



University of California

Agriculture and Natural Resources | UCCE 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.ucanr.edu>

GROWING TOMATOES

Excerpted from UCANR Publication 8159

No matter what your growing preferences are, few gardeners can resist the temptation to plant tomatoes. Tomatoes are among the most popular vegetables grown in home gardens. They also prompt frequent cultural and pest management questions, though many problems can be avoided by planting disease-resistant varieties that are well adapted for your growing area. Most tomato varieties available to the home gardener produce flavorful and juicy fruit and require relatively little space for a large yield. When properly cared for, each tomato plant can bear 10 to 15 pounds or more of fruit.



Deciding which tomato variety to plant may seem a difficult task, given the large number that are available and the differences in size, habit, and climatic requirements. In addition to the usual round red tomato, home gardeners can choose to grow orange,



yellow, pink, or striped tomato varieties, or those shaped like pears, grapes, or plums. Often these unusual varieties are available only to the home market and may be grown on limited acreage as they may have little commercial appeal. Some yellow tomatoes have a mild,

sweet flavor with low acid content. Ask gardening friends and neighbors for the names of their favorites, and don't overlook the heirloom varieties that are also available.

Tomatoes are described as determinate or indeterminate based on the plant's growth habit. Determinate, or "bush," tomato plants

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have a somewhat bushy appearance, grow to a given size, about 3 to 5 feet, bear most of their fruit within about 4 to 6 weeks, and then decline in vigor. Most



early-ripening and canning tomato varieties are of the determinate type.

Indeterminate varieties produce vines that continue to grow and set fruit all summer until they are killed by frost or disease. Many typical standard-sized tomatoes for the home garden are indeterminate varieties. Unless supported by sturdy trellises, cages, or stakes, indeterminate plants tend to sprawl on the ground, leaving the fruit susceptible to rot where it comes in contact with the soil.

Some tomato varieties can be grown successfully in many parts of California, while others have more specific climatic requirements and do well only in certain locales. Tomatoes are susceptible to several disorders that can significantly diminish yield or even destroy an entire tomato crop, but many



hybrid tomato varieties are resistant to them. For best results, choose

tomato varieties that do well in our Orange County climate (Zone A) and have been developed for disease resistance. For a comprehensive table of varieties, climate preference and disease resistance, as well as information on water and fertilizer requirements, common pests and more, visit: <http://ucce.ucdavis.edu/files/repositoryfiles/8159-54222.pdf>

WHAT A TOMATO NEEDS TO GROW

- ⇒ **SUN** - At least six hours every day. Loves heat - will not set fruit below 55° F or daytime temps over 100° F.
- ⇒ **SOIL** - Most soils if good drainage, unless you have perfect loamy soil amend with compost.
- ⇒ **WATER** - regular watering and water deeply
 - Maintain uniform soil moisture
 - Avoid wetting foliage - promotes disease
 - Overwatering results in tasteless fruit
 - Irregular watering can cause leaf roll, blossom end rot and cracked fruit
- ⇒ **MULCH** - benefits the plant
 - Maintains uniform soil moisture
 - Improves water penetration
 - Prevents weeds
- ⇒ **FERTILIZER** - add when planting
 - Recommend organic fertilizer
 - Fertilize again when blossoms appear
 - Then fertilize lightly every 2-4 weeks, if desired
- ⇒ **SUPPORT** - stake when planting
 - 6-foot stakes
 - Sturdy tomato cages
 - Concrete reinforcing screen
 - Spiral stakes
 - Post and string method
 - Decorative obelisk

OUT AND ABOUT WITH MASTER GARDENERS

URBAN CHICKENS

The popularity of urban chickens has soared. Chickens provide so much more than just eggs and high nitrogen, organic manure for gardens. They also help minimize the use of pesticides and



herbicides, as they love to eat bugs and weeds; and they help prepare the soil for the next crop by tilling the garden beds. With these many benefits,

gardeners throughout Orange County are trying their hand at raising chickens. UCCE OC Master Gardeners are here to help. We have a team of Master Gardeners with a passion for gardening and raising backyard chickens. They can be found at various gardening events around the county with live chickens to help educate the public about raising chickens. Their traveling chicken pen is quite a sight to see! In the course of a year, Master Gardener volunteers host three to five public exhibits. Be sure to check our Gardening Event Calendar at <http://mgorange.ucanr.edu> to find upcoming events in which they will participate.

If you are thinking about raising chickens, here are some things to consider:

- Does your city permit backyard chickens? Not all do and almost all forbid the ownership of roosters.
- Do you have enough room to properly house them? Chickens need space to move about, nest and roost. Depending on the type of chicken, they need a minimum of 4 to 10 square feet per bird. The more space you can provide the better.

Overcrowding stresses the birds and can lead to illness, unhealthy feather pecking, and/or cannibalism.

- What kind of chickens should you get? Selecting the appropriate breed is essential to meeting your reason for having chickens. The most common reasons for keeping chickens are for eggs, meat and exhibition. UC Cooperative Extension has a pamphlet, *Selecting Chickens for Home Use*, with helpful guidelines on selection.
- Can you keep the chickens healthy and safe? Housing, protection from predators, proper nutrition and disease prevention are critical to successfully raising chickens.

For more information about raising poultry, visit <http://ucanr.edu/sites/poultry>



How Well Are You Watering?

Irrigation controllers are commonly used to set start times, frequency and duration of a home's sprinkler or drip system. Over irrigation is very common. Most home landscapes irrigation times and frequencies can be reduced by 20 to 40 percent with little to no effects on landscaping.



Irrigation adjustment tips:

- Gradually reduce water use by 10 percent increments over the course of a few weeks - giving lawns, trees and plants time to adjust
- Find your irrigation controller manual online, visit www.SaveOurH2O.org
- Install a "smart" irrigation controller which automatically adjusts using current weather data historical weather patterns, and/or soil moisture sensor
- Check for and repair leaks
- Adjust sprinkler heads to maximize coverage, avoid watering sidewalks and patios
- Install a drip irrigation system, grouping plants with similar water needs together on one drip irrigation line

TOOT YOUR HORN

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

Goin Native With Laurie Menosky:

<https://www.youtube.com/watch?v=PYj5d4QLw2E>

Speakers Bureau with Tom Farrell:

<https://youtu.be/ZbKGyaeGZyU>

In The Garden Radio Show With Teena Spindler:

<https://youtu.be/wvP0fEqGqfl>

Youth Demonstration Gardens with Kathie Burns:

https://youtu.be/s1MQIXSm_HY

QUICK TIPS FOR YOUR SUMMER GARDEN

June is a good month to plant tropicals like Natal plum, bougainvillea, blue hibiscus and gardenia that prefer the heat. But they will also need to be kept well

-watered until established, even though they may be drought tolerant once established.



drought tolerant once established.

Pinch back fall blooming plants about one third throughout the summer to keep the plants bushy and to encourage more blooms.

New growth and warmer weather means bugs are active. Keeping on top of them will reduce their damage on new and growing plants. Use a strong spray from the hose to knock them off plants before they get too profuse.

Introducing natural predators and encouraging birds in the garden this month will help in the management, keeping damage to an acceptable level. Plants that require a great deal of attention due to insect problems may be under stress and either planted in the wrong spot or not appropriate for the climate. Instead of putting energy into an annual war on bugs or disease, it may be time to replace those plants with something that will thrive naturally and not attract the bugs.



Now is the time to fertilize camellias and azaleas. They should be finished blooming and are starting their growth cycles and forming buds for next season's flowers. Be sure to use an acid type fertilizer and follow the directions carefully.



Determine which plants may need extra water. A long slow soak will keep established shrubs from becoming susceptible to problems in the months ahead and will encourage deep roots. Be sure there is enough mulch to keep the soil cool and let it dry out between watering. Some plants, such as impatiens, may need to be watered daily. Grouping plants that require more water during the summer will make it easier to keep up with their requirements.



BACKYARD BEEKEEPING PART III

By Karine Pouliquen, Beekeeper, Educator & UCCE Master Gardener

Now that you have ordered and picked up your bee package, take a moment to inspect it before driving home. Make sure the bees are alive. There may be some dead bees at the bottom. This is normal. Put your package inside your car, not in the trunk – it will be too hot.

Once home, gently spray the sides of the package with cool water – don't drown them! Now put the bee package in a cool dry place, like a closet, basement or garage for one hour. This "time out" is to allow the bees to rest and relax a bit after the trip. After the hour has passed, spray the bees again but this time with sugar syrup 1:1, one part of hot tap water to one part of white granular sugar. Stir to dissolve the sugar completely. Let the syrup cool down before spraying the bee package.

In late afternoon, sun down, or very early morning, sun up, take the bee package into the yard where the hive is located. If it is raining or windy, wait until the weather is better. In the

meantime, spray water and sugar syrup three times per day.



Time for installation in a 10-frame deep hive box! Remove and set aside five frames and the empty deep hive box to cover the feeder. Set the box's bottom board entrance reducer to the smallest

opening position, facing up. This position will allow bees to climb over dead bees without being stuck inside.

Wear your veil and gloves. Have the hive tool, sugar syrup spray bottle, a couple of rubber bands, a few mini marshmallows and the feeder readily available. **YOU WILL NOT NEED THE SMOKER.** Remove the wood cover from the bee package with the hive tool keeping the tool nearby. Slam the package down sharply to force the bees to the bottom of the package. This does not hurt the bees. Remove the feeder can from the package.

Locate the queen cage and remove her by slowly sliding the metal piece attached to the cage. Keep the queen cage warm by putting it in the breast pocket of your bee suit. Replace the

wooden cover and sharply slam the package of bees again. The bees will again be forced to the bottom. Spray the package one more time with sugar syrup. Remove the wooden cover and "pour" the bees directly into the deep hive box with the five frames removed. Continue to pour and shake the package until almost all bees are in the deep hive box. Place the package next to the deep hive box.



Now for the queen. With the hive tool or a pocket knife, remove the cork from the queen cage, put your thumb on the small hole and quickly plug the hole with a mini marshmallow. Take one frame that was set aside, slide the rubber band around the height of the frame, (short way) and insert the queen cage securely between the rubber band and the foundation. The cage should stay in place securely. Make sure that the cage on the foundation is at an angle (45 degree) with the marshmallow side up. This is very important because if some attendants die, the exit hole will not be blocked by dead bees. The queen is able to exit the cage.

Place that queen frame in the center of the box, and gently replace three more frames. If the bees at the bottom of the box are too "thick," use the rounded part of the hive tool to "spread" the bees around gently so the frames fit. You will have one frame left on the side, until you remove the queen cage in about seven days.

Place the inner cover on the deep box. Place the feeder, which has tiny holes on the lid (the bees will feed using gravity) above the oval hole of the inner cover. Add the second empty deep hive box on top of the inner cover; this will protect the feeder. Place the telescopic cover on top of the hive; don't forget to put a couple of bricks on the cover. You are done! Leave everything undisturbed for a **FULL WEEK** to prevent the bees from killing the queen.

Go back to the hive the next day and take the empty package home. Put this empty package in a safe place, where the bees cannot get to it. The queen's pheromone (scent, odor) will

remain inside for a few days, and some bees maybe try to get to it. Congratulations! You are officially a Beekeeper – how wonderful is that!

In the meantime learn how to light your new smoker . . . in other words: PRACTICE! Loosely crumple newspaper the size of a tennis ball and place it at the bottom of the smoker. Light the paper, and gently squeeze the bellows so air can get in, and the paper can burn with flames.



Then add small kindling, fatter twigs, dry pinecones, and dry pine needles until the smoker is full. Stoke the fire using the hive tool. Keep pumping until a thick cool smoke appears. How cool? Remove your glove and blow some white smoke on the top of your hand. It should feel cool, not hot or flaming!

After seven days, open the hive to check on the bees. Since you have been practicing using your smoker, today is the day to shine! Don't forget to wear your veil, gloves, and bee suit. Have the smoker ready and hive tool in hand. From the back or side of the hive, smoke a few puffs into the front entrance to announce yourself.

Wait a bit, then move to the back of the hive, lift one corner of the cover, puff some smoke and close the lid. Wait a bit, then remove the cover and puff some smoke in the opening of the inner cover.

Remove the feeder and the deep hive box and set both aside. Now you will see the frames and bees. Blow smoke on top of the frames – the bees will automatically move down inside the hive.

Remember to move slowly and calmly. Using the hive tool, remove the first frame, the one nearest you when standing on the side of the hive. Pry the frame on both ends and with both hand lift the frame slowly and straight over the

hive. Check to see if the queen has been released from her tiny cage and if the workers are drawing wax to make the cells on the foundation for the queen to lay eggs. Look for eggs, larvae, pollen and nectar.

Continue with the inspection. Don't replace the first frame in the hive yet. Put it aside so you can remove the next one with ease. Look again for eggs, etc. Put the second frame back in the hive, slide it towards you, then the third, continuing until you reach the frame holding the queen cage. If empty, remove the rubber bands and the cage from the frame. Replace the frame into position. You will need to smoke the top of the frames in the hive when the bees are back on top, observing you!

When all frames are checked, add the one set aside seven days ago. Now you are ready to replace the first one at the same position as you removed it. There should be 10 frames in the deep hive box. Put the inner cover back, then the feeder (replenish the syrup if needed), then the empty deep box and finally the lid. You are done!

This is how every inspection is done. The purpose is to observe and evaluate. Take notes, and/or pictures. Keep the colony's history so you know what is going on with each of them. This allows you to make informed decisions based on observed facts.

During the first inspection, your only goal was to make sure the queen was released and accepted by the workers. During the next 3 to 4 weeks, your job will be to determine if your queen is laying well. You will also be able to observe the capped brood and larvae. Always check for sugar syrup level.

That is your first month! Try to feel comfortable and make sure your smoker is lit at the end of each of your visits.

Next time: We will discuss the following 4 to 8 weeks, adding a box, and being on the lookout for Varroa mites. While enjoying your bees, practice your smoker technique!



CALENDAR

Shipley Nature Center Open House

June 3rd 9:00 a.m. - 2:00 p.m.

17851 Goldenwest St., Huntington Beach

Tanaka Farms Annual Summer Festival

June 3rd & 4th 10:00 a.m. - 3:00 p.m.

Master Gardener information booth and children's activities.

5380 3/4 University Drive, Irvine

Cultivating Gardening Skills Workshops

South Coast Research & Ext. Center
7601 Irvine Boulevard Irvine, CA 92618

- Pruning Fundamentals, June 3rd 8:00 a.m. - 12:00 p.m.
- The Buzz About Bees, June 7th & 14th 9:00 a.m. - 12:00 p.m.

For cost, class description and registration go to <http://mgorange.ucanr.edu/projects/events/?editon=1>

Shipley Nature Center Lecture Series

10:00 a.m. - 11:00 a.m.

- Vertical Gardens, June 24th
- Composting, July 22nd
- Raised Bed Gardens, Aug. 26th

17851 Goldenwest St., Huntington Beach

Smart Gardening 101 Series

9:30 a.m. - 10:30 a.m.

Reata Park and Events Center

28632 Ortega Hwy

San Juan Capistrano, CA 92675

Smart Gardening classes with UCCE Master Gardeners and Goin Native, Classes are free.

- Hot Season Veggies for a Hot Season, June 3rd
- What's Bugging Your Garden, June 17th
- UCCE Food Preservers: Fermentation, July 15th
- Designing Small Container Gardens, July 29th
- UCCE Food Preservers: Canning Summer Produce, Aug. 12th
- Creating a Bird & Butterfly Garden, Aug. 26th

For more info and RSVP, contact Marianne@goinnative.net or (949) 606-6386

Norman Murray Senior Center Gardening Series

24932 Veterans Way, Mission Viejo, CA

- Intro to Series, June 1st 10:00 a.m. - 11:00 a.m.
- Gardening in Small Spaces, July 6th 1:00 p.m. - 2:00 p.m.
- Growing Beautiful Succulents, Aug. 3rd 6:00 p.m. - 7:00 p.m.

Food + Farm Lab Garden Workshops

9:00 a.m. - 11:00 a.m.

Great Park Farm + Food Lab, Orange County Great Park, 6990 Marine Way, Irvine, CA

- Create a Bucket Garden, June 17th
- Magic of Composting, July 15th

June 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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July 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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August 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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OC County Fair

July 14th - Aug. 13th

Wed. - Fri. 12:00 p.m. - 10:00 p.m.

Sat. - Sun. 10:00 p.m. - 10:00 p.m.

Master Gardeners will be available every day the Fair is open. Our booth will be located in the Garden & Floral Pavilion, next to Centennial Farm.

www.ocfair.com

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