Events & Activities

MG Association Meeting, Wednesday, 6:30pm, Cottonwood. Our speaker will be Tyler Fisher, Bamboo-4-U

Yavapai Rose Society - , June 19, 2pm, First Christian Church, 1230 Willow Creek Rd. Prescott. “Little Rose Show” meeting. Members are encouraged to bring four roses to enter. Phyllis Kelly, an award winning rose grower has volunteered to judge the roses. There will be prizes. For more information call Bob or Nancy at 771-9300,

Alta Vista Gardening Club, Prescott, fourth Tuesday of the month, 12:30pm. Call 928-443-0464 for location and information.

Prescott Area Gourd Society, third Tuesday of the month, 6:30 pm, at the Smoki Museum.

Pond Club -this is an informal group that meets occasionally, usually the 3rd week. Email aquaticgardens@esedona.net

The Organic Gardening Club meets on the 2nd Saturday of the month, 10845 Cornville, Call 649-6099 for information.

Prescott Orchid Society, meets 3rd Sunday of the month, 2pm at the Prescott Library, call Cynthia for information. (928) 717-0623

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Watering—When and How
by Cheri Melton, Cochise County Master Gardener
borrowed from “High on the Desert,” Cochise County Master Gardener Newsletter

Okay—warm weather season is here and the most common question asked is how often and how long should the gardener water. Factors affecting plant water requirements are plant type, plant maturity, soil type, season/climate, micro climate/exposure and soil cover/mulch. The only way I know how to determine irrigation frequency (when it is time to water) and duration (how much water to apply) is to use a soil probe. A soil probe is a 1/4 to 3/8 inch diameter metal rod that is at least three feet long with a pointed end. I prefer a soil probe that is four feet long so I can tell if I’ve over-watered. Probe the garden for one year, use a rain gauge to track rainfall totals and record the results in a garden diary or calendar. You will become much more knowledgeable on how your garden behaves and will be able to set up a tailored irrigation schedule to meet the needs of your plants, not because the calendar says it’s Thursday so it must be time to water again. Keep in mind that during the hot days some plants, especially those with large leaves, may droop or collapse their leaves. Don’t assume that they need water. Look at the plants the following morning. If they are still droopy, then water, but don’t be surprised to find them perky—plants often fold their leaves to reduce the amount of sunlight hitting them—a plant survival tactic.

How to determine when it is time to water
1. Push the probe into the soil around the drip line of plants as deep as it will go. The probe will stop when it hits dry soil. A rule of thumb is it’s time to re-irrigate when 1/3 to 1/2 of the root zone is dry.

A. Turf, ground covers, vegetables, annuals—irrigate when probe depth is 4 to 6 inches.
B. Perennial flowers and shrubs—irrigate when probe depth is 8 to 12 inches.
C. Trees and very large shrubs—irrigate when probe depth is 12 to 18 inches.
When is there enough water?

1. Push the probe into the soil and measure the depth the probe has penetrated. Apply water, using your usual irrigation method, for one hour.

2. Wait for 30 minutes after irrigation, then push the soil probe into the soil.

3. Measure the depth the probe has penetrated. Subtract the before-irrigation soil probe depth to arrive at the actual one-hour irrigation penetration rate.

4. The proper irrigation depths for plants are:
   - Turf, ground covers, vegetables annuals—12 inches
   - Perennial flowers and shrubs—24 inches
   - Trees and very large shrubs—36 inches

5. Once it has been determined how long it takes to wet the soil to the proper rooting depth, adjust the irrigation time and water this same duration every time irrigation is required.

Ideally, separate irrigation lines should be installed for the following:
- Turf, Vegetables, Annual bedding plants; they all have a 12-inch irrigation depth.
- Desert drought-tolerant plants (plants adapted to our climate, require less irrigation.
- Non-drought-tolerant plants (plants NOT adapted to our climate, require more irrigation.

Because of the different irrigation depths for both desert and non-desert plants, separate irrigation zones should be considered for: Trees and very large shrubs (36 inch irrigation depth) and perennial flowers and shrubs (24 inch irrigation depth.)

It is very helpful to find out how deep one gallon of water will penetrate into the soil. I developed a "low-tech" soil penetration kit. It consists of a one-gallon drip emitter attached to a 24 inch long piece of 1/4 inch drip irrigation tubing poked into the bottom of a one-gallon plastic milk jug. Fill the jug up with water, elevate it on a five-gallon nursery pot and let the water drip onto dry soil in the garden area. In about 1 1/2 hours go out and probe the spot. This is an easy way to calculate the approximate depth that one gallon of water will penetrate. You may have to do this for different soil structures at each site (i.e., compacted areas will be different from loamy vegetable garden soil. You can do the math to determine how long to water to reach the appropriate plant rooting depths.

Growing up can save you space in your garden or create spectacular waterfalls of greenery and blooms or even help you create a shady spot in the garden. Take two trellises and add a connecting structure and have an arbor, creating a quiet retreat or a visual highlight in the landscape. There are many styles, from simple to complex—geometric to freeform. Anything to suit your style. It should match the scale of its surroundings. Don’t make it so big that it overwhelms the space or so small that it gets lost. Also, match the materials of the arbor or trellis with the proper plant. A simple wood lath won’t support a wisteria or wood beams may be too much for sweet peas. You get the picture; a little thought, research and planning ahead will help you create the perfect trellis for your needs. The next few pictures will give you some ideas to get started. Minimal woodworking skills or tools are needed.

Lath trellis—you can buy ready-made lath or make your own. Attach it to a sturdy framework and it’s done. Ready-made lath is not very strong, so find a vine that will not tear it apart. It should work with climbing roses and honeysuckle. Grapes are great for creating shady green spaces but you might want something a bit stronger than store-bought lath.

Copper pipe is an easy way to create a beautiful trellis. It comes in different diameters and has fittings that can help you create an interesting piece. Tradition-
ally, pipe has been soldered and for that you will need a torch. Slow-setting epoxy adhesive will also work. You can bend the pipe using a conduit bender, but fill the pipe with sand first to keep it from crimping. This is a tricky process, so it might not be for you. PVC can also be used but certainly isn’t as attractive, although it is cheaper and can be painted and can be fitted together with a special glue. Long spans of PVC will also sag, so you must plan accordingly. Lay out your plan on paper first to make sure you get enough pipe and the proper fittings.

A simple pipe trellis can be made using copper pipe fitted through holes cut in 2 x 4’s, creating a pipe ladder.

A-frames can be made of wood by simply taking 2 x 2s and 1 x 2’s and creating two lath structures joined at the top.

Scour the hardware stores and be inventive!

**Plants**

Grapes make great climbers; they grow fast and provide dense shade, and if you are lucky, some grapes to eat. They will need a heavier weight support system.

Flowers like Thubergia, morning glory, nasturtiums and sweet peas will not make great shade but will work with a lighter-weight trellis and provide great color.

Roses can be trellised, but because they don’t twine can be attached to a lighter weight trellis than you might think. They make for a beautiful display.

Wisteria is one of the most beautiful vining plants ever (at least in my opinion,) but they become gargantuan plants and really need a heavy-duty arbor to support them. Not for the faint of heart or impatient, as they take several years to bloom. The branches have been known to lift roofs and separate flashing and other structures from the house, so it’s probably best to create for them a home to themselves instead of yours, but it might be worth it. Standing in an arbor under the blooms of wisteria has to be one of the great experiences of a life.
Meet a Master Gardener
by Pam Bowman

Known as the “dirt man,” Art Filippino moved to Prescott in 1990 and quickly became involved in community activities. Once settled in his new home, he enrolled in Master Gardener classes and graduated in 1994. Also known as the Africanized honey bee expert, Art has been staffing the phones in Prescott ever since. You can find him there every Friday afternoon answering questions and analyzing soil samples for pH.

Born and raised in Philadelphia, Art majored in accounting at Temple University. One reason for attending this institution was easy accessibility from home and he notes it was called a “subway college” for obvious reasons. As a young bachelor, Art worked for an oil company and moved to Maracaibo, Venezuela. Four years later, he returned to Philadelphia, began working for the Navy and met his wife Irene on a group tour to the Virgin Islands. After a commuter courtship (she lived and worked in New York City,) they married and Art was sent to London, England, as a deputy controller for the Navy. The year was 1963 and Irene had to remain in the U.S. because she was 8 months pregnant. Once she had their first child, she joined Art and they lived in London for 12 years. With tongue in cheek, Art says “It was tough duty, but someone had to do it.”

In London, Art’s interest in gardening was born. Unlike the row houses in Philadelphia with their small concrete backyards, houses in England always have space for gardens. In their first home, he maintained a mature garden of fruit trees and flowers, including wisteria, roses and peonies. Art also nurtured a vegetable garden. Saying he truly enjoyed gardening, he also notes two additional reasons for tending to his yard: weather—primarily overcast and rarely in the 80’s—made gardening easy and English pride—in their gardens—made garden maintenance essential to goodwill in the neighborhood.

Art and Irene returned to Washington D.C. where Art continued working for the Navy for 15 years. They lived in Alexandria, Virginia, where he also continued to garden. Following retirement in 1986, Art became a consultant in the U.S. House of Representatives where he reviewed large computer systems and wrote reports. He and Irene made several trips to the Southwest in order to select a place for retirement. Fortunately, they settled in Prescott where Art developed his garden and became an active member of the community.

Today, Art has left most of his 2 acres in native vegetation that he has treated to be fire safe. He also tends a raised-bed vegetable garden and a few non-native flowers, shrubs and trees. Known as the tree expert in his homeowners’ association, Art walked properties and tagged 400 trees that needed felling during the 2003 beetle outbreak.

As a member of the Prescott Noon Lions, he begins emptying newspaper bins at 6 a.m. two mornings a week and is proud to note they make about $250,000 a year. He also works for the Interfaith Coalition in home repair, which takes on projects to improve the health and safety of those in need. He will soon help build a long ramp at the home of someone using a wheelchair. In his free time, he exercises 3 times a week, plays tennis, bowls and maintains his home. Last, but definitely not least, Art and Irene travel to visit family in Bend, Oregon, and Geneva, Switzerland. They thoroughly enjoy their two sons and their families. And when traveling to Europe, they always stop in England to visit friends.

The “dirt man” was instrumental in bringing soil testing to Yavapai County because extension offices back East had extensive soil testing programs and many retirees in Prescott were accustomed to and requested the service. After answering many calls about bees in the 1990’s, the “bee man” attended a class with U of A sponsorship and became the bee expert in Yavapai County, giving hour presentations when requested. A valuable member of the Master Gardener Association, Art is always ready to jump in and tackle any problem or task.
Chances are you won’t be able to grow coffee, but I have run into a few people over the years who have coffee plants growing in a greenhouse. So, for the adventurous, you might want to give this plant a chance. Don’t plan on replacing your daily Starbucks coffee with home-grown, though.

Ethiopia is the home of the coffee tree. It thrived in elevations between 4500 and 6000 feet. The native people discovered the stimulant qualities of coffee early on, but drinking it came later. (There are all sorts of stories about herdsmen and sheep, etc., but I’m going to pass on them.) First came the crushed berries mixed with animal fat, then coffee wine and later the Arabs (in 1000 AD) began drinking the hot substance that today people pay incredible prices for.

The Italians were the first Europeans to bring home coffee from the East. The English took their time. It was a hundred years later that the drink came to England. Originally used as a medicine, the brew was so popular that it came into common use. Captain John Smith is credited for bringing coffee to America. It was the Boston Tea Party in 1773 that made it a patriotic duty to drink coffee in a fledgling United States.

Nearly all of this coffee came from Arabia, but finally, as coffee’s popularity grew production couldn’t keep up with the demand. Arabia tried to keep it’s monopoly but someone smuggled out beans and started a plantation outside of Arabia. It quickly moved to places like the West Indies, Java, India and Brazil. Coffee flourished with this expansion of farms and an abundant supply started a golden age of coffeehouses. These coffeehouses became the meeting point of large numbers of intellectuals, scholars, artists and politicians. Today the golden age of coffee has returned but people have skipped the coffeehouse experience; most seems to be purchased to drink on the run.

Caffeine is the major active ingredient of coffee, and scientists and doctors have been arguing about its effects on humans since forever. Caffeine does show up in medications but, in large quantities, can prevent sleep. I’ll leave that argument to the scientists and doctors. Other substances have caffeine, like tea and chocolate but in lesser quantities.

Coffee trees are attractive plants that are evergreen, covered with long bright green leaves that are pale on the underside. They can grow from 15 to 40 feet tall. The plant fruits over long periods of time, so berries on the tree can be young and green all the way to ripe and red, making for an attractive display. It takes 8 to 9 months for the berry to ripen. The berries come from bunches of small white flowers that are sweetly scented. The plant is particularly long-lived, surviving a century or more.

The berry (or cherry) is almost round and deep red when ripe. The seed is the coffee-lover’s nirvana. It is harvested by hand or by mechanical means. Because the trees contain berries in different stages of development, higher quality coffees are handpicked so that only the ripest beans are picked. A method called “brushing” will also remove just the ripe fruit but is very time consuming. Mechanical vibrators (like for picking pecans) are used to shake the cherries loose.

The coffee fruit, once picked, is taken to separators that remove leaves, stems, unripe fruit by floating the unwanted stuff off. Once cleaned, the coffee is dried. It is then sent to have the pulp removed. This is done by forcing the cherry through a screen with holes just big enough for the bean to go through and not the pulp. The beans are then dried or fermented. Fermenting removes the remaining mucilage. In the fermenting stage, the higher density beans are separated out, as they are of higher quality. After fermentation, the beans are...
dried and then tested as to quality and then shipped to a processor. Most coffees are sold roasted and this is where the flavor emerges. As beans are heated, they turn brown as the oils come to the surface. A lighter roast will retain what is called “origin flavors” (flavors that come from the soil and weather conditions.) Longer roasts create a roasted flavor and those light origin flavors become overpowered.

If you are interested in growing the plant, you can actually start one from seed, if you can get a freshly picked seed. The seed needs to go through the fermentation process to remove the mucilage. Dry the seed to about 20% moisture. Coffee plants like rich soil with lots of organic matter and high humidity. Temperatures are also crucial, as it doesn’t like anything below 60°F. (Sounds like me!) They like lots of light also. The soil needs to be moist but with good drainage. Conditions that are too dry will cause the leaves to yellow and fall off. They need regular fertilizer when confined to containers. Common pests include scale, spider mites and mealy bugs.

For more information on growing coffee, go to: http://www.coffeeresearch.org/agriculture/homegrowing.htm
For those that are interested, you can buy plants and seeds from: http://www.bouncingbearbotanicals.com/coffee-arabica-p-90.html

For Expresso lovers, some technical information: Expresso is derived from an Italian word for express as the coffee is made and served immediately. A double expresso is a 47-62.5ml (1.5 to 2 oz.) extract that is prepared from 14-17 grams of coffee through which purified water of 88-95°C has been forced at 9-10 atmospheres of pressure for a brew time of 22-28 seconds. Just thought you would like to know.

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**When is it time to pick?**

**Harvest your veggies at the right time by Jim McCausland**

All summer you water and tend your vegetables, and finally they’re ready to harvest. But when, exactly? Here’s how to tell.

**Eggplants.** Harvest fruits when they’re immature and shiny. Dull-skinned mature eggplant has hard seeds and flesh that separates into channels; its flavor isn’t as good.

**Peppers.** You can pick any pepper when the pod is firm and fully developed. But for best flavor, pick hot peppers — jalapeños, serranos — after the pods show color. (Jalapeños turn red; serranos can go red, orange, brown, or yellow.) Sweet peppers are most flavorful when mature; that’s usually signaled, but not always, by color change. Bell peppers can mature green as well as red, orange, yellow, or maroon; pimientos ripen red; wax types go from yellow to orange or red.

**Tomatoes.** Pick after fruit colors fully. In fall, when night temperatures drop below 55°, pick any tomatoes with some color and ripen them indoors on a windowsill.
2006 CALENDAR OF EVENTS FOR MASTER GARDENERS

June 10, Prescott’s Alta Vista Garden Tour, Contact Kathy Grant-Lilley for more information (445-7196)
June 17, Annual Arboretum Field Trip to Flagstaff, Sign up by contacting Patti Conrad (in the evening) at 778-4810
*June 21, 6:30 (Cottonwood) MGA Meeting,
July 15, (Saturday), 10:00 a.m., Field Trip to Prescott Veteran’s Hospital to see their greenhouse and grounds and learn about their occupational therapy program. Sign up by calling Missy Sandeen at 771-9856 by July 10th
*August 16, 6:30, (Cottonwood) MGA Meeting,
August 26, V Bar V Ranch, Call Cottonwood office for more information
*September 20, 6:30 (Prescott) MGA Meeting, “Working with Bulbs” with Valerie Phipps from Mortimer’s Nursery
September 21-24, Yavapai County Fair
October 21, Master Gardener Picnic, at Jerome State Park in Jerome, 11:30-1:30
October 13-14, Highland Garden Conference
*November 15, 6:30 (Prescott) MGA Meeting, Gary Young from Young’s Farm in Dewey will be talking about the history and sale of the farm

*For Yavapai Master Gardeners Only
To suggest any additions to the calendar or to ask any questions, please email Melissa Sandeen at rksandeen@netzero.net. Thanks

FROM THE EDITOR: Please send or email articles and announcements to the address below. Long articles will go in as soon as possible, announcements must be in by the 15th of the month to be included.
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