Arizona Oaks
by Nora Graf

Everyone knows what an oak tree looks like... those deeply lobed shiny leaves of the Gambels oak, right!? Well they may be the most well-known of the oak trees, but in Arizona there are a number of different species which may not look like oaks at all. In fact the oak you run into most often may not look much like your vision of an oak. In Arizona there are 9 to 12 different oaks, (depending on who you talk to), all of which grow in the 3000 to 7000 foot elevation range, so many can be found in Yavapai county.

Oaks are a member of the beech family (Fagaceae). These plants have male flowers that are catkins while the female flowers are solitary or in small clusters. The fruit is an acorn. Oaks can be deciduous or evergreen; the leaves are simple, being lobed or toothed.

Shrub Live Oak (Quercus turbinella)
This is the characteristic tree of the Arizona chaparral. This species can be a shrub or a small tree (up to 13 feet) and is evergreen. If you have been out hiking there is a good chance you have run into this plant or maybe tried to get through it. It forms dense thickets, which if you are bushwhacking are extremely difficult if not impossible to penetrate. I know I’ve tried, now it is just easier to figure out a way around them. The leaves are bluish green with fine hairs on the underside. They are thick and stiff with small spine-like teeth at the edges making them painful to encounter. Cattle will graze on the plant and wildlife eats the acorns. The plant blooms in the spring. The male flowers form a drooping catkin while the female flowers appear in a short spike. It is found in rocky soils on hillsides, chaparral areas, lower ponderosa forests and mountain slopes.

Palmer Oak (Quercus dunnii or Quercus palmeri)
Palmer oaks are evergreen shrubs or small trees (up to 20 feet). The leaves are shiny, yellowish green above and yellow beneath and leathery with spiny teeth (holly like) or sometimes untoothed. This
oak blooms April to May with the male flowers appearing in drooping clusters and the female flowers in short spikes. The acorn is 1 ½ inches long and takes two years to mature. The acorn cap is a bit unusual as it is quite small and warty. One description said it looked like a beret. It can be found between 3500 and 7000 feet on mountainsides, in canyons and oak woodlands. Like the Shrub live oak it can form large thickets.

**Emory Oak (Quercus emoryi)**
This is the most common oak in Arizona. If you haven’t seen it, you spend too much time inside. It can appear as a shrub, small tree or large tree up to 50 feet depending on where it is growing. Trunks may be single or multiple with a spreading round crown. The bark is dark brown to nearly black with deep fissures. The leaves are thick and leathery, dark green and shiny above, duller below with hairs on young leaves, smooth on older leaves. While it is considered evergreen, in the spring it loses its leaves as new ones grow out. If you see an oak in the spring which appears to be dying, it is more likely the old leaves turning brown as the new leaves appear. The male flowers appear in catkins, the female in short spikes. Acorns are ¾ inch long. The leaves can be up to 6 inches long, shiny green above, lighter green with soft hairs beneath. Each leaf has 7 to 11 rounded lobes. Gambel Oak can be found in mountains, plateaus and ponderosa forests from 5000 to 8000 feet. The tree is deciduous, with the leaves turning yellow and reddish in the fall. This has been a favored tree for its wood. It has been used to make fence posts and used for fuel. Wildlife love the acorns and acorns were an important food for Native Americans.

**Netleaf Oak (Quercus rugosa, Quercus reticulata)**
This tall tree can grow to 40 feet and have a trunk one-foot in diameter. The bark is gray, fissured and scaly. It flowers in April and May with the male flowers appearing in drooping clusters and the females in leaf axils in April and May. The acorns are ¾ inch long with a scaly cap and mature the first year and are eaten by wildlife. Leaves are dark green with fine hairs, sunken veins above (hence netleaf) and yellow-haired with raised veins below. Dark green leaves have a few spiny teeth. The leaves are variable in size and shape. Netleaf oak can be found from 4000 to 8000 feet in canyons, on mountain slopes and in oak woodlands.

A note on leaf drop on oaks. Oaks can be confusing when it comes to leaf drop. Some oaks are considered evergreen and some deciduous but they all lose 90 to 100% of their leaves each year. Deciduous oaks for the most part lose all their leaves in the fall while the evergreen oaks lose their older and unhealthy leaves in the spring. Some oaks hold onto their dead leaves until new spring growth causes them to drop. Under extreme environmental conditions like drought, leaf drop and growth may come at different times of year.

Oaks are important sources of wildlife food although I think eating acorns may be an acquired taste for humans. I didn’t find them all that great but to each their own I guess. They are all around us, but mostly ignored as those sometimes-prickly shrubs we walk by. So next time you are hiking, look closer, they may be more interesting than you thought.
I grew up in Massachusetts, helping my mother and grandfather with their gardens. My mother always grew flowers, and later she started to grow vegetables, as did my grandfather. Later, when I married and moved to New Hampshire, I too had both flower and vegetable gardens. I have fond memories of our son helping me the way I helped my mother. Now, I also help my mother-in-law with her garden in California.

Over the years I worked for several insurance companies, from handling claims to being an administrative manager. We moved to Minnesota when our son was 6 and going into 1st Grade, which was when my volunteer activities started. As he got into sports my volunteer time increased and I ended up working for the Minnesota Youth Soccer Association for several years.

Since my husband by then was a consultant and our son was not returning to Minnesota after college we decided we could live anywhere we wanted. After an extensive search of the mountain west, we moved to Prescott and began building our home. I took the Master Gardener class in 2005. My initial reason for taking the class was to learn how to garden in the Prescott area, since this is where we intended to stay permanently. I was fortunate to be able to take the class before our house was finished so I didn’t begin to landscape our property until after I had the opportunity to learn about requirements of gardening in our high desert environment. Having said that, I did manage to kill a lot of plants for lack of water when I first started gardening here, I’ve found that with many native plants, once they’re established, you can back-off or eliminate watering. I have learned a lot about identifying our native plants from the book, Native Plants for High-Elevation Western Gardens by Janice Busco and Nancy Morin, as well as our own Yavapai County Native and Naturalized Plants database.

I also have a very strong interest in vegetable gardening. One of the best pieces of advice I received when I started gardening in Prescott is to amend the soil for vegetable gardens but not to amend the soil for trees and shrubs and native plants.

Besides landscaping our home, and being active in the Friends of the Prescott Public Library and Alta Vista Garden Club, I like to go out to the community to provide information about gardening. I volunteer or have volunteered, at the Farmers’ Market in Prescott, the Wine & Pecan Festival in Camp Verde, the Yavapai County Fair, the Coyote Springs School Habitat Garden, the Highlands Center plant sale, the Sharlot Hall Museum rose garden, the Arizona Highland Garden Conference and Monsoon Madness, and I also help with the community garden talks. I enjoy the camaraderie and diversity of other Master Gardeners.
Tony Avent (in some circles, a famous nursery owner {Plant Delights Nursery}, plant explorer and provocateur) once said, “Friends don’t let friends buy annuals.” It was his reaction to the nursery industry for growing so very few varieties and to gardeners for creating large expanses of “blobs of color.” I agree, somewhat, as I’ve cringed when I have seen a giant bed of those bright, bright, bright red, really red salvias. They assaulted the eye and always were planted too far apart so it just looked weird. I am not against red; in fact I wish people would embrace more color. (I mean, when did we decide to turn neighborhoods —yes I’m talking about HOA’s—into bland acres of variations on brown!) I’m just advocating that we rethink annuals and use them differently and use different ones because there are some interesting and beautiful annuals out there that you’ll never see in a big box store.

Annuals are just that—they grow, bloom, set seed and die all in one growing season. Some will reseed naturally, others will not. Generally they are sturdy, reliable and relatively cheap plants although I am not fond of the trend to sell annuals in gallon containers. Have you noticed it’s harder to find things in 6 packs or even 4 packs anymore? You now pay more for one plant than you paid for six. A demand for instant gardens isn’t doing us any favors.

Disadvantages of annuals can include the need to remove seedlings from past annuals and deadhead. Moreover once the season is over they can quickly look scraggly and need to be removed or replaced.

Advantages include giving you the power to experiment at small expense; if one plant really looks horrible you can easily replace it with something else. Because they are fast growers they are good at hiding things that may not look their best during some time periods. The classic example is hiding the foliage of bulbs past their prime. They are great for containers and hanging baskets. Annuals can be a beautiful addition to any garden. They add bright spots of color, they can fill in an empty space in a bed, they can provide cutting flowers to fill vases in your home and you can change the look of your garden every year by using annuals.

Like any plant, you will need to take into consideration what it needs. Don’t plant sun-lovers in the shade and vice versa. Don’t plant low water-use plants next to water lovers. Don’t plant pansies in the summer; don’t plant petunias in the winter. Each has a season. You can find varieties for most types of soil. Loosening the soil and adding compost will improve the annual’s life. The beauty of annuals is they can be enjoyed nearly year round by simply selecting a succession of plants for each season.

Annuals are fast, vigorous growers and will need a bit more water and fertilizer than perennials, as they don’t put down deep root systems. Mulching will help with the water issue and improve your soil over time. Weeds are always a problem but be careful since the roots of annuals are shallow; vigorous cultivation can damage them. To keep the plants producing flowers, deadheading is a must. The goal of annuals is to produce seeds. Once they do that, they want to die, so deadheading will keep the plant desperate to produce seeds and the flowers keep coming.

Don’t be afraid to start annuals from seeds. This...
will give you a greater variety to choose from and many are easy to grow from seeds sown directly in the garden.

Some annuals to try:
For a more native-xeriscape garden try California poppies or Arizona poppies. Arizona poppies have a different color bloom and leaf structure and are a different species than California poppies. The Arizona poppies will grow in Camp Verde at least. I've seen stands of wild ones in my neighborhood. Try these: Blanket flower (Gaillardia), red and blue flax, Desert bluebells, cosmos and zinnias (pro-fusion series) Goodings verbena, Mexican sunflower, cherry red sage. This is the hated red one I mentioned earlier; please don't just plant masses of it!

I'm usually trying to get people to try something new, but one of the great standbys for a spring garden is the snapdragon (Antirrhinum). They come in a profusion of colors from deep dark colors to pastels and from tall to dwarfs. One of the things I like about them is that they can be long bloomers and in my yard have even over-summered to bloom another year.

Another flower I once hated but have come back to is the reliable and ever blooming petunia. Petunias have changed over the years and gone through some less interesting phases but some of the new petunias make beautiful container and garden plants that send out profusions of flowers for months. Well worth looking into.

For summer annuals think sunflowers; they come in multitudes of sizes, colors and shapes. They are easy to grow and the birds love their seeds. Marigolds have bright green leaves and are steady continuous bloomers. Some varieties are touted as a good insect-problem solver but they are generally referring to French marigold, regardless, one or two plants are never going to save you from insect invasions. Zinnias (Raggedy Ann has an unusual bloom shape for something new) are great summer plants, which you don’t see as often in nurseries. I would guess that at least part of the reason is they hate overhead watering. They like their leaves dry, but they are easy to start from seeds directly in the ground, so not finding plants is not an excuse to not have them. They make great cut flowers. One of my absolute favorites is cosmos. These are also very easy to start from seeds. Calendula are an old standby but look outside the bright orange ones, there are other colors now. How about basil, not much for flowers but it is a beautiful green, useful in the kitchen and pollinators love the small flowers. Another standby is coreopsis but step out of the box with some of the new shapes and colors.

I found some unusual ones but I am not sure how they will do in our area but they could be fun to try. *Cerinthe retorta* has some interesting purple, bell-like flowers. *Cynoglossum amabile* is a tall plant with blue flowers that should work in partial shade. Nicotianas are members of the tobacco family and these annuals will wow you with their bright colors and which are extremely attractive to hummingbirds and insects. (Try some of the varieties found in catalogs vs. the short, stocky varieties found as bedding plants in nurseries.) Some of those don’t attract anything. *Catchfly (Viscaria oculata)* might be for your garden. It likes the sun and flutters nicely in the breeze and works well in containers too.

I've barely touched the surface on annuals. Because of the nature of annuals you often don't have much choice if you want plants. If you are looking for something new and different check out one of the best sources for annuals.

**Annie's Annuals & Perennials**
Mail Order & Questions (888)266-4370
801 Chesley Ave.
Richmond, CA 94801
http://www.anniesannuals.com/
Hard to believe but many of us, (maybe even most of us) will start putting our tomatoes in this month. It wasn't that long ago we were cleaning up the remnants of last year's crop. I had some good tomatoes last year but just not enough. This year I have hopes for more, more and more! One can't have too many tomatoes, as far as I'm concerned.

Get your beds ready. Clean them up, loosen the soil; if you use drip irrigation, check to make sure it is working correctly.

Plant tomatoes deeply. They will develop roots along the stem. Plant up to the top bunch of leaves. Research in Florida has shown this helps the plant produce more fruit sooner. Sometimes you have no choice but to buy plants that are tall and leggy. If you don't want to dig a deep hole, simply dig a small trench, place the tomato on it’s side and gently bend the tip up and cover that long stem and the root ball.

Give your tomatoes some time to grow before setting fruit. It is heartening to see little tomatoes first thing, but remove the first rounds of fruit and blossoms and give your plant some time. Producing fruit takes energy, which early on can slow down the production of a good root system.

If you trellis, put it in place. A trellis does help in some ways, but if you are a bit of a lazy gardener like me, you don't bother. What I've found though is that when the fruit lays on the ground, it is fair game to pill bugs and other insects that enjoy the juicy center, leaving you with an empty shell of skin.

It’s up to you. A flimsy trellis isn’t much better than no trellis. Full-grown tomato plants are big and heavy. I find the wire cag-
FROM THE EDITOR: Please send or email articles and announcements to the address below. All articles must be in my hands by the 10th of the month. Short announcements (no more than 2 or 3 lines) will be accepted until the 25th.

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Congratulations
Susi Wright has completed 50 hours!
Mentor: Betty Loos

Mark your calendars:
MGA Recognition Picnic will be on Sunday, Oct 14th at the Alcantara Vineyard in the Verde Valley.

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Next Meeting

April 18, 6:30pm, Prescott

Patti Conrad is our April 18th guest speaker. Her topic is Gardening with Herbs.

Patti fell in love with Arizona when she moved to Flagstaff in 1970 to attend NAU. She became very interested and involved with landscape and vegetable gardening. She became knowledgeable enough to teach a few gardening classes and for 10 years tried her hand at running a dried-flower craft business.

She moved to Prescott in 1993 and began her long association with Watters Garden Center as a nursery sales person. She is Certified as both a Master Gardener and a Nursery Professional. She continues to work at Watters, does private consultations and the occasional on-site gardening job.

Her favorite native plants are the bracken fern and Juniper louse-wort. Her favorite perennials are the true geraniums and her one flower weakness is the fuchsia.