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Attention Photographers!

You’ve got some great photos and Roots & Shoots would like to give you a platform for sharing them. Send us a few of your best shots and they could be included in our photo gallery (as space allows) or even featured on the upcoming cover! Each month the editorial staff will select from photos taken by Master Gardeners and submitted during the previous month. We want to see your best gardening-related photos: vegetables, flowers, trees, insects, birds, animals, people, projects, events, landscapes, décor, etc.

Send your photos along with a brief description to editorobiadi@gmail.com by the 25th of each month to be considered for the upcoming issue.

Show us what’s going on in your gardening world!

Attention Writers!

Please submit your articles for the September issue to Kelly Obiadi at: editorobiadi@gmail.com by August 15.
The University of Arizona is an equal opportunity, affirmative action institution. The University does not discriminate on the basis of race, color, religion, sex, national origin, age, disability, veteran status, or sexual orientation in its programs and activities. Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Jo Cook, Program Coordinator, at jocook@email.arizona.edu 602-827-8211. Requests should be made as early as possible to allow time to arrange the accommodation.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Jeffrey C. Silvettooth, Associate Dean & Director, Economic Development & Extension, College of Agriculture and Life Sciences, The University of Arizona.
The purpose of this section of Roots & Shoots is to focus on plant diagnostics using actual questions we get as Master Gardeners. Our approach is to state a plant-related question that has come through the Arid Gardener Listserv, Plant Help Desk, presentations at public events, someone who walks into the Extension Office, or from a neighbor. One or more answers from Master Gardener(s) will be given as well as some related ideas to further educate the person who asked the question. Think of this last part as a teaching/learning moment. It is through teaching that we best learn and this is a great opportunity for us to share our knowledge and further the Master Gardener mission.

To stimulate discussion, we will present one or two questions that will be answered in the next edition of Roots & Shoots.

Master Gardeners are invited and encouraged to ask follow up questions and comment on any of the questions and/or responses in this column to make this a truly interactive learning experience.

This can be done by emailing your questions and comments to sutton1@email.arizona.edu. Your contribution may be published in future articles as space allows.

As we learned in the intern class, Master Gardeners who answer plant questions need to have good detective skills. Diagnosing a problem requires us to gather information, make observations, ask questions, and do some level of analysis before responding. These diagnostic skills will be highlighted where possible.

**Question**

Is this a good time to plant fruit and native, low-desert trees in Maricopa County? Also, do you sell soil testing kits? Finally do we need to rototill before planting the trees?

**Answer**

Before purchasing and planting your trees, make sure that you pick the right tree for the right place. You have some homework to do. Ask yourself several questions. What do you want the tree for? Is it for shade or privacy? Do you want it to be the focal point of your yard? Will it fit in the space where you want to plant it when it is mature? Do you have a water source for the tree? What are the tree’s cultural requirements? Can it handle full sun all day or would it do better with morning sun only? How much litter will the tree produce?

After considering these questions, you are ready to purchase your tree. It is best to plant native and desert-adapted trees in the fall or spring, when our temperatures are moderate. However, our native and desert-adapted trees can be planted in the summer, but will require extra care. These links will provide information on planting and the care of desert-adapted trees and shrubs.

https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1048.pdf
https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1402.pdf
https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1022.pdf
https://www.dbg.org/gardening
It is important to water the newly-planted tree immediately and do not let the root ball dry out for several days after planting. Your new tree may need supplemental water for 3-5 years until established.

Now is not a good time to plant fruit trees in our low desert. It is best to plant bare root fruit trees when they are dormant at least 30 days prior to bud break. In Maricopa County you would want to plant no later than January 30 for best results.

Select varieties that require less than 400 chilling hours, those that produce early maturing fruit, and are self-pollinating. Deciduous fruit trees require a genetically-determined amount of cold weather to set their fruit. The amount of chill hours is determined by counting the number of hours from November 1 to February 15 between 32 and 45 degrees F. Most areas of Maricopa County average between 300-400 chilling hours. This link will provide valuable information on varieties that will be appropriate for Maricopa County.

https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1269.pdf

Unfortunately we do not do soil testing. However there are a number of local companies that do soil testing. This link will provide a listing of those companies.

https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1111-2016_0.pdf

Make sure to check with two or three companies to determine exactly what services they provide.

Regarding rototilling, there is no need to rototill prior to planting trees.

Diagram from az1048

A Question for Next Time:

When asked about selecting and applying fertilizer what should master gardeners tell people so they have a chance of getting it right? Often the information on the bag adds to the confusion and uncertainty.
Congratulations to the newest Certified Maricopa County Master Gardeners!

This amazing group of men and women are the recent graduates from the Spring 2017 Master Gardener class. They braved 17 weeks of in-depth training in botany, insects, plant pathology, pruning, soil structure, watering, compost, and much more. On top of that, they aced their final exam and logged in at least 50 volunteer hours. That is a lot of time and effort, all for the purpose of sharing that knowledge with the residents of Maricopa County. Each and every one of these wonderful volunteers will play a vital role in helping our communities make better decisions about their gardens, which in turn, enhances our environment as a whole.

As one of the Master Gardener Mentors who got to enjoy taking part in this class, I can wholeheartedly say that they are fantastic. It was so fun seeing my table group blossom with every bit of new knowledge that they received. The excitement of the first day of class, when we learned about compost, never diminished throughout the 17 weeks. Each one of them is discovering the volunteer role they fit best. I’m proud to stand beside these new graduates and feel confident they will be valued assets to the Master Gardener program.

From Cricket Aldridge, Master Gardener class of 2012

Master Gardener Spring 2017 Graduates

<table>
<thead>
<tr>
<th>Terry Armstrong</th>
<th>Marybeth Finlay</th>
<th>Faye Oakley</th>
<th>Terri Swan</th>
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<tr>
<td>Jeannette Baxter</td>
<td>Susan Hutzell</td>
<td>Daniel Palermo</td>
<td>Kathryn Tanner</td>
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<td>Sharon Beal</td>
<td>Sarah Jaroch</td>
<td>Rachel Saunders</td>
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<td>Susan Cooper</td>
<td>Laura McCarthy</td>
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<td>Jeffrey Jr. Darbut</td>
<td>Kimberlee McClure</td>
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<td>Cynthia Dickinson</td>
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<td>Shelly Donovan</td>
<td>Maryanna Milton</td>
<td>Pamela Shields</td>
<td>Mary Ellen Wood</td>
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<td>Ehsan Ehsanullah</td>
<td>Karla Musick</td>
<td>Linda Sinkevich</td>
<td>Birsen Yuzak</td>
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<td>Thomas Escobedo</td>
<td>Jessica Newton</td>
<td>Kathie Skidmore</td>
<td>Christine Zaremba</td>
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Master Gardener Department Staff Change

Linda Wade, the Master Gardener department secretary has moved to the 4-H program. We are happy to have Celeste Kimble take her place. Celeste is a recent graduate of Arizona State University. Congratulations to her on this achievement. Celeste has supported many Cooperative Extension programs in the last 7 years, and most recently she has been involved with the Brain Builders program. She already has a great working knowledge of the Master Gardener program and has a natural appreciation for all our volunteers.

Please be sure to stop by and welcome her. Celeste can be reached at: burrellc@email.arizona.edu, (602) 827-8256.
Getting to Know Master Gardener Carol Stuttard

I am English, born in Newcastle upon Tyne. I have gardened my entire life, starting from about the age of 3. My parents are both gardeners and have won awards for their garden. My grandfather was actually a gardener by trade working at one of the stately homes in the UK (like Downton Abbey).

Until last year, the UK family home was a 350 year old stone lodge (to a stately home) which had been in the family for 116 years. My Great Grandfather (and family) had moved into that lodge in 1900 as the Head Gamekeeper for the Estate. They gardened, kept bees and chickens, as well as doing all the other pursuits of country folk, plus of course having the dogs for the game keeping. That is how I was raised, with a love of nature and the land.

In those days, they ate what they grew and while that is obviously not completely possible in the urban life where I live now in Scottsdale, I do try to adhere to that as much as possible. Eating seasonally what I grow, knowing it is fresh, organic, and local!

I try to instill that same "ethos" into the classes I teach, and that is why I started my blog - so it can be an educational resource that both encourages and helps all those gardeners out there. I love to cook, so there are recipes too, as well as any other nature crafts that I like to pursue. That’s why I titled the Blog - “From My Garden To You.” Here is the link -https://frommygardentoyou.blogspot.com. Upcoming dates of classes that I teach and links to my YouTube videos can also be found on my blog.

I have two daughters; one is a vet here, the other a teacher in Italy. I have three grandchildren and they all love visiting grandma’s garden, having snacked on carrots and peas in situ with much fun. They are all good little gardeners and have no problem getting their hands in the dirt, which is half the fun, isn't it?

A Maricopa County Master Gardener since 2001, Carol Stuttard has served as Director of North East Valley Satellite office, Director of Mentors for Master Gardener Program, Director at Large for Master Gardener Program, and as Co-chair of a Master Gardener Garden Tour. She is also a Certified Desert Landscape Designer (Phoenix Desert Botanical Gardens) and has completed numerous advanced Master Gardener training courses. She has served as a mentor in Master Gardener training classes, and her own garden was featured on the Master Gardener Garden Tour in 2002. You can learn more about Carol and her current projects on her new blog at https://frommygardentoyou.blogspot.com.
NOTEWORTHY NEWS... continued

Green Living Series
Glendale Main Library | 5959 W. Brown St.
Free classes to help residents create a more water & energy efficient home.

Wed. | Sept. 6 | 6 to 7:30 p.m.
From Garden to Table: Desert Herb Gardening
Do you want to start growing fresh herbs in your garden? A variety of hardy herbs, including rosemary, oregano, and thyme, grow well in the low desert and can easily be included in your garden. This class will cover plant selection, soil preparation, and proper watering. Bon appétit!

Sat. | Oct. 7 | 10 a.m. to Noon
The 123's of Landscape Watering
Protect your landscape investment by knowing how to properly water your plants. Learn about the basic components of an irrigation system and how to use an irrigation timer. Receive the “Landscape Watering by the Numbers” guide that takes you through how much, how long, and how often to water your plants.

Sat. | Oct. 21 | 10 a.m. to Noon
Create Your Own Desert Food Forest
Attention all foodies! Grow your yard and eat it, too! The Linking Edible Arizona Forests (LEAF) Network will be teaching this class on how to create a desert food forest in your yard. Mesquite, prickly pear, and agave are just a handful of tasty plants that thrive in the low desert. Gain a new appreciation of the Sonoran Desert by learning about different kinds of edible trees and shrubs, including how to plant, harvest, and tend to them. Attendees will receive a free desert edible plant at the end of the class (one plant per household; first-come, first-served). Funded by the Arizona Department of Forestry and Fire Management, and the USDA Forest Service. This institution is an equal opportunity provider.

Wed. | Nov. 8 | 6 to 7:30 p.m.
Backyard Composting
Are you interested in turning your kitchen scraps and yard waste into compost? Copy Mother Nature’s original system of recycling organic materials into rich soil nutrients. Listen to Pam Perry, a local garden expert, talk about the tricks and tasks of home composting. Compost makes for a happy garden, which makes for a happy gardener! Win a composter, donated by the Glendale Recycling Division, by participating in a free raffle.

Wed. | Nov. 15 | 6 to 7:30 p.m.
Go Green and Save Green at Home
Have you wanted to “go green” and save money at home? The City of Glendale Water Services Department and Sanitation Department staff are teaming up to share simple ways to reduce your water, energy, and household waste. Glendale residents that attend this class will receive free water- and energy-efficiency devices*, including a four-pack of compact fluorescent light bulbs, a programmable thermostat, and a high-efficiency showerhead!

Additional info at GlendaleAZ.com/WaterConservation/classesandeducation.cfm
In The Vegetable Garden

August is full of long, sultry days interspersed with days of fast-moving dust, thunder, lightning, and wind. Of these, the latter is often most troublesome in landscapes. With luck, carefully considered pruning works to minimize damage to our trees. This is not always the case though, as branches, limbs, and whole trees fall victim to strong winds that swirl through planned urban developments, along main thoroughfares, around or above walled gardens, and through old town centers leaving new planting opportunities in their wake. Other regions of the United States get heavy snow or ice storms, frost, tornadoes, and hurricanes that damage trees. We get microbursts. Have a contingency plan, homeowner’s insurance, and a good arborist or removal service in place as we go into the rest of monsoon season. Hopefully you will not need them!

By mid-month the sun is several degrees further south, and some plants are already recovering from the impact of record-setting hot nights and sun-seared days coupled with the directly overhead sunshine in the weeks close to solstice. Humidity and changes in air pressure trigger flowering on leucophyllums, Texas sages, making masses of purple, blue, or silver blooms that soon carpet the ground. Left alone, this colorful mulch echoes the flowers on the plants, extending color in the landscape. Other plants show signs of breaking summer dormancy and getting on with their lives. And landscapes start to look a little less crispy.

Some plants, unfortunately, will not recover. If a fingernail scratched along the stem does not expose the green of living tissue, you may have lost the plant. Leave the unsightly mess alone until well into September; some plants have enough energy stored in roots and crown to begin again from the crown. The damaged parts will shade and protect newly-emerging life. Worst case scenario, dead is dead. Begin the search to find a replacement. Plant sales in October offer lots of options at the best planting time!

Plants that have been in the shade of awnings, patio covers, buildings, or walls may find themselves now exposed to strong sunlight. Provide alternative shade, or if possible, move plants to more sheltered location. As the sun moves to the south, sunburn on plants happens and we learn the impact of the sun’s movement on our landscapes as summer progresses into fall.

During the monsoon, succulents are susceptible to overwatering as are many of the salvias. Evaporation of water from the soil slows significantly and soils remain moist longer. Warm soil temperatures coupled with humidity and perhaps rain lead to sudden death, often the result of soil-borne disease that flourishes during the monsoon. Or, roots just rot away. Sigh. Such is life in the desert.

Summer weeds appear by magic and every drip emitter hosts newly emerged seedlings of African sumac, sennas, mulberry trees, spurge, and novelty weeds blown in on the wind. Remove them as soon as you notice them to keep them from becoming well established.

Vegetable gardeners have learned that monsoon plantings mean wonderful fall harvests of summer squash, cucumbers, and string beans, while we await harvest from newly-emerging seedlings of fall planted crops. Monsoon-planted tomatoes and peppers benefit from careful coddling and, if we get another winter like last year, will provide harvests surprisingly early in the new year. So, yes, something can be planted at this time of the year! And, if we do so, at harvest time we deserve that feeling of self-satisfaction for overcoming heat and humidity to play in the garden for a bit!
Summer pruning is one way to control growth in the home orchard. Use care not to expose well-shaded scaffold branches to too much sunlight as fast-growing water shoots are removed. Lots of humidity and wind can spread disease. Use a 10% bleach solution and sterilize pruning tools after each cut. Clean and oil equipment after use to prevent rust. Good housekeeping helps manage pest problems in home orchards. Be sure not to leave old dried or rotting fruits under your trees where next year’s pests can happily wait for their debut. Composting is usually effective.

This is the time to settle in with seed catalogues and garden books, drawing up new plans for old locations, and maybe go visit a garden somewhere else.

See you in a garden!

Visit A Garden

Directory of Community Gardens: https://cals.arizona.edu/maricopa/garden/community_garden_directory.php

The Arboretum at Flagstaff: https://www.thearb.org

Boyce Thompson Arboretum: https://cals.arizona.edu/bta/index.html

Desert Botanical Garden: https://www.dbg.org

Tohono Chul: https://tohonochulpark.org

Agave Farms: agave-farms.com

Photos by Master Gardener Jeff Ross
Sonoran Desert gardening is unlike most other places. One thing more difficult than gardening in the desert is creating a successful garden retail business and that is why it is always exciting when a new option appears. As part of the Maricopa County Master Gardener program, we took a field trip to visit Agave Farms in central Phoenix.

What renders Agave Farms somewhat different is that it is a cross between a community farm and garden center. It is landlocked by urban landscape and serves as a welcome oasis for those in the immediate area. When visitors enter the center, they are first struck by the vastness of the farm. Although it appears as one city block, it is a big one. Many of the sections have stone walls creating raised beds that are also very large. Gardeners should take their time to look around and study the displays and floral groupings. These can spur creative gardening thoughts for home use.

Agave Farms grows vegetables, cacti, succulents, and a host of other plants. In the area near the informal entrance you will find a variety of plantings, pots, etc. to provide ideas and inspiration. Flowers and vegetables are planted in groupings and interspersed throughout the garden. This may be to deter certain pests or perhaps just to develop a more colorful display. In the small picnic area just behind the garden's office, there are small and large displays to get guests into that gardening mood.

There are even plants that are impossible to kill, i.e. metal sculptures. Many people who have desert gardens like to use rebar, metal objects, etc. in their garden design. I have learned to appreciate rebar and rust as a featured element of a Sonoran Desert garden design. There are some interesting and humorous touches at Agave Farms.

We cannot forget that this is a desert-based farm and landscape center and as such there are desert plants for sale. Large specimens are often sold in planting boxes. These are a bit tricky to plant for those who are uninitiated and usually require a specialist or someone who has developed the appropriate skills. There is a definite technique to releasing a plant from one of these wooden planting boxes and keeping the root ball intact.

Another of their specialties is roses. Whenever I mention rose growing in the desert to my friends from other areas, they are surprised, but Arizona is one of the largest exporters of roses in the US. Agave Farms carries a large variety of roses. If there is a color you are seeking, you will most likely find it at Agave Farms. Interestingly enough, they grow many of their roses in mesh-like bags which are environmentally friendly. I had never seen these before, but they seemed to work well. I was seeking a very particular climbing rose that does well in our zone, Golden Showers, and sure enough, I was able to find it at Agave Farms and it is now doing well in our courtyard landscape.
In one section of the farm, they were demonstrating hay bale gardening for those who don’t have a fertile plot or otherwise find this an acceptable alternative.

A chicken coop constructed from an old truck cargo area was another interesting stop.

It was fun just to walk around. There are constant reminders that Agave Farms is in the middle of the city as apartments surrounding it can be seen across from the water retention pond.

Agave Farms is at 4300 N. Central Avenue, in Phoenix. For more information check their website: agave-farms.com or call 602.374.6553.

Summer Hours:
- Monday: 6:00 am - 2:00 pm
- Tuesday: Closed
- Wednesday: Closed
- Thursday: Closed
- Friday: 6:00 am - 2:00 pm
- Saturday: 8:00 am - 4:00 pm
- Sunday: 8:00 am - 4:00 pm

Jeff Ross is a life-long gardener and nature lover. He was active in competitive horticulture via the American Gloxinia and Gesneriad Society serving as chapter president in central New Jersey. Jeff is a graduate of the 2007 Master Gardener program. As a career educator, he enjoys sharing experiences related to a variety of his interests including gardening, hiking, birding and photography via his blog, JBRish.com - http://jbrish.com/
When it came to caring for our home landscape, I took my cues from local landscape companies. I trimmed when they did and the way they did it. This is the desert, so I figured that shrubs are supposed to look that way - really branchy, not a lot of foliage (except on top of course) and shaped into a ball or column. The bushes would get a little shaggy when flowering and I didn’t want to shear off the blooms because that was when they looked the best. It was hard to see them “misshapen” and we couldn’t wait until it was time to get out the shears and shape them back into balls and columns again.

Then came the Master Gardener classes on pruning and desert landscaping. I learned that bushes should not be trimmed like this and when properly selected for the planting space, many require minimal pruning. This is my story of how I adjusted my thinking when I realized my overzealous trimming was doing far more harm than good.

First I had to identify the shrubs in question, and there were two in particular: Texas sage and dwarf myrtle. Texas sage (*Leucophyllum*) has become a common fixture in southern Arizona’s landscape because of its tolerance of the sun. Native to Texas and Mexico, it is desert adapted and perfect for xeriscapes, requiring little maintenance or water except in drought. Its bright purple flowers are a welcome contribution to our desert landscapes. This is the bush that landscapers love to shape, shearing off those beautiful blooms! Regular shearing of the Texas sage will eventually discourage flowering and turn the bush woody as the dense growth at the shearing point crowds sunlight out from inner branches killing off any new growth.

I knew that I needed to rethink what I wanted in my landscape. I liked the manicured look, but didn’t want to harm my shrubs, so I decided to try and salvage my shaped bushes. I decided to remove some branches to allow sunlight to penetrate into the center of the bush, but once I started, I realized that some of my sages needed more than a few cuts. For these bushes, I performed a restorative prune, deciding it was better at this point to start over.

It still feels like I’m letting my landscaping go by not keeping it trimmed and neat, but I am working on changing my perspective and finding the beauty in the natural shape of a plant. My sage has never looked better, but I still appreciate a manicured look, which is where the dwarf myrtle comes into play.

Originating in Southeast Asia and valued by the Greeks, Dwarf myrtle, (*Myrtus communis*) has found a welcome home in the Phoenix area. The dwarf varieties grow to only 3 feet, though other species can get much larger, even tree sized. If you like formal landscaping, the dwarf myrtle was made for it. While you can allow the dwarf myrtle to grow naturally, it is well-suited to pruning and shaping and is often used in topiaries. Take into account that the shrub has small, creamy-white blossoms in April and May so if you want to enjoy the blooms, don’t trim off the buds!
Dwarf myrtle is drought tolerant and does well with regular, deep watering, but not too frequently, as wet soil conditions can cause root rot. It does best in full to partial sun, has very little litter, and no thorns. It emits a sweet, pleasant scent when cut or the leaves are rubbed and are beautiful when used in flower arrangements. There is also a variety that can be grown indoors, giving you even more options with this versatile and beautiful plant.

I have learned so much in my Master Gardening classes, more than I can possibly implement all at once. One thing I know now is that I can maintain my landscape with confidence and no longer blindly do what everyone else is doing.

**Shrub Pruning Summary**

- Don’t prune unless necessary.
- Use the appropriate, sharp tool for the job.
- Prune at the right time of year.
- Use the natural growth form of the shrub as a guide for natural pruning.
- Shear only formal hedges.

Source: AZ1499 Pruning Shrubs in the Low and Mid-Elevation Deserts in Arizona
https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1499-2016.pdf
August Tips

- Life in the desert is on simmer. Monsoon storms are here now or due very soon. Batten down the hatches, adjust tree stakes and enjoy the rain!

- Trim California fan palms to insure getting all the seed pods in one trimming.

- Prune mesquites and eucalyptus trees now if you haven’t pruned them yet. There are two main reasons for summer pruning: First, these trees effectively compartmentalize pruning wounds, especially during this time of active growth so it’s safe to prune in the extreme heat. Second, because they are near the end of their spring and summer growth, they “hold their prune” for more of the calendar year following the pruning. Keep in mind that the longer you wait to prune your mesquites, the higher the risk of wind damage during the monsoon.

- August is the time for the third application of citrus fertilizer. (Feb/May/Aug/Oct)

Looking Ahead to September...

- As air and soil temperatures begin to drop you can resume trimming most evergreens - both hardwoods and conifers.

- If daytime temperatures have dropped into the 90’s, you can plant and transplant evergreen trees and shrubs. They’ll still have time to get established before cold weather arrives.

- If your mesquites and eucalyptus trees survived the monsoon, it’s a great time to prune them. Because they had their spring and summer growth, they’ll now hold their prune for more of the calendar year.

- If you plan to over-seed your lawn in October, prune your trees now to avoid dropping and dragging brush over the new seedlings.

- September is a good months to fertilize your trees. Research has shown that stored nutrients from fall fertilization produce vigorous growth in the spring. Plants seem to hit the road running, so to speak.

- If a soil sample indicates you don’t need fertilizer but your plants are still showing signs of stress, it may be time to apply a 2-3 inch layer of finished compost around the base of your trees and shrubs. This relatively inexpensive soil amendment does more to improve growing conditions beneath desert plants than a lot of other treatments including fertilizer. Compost can reduce soil temperatures and water loss through evaporation. It encourages nitrogen cycling and improves soil microbiology. It reduces runoff and erosion as well as control dust and weeds.
A Traveling Gardener

Wandering, Wondering, Noticing... Time in a Garden

written by LINDA LARSON | photos by RICH LARSON

Time in a garden is my favorite way to enjoy the day, yet I wonder how many hours have flown by as I continue wandering down the garden path. Happily I come upon a sundial, surrounded by herbs and centered as a focal point in a sunny patch of the garden. I’ve always checked the time on a sundial. Just looking at a sundial makes me think my garden isn’t complete without one.

Once, my husband Rich came up behind me as I was gazing with desire at the bronze decoration and he could tell I was about to again suggest we needed one in our garden. He said, “Ok tell me what time it is.” I looked thoughtfully at the shadow, hesitating just a bit, and replied “About 10 after 2.” He looked at his watch and was surprised to see I had nailed it on the dot. Little did he know that just a minute before he walked up I had looked at my watch. Since then it has been a game for us, finding sundials and judging the time.

Found in Egypt’s Valley of the Kings, the oldest known sundial dates back to 1500 BCE and was a significant scientific accomplishment. I was surprised to learn that sundials were still in use after mechanical clocks were invented in order to set the time if the clocks ran down.

I see so many sundials in gardens that I’m unsure just what style I would like to add to my own landscape. A horizontal sundial is the most common; usually a small bronze casting sitting atop a pedestal so it is easy to read. Large horizontal sundials place their base on the ground with a large shadow arm called a gnomon, standing high.
At Druid Park in Baltimore, MD, outside of the Rawlings Conservatory, there is an international sundial which is nothing less than a mathematical marvel. Equatorial and polar times are shown with vertical plates. The sundial records the times for Baltimore, Cape Cod, Rio de Janeiro, San Francisco, Pitcairn Island, Sitka, Honolulu, Jeddo, (aka Tokyo,) Calcutta, Cape Town, Jerusalem, Fernando Po, and London. Perhaps Peter Hamilton, who created this multi-faceted wonder in the late 1800’s, would have no problem with a Rubik’s Cube today. The sundial was designed for solar time. The conservatory website explains that “The time recorded on the dial is not in sync with today’s clocks. Before standard time was enacted in 1884, people used solar time. This meant that noon on Cape Cod arrived earlier than noon in Baltimore. Today, especially during daylight savings time, the dial can be off by as much as an hour and 45 minutes.” Originally the sundial was carved in granite, but has since been clad in bronze.

Certainly some people are up to the challenge of designing a sundial to keep correct time. Engineer Victor E. Edwards created a sundial with a curved shadow arm and two pointers, one for daylight savings time and the other for standard time. He gave it to the Santa Barbara, CA Botanical Garden in 1920.

A vertical sundial attached to a sunny south-facing side of a building with bold elements proportioned for viewing from far away makes an otherwise plain wall quite fascinating. Even here careful pruning of surrounding trees is essential to keep the sundial functional.
The positioning of a sundial requires a flat space in a sunny location. For accuracy, the location should be set on either April 15, June 15, Sept 1, or Dec. 24 as these are the four days of the year when sun time and clock time agree. The gnomon is to be pointed toward celestial north and the shadow should align at noon. You might need to chat with a physicist to find true celestial north. “The north and south celestial poles are the two imaginary points in the sky where the Earth’s axis of rotation, indefinitely extended, intersects the celestial sphere” (Wikipedia) OR just use that compass app on your phone to find magnetic north. This is why I still don’t have a sundial in my garden.

Today the very idea of a sundial can be one of nostalgia or rebuked as nonsense. In the Ladew Topiary garden in Maryland, I found a small horizontal sundial surrounded by nine engraved stepping stones with the following witticism:

I am a sundial
and I make a botch
of what is done far better
by a watch.

Interest in sundials continues with sundial society members exploring the artistic and mathematical possibilities of creating more fascinating sundials. Though the usefulness of a sundial for serious time keeping is no longer needed, for me it stands as a symbol of the passing hours of our lives and draws us close for a moment as we look for a shadow. I continue to be amazed at what the exploration of gardens offers to visitors. I hope your summer plans include time in a garden.

Carefree, AZ, has possibly the largest sundial in the United States. Made of copper-clad metal, it has a 62 ft. gnomon, hour lines 90 ft. in diameter, and mosaic numbers. Surrounded by the Carefree Desert Gardens, it is a focal point you cannot miss. I stood in the shadow of the gnomon on the summer solstice at noon this year.

Linda Larson is an advocate for the importance of public green space and the value of nature in our lives. She writes as “A Traveling Gardener, Wandering, Wondering, Noticing. . .” http://travelinggardener.com/wordpress/

She is a lifelong lover of flowers, Master Gardener, and gardener in Mesa, AZ for over 30 years. One of her earliest memories is of daffodils lining the small stone path to her grandmother’s door. Personally visiting hundreds of gardens in many parts of the world, she shares her insight and discoveries entertaining readers and audiences.
Cucumbers are often referred to as a “superfood.” In spite of their mild flavor and 95% water content, cucumbers contain a number of necessary vitamins and minerals and are reputed to have anti-inflammatory properties. Cucumbers are the fourth most cultivated vegetable in the world. Unfortunately, commercially-grown cucumbers can be high in pesticides, so growing your own is a great choice!

Cucumbers can be a challenge to grow in our climate. They do best with a long warm (but not hot) growing season. To overcome this, plant cucumbers early in the season and plant short season varieties that will ripen before the hottest days of summer. Some recommended varieties include Triumph, Poinsett, Marketmore 76, and Lemon. I’ve also had success with Diva, Japanese and Armenian. Armenian types are actually melons that taste like a cucumber. They are especially suited to hot desert areas and will produce throughout the summer.

It’s best to provide a trellis or some form of support for cucumbers as they grow. This helps keep them off the ground and keeps fruit clean and free from rot. Trellising the plants also gives other crops room to grow as cucumber vines can quickly take over a raised bed.

Cucumbers are best harvested when small and the remnant of the flower is still attached. Once cucumbers turn yellow they can be bitter. Cut the stem rather than pulling at the fruit to break off. Immediately immerse in cold water to disperse field heat. Doing so will increase the quality and lifespan of the picked fruit.

“Field heat is the heat contained in a crop immediately after harvest. Field heat is a combination of the heat absorbed by the plant tissues from the environment prior to harvest and the heat resulting from the relatively rapid respiration occurring in the still-warm plant tissues.”

http://articles.extension.org/pages/32005/field-heat

Angela Judd certified as a Master Gardener with Maricopa County in 2015. A mother of 5, she is an avid home vegetable, flower and fruit tree gardener. She likes to share pictures of what’s growing in her garden on Instagram: https://www.instagram.com/growing.in.the.garden/
RECIPIES

Cucumber Lemon Water with Mint
(recipe from healthy-holistic-living.com)

12 cups of filtered water (3 quarts)
1 medium organic cucumber
2-3 small organic lemons
10-12 organic mint leaves

Directions: Wash lemons and cucumbers; slice thinly. Add lemons, cucumber, and mint to pitcher. Cover with water and refrigerate at least 4 hours or overnight.

Dill Pickles (recipe from Foodandwine.com)

1 1/2 cups distilled white vinegar
1/4 cup sugar
4 teaspoons kosher salt
1 teaspoon mustard seeds
1 teaspoon coriander seeds
3/4 teaspoon dill seeds
2 cups hot water
2 pounds cucumbers, sliced 1/4 inch thick
3/4 cup coarsely chopped dill
3 garlic cloves, coarsely chopped

In a large, heat-proof measuring cup, combine the vinegar, sugar, salt, mustard seeds, coriander seeds and dill seeds with the hot water and stir until the sugar and salt are dissolved. Let the brine cool.

In a large bowl, toss the cucumbers with the dill and garlic. Pour the brine over the cucumbers and turn to coat. Place a small plate over the cucumbers to keep them submerged and cover the bowl with plastic wrap. Refrigerate the pickles overnight, stirring once or twice. Serve cold.

The dill pickles can be refrigerated in an airtight container for up to 1 week.

Sources:

https://cals.arizona.edu/pubs/garden/mg/vegetable/cucumbers.html

Month-By-Month Gardening in the Deserts of Arizona, Mary Irish
KELLY OBIADI, EDITOR
Master Gardener since 2013
Kelly came to Phoenix from St. Louis in 1985. It wasn’t until she bought her first house that she became interested in gardening. Now, three decades later, she actively continues to learn and loves to share her enthusiasm of gardening with anyone willing to listen. Kelly has a long history of volunteer work and being a Master Gardener has been the perfect way to combine these two aspects of her life. Kelly works as a project coordinator on highway construction projects throughout the valley. She has two grown children, Cameron and Melissa, and a lazy dog named Angus.

KAREN SANKMAN, ASSOCIATE EDITOR
Master Gardener since 2007
Karen has been an associate editor and has maintained the monthly Master Gardener calendar since 2007. She moved from Chicago to Phoenix in 1980 to work as an engineer in the semiconductor industry. Karen’s fascination with the unusual plants growing in the desert led her to become a lifelong plant enthusiast. She has been gardening (mainly vegetables) for over 35 years and enjoys plant propagation. She and her husband have two grown sons.

MEG PATERSON, ASSOCIATE EDITOR
Master Gardener since 1997
Meg has been Associate R&S Editor since 1997. Arriving from Pennsylvania in 1996, Meg was out of her element and needed help fast with her yard’s irrigation system and the crowded mix of trees, sage, oleander and bougainvillea bushes, trumpet and jasmine vines, cacti, grass and lantana. While she still loves many of the East coast annuals and bulbs, thanks to the U of A Master Gardener program, she plants them more selectively and has learned why many of the flowering plants of the low desert are better choices. She has also tried to reduce water use and the need to prune bushes in her yard and others’ by following the “right plant in the right place” mantra as changes are needed. As ‘payback,’ it seemed fitting to support Arizona gardeners by helping with R&S as a proof-reader and occasional contributor. Despite being of ‘retirement age,’ she continues to learn things in every issue.

SHERRY LAND, ART DIRECTOR
Master Gardener since 2010
Sherry is a native Arizonan. She grew up among citrus groves, cotton and alfalfa fields and inherited her love of gardening from her mother and grandmother. She completed the Master Gardener program the same year she retired from a 31-year career in telecommunications. She lives in Queen Creek with her husband Gary, near her daughter Alyson and her family. Her son Aaron lives in Dallas, Texas. In addition to growing flowers, herbs and edibles, she enjoys time with her three granddaughters and taking walks along the Queen Creek wash behind her home.

“Thanks to our contributors, R&S is a nice mix of information and inspiration for AZ Master Gardeners and friends.” - Meg Paterson