



University of California

Agriculture and Natural Resources | Master Gardener Program

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This newsletter is provided by the UCCE Master Gardener Program of Orange County. We are UC trained Master Gardener volunteers ready to answer your gardening questions. Master Gardeners extend research-based information to the public about home horticulture and pest management through classes, hotlines, community events and demonstration gardens. Whether you want to know what to plant when, how to manage a pest, or how to become a master gardener, you can find it by visiting our website at <http://mgorange.uncanr.edu>.

SIMPLE STEPS FOR PREPARING, CARING FOR AND HARVESTING A VEGETABLE GARDEN



The Good Life Garden an edible garden at the at the Robert Mondavi Institute for Wine and Food Science in Davis, CA includes vegetables, herbs and flowers. Photo credit: Claire Napawan

Whether in containers, raised beds in your backyard or community garden space or integrated into your landscape, growing edibles can be a rewarding experience if done properly. Oftentimes it is easy for gardeners new to growing edibles to become frustrated and give up after one or two attempts because their experience was less than desirable or overwhelming.

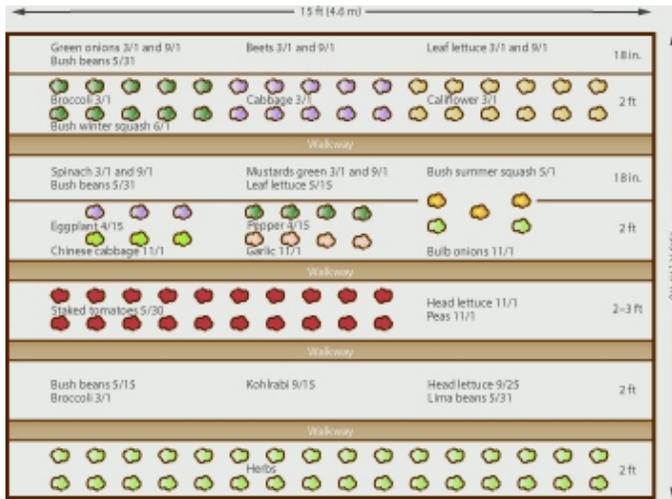
There are several ways to overcome these gardening pitfalls to help ensure you have a successful warm-season vegetable gardening experience.

Plan, plan and stick with your vegetable garden plan!

Planning is a key component to having a successful vegetable garden, but is frequently forgotten or overlooked. Planning includes selecting an appropriate location for your garden, choosing the correct varieties of crops for your space and developing a garden plan for what you would like to grow.

When selecting a location it is important that the site receives at least eight hours of full sun, is close to a water source (hose, irrigation or hand-watering) and has good soil for optimal growth. Once you have an appropriate location picked out, creating a garden plan will help contribute to your growing success.

Too often the overall size of the garden area and the size of mature plants is not considered. Keep in mind a young plant can become established and quickly overtake a small garden lot, challenging or dominating other plants for resources.



A garden plan should contain the types of crops, how many, and dates of planting and harvesting. (Photo credit: *California Master Gardener Handbook*)

“A well planned garden can provide fresh or preserved vegetables for use year-round. The plan should contain crops and amounts to be planted, dates of planting and estimated harvest, planting location for each crop, specific spacing between rows, and trellising or support required,” according to the *California Master Gardener Handbook*.

Invest a little time and develop a detailed plan to help guide you on where, which type and how many plants you will need for your space. Your vegetable garden plan will keep you focused while shopping at your local nursery and prevent impulse buys of tempting transplants!

Caring for your vegetable garden

Irrigation is a key component in a successful vegetable garden. Consistent, deep and sufficient watering will produce better tasting and superior quality fruits and vegetables, especially during the hot summer months when it is easy for the soil to quickly dry out.

“As a rule” the handbook says on Page 349, “it will be necessary to irrigate your vegetable garden one to three times a week in summer ... The frequency will be determined by the depth of crop roots, soil texture, and weather conditions. Wet the soil to just beyond the bottom of the root system at each watering.”

Even in a time of drought, vegetable crops require the soil to remain moist during their crop cycle. Poor irrigation practices and infrequent watering will produce smaller yields and poor quality fruits and vegetables.

Weed prevention and maintenance is an important piece in caring for your vegetable garden. Without monitoring and controlling weeds, your crops could quickly become overrun by these pesky unwanted plants. Apply a three- to four-inch layer of organic mulch to discourage the growth of weeds. Prevent weeds by hand-weeding before they become established and go to seed. The UC Integrated Pest Management (<http://ipm.ucanr.edu>) Program has detailed information available on its website about sustainable weed management in the home landscape.

Harvesting (and enjoying) your crop

After all of your hard work, time and dedication growing your warm-season fruits and vegetables remembering when to harvest can be just as important as growing them. UC Davis' Postharvest Technology Center (<http://postharvest.ucdavis.edu>) has easy to navigate Produce Fact Sheets to help guide you on when to best harvest your crops.

“To get the most from your vegetables, harvest them when they are at the best stage for eating and store them under conditions that will keep them as close to garden-fresh as possible,” recommends The California Garden Web. “Vegetables will be crisper and cooler when harvested in the early morning.” Please copy and paste in your browser: cagardenweb.ucanr.edu

Once harvested don't forget to enjoy the fruits (*and veggies*) of your labor. Few experiences can compare with the gratification of eating homegrown fruits and vegetables for the first time!

OUT AND ABOUT WITH THE UCCE MASTER GARDENERS MASTER GARDENER IN TRAINING (MGIT) PROGRAM



Last year 6,055 statewide UCCE Master Gardeners donated more than 398,150 hours to help increase gardening and science literacy to support healthy plants, healthy environments and healthy communities.

On April 16, Orange County welcomed 32 new Master Gardeners to their ranks. This group of friendly and eager volunteers completed a 16-week instructional training course that covered a broad range of horticultural topics, including:

- Botany
- Plant propagation
- Integrated pest management
- Soils and composting
- Plant pathology
- Water quality & conservation

In addition to the classroom instruction, the trainees went on a native plant field trip to Tree of Life Nursery and completed at least 12 hours of volunteer work. Two trainees, Kris Bonner and Mark Dorfman, went above and beyond the call of duty and completed more than 80 volunteer hours!

Would you like to become a UCCE Master Gardener? If so, 2017 is the year to do it! Beginning in 2017, the training program will be offered every other year. What is required?

- A basic knowledge and interest in landscape and food gardening

- An interest in increasing your horticulture skills
- A desire to volunteer in the community
- Basic computer skills
- Residency in Orange County
- Successful completion of the instructional training course

The first meeting for those selected into the program will take place on November 3, 2016 for orientation and other administrative activities. Attendance at this session is mandatory. Instructional classes begin on January 5, 2017 and continue through April, 2017. If you have other commitments during the instructional training period that require more than one absence, we ask that you attend an Information Day session another year to receive an application when your schedule is open to meeting our rigorous schedule.

To receive an application to be considered for the 2017 Master Gardeners in Training program, potential applicants are required to attend ONE of the following Information Day sessions:

August 18, 2016: 10:00 - 11:30 AM

September 8, 2016: 10:00 - 11:30 AM

For location and more details regarding our Master Gardener Program, please visit our website at <http://mgorange.ucanr.edu> and click on the “How to Become a Master Gardener” link.

INVASIVE PLANTS AND CALIFORNIA GARDENS

All over California, natural areas and parks are under attack by invasive plants. As the population of the state increases, we lose natural habitats that can support native wildlife and plants. When non-native plants invade the precious remaining habitats, the ecosystems are disrupted and degraded because these plants push out the native plants that provide useful shelter, nest sites, and food for native birds, mammals, and other creatures.



Thousands of species of landscape ornamentals are used in California. Only a small percentage have become invasive pest plants in the wild. But, these species constitute over half of the worst invasive plants in the state. Brazilian peppertree (*Schinus terebinthifolius*), shown above, is a problem in wetland habitats in southern California. It is important that gardeners recognize this problem and make informed choices when selecting landscape ornamentals to help preserve California’s natural beauty.

California is very diverse ecologically. Just because a garden plant is invasive in one area of the state does not mean it will be a problem in all areas of California. Myoporum (*Myoporum laetum*), shown below in an estuary in San Diego County, is invasive along much of the California coastline. However, it is not likely to be a problem when used as a landscape plant in the desert or other inland areas of California.



In the **central and southern coastal** areas of California, the following are examples of plants that should not be used for landscaping, because they are known to be invasive in the region. Consult your local nursery professional, UC Master Gardener, or an advisor at the University of California Cooperative Extension Office for other plants with similar characteristics that are not invasive. To protect California’s beautiful natural habitats, choose garden plants wisely in order to **KEEP IT IN THE GARDEN**.

PAMPASGRASS *Cortaderia selloana*



Pampasgrass has been in California for more than 150 years and is planted extensively throughout the state. It is invading many areas of coastal habitat and along rivers and creeks. A close relative, jubatagrass, *Cortaderia jubata*, is invasive along the coast up to Oregon. Pampasgrass aggressively invades wet areas along the coast, crowding out the native plants. In addition to being competitive with native plants, it also is a fire hazard. Pampasgrass burns more readily and recovers more easily after a fire than the native plants. These fires are a threat to public safety, and also help expand the territory of pampasgrass.

ICEPLANT *Carpobrotus edulis*



(Continued on page 5)

(Cont'd from page 4)

Iceplant has been commonly planted in gardens, commercial landscapes, and along many of California's highways. It is easy to grow and drought tolerant. Unfortunately, it has spread out from these planted areas into natural habitats, especially onto sand dunes on the coast.

FENNEL *Foeniculum vulgare*



Fennel is a commonly planted perennial herb that has been present in California for over 100 years. It reproduces readily from seed and from root crown. Fennel occupies disturbed areas, and is very competitive against natives that try to re-inhabit a site.

For more information on the subject of invasive plants, we suggest the following websites:

- wric.ucdavis.edu – the site for the University of California Davis Weed Research and Information Center
- cal-ipc.org – the site for the California Exotic Pest Plant Council
- invasivespecies.gov – the gateway site for the federal government invasive species programs

The authors of this article are Carl E. Bell, Regional Advisor- Invasive Plants, Cheryl A. Wilen, Area Integrated Pest Management Advisor, and Vincent F. Lazaneo, Home Horticulture Advisor, Cooperative Extension, San Diego, CA. It is being made available by the Master Gardener Program.

Learn more about Master Gardener projects and points of interest by viewing our "Toot Your Horn" video series at these links:

Speakers Bureau with Tom Farrell:
http://mgorange.ucanr.edu/Projects/Speakers_Bureau/

Youth Demonstration Gardens with Kathie Burns:
<http://mgorange.ucanr.edu/Projects/Schools/>

SUMMER GARDEN CARE

Feeding and watering established plants enables them to produce all those food and flowers that we want. Here are some specific techniques.

Feed all plants with a balanced, slow-release fertilizer containing micronutrients in addition to the basic nitrogen, phosphorous, and potash/potassium (N-P-K). Well-nourished plants not only develop into stronger plants and produce flowers and fruits and vegetables longer, they are better protected against insects and diseases and better able to withstand heat and water stress.

Water the garden deeply every week or two, depending on how consistently hot the weather has been and whether plants roots have grown deep into the soil. Tomatoes and other large plants in clay loam soil use about one inch of water in three days of hot, dry weather. Some wilting of foliage at the end of a hot, dry day is to be expected, but wilting through to the following morning indicates the immediate need for a deep watering to the roots and a gentle sprinkling of the foliage.

Refrain from overhead watering when the evenings remain warm, especially when leaves can't dry off by sunset. Fungal diseases thrive when air temperatures remain between 70 and 90 degrees, and they need only two to four hours of moist, warm conditions to develop.

Build donut-shaped water basins around trees and plants. Start the inner wall of the basin about two inches from the plant stem, or a foot away from a tree trunk. Form the outer wall of the basin just beyond the plant's or tree's dripline. Fill the area between the two walls with irrigation water. The walls hold in the water, letting it

soak slowly and deeply into the root zone. Keeping the water away from the stem or trunk prevents rot from too much moisture at the base. Also, keep mulch the same distance away from the stem or trunk to allow sufficient air circulation for the roots.

Keep adding to mulches throughout the summer to conserve water, keep roots cool, and foil weeds. Remember to water well before applying the mulch, or you'll insulate dry soil rather than moist soil. Pile mulch two to six inches deep under shrubs, trees, vines and in flower and vegetable beds. Let grass clippings dry out a bit before piling them (or just spread them thinly), or they'll clump into a mat that's impervious to later watering.

Master Gardener In Training (MGIT) Information Meetings

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WHAT IS MY CLIMATE ZONE?

Most gardening books, catalogs, and seed packets refer to plant hardiness zones, climate zones, or growing zones. Temperature hardiness climate zones are based on normally expected high and low temperatures and serve as guides to help you know which plants will grow where you live.

Temperature is not the only factor in figuring out whether a plant will survive in your garden. Soil types, rainfall, day length, wind, humidity, and heat also play their roles. Even within a city, a street, or a spot protected by a warm wall in your own garden, there may be microclimates that affect how plants grow. The zones are only a guide and a good starting point, but you still

need to determine for yourself what will and won't work in your garden.

Of 24 climate zones defined in the *Sunset Western Garden Book* and the 20 zones defined by the United States Department of Agriculture (USDA), California has 20 and 16, respectively.

The USDA plant hardiness map divides North America into 11 hardiness zones. Zone 1 is the coldest; zone 11 is the warmest. When you order plants from catalogs or read general garden books, you need to know your USDA zone in order to be able to interpret references correctly. The American Horticultural Society has also issued a Plant Heat Zone Map.



Gardeners in the western United States sometimes are confused when confronted with the 11 Hardiness Zones created by the USDA, because we are used to a 24-zone climate system created by *Sunset Magazine*. The *Sunset* zone maps, considered the

standard gardening references in the West, are more precise than the USDA's, since they factor in not only winter minimum temperatures, but also summer highs, lengths of growing seasons, humidity, and rainfall patterns.

For more detailed information on climate zones:

Sunset Climate Zones <http://www.sunset.com/garden/climate-zones/sunset-climate-zones-california-nevada>

USDA Hardiness Zone Map <http://www.ahs.org/gardening-resources/gardening-maps/hardiness-map>

AHS Plant Heat Zone Map <http://www.ahs.org/gardening-resources/gardening-maps/heat-zone-map>

8th Annual Urban Landscape and Garden Education Expo

Saturday, Sept 24, 2016 - 9 am to 2 pm
7601 Irvine Blvd., Irvine, CA
www.ucanr.org/sites/urbanwatermgmt

- ⇒ **Explore** the sustainable gardening practices at work at the UCCE Demonstration Landscapes - including rainwater harvesting, low-water plantings, more efficient irrigation, composting, mulching and environmentally friendly pest control alternatives.
- ⇒ **Taste** fresh, seasonal fruit grown at the UC ANR South Coast Research & Extension Center. Learn food preservation methods from UCCE Master Food Preservers.
- ⇒ **Kids** - visit the 4-H booth and learn how to make a smoothie while riding your bike - along with other delicious snacks.
- ⇒ **Listen** to presentations by UC experts about more efficient water use and irrigation, plant selections for our local climate and pest management practices for your home landscape.
- ⇒ **Get answers** to your landscape questions from UC experts, UCCE Master Gardeners, various industry vendors and local water agencies.

This is a FREE event hosted by UC ANR South Coast Research & Extension Center and Irvine Ranch Water District.

CALENDAR

Goin Native Master Gardener Public Lectures

9:30 a.m. at Reata Park

- **How to Raise Backyard Chickens, June 25**
- **Prepare Summer Garden for Heat, August 6**
- **Vertical Gardening: Ornamentals and Vegetables, August 20**

Goin Native gives a 30-minute free, interpretive, California native plant-walk with a handout following each class.

www.goinnative.net

Shiple Nature Center

June 25; July 23, Aug. 27; Sept. 24

9:30 a.m.—Noon

Ask A Master Gardener Booth. Master Gardener’s on hand to answer general gardening questions.

www.shipleynature.org

Saturdays@ South Coast REC

9:00 a.m. - 11:00 a.m. at South Coast Research and Extension Center

Saturdays @ SCREC is a new family-friendly series for the public interested in learning about gardening and food-preservation. Online registration in advance of the event is required, please visit our website to sign-up.

ucanr.edu/survey/survey.cfm?surveynumber=16663

Great Park Neighborhoods Workshop - Kid's Gardening

Sat, July 09, 8:30 a.m. - 11a.m.

Good Bugs and Bad Bugs: Targeted to children ages 5-12, this Master Gardener presented workshop will include a lecture and craft. Address: 194 Compass Irvine 92618

OC Great Parks Gardening Workshops

10:00 a.m.

July 9 -All About Herbs

Sept 10 - Foolproof Flowers and Bulbs

These workshops will teach you everything you need to know about successful and sustainable gardening.

www.ocgp.org

OC Fair

*July 15—August 14 at OC Fairgrounds

Master Gardeners will be available every day the Fair is open.

Wed – Fri. 12 p.m. – 10 p.m.

Sat. & Sun 10 a.m. – 10 p.m.

Our booth will be located in the Garden & Floral Pavilion, located next to Centennial Farm.

www.ocfair.org

June 2016

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25 
26	27	28	29	30		

July 2016

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6 	7	8	9 
10	11	12	13	14	15	16
17	18	19	20	21	22	23 
24	25	26	27	28	29	30
31						

August 2016

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6 
7	8	9	10	11	12	13
14	15	16	17	18	19	20 
21	22	23	24	25	26	27 
28	29	30	31			

September 2016

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10 
11	12	13	14	15	16	17
18	19	20	21	22	23	24 
25	26	27	28	29	30	

Note: Clipart icons designate an event. Please read the details to the left. There maybe more than one event on a given day.

* Indicates OC Fair days shaded in light gray

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Inquiries regarding ANR’s nondiscrimination policies may be directed to Linda Marie Manton, Affirmative Action Contact, University of California, Davis, Agriculture and Natural Resources, One Shields Avenue, Davis, CA 95616, 530.752.0495.