BOTANICAL NAME for this same plant is Pinus mugo pumilio. The botanical name gives more precise information as to genus and species and is what should be used when discussing a specific plant with a nurseryman in order to get exactly what you are looking for. An example would be an “Acacia.” You could be referring to Acacia c. Cousin ITT which is a small evergreen shrub with no flowers and weeping foliage, or you could be referring to Acacia aneura which grows to 20 feet tall and wide with yellow flowers in winter and spring.

ANNUAL or PERENNIAL lets you know if you can expect this plant...
Emerging shoots of soft green leaves and the delicate flower heads of spring celebrate the very idea of renewal. If your garden needs some renewing, now is the time.

**April Ideas**

**Plant** –

*New trees* and shrubs need a hole about twice the width of the root ball. Build a cone of soil in the center of the hole tall enough so the new plant will be level with the surrounding soil when placed on top of it. Gently knock the plant from its pot. Use your fingers to uncoil and separate any bunched-up roots. If the root ball is solid, use a knife to score four 1/2-inch-deep cuts around the sides and one on the bottom (don’t do this on bougainvillea). Set the roots atop the cone, refill the hole, and water thoroughly to eliminate air pockets. You should be able to see the beginning of the root flare on trees at or above the surrounding soil. Add a 2- to 3-inch layer of mulch around the plants, keeping it about 4-6 inches away from trunks and stems. This is a good time of year to plant citrus trees.

*Freshen up* your container gardens with new plantings of colorful annuals such as marigolds and petunias for sunny areas or impatiens and fuchsias in shady areas.

*Tomatoes*, *peppers*, *eggplant*, *leeks*, *carrots*, *cucumber*, *corn*, *green beans*, and *squash can be planted* in mid-April once the soil stays warm overnight. Tomatoes, peppers and eggplant will fare best if planted as transplants; the rest grow well from seed.

**Maintenance** –

*Continue composting* as you groom your garden. To process your compost pile quickly, keep it as damp as a wrung-out sponge and turn it frequently. If you can’t turn your compost as frequently as you’d like, don’t forget that the “let-it-rot” method also works; it just takes longer.

*Thinning* improves the size of fruit, reduces the risk of broken branches, and keeps trees producing annually rather than in alternate years. Before apples, Asian pears, nectarines, plums, apricots, and peaches reach an inch in diameter; gently twist off enough fruit to allow 4 to 6 inches between remaining individual fruits.

*Weeds* will flourish in spring if you don’t keep after them. Remove them while they’re in the small rosette stage before they set down a tap root.

*Feed* your houseplants on a monthly basis from March through October.

*Check* your *sprinklers* to be sure they are working properly and not wasting water. There is a comprehensive spring tune-up guide for sprinklers in the [2010 April - June Master Gardener Newsletter](#).

As temperatures rise, deep-water established plants often need to prevent wilt and promote deep rooting, but to be sure you don’t over-water check soil moisture around roots with a moisture meter probe or by digging down with a trowel. Soaker hoses apply water directly to the soil with very little evaporation.

**Maintain your lawn**: *Fertilize* now with a balanced slow release or organic fertilizer according to the directions on the package. Organic fertilizers react more slowly, but will eventually provide a lush result. If crabgrass has been a problem in past years, you may want to consider a pre-emergent/fertilizer mix. These are available at retail outlets to homeowners and through licensed professional applicators. Help preserve our waterways by avoiding getting granules on hardscape surfaces which may wash off into drainage systems.

**In May**

**Plant** –

*Annuals* planted in May provide good summer color. Flowers in six packs are a good buy. They’ll catch up quickly to those growing in 4-inch pots and jumbo packs. (However, to produce instant color for a special event, use 4-inch plants.)

*Summer-blooming vines*, grown up a narrow structure, add color and height to even the smallest gardens. Before planting, set a sturdy structure with enough height and heft to support your vine (adding a structure later is difficult). As shoots grow, train them to the support with self-gripping Velcro, plant tape, or twist ties.

*Vertical accents* in borders can be achieved by growing tall, upright bedding plants behind shorter ones.

*Chrysanthemums* will provide beautiful fall flowers if you start seeds this month. **Continued on pg. 16**
It started with a small group of people dedicated to helping Stockton come back to its agricultural roots. They were committed to teaching the community about the importance of eating healthy fruits and veggies. Most importantly, they wanted to teach folks, adults and children, the joy of growing their own gardens.

Today, the 6.5 acre Boggs Tract Community Farm has become not only a small working urban farm, but an incubator for teaching the community how to grow veggies, herbs, flowers, fruit trees, raise chickens, compost, and more. The education has even gone beyond home gardening and expanded to teach those interested how to become urban farmers in the Nurbaculture (Natural Urban Farming) Apprentice Training Program.

Founded by Stockton native Jeremy Terhune, the concept came to him as a Peace Corp volunteer working in Panama. Working with locals, he taught them how to grow their own gardens that provided much-needed nutritious food. During his four-year stint in Panama he realized his “grow your own” concept was just what his hometown of Stockton needed where there were and still are, high rates of obesity, diabetes, and other nutrition based illnesses in both adults and children.

When he returned to Stockton, he found support for starting a community farm from the Port of Stockton which leased him the land in the Boggs Tract neighborhood for a token $1 per year. Working with a small group of like-minded residents, Jeremy formed the non-profit PUENTES (Spanish for bridges) and broke ground in 2011 on the Boggs Tract Community Farm.

Today, the year-round farm has customers who purchase boxes of all-natural produce each week. Customers can add jars of honey from the Boggs Bees and eggs from the farm’s resident laying hens. Gardeners, novice and experienced, rent 20’x20’ raised beds for $60 that includes water, compost, drip irrigation lines, seeds and an opportunity to learn. In exchange, the “stakeholders” volunteer time working the farm. The stakeholders come from all different walks of life and cultures, but they all have one thing in common — a love of gardening which they share with one another to create a sense of community.

Gardening continues with students from nearby Washington Elementary School who have been coming to the farm on a weekly basis since the farm’s beginning. The children meet in the farm’s Classroom Garden, where they learn to grow their own veggies, both from seeds in the greenhouse and in their raised beds. They know the importance of pollinators, what compost does, and what it takes to successfully grow plants. This year, thanks to grant funds, the neighborhood children will be able to participate in a farm summer camp to learn more about gardening and experience other outdoor activities.

Interested community gardeners can take advantage of the monthly education workshops held on the farm, 466 So. Ventura Ave., from 11:30 a.m. to 1:30 p.m.. The classes are taught by Farm Educator and farmer, Shayne Zurilgen. The classes are free and the public is highly encouraged to attend.

Upcoming classes include:
April 23  Composting
May 21  Chicken Keeping at Home
June 25  Bee Keeping
July 16  Growing and Using Herbs
August 20  Perennial Vegetables
Sept. 17  Natural Pest Management
Oct. 15  Winter Veggies
Nov. 19  Season Extension
Dec. 17  Soil Building
Jan. 21  Fruit Tree Pruning and Care
**Aphids** are small plant-sucking, soft-bodied true bugs. They come in many sizes, shapes and colors (green, black, yellow, brown, and red) and are a common insect in the garden. They attack many vegetable plants, fruit trees, and ornamental vegetation. They are commonly found on roses in the spring. You can usually determine whether aphids are infesting your plants by noting curled, distorted leaves with sticky honeydew on them. Aphids excrete copious amounts of honeydew, rich in sugars. Ants will also be noticeable because they feed on the sweet honeydew. Honeydew encourages growth of sooty mold fungus – a black film on leaf surfaces.

Aside from the damage aphids can do to a plant’s appearance, aphids can transmit viruses from infected plants to healthy plants. In fact, aphids are the most important vectors of plant viruses, which they carry on their stylets or accumulate in their guts and transmit via their piercing and sucking mouthparts when they feed on young leaves and stems.

If the infestation of aphids is low to moderate, they can usually be tolerated. Control aphids by hosing them off with jets of water or use soap solution or oil sprays. Naturally occurring predators such as lady beetles (adults and larvae), soldier beetles, lacewing, and syrphid fly larvae and parasitic wasps, also serve to control aphids. However, the ability of predators and parasites to control them can be thwarted by ants protecting their food source. Therefore, ants need to be excluded from aphid colonies by applying sticky material such as Tanglefoot to the bases of infested plants. See IPM Aphid Pest Note for additional information.

**Phytophthora** fungi cause a number of diseases with different names depending on the part of the plant affected: Roots (root rot), trunk (crown rot, collar rot or foot rot), and fruit (brown rot of citrus.) Phytophthora rot in general, can attack all herbaceous and woody plants, including deciduous fruit and nut trees as well as most ornamental trees and shrubs.

Root rot destroys feeder roots that are weakened by excess soil moisture. Crown rot presents as beads of sap oozing from lower trunk lesions; the bark will be dark and slimy or rose-colored. However, the bark discoloration does not extend into the wood.

The leaves of a plant affected by Phytophthora rot appear drought stressed in that the tree or plant will often show signs of wilting. The leaves may turn a dull green, yellow, or purplish color and drop. The tree or plant may decline over a period of several years before eventually dying, or it may die within a year.

To avoid Phytophthora root rot, purchase healthy trees with rootstocks tolerant to pests and diseases. Proper soil preparation and good drainage are essential. To avoid crown rot, keep mounded soil and water away from trunk. Avoid damaging bark with lawn mowers and weed whackers. If infection of the trunk occurs, scrape away all diseased bark and include a buffer strip of about one inch of healthy light brown to greenish bark around margins.

To view a video in which Farm Advisor Chuck Ingels distinguishes the symptoms caused by Phytophthora root and crown rot from those caused by bacterial canker in stone fruit orchards, click here. Additional Information can be found here.

You bend down to pull a weed with your bare hand and feel a sharp pain – not in your back but on your hand! You’ve likely just encountered a stinging or burning nettle, a broadleaf member of the **Nettle Family (Urticaceae)** found in California landscapes and uncultivated areas. When direct skin contact is made with this plant’s tiny hairs, a stinging or burning sensation is felt – sometimes for up to several hours.

The leaves of both nettle species at maturity are oval with toothed edges, though the burning nettle’s leaves are more rounded than those of the stinging nettle. Both plants have stinging hairs on their stems, leaf stalks and lower surface of their leaves. The burning nettle has a slender taproot along with numerous lateral roots. In contrast, the stinging nettle may, under favorable conditions, grow in large clumps from rhizomes. Mature stinging nettle plants typically reach up to 10 feet tall while the burning nettle plants are usually 5 to 24 inches tall.

The burning nettle is a summer annual. Its seeds germinate in late fall to early spring and its small, greenish white flowers bloom from January through April. The stinging nettle is a perennial. Its seeds germinate in the spring and the flowers bloom from March to September. The stinging and burning nettle is best controlled using cultural methods (i.e. good soil management) and mechanical or physical methods (i.e. hoeing or hand pulling with gloves). In removing stinging nettle, care should be taken to remove the rhizomes as well as the surface plant or the weed may return. For additional information click here.
The generous rains that filled reservoirs and rivers this winter have prompted the long-awaited greening of our gardens. We shouldn’t forget, though, the austerity of drought will probably visit us again. With that in mind, we can plan ahead and think about those California natives that offer texture, color, and critter-friendly habitats for our gardens without demanding much more than an occasional bit of water.

**Tree: Penstemon heterophyllus X 'Margarita BOP' (Blue foothill penstemon), Family: Plantaginaceae**

Take a walk in urban residential neighborhoods and in some water-wise gardens, your eye might be drawn to the woody-based, bushy perennial Penstemon heterophyllus X 'Margarita BOP'. (“BOP” means “back of the porch,” where this naturally hybridized penstemon was discovered.) This is a dependable native perennial with a fairly long bloom cycle. It’s known for lasting longer than some other penstemon varieties and for its adaptability to clay soil. The snapdragon-like flowers appear on 18” stems from spring through mid-summer. The flower colors range from bright sky blue to reddish purple and can vary from year to year and sometimes from plant to plant. (The soil, sunlight and watering all can change the flower color.) Shiny narrow blue-green leaves fill the stems. *Margarita BOP* is ideal for dry, well-drained rock gardens and containers. Blooms can be prolonged by dead-heading the blossoms. Blue foothill penstemon attract hummingbirds and the cut flowers hold up well in arrangements. Plant this beauty in full sun and keep it going with minimal summer water.

**Shrub: Calycanthus occidentalis (Western Spice Bush), Family: Calycanthaceae**

The beauty of this deciduous shrub will allow you to forgive yourself for splurging on a little extra occasional watering. What makes the Calycanthus occidentalis special is its uniquely fragrant flowers and leaves, suggestive of old wine (Really!). Its deep burgundy flowers are shaped like small water lilies and are abundant from April through August. Although its preferred habitat is a riparian setting, it grows happily in the Central Valley heat if it’s in a cool, shady spot. Its adaptability to various soil types make it a winner here as well. Use it as a hedge along a walkway, or to soften the angular lines of a wall. (One problem with the Western Spice Bush is that it’s susceptible to leaf burn if it goes dry.) The natural growth pattern of this shrub is round and full. Once established, it grows quickly (up to 8-10 feet) and can spread into a thicket by layering and sending out rhizomes, so it might need containment to keep it in check.

**Tree: Chilopsis linearis (Desert Willow and California Orchid Tree), Family: Bignoniaceae**

Originally a native from the desert regions of California, the Desert willow has found a welcome place in the hot central valley. Sun, heat, and occasional deep watering keep it in bloom and offering shade during the hottest months of the year. The narrow leaves are reminiscent of willows, but Chilopsis linearis is actually in the trumpet vine family. The fragrant three-inch long tubular flowers are brightly colored (white, deep pink, burgundy) and attractive to hummingbirds. Its young branches often have a dramatic dark purple hue that turns to gray as the branches age. This fast-growing deciduous tree can reach 12-20’ in height and width. It is forgiving of many soil types and is disease resistant. Careful pruning can open up this shrubby tree and give it a more formal tree-like appearance.
Spring is upon us, and with the season comes a rush of new plant growth and the urge to spend time in our gardens. Although fertilizer might seem a dry topic, give it some thought before you visit your favorite nursery.

Fertilizing plants is often equated with “feeding” them, but plants produce their own food through photosynthesis, using the sun’s energy to convert carbon dioxide and water to sugars and oxygen. Fertilizers do, however, provide plants with essential nutrients for cell development, function, and growth.

The basic purpose of fertilizers is to replace soil nutrients that deplete over time. Soil composition and pH have a direct effect on what nutrients can be absorbed by plants and how efficiently, so it’s wise to do a basic soil test before choosing or using a fertilizer to remedy any apparent nutrient deficiencies.

Fertilizers come in two basic types: organic (those derived from natural sources, including plant compost, animal manure, fish emulsion, and bone meal) and inorganic (composed of synthetic chemicals). Organic fertilizers have many benefits: they release nutrients over a long period; they improve the structure and water-holding capacity of soil; and they have a complex profile of macro- and micronutrients. The downside is that they’re more expensive and can vary in content or quality. Inorganic fertilizers release nutrients quickly, are consistent in composition, and are less expensive, but they don’t improve soil quality or contain as many nutrients.

Every fertilizer label shows something called the “N-P-K” ratio, which indicates the percentage by volume of nitrogen (N), phosphorus (P), and potassium (K). A “balanced” fertilizer has equal amounts of each of these three plant macronutrients; for example, a product labeled 16-16-16 has 16% N, 16% P, 16% K, and 52% other ingredients. A “complete” fertilizer contains all three major nutrients; an “incomplete” fertilizer has only one or two of them.

You might think, “If I use more fertilizer than recommended, my plants will grow even better.” No! Many serious problems can result from overuse of fertilizers. Too much fertilizer can burn plant roots and foliage; surplus nitrogen can leach into and pollute water, and excess nutrients can over-stimulate plant growth, leading to an unnecessary cycle of frequent pruning and stressed, disease-susceptible plants. Fertilizers should always be applied according to the instructions.

It’s also tempting to try shortcuts, and rationalize, “One kind of fertilizer will be fine for all my plants.” Wrong! Plants have unique nutrient requirements, and different fertilizers are formulated for different purposes. For example, many plants native to Australia can be harmed or killed by phosphorus-containing fertilizers, while other plants need phosphorus to thrive. A fertilizer intended for citrus trees is different from that designed for acid-loving azaleas and camellias… and so on.

Timing is another key consideration: season, rainfall, planting dates, and other factors are important in determining the right time to fertilize. If deciding when to fertilize shrubs and trees, their age, maturity, and species should be considered. Lawns are still another matter, and homeowners tend to apply fertilizer on lawns unnecessarily and wastefully.

An effective alternative to commercial lawn fertilizers is the easy practice of “grasscycling.” Grass clippings become natural fertilizer when they’re allowed to remain in place after mowing — they decompose and return nutrients to the soil. Grasscycling is often thought of as a relatively new sustainable practice, but its benefits have been known for many decades. I recently stumbled across a 1924 article from a Midwestern newspaper that cited this advice from the U.S. Department of Agriculture: “Cuttings should begin early with the lawn mower set as high as possible and should be repeated frequently. The clippings should all remain upon the lawn. The more of these clippings that can be retained about the roots of the grass the better the chances for a good lawn.” Nowadays, lawnmowers can be fitted with special mulching blades to make the process more efficient and the clipping size small.

By now, it should be clear that fertilizing is a very complex topic with far more detail than can be covered here. Before you fertilize, make sure that you—or those you hire to care for your garden—fully understand the specific goal of fertilizing; the product that will best meet that goal; and the proper rate, method, and timing for applying the chosen fertilizer.

Two excellent online resources are “A Gardener’s Guide to Fertilizing Trees and Shrubs” (NC State University) and “The UC Guide to Healthy Lawns” (UC IPM). You can also consult the California Master Gardener Handbook (Chapter 3 – Soil and Fertilizer Management) for in-depth guidance.
Weedless Gardening by Lee Reich

Weedless Gardening by Lee Reich, 2001, Workman Publishing, New York, 200 p. This is not a new book, but it is new to me. I bought it a long time ago and it got out of sight out of mind for several years until I found it recently. Lee Reich has a PhD and has done soil and plant research for the USDA and for Cornell University. Hence, his authoritative writing is well worth reading. The author blames Jethro Tull for our tilling the soil for new gardens. Jethro thought that pulverizing the soil made the particles of soil small enough that the plants could more easily gobble them up.

Well, we know better now, but we still till our soil and the good part is that loosening the soil does allow roots, water and air greater ease of penetration, but the downside is that weeds tend to flourish too and weed seeds in the soil seed bank are exposed so that they germinate. Reich provides a historic synopsis of non-tilling ideas from Plowman’s Folly in 1943 to Ruth Stout’s 1950’s ‘No Work Gardening Book’ where bales of hay are used to smother weeds without tilling. He also mentions: Fukuama’s ‘One Straw Revolution’ in 1978 and Patricia Lanza’s ‘Lasagne Gardening’ 1998. All of these authors suggested methods of gardening without tilling.

Reich basically thinks we should be gardening from the top down. There are good reasons to support this. In nature the only tilling done is by earthworms, organic matter is conserved and if soil is not compacted by us or animals there is no need to dig.

There are four major components of his top down gardening strategy: 1. Minimize soil disturbance by using the least soil disturbance when planting plants or seeds or when harvesting root crops. 2. Protect the soil surface from sun and rain with mulch or even living plants. 3. Avoid soil compaction by staying off planting areas. 4. Drip irrigation will help keep weeds to a minimum. The benefits are many to this approach. Earlier planting can occur if soil microbes are not digesting a lot of weed biomass turned under by digging or rototilling. Non disturbance of soils particles allows capillary attraction to move water upward to replace water used by the plants. Plants apparently thrive well in undisturbed soil. After all, nature for millions of years creates soil from the top down with leaves and other organic matter accumulating on the surface and eventually becoming humus to feed the plants, so plants are well adapted to this approach.

Much of the book is devoted to the practical ways to accomplish top down gardening. Differing soil types and vegetation conditions are described and how to deal with each set of circumstances. Chapter 4 deals extensively with the making of compost and the use of drip irrigation. This chapter alone would be very helpful to the novice drip irrigation user with sample calculations for irrigation schedules.

The last three chapters of the seven chapter book deal in somewhat conventional terms with vegetables, flowers and herbaceous ground covers, and trees and vines to plant and how to care for them. While these are subjects fairly well known to experienced gardeners, there are tips and ideas presented along the way that make them worth reading. Appendices give advice and information on soil testing. The index appears to be well done too; with subjects alphabetically obvious.

There are boxes throughout the book that explain terms, provided definitions of specific subjects or provide source lists for gardening materials or information. I think many gardeners would find these helpful. This is an excellent book that challenges a lot of our conventional ideas on gardening and it has the potential to save energy used in digging or tilling for more nature friendly and “easier-on-your-back” approaches to gardening. I highly recommend it for either experienced or novice gardeners.
Benefits — Earthworms

Kathy Ikeda, Master Gardener

Although the usual topic of this column is insects, I’m now straying from that narrow focus to cover one of my favorite beneficial organisms: earthworms.

These squirming denizens of the dirt usually go about their lives unseen, unless they’re upturned in a shovelful of soil or stranded on pavement after a drenching storm. (Worms crawl out of the ground during heavy rainfall because they breathe air through their skin and can drown if the soil is saturated with water.)

Earthworms are really good for the garden, even though they make some folks squeamish. They burrow and create long tunnels through the soil, which helps aerate and loosen it, creates channels for movement of water and oxygen, and allows plant roots to penetrate more easily. They help mix plant matter into the topsoil where beneficial microorganisms can decompose it. They consume organic matter such as fallen leaves, thereby recycling plant nutrients and increasing soil fertility. Worm castings (a.k.a. poop) are an excellent soil amendment since they are rich in nutrients such as nitrogen, phosphorus, and potassium. Research even suggests that plants have improved disease resistance if planted in soil enriched with worm castings. Worms also provide a valuable source of food for birds, frogs, and other wildlife (not to mention being gobbled up by backyard chickens and fish on hooks).

Most of our native local worm species have been destroyed or displaced by human activity. The kinds we usually see are descendants of hardier worms introduced to North America by early European and Asian immigrants. There are now about 180 different species of earthworms in the U.S. and Canada, a third of which are non-native (including night crawlers).

Earthworms are primitive but fascinating creatures. They don’t have eyes, but they do have special light-detecting receptors. Since earthworms’ natural habitat is underground, they have evolved to move away from light sources, hence their burrowing instinct. They “hear” by detecting vibrations, and they produce mucus or “slime” in reaction to stress (e.g. being yanked from the ground). They also have voracious appetites: some species can eat their weight in organic matter every day.

Worms are hermaphroditic: each worm has both male and female reproductive organs in its elongated, muscular, tube-like body. Typically, two earthworms join side-by-side in opposing directions to mate, and each member of the pair produces an egg capsule from which one to several immature worms eventually emerge.

In part due to its reproductive success, some Native American cultures revere the earthworm totem as a symbol of fertility, productive thought, and acceptance of emotions. In our modern society, the worm can represent either the beneficent (as in the sweet, bespectacled bookworm) or malicious (as in harmful software that lurks in the Internet).

This is a good time to discredit a common misconception about worms. If a worm is cut in half by a shovel or by an over-enthusiastic tug from a curious child, the two parts won’t heal and live to create new worms. The head end (with its tiny brain and five hearts) can’t survive without the tail end (with its digestive system), and the worm simply dies.

You can use several techniques to encourage greater earthworm populations in your garden: (1) Avoid frequent tilling or cultivation of soil; (2) Minimize the use of synthetic fertilizers and pesticides, all of which disturb naturally occurring soil micro- and macro-organisms; (3) Allow leaf litter to remain on soil year-round, to provide a food source for worms; and (4) “Sheet mulch” bare soil, using layers of cardboard, mulch, and compost to keep soil cool and moist and to provide a source of organic material for worms to eat.

Some words of caution: Don’t use pesticides to “control” earthworms, and don’t dump unused live bait worms in a remote natural area. Many forest and mountain environments are naturally devoid of earthworms, and introducing them to those areas can be harmful. Forests often depend on a dense, protective, year-round layer of leaf litter, and earthworms will rapidly consume that thick organic mat.

For more about earthworms in our ecosystem, read:
The article “Earthworm Ecology in California” (UCANR)
The article “Earthworm — Lumbricus terrestris” (UC IPM, The UC Guide to Healthy Lawns)
The book The Earth Moved: On the Remarkable Achievements of Earthworms, by Amy Stewart
Remember your "golden years"? That was when you were a carefree kid! Do you recall playing in the sand, the dirt, and/or the mud in the backyard? Mud balls, castles, race tracks, and wonderful changing textures to experience as you blended materials together were all possible during a lazy afternoon. Remember the amazing things you could make with play dough? Limited only by imagination, play dough was, and is, a medium to explore and enjoy. As spring unfolds, it is time to channel your inner child and get your hands into some squishy stuff to make any number of items for the garden, from simple planting pots to fancy decorative leaves.

Using a cement mix or its cousin, Hypertufa, create garden spheres, decorative toadstools, stepping stones, pots and vases and so much more. The only limit is your imagination. There are many websites to boost your imagination and help with the selection of a project. Whether it is your first project with this medium or you are a seasoned garden crafter and looking for a challenge, one of the sites at the end of the article will surely have something of interest.

The process of making either medium is easy and pretty much the same for both the cement mix and the Hypertufa. Slightly different ingredients make the latter a lighter medium to work with. Color can be added to the mix ahead of time for a pop in your garden or, for more texture, add some gravel. Lining the mold with items before pouring in the mix will create an interesting exterior surface. Try putting green moss against the mold surface, then press the cement mixture against it...gorgeous!

To begin the project, get all the materials set up within easy reach before mixing the concrete or hypertufa. Items you are likely to need include plastic or rubber gloves, a container (such as a wheelbarrow, or a five gallon paint bucket, or something similar) for mixing (if using the cement mix, put the container in or on something with wheels to make it easier to move around), mold for shaping item, vegetable oil or pan spray (to ease release of the item from the mold), a trowel, ingredients for the mix, water, plastic sheeting or garbage bags to cover the completed item while it dries), texture or coloring items for the project, a spatula or scrapper (for smoothing), clean up materials, and the directions for the project. It will be easier to work in the shade since the item will need to dry in the shade.

Estimate the amount of mix needed for the project. Start with a reasonable amount so that there is ample mix to complete the project. Mix small amounts at a time, alternating with water. Mix well until the mix is the consistency of cottage cheese. Keep adding more if needed. You'll have about 20-30 minutes before the mix starts to firm up.

The Process:

- Choose your mix.
- Cement Mix: Cement, sand; water.
- Hypertufa: 1 part peat: 2 parts Cement: 1 part perlite; water.
- Spray pan spray or brush vegetable oil on the mold.
- Wearing gloves and using a trowel, put a small portion of the dry ingredients in the mixing container. Add some water. Mix well to the consistency of cottage cheese. Continue alternating wet and dry ingredients and mixing until you have the estimated amount of wet mix.
- Scoop or pour the mix into the prepared mold a small portion at a time. Add more as you work to fill the mold. Or, build the mix up the sides of mold first if items are around the edges for texture. Use a spatula or a scrapper to smooth the surfaces as necessary. Make any drain or other holes necessary.
- Put plastic sheeting over the project and move it to a shady area to dry. Allow 5-7 days for the item to partially dry. Pop the item out of the mold. Allow 2-3 weeks to finish drying. Once dry, the item can be painted or otherwise decorated. The cement will continue to strengthen for about a year.

A quick search of “hypertufa” on the internet will lead you to lots of resources and user friendly how to guides.
While perusing the seed catalogs, I came across some new-to-me, horticultural terms. They may be new to you also. Here is their meaning.

**Parthenocarpic**  A blossom that produces fruit without the need of pollination. If you are growing in a greenhouse, hoophouse, or under row covers where there are few bees or other pollinators these plants will still produce fruit.

**Gynoecious**  Plants with mostly female flowers. Since the female blossom produces the fruit, the yield will be higher on Gynoecious plants. Some varieties are both Gynoecious and Parthenocarpic, the resulting in plants produce the high yields of all-female flowers, which in turn produce higher yields without the need for pollinizing plants. The resulting fruit will be seedless if plants are protected from pollinating insects, such as those grown in a greenhouse.

The resulting yield from these Gynoecious and Parthenocarpic seedless plants mean you could have larger yields in less space. Also, seedless plants are desirable because they tend to be less bitter; an example would be cucumbers.

This is different from a hybrid seedless watermelon. They are triploids. They have 3 sets of chromosomes and are sterile. In order to produce seedless watermelon, a diploid (2 sets of chromosomes) watermelon is pollinated by a tetraploid (4 sets of chromosomes) watermelon. The resulting seed is a triploid. The plants from these triploid seeds are then pollinated with a natural diploid watermelon to produce seedless fruit.
Deformed Leaves on Citrus Trees? Maybe it’s Leafminer

Deformed, wrinkled looking, or curled leaves on your citrus trees? You might have citrus leafminer (phylllocnistis citrella). Citrus Leafminer is the only mining (tunneling) insect that attacks citrus leaves, and differs from pests that attack citrus fruit or stems.

**Diagnosing Citrus Leafminer**

Without magnification, the Citrus Leafminer is so small (¼”), you’re unlikely to see it. What you will see are squiggly whitish lines, usually on the underside of the leaf, that are the feeding trails and feces of the new larvae. You’ll also see curled leaf edges where the larvae have emerged from the mine (tunnels) and rolled the leaf around itself in preparation for adulthood. The larvae eat tender, shiny new leaves which is why you’ll see the mines and curled leaves on new leaf flush. As the tree matures, the leaves harden so leafminers are unable to mine the leaves.

**Treating Citrus Leafminer**

Even though damaged leaves look unsightly, the best course of action may be to let nature take its course — let the natural enemies of the Citrus Leafminer consume or parasitize the larva in the mines. Avoid using broad-spectrum sprays that will kill the natural enemies you are counting on the decrease the Leafminer population.

Pheromone traps are not effective. A useful approach for young or highly valuable citrus trees is alternating natural insecticidal sprays containing azadirachtin and spinosad. These are short-acting insecticides and need to be reapplied every week or two at the first signs of leaf flushing.

*Citrus Leafminer. Integrated Pest Management website; pncitrusleafminer.pdf*

**UC IPM website**

Integrated pest management, or "IPM," is a process you can use to solve pest problems while minimizing risks to people and the environment. IPM can be used to manage all kinds of pests anywhere. [Click here for more info.]
A Taste of the Season

Julie Hyske, Master Gardener

Nothing says spring like a beautiful brunch. Try one of these simple seasonal recipes and don’t forget to add a beautiful vase of fresh cut flowers as the centerpiece!

Ham & Cheese Hash Brown Waffles

Ingredients

- 1 20-ounce package Simply Potatoes Shredded Hash Browns
- 3 eggs
- ¼ cup milk
- 1 cup diced ham
- 1 cup shredded sharp cheddar cheese
- ¼ cup fresh chopped chives, plus some for garnishing
- ½ tsp. salt
- ¼ tsp. pepper

Heat waffle iron on the medium-high setting. Spray each side generously with non-stick cooking spray or brush with melted butter. In a medium-sized mixing bowl, whisk together eggs and milk. Stir in potatoes, ham, cheese, and chives. Season with ½ teaspoon salt and ¼ teaspoon pepper. Depending on the size of your waffle iron, scoop a layer of the potato mixture onto the surface (for the round waffle maker, I used about 1 cup of the mixture). Spread to about ½ inch from the edges and close the waffle iron. Cook for about 5 minutes, checking every few minutes to avoid burning. When the entire waffle is golden brown in color, carefully remove from the waffle iron with a fork or tongs.

Serves: 4

Strawberry Icebox Cake

Ingredients

- 19 oz graham crackers
- 2 pounds fresh strawberries
- 3½ cups heavy cream
- 1 banana, sliced thin
- ½ cup powdered sugar
- 2 tsp. vanilla
- ¼ tsp. salt

Cream powdered sugar, vanilla, and salt with the heavy cream in the bowl of a stand mixer. Beat until the cream mixture holds stiff peaks. Spread a thin layer of heavy cream mix in a 9x13 pan just to coat the bottom. Next, layer 5 graham crackers across the center of the pan, then 2 more, breaking them as needed to fit around the top and bottom edges of the pan. Spread a thick layer of heavy cream mix over graham and top with a hearty layer of sliced strawberries. Place graham crackers on top of strawberries, then heavy cream mix, then layer of thinly sliced bananas. Repeat the graham-strawberries-cream layers 1 more time (3 times total) and you should reach the top of the pan. Refrigerate for at least 4 hours or overnight until the graham crackers have softened completely. Top with a few sliced strawberries or whole strawberries if you desire. Serve chilled.

Serves: 12-16

Asparagus & Artichoke Breakfast Casserole

Ingredients

- 10 eggs
- 1 cup cottage cheese
- 1 tsp. salt
- 1 tsp. pepper
- 1 pound asparagus, trimmed and cut into bite sized pieces
- 1 can artichoke hearts or 5 artichoke hearts steamed and cleaned, coarsely chopped
- ¼ cup parmagiano reggiano grated
- 4 ounces cream cheese, cubed

Mix everything and place in a greased 9x9 inch baking pan and bake in a preheated 375° oven until the eggs have set and the top is a light golden brown, about 20-25 minutes.

Serves: 6
APRIL

Saturday, April 1
Lodi Arbor Day Celebration
10 am to 2 p.m.
Tree planting and tree pruning demonstration. Educational materials on mistletoe planting the right tree in the right place will be available for those in attendance. The Master Gardeners of San Joaquin County along with several other partners will have a table filled with informational materials. Parson’s Point Shelter on the north side of Lodi Lake.

Saturday, April 1
Container Gardening Class
11am–noon
Julie flashes her expertise to show how to turn a pot and plants into eye candy using plants that are "thrillers, fillers and spillers. Call to reserve your spot 209-949-2499. In Season, 215 E. Alpine, Stockton, 95204

Wednesday thru Sunday, April 5 – 9
San Francisco Flower & Garden Show
Wednesday thru Saturday – 10am–7pm Sunday, 10am–6pm
Stroll through gorgeous designer gardens with artfully arranged plants, trees, and flowers in full bloom. See the designs and watch the demonstrations by world-class floral designers. Discover how to create your own remarkable garden with hands-on demonstrations and inspiring seminars. Meet professional gardeners and nursery owners who can answer all your questions and help solve those nagging problems. Browse a wide selection of specialty shops featuring unique flowers, plants, gifts, tools, and more. Learn how to grow and prepare fresh, home-grown food.
San Mateo Event Center, 1346 Saratoga Drive, San Mateo
Click here for ticket prices.

Saturday, April 8
San Joaquin Master Gardener Workshop: The Garden of Herbal Delights
10:30am– noon
Learn how you can successfully grow herbs in your garden. REI (upstairs), 5757 Pacific Avenue, Stockton. Class is free.

Saturday, April 8
Linden Community Garden Plant Sale
9am– 3pm
This sale always has a large and varied selection of heirloom tomatoes, peppers, and eggplants. In addition, there will be lots of herbs and many ornamental plants of all kinds.
Linden United Methodist Church, 19147 E. Highway 26, Linden

Saturday, April 22
Spring Open Garden Day
9am—noon
Celebrate Earth Day and join us for our Spring Open Garden Day! There will be demos on tool sharpening, composting, vermiculture, IPM and master gardeners available to answer your gardening questions. Come out to our learning landscape and see all the plants and sustainable gardening practices we have in place! Light refreshments will be provided. We will have tomato plants for sale. Bring small tools for a spring tool tune-up at our tool care table. This event is free and open to all ages!
Call 209-953-6111 for more info. Robert J. Cabral Agricultural Center, 2101 E. Earhart Avenue, Stockton, 95206.

Saturday, April 22
Roses 101
From the first huge rose bloom of spring to the last rose of summer, learn everything you need to know to keep your blooms coming. Fertilizing, watering needs, pest control, and pruning/deadheading to promote the biggest and best blooms and healthy plants all season long will all be discussed.
Delta Tree Farms Nursery, 12900 N. Lower Sacramento Road, Lodi. Class is free.

Sunday, April 23
Stockton Earth Day Celebration—Water is Life
11 am—4:00 pm
There will be lots of informational booths, kids activities, foods and entertainment. Victory Park, Stockton. For more info, click here.

Sunday, April 23
Composting
11:30 a.m. to 1:30 p.m.
Learn about composting from Farm Educator and farmer, Shayne Zurilgen. He will teach you how to turn your grass clippings, fallen leaves, and kitchen waste into compost to enrich your soil. The classes are free and the public is highly encouraged to attend.
PUENTES Farm, 466 S. Ventura Avenue, Stockton. Class is free.

Tuesday, April 25
San Joaquin Master Gardener Workshop: Tips for Growing Tasty Tomatoes
10:30 a.m. – noon
Pick up some tips and techniques for growing a successful harvest of tomatoes. Topics include soil temperature, types of tomatoes, care and fertilizing, and common tomato pests.
Robert J. Cabral Agricultural Center, Assembly Room 3, 2101 E. Earhart Avenue, Stockton. Class is free.

MAY

Monday, May 1
San Joaquin Master Gardener Workshop: Gardening for Pollinators
9:30-11:30
Join the Master Gardeners and learn how you can make your garden more attractive...
and beneficial to pollinators. Lodi Public Library, 201 W Locust St, Lodi. Call 953-6100 to register for this free class.

**Monday, May 8**
**San Joaquin Master Gardener Workshop: Gardening with Succulents**
9:30-11:30
Join the Master Gardeners—Low maintenance and low water, succulents are easy to grow. Lodi Public Library, 201 W Locust St, Lodi. Call 953-6100 to register for this free class.

**Saturday, May 20**
**Avocados? Yes You Can!!**
The fruit of paradise can be right in your own backyard. Discover the joys of growing your own avocados. The presenter will discuss varieties and needs of the best avocados for our area. Hear about watering, fertilizing, pest control, frost issues, and the benefits of a delightful, personal supply of avocados.
Delta Tree Farms Nursery, 12900 N. Lower Sacramento Road, Lodi. Class is free.

**Sunday, May 21**
**Chicken Keeping at Home**
11:30 a.m. to 1:30 p.m.
Learn about keeping chickens at home from Farm Educator and farmer, Shayne Zurilgen. The classes are free and the public is highly encouraged to attend.
PUENTES Farm, 466 S. Ventura Avenue, Stockton

**Monday, May 22**
**San Joaquin Master Gardener Workshop: Gardening For Life**
9:30-11:30
Join the Master gardeners and discover the many benefits to gardening. We will explore some easy ways to make gardening easier in your golden years. Lodi Public Library, 201 W Locust St, Lodi. Call 953-6100 to register for this free class.

**Tuesday, May 23**
**San Joaquin Master Gardener Workshop: All about Lawns**
10:30 a.m. – noon
Learn how to keep your lawn green and lush with proper mowing, watering, fertilizing, and pest control techniques.
Robert J. Cabral Agricultural Center, Assembly Room 3, 2101 E. Earhart Avenue, Stockton. Class is free.

**JUNE**

**Monday, June 5**
**San Joaquin Master Gardener Workshop: Houseplants Made Easy**
9:30-11:30
Houseplants can be easy to care for if you know what you are doing. We will cover the basic needs of common plants. Lodi Public Library, 201 W Locust St, Lodi. Call 953-6100 to register for this free class.

**Sunday, June 25**
**Bee Keeping**
Bee keeping will be taught by Farm Educator and farmer, Shayne Zurilgen. Learn the basics of keeping bees to provide honey and pollination. The classes are free and the public is highly encouraged to attend. PUENTES Farm, 466 S. Ventura Avenue, Stockton

**Have a gardening question?**
**Call our hotline!**
San Joaquin County Master Gardeners
Phone: 209-953-6112
2101 E. Earhart Ave.
Suite 200, Stockton, 95206
E-mail: anrmgsanjoaquin@ucanr.edu
Web-site: http://sjmastergardeners.ucdavis.edu
Program Coordinator: Marcy Sousa 953-6100

**Find us on Social Media**
Twitter: twitter.com/ucsanjoaquinmgs
Facebook: facebook.com/ucsjmg
Pinterest: pinterest.com/sjucmg

Garden Notes is published quarterly by the University of California Cooperative Extension Master
to perform well for just one season, or if it will return again and thrive in future years.

**EVERGREEN** and **DECIDUOUS** explains if the plant will hold onto its leaves and remain green all year (shedding leaves periodically throughout the year), or drop all its leaves in the fall and produce new ones in the spring.

The **ZONE** information on labels will indicate either the Sunset (magazine) Zone (which in our case here in San Joaquin County, is 14), or the USDA Zone (9a for our area). This indicates the average annual minimum winter temperature based over an extended period. In the case of the USDA, their data covers 30 years.

**SIZE** refers to the maximum size the plant will reach at maturity and whether it is slow- or fast-growing. This information is often expressed as “height” and “spread” or “width.”

**LIGHT** requirements, usually expressed as Full Sun, Part Sun, Part Shade, and Shade (see below), will lead you to where you should place your new plant in the garden. When shopping for plants, it will also guide you to what to shop for when designing a specific area of your garden.

**SPACING** tells you how much space to leave when positioning your new plants in the garden. This is not a hard-and-fast rule as you may want to display a particular plant as a specimen and leave more space, or you may want a more lush area and crowd your plants up a bit.

- **Full Sun** plants need at least 6 hours of direct sun each day.
- **Part Sun** plants should receive between 3 and 6 hours of direct sun daily.
- **Part Shade** plants thrive with between 3 and 6 hours of direct sun per day, but need shade when the sun is hottest in the afternoon. This environment can often be found on the east side of a building or beneath taller trees where direct sun hits in the morning, but bathes the area in the afternoon.
- **Full Shade** plants require less than 3 hours of direct sun per day. The rest of the day, the plant needs light shade. These conditions occur along the north side of a building or in a bed beneath a tree where the sun peeps through the leaves at some point during the day.
- **Deep Shade** direct sunlight seldom, if ever, reaches the ground. This occurs in coniferous forests, or in gardens where walls or building overhangs block out the sun.

The **CARE** section of the label gives important clues on how to keep the plant looking its best. It may suggest pruning, deadheading, or following a specific fertilizer regimen.

**WATER NEEDS** may be found in the Care section or listed separately. Some tags will convey water needs with the image of a water drop or drops which indicates the amount of watering needed.

**USE** will offer suggestions on how best to use the plant in the garden. Is it a back-of-the-border planting? Trails over baskets and walls? Good filler over bulbs? Blooms early spring through late fall?

It is always a good idea to keep your plant tags where you can find them and refer back to them for useful information. When a neighbor stops by and says, “Oh I love that plant! What is it?” You will be able to refer to your collection of plant tags and tell them exactly what it is.

Resources:
Bayer Advanced website, Understanding Plant Labels
American Horticultural Society Encyclopedia of Gardening
Sunset Western Garden Book
**Tomato and pepper** transplants can be planted this month. Seeds of pumpkins, beans, corn, squash, cucumbers, and melons can be sown in the garden around the middle of this month. For interesting and unusual fall decorations, consider growing pumpkins or winter squash that are not your ordinary jack-o-lantern.

**Zucchini** tastes best if you harvest it before it exceeds 8-10 inches in length.

**Carrots** become sweeter with age, but harvest them before they take on a woody texture.

**Snow peas** are ready to be picked when the peas are just beginning to swell in the pods. Snap peas taste best when the pod is plump, but the skin is still shiny, not dull.

**Maintenance** –

**Bulbs** should be left in the ground until the foliage is dry and crisp.

**Roses** will continue to produce beautiful blooms through summer and into fall if you dead-head spent flowers.

**Aerate** lawns that get a lot of heavy foot traffic and have compacted soil which makes it difficult for water, fertilizer, and oxygen to reach the roots. If you can't push a screwdriver up to its handle into the turf, it's time to aerate. In addition, lawns on heavy clay soil or those on a steep slope should be aerated. Use an aerator that either produces a core or a water wash to dig holes. Spike aerators just add to compaction. If you are using a machine aerator, be sure to mark and avoid all sprinkler heads. Some machine aerators require a lawn to be moist, but not soggy. Irrigate a day or two before aeration if soil is dry.

**A mower** set at the highest or next-to-the-highest blade setting will help keep your fescue lawn healthy and use less water through the summer. Mow your lawn regularly so that no more than 1/3 of the height is removed at a time.

**Water** your lawn in the morning to discourage fungus diseases. You'll also lose less water through evaporation.

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**June Notes**

**Plant** -

**Plant still time** to get beans, corn, cucumbers, eggplant, peppers, pumpkins (start now for Halloween), summer squash, and tomatoes in the ground. These warm-season plants grow well as soil heats up, but need lots of irrigation. Conserve water by only growing what your family will consume.

**Plant** **Thai basil and cilantro** now and you'll have fresh herbs all summer. Both annuals do well in pots and love sun and ample water (easy to control if you are growing the plants in pots). Start basil from seedlings, but sow cilantro seeds directly in the pot – they germinate quickly. Begin harvesting when plants reach 6 inches tall.

**Attract bees** with a variety of flower shapes and colors. Look for flowers and plants that are native to our area for growing ease and as an attractant for honey bees.

**Maintenance** -

**Harvest** garlic and onions this month as well as potatoes at the end of the month.

**Water plants** early in the day to conserve water, ensure maximum growth, and minimize disease problems. Plan to water deeply every 7 to 10 days or whenever the soil is dry at a depth of 3 inches.

**Apply a 2-inch layer** of mulch to conserve water. Wood chips used as mulch around plants can suppress weeds, conserve soil moisture, and enhance the plants' root growth.

**Most lawns** only need to be watered two or three times a week. A deep, thorough watering could lower that to once per week.

**During the summer heat**, lawns need about two inches of water per week. To determine your sprinklers output, place several **flat bottomed containers** (such as tuna fish cans) around your lawn, turn on the sprinklers for a half hour and then measure the water in the containers. Adjust your sprinkler coverage if needed and reset the amount of time you water according to the results of your timed test.
Spring Open Garden Day  
with the UC San Joaquin Master Gardeners  
Saturday, April 22  
from 9 a.m.-12 p.m.

Our Spring Open Garden Day will feature pruning, irrigation, and planting demos. There will also be displays on composting and vermi-composting, tool care, Integrated Pest Management, and container gardening. Master Gardeners will be working in the garden and available to answer your gardening questions. Light Refreshments will be provided.

Bring your hand pruners to the tool sharpening table for a quick spring tune-up!

The demonstration garden was created to showcase sustainable landscaping principles and the many varieties of plants and edibles that can be grown throughout the year in our Mediterranean climate.

For more information, call 209-953-6112
The event is FREE! Registration is not required.

The garden is located at the
Robert J. Cabral Agricultural Center
2101 E. Earhart Ave. Stockton, 95206

We will have TOMATO PLANTS FOR SALE!  
Cash only.
FREE HOUSEHOLD HAZARDOUS WASTE COLLECTION EVENT

ACCEPTABLE MATERIALS

**Household Hazardous Waste:** chemical cleaners, used oil, paints, pool chemicals, garden products, automotive products, pesticides, 1 and 5 gallon propane tanks, etc.

**Universal Waste:** fluorescent light bulbs, batteries, mercury containing devices.

**Electronic Waste:** computers, monitors, printers, TVs, radios, VCRs, telephones, stereos, etc.

*NO LARGE APPLIANCES, EXPLOSIVES, OR RADIOACTIVE MATERIALS ACCEPTED*

Passenger Car/Light Truck Tires Accepted.

**APRIL 1**

9:00 am - 2:00 pm
Central Valley Waste
1333 East Turner Rd. | Lodi, CA

FOR MORE INFO:
SJRecycle.org or 209-468-3066

Garden Notes  Page 18  UC San Joaquin Master Gardeners
RECYCLING IS NOT JUST GOOD BUSINESS - IT’S THE LAW!*

If you meet the threshold* of AB 341, you must have a recycling program in place. Additionally, your waste hauler must provide you with recycling options upon request.

Business Benefits of Recycling:

♦ Save money - more recycling means less frequent trash pick-ups!
♦ Comply with state law
♦ Promote your green image to customers
♦ Protect the environment

Contact your waste service provider for available options in your area, or for more information, click or call:

www.SJCrecycle.org  (209) 468-3066

*Assembly Bill (AB) 341 states that businesses and public entities producing 4 cubic yards or more of solid waste per week, and multi-family complexes with 5 or more units, MUST have a recycling program in place.
Contact the Master Food Preservers

What county are you in?
San Joaquin: 953-6100
Stanislaus: 525-6800
Merced: 385-7403
Email: sjmfp@ucanr.edu
Visit our web-site

Who We Are

The Master Food Preserver (MFP) program started in 1983 and continues today with dedicated volunteers trained to assist the county UC Cooperative Extension staff provide up-to-date food preservation information to the citizens of San Joaquin County.

MFP Volunteers do?
- Answer food preservation email inquiries throughout the year.
- Work in the community as local food preservation specialists.
- Staff information booths and present food preservation demonstrations at the county fair and local events.
- Write articles for the local newspapers and MFP eNewsletter.
- Teach classes on various food preservation topics.
- Test pressure canners - This should be done annually for safe canning results!

Who can be a Master Food Preserver? Residents of San Joaquin, Stanislaus, or Merced County who have an interest teaching others about food preservation and food safety can apply to become a Master Food Preserver. The next certification training program will begin in June and runs through July. There are orientation meetings in April, you must attend one of them if you are interested in applying for the program. Visit our website for more details.

From the Field...

Bill Loyko, MFP Volunteer Coordinator

Several years ago my wife and I belonged to a CSA (Community Sustainable Ag) program. In our weekly boxes we were getting beets, lots of beets. Instead of the beets going bad and into the compost pile I learned how to pickle beets. A simple, practical recipe with a purpose to keep a vegetable from going bad.

Over the years I have had successes and failures with home preservation. I also never knew there was a group of individuals, volunteers, whose purpose was simply to teach good, safe, researched based home food preservation.

I went to my first workshop called Christmas in a Can. And after that the 2015 Master Food Preserver Training. Since then I have been actively involved in volunteer workshops. Our 2017 training is right around the corner. We are looking for folks who want to learn about food safety, research based home preservation techniques and then continue to lead/assist in the presentation of preservation workshops. Check out the link and our website for more information. We welcome you to the group!

Did You Know?

Our newsletter has hyperlinks to other useful websites. Click on the underlined words to open a page. It’s as easy as that!
Jelly, jam, preserves, conserves and marmalades are fruit products that are jellied or thickened. Most are preserved by sugar. Their individual characteristics depend on the kind of fruit used and the way it is prepared, the proportions of different ingredients in the mixture and the method of cooking.

**Jellies** are usually made by cooking fruit juice with sugar. (Some are made without cooking using special uncooked jelly recipes.) A good product is clear and firm enough to hold its shape when turned out of the container, but quivers when the container is moved. When cut, it should be tender yet retain the angle of the cut. Jelly should have a flavorful, fresh, fruity taste.

**Jams** are thick, sweet spreads made by cooking crushed or chopped fruits with sugar. Jams tend to hold their shape but are generally less firm than jelly. (Recipes are also available for uncooked jams.)

**Preserves** are small, whole fruit or uniform size pieces in a clear, slightly gelled syrup. The fruit should be tender and plump.

**Conserves** are jam-like products that may be made with a combination of fruits. They also contain nuts, raisins or coconut.

**Marmalades** are soft fruit jellies containing small pieces of fruit or peel evenly suspended in the transparent jelly. They often contain citrus fruit.

Other fruit products that are preserved by sugar but not jellied include butters, honeys and syrups. Fruit butters are sweet spreads made by cooking fruit pulp with sugar to a thick consistency. Spices are often added. Honeys and syrups are made by cooking fruit juice or pulp with sugar to the consistency of honey or syrup.

For more information on making jams and jellies (including recipes) visit the National Center for Home Food Preservation.

**FAQ**

From the National Center for Home Food Preservation

**Is it necessary to sterilize jars before canning?**

Jars do not need to be sterilized before canning if they will be filled with food and processed in a boiling water bath canner for 10 minutes or more or if they will be processed in a pressure canner. Jars that will be processed in a boiling water bath canner for less than 10 minutes, once filled, need to be sterilized first by boiling them in hot water for 10 minutes before they're filled. To read more FAQ’s, click here.
Unending rain has people itching for spring sun, exploding fruit tree blossoms, and the promise of ripe stone fruit, which of course means jams and jelly season has begun. Not so fast though, as May’s ripe cherries are months of waiting away. Not so with one little known and underappreciated fruit ubiquitous around town: loquats. Many have no idea of the delightful flavor of this apricot-colored fruit.

They’re never in stores and rarely in farmers markets, mainly I imagine because they have to be picked and eaten or preserved within about 24 hours, or they become fodder for the compost pile.

The tree is an oddity in that it blooms in autumn and winter and ripens in early spring – just around the corner. The large rounded evergreen trees can reach 40 feet. The fruit has its own distinctive flavor that some have called a cross between citrus, mango and peach.

However its flavor is described, I find it delicious, though even eating them is not without work. The golf-ball sized fruit most often has three large pits, and something like a rose hip on one end (the tree is in the Rosaceae family). But to me it’s worth the work.

Up until recently, I found it difficult to find an approved recipe for loquat jam. But lo and behold, the National Center for Home Food Preservation now has a recipe for loquat jelly. I’ll be trying it out as soon as those orange little sugar bombs are ready to pick.

### Red Onions in Vinegar

**Linda Driver, MFP**

*Makes about seven 8 oz. jars.*

4 cups red wine vinegar  
1 clove garlic  
10 cups sliced peeled red onions ¼ inch thick rings

1. Prepare canner, jars and lids.
2. In a large stainless steel saucepan, combine vinegar and garlic. Bring to a boil over medium-high heat. Reduce heat and boil gently for 5 minutes, until garlic flavor has infused the liquid. Add onion rings, increase heat to medium-high and bring to a boil. Reduce heat and boil gently, covered for 5 minutes, until onions are heated through. Discard garlic.
3. Pack hot onion rings into hot jars to within a generous ½ inch of top of jar. Ladle hot liquid into jar to cover onions, leaving ½ inch head space. Remove air bubbles and adjust headspace if necessary, by adding hot pickling liquid. Wipe rim. Center lid on jar. Screw band on jar until resistance is met, then increase to fingertip-tight. Place jars in canner, ensuring they are completely covered with water. Bring to a boil and process for 10 minutes. Remove canner lid. Wait 5 minutes, then remove jars, cool and store.

*Recipe from the Ball Complete Book of Home Preserving, 2012.....page 316-317.*
What is Pectin?

Pectin is the substance that causes the fruit to gel. Some kinds of fruits have enough natural pectin to make high quality products. Others require added pectin, especially when they are used for making jellies, which should be firm enough to hold their shape. The highest quality pectin is found in just-ripe fruit. Pectin from under-ripe or over-ripe fruit will not form a gel.

Commercial pectins are made from apples or citrus fruit and are available in both the powdered and liquid forms. Be sure to follow the manufacture's directions or tested recipes when using commercial pectin. The powdered and liquid forms are not interchangeable in recipes.

Commercial pectins may be used with any fruit. Many consumers prefer the added pectin method for making jellied fruit products because: 1) fully ripe fruit can be used, 2) cooking time is shorter and is set so there is no question when the product is done, and 3) the yield from a given amount of fruit is greater. However, because more sugar is used, the natural fruit flavor may be masked.

Commercial fruit pectin should be stored in a cool, dry place so it will keep its gel strength. Use pectin by the date indicated on its package. It should not be held over from one year to the next.

There are special pectins available to use for making jellied products with no added sugar or with less sugar than regular recipes. Specific recipes will be found on the package inserts, and directions should be followed carefully.

Ball Canning has an interactive pectin calculator that can come in handy. You can find it here.

Content for this article was taken from the National Center for Home Food Preservation website.

Coming Events

April 22: Canning Basics 101
Time: varies by location
Cost: Free

This workshop will be held in Stockton, Lodi, Ripon and Modesto.
For more info, visit our website.
209-953-6100

May 20th: Jams
Time: 10:00 AM - 2:00 PM
Cost: $20.00

Location: Robert J. Cabral Agricultural Center
2101 E. Earhart, Stockton, 95206
209-953-6100
For more info, visit our website.

There are no workshops or Demonstration Classes in June or July as we are conducting our 2017 Master Food Preserver Volunteer Training.
For more information about becoming a Master Food Preserver Volunteer please visit our website.