Things to Expect

Spider mites become troublesome as temperatures increase. Morning rinsing of foliage with forceful spray of water at least weekly through May is helpful. Miticides may be necessary.

Citrus fruit drop will occur. The shed of newly set fruit is a natural thinning worsened by hot weather and dry winds. Water moderately during this season.

Grape leaf skeletonizers will return. They’re small, black-and-yellow-striped worms that skeletonize grape leaves. Prompt, thorough application of carbaryl or Bacillus thuringiensis to the leaves’ underside gives control.

Winter weeds are stimulated by winter rains. Contact sprays work well in March. Don’t allow them to mature and produce seed.

Aphid populations on vegetables, trees and shrubs are temporary. Hose them off or use mild liquid dish detergent.

Powdery mildew on roses, euonymus, cucurbits and grapes can occur. Spring temperatures are ideal for infection. Preventative treatments are much better than corrective ones.

Seasonal leaf drop on carob, African sumac, pine and other trees will occur as weather warms.

Increase nitrogen fertilizing on onions. Remember, choose a nitrate form of nitrogen. Avoid any fertilizer containing sulfur of sulfite.

Fertilize bermuda grass lawns during late April or early May. Hold off on dethatching until May or June for best results.

Pines showing terminal dieback is usually a physiological response we call pine blight. It’s been more noticeable this year. Check the soil near the trunk. Those with circling roots express the symptoms worse.

Mulch ground surfaces under roses and other heat sensitive plants.

Apply iron to bottle brush, pyracantha, silk oak and other plants with iron deficiency symptoms. The chelates work faster. Reducing watering frequency often helps.

Think houseplants for deeply shaded, outside areas. Green spiders, philodendrons, dracaena, crinums, scheffleras and tupidanthus do wonderfully.

Don’t dethatch bermuda grass and hybrid bermuda grass lawns until May.

Terry H. Mikel
Extension Agent, Commercial Horticulture

Things to Do

Search for the wildflowers. The dry winter and spring might make it a treasure hunt — Oh but what a treasure!

Plant citrus trees. Young 2- to 5-year old trees transplant most successfully. Larger, older trees are more costly and suffer more shock. Protect bark from sunburn and mechanical injury with a sturdy wrap.

Postcard Campaign

You can help Master Gardeners by completing and mailing the enclosed postcard to your County Supervisor right away! See page 14 for details.
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From Me to You

I like to drive slowly down Culver St.
from 7th Ave. to 15th Ave., whenever I am in the area.
There are some outstanding gardens and some yards
where there is nothing: it is always interesting. About a
month ago there was a deep-root orchid tree blooming at
a house on the south side of the street. There is a metal
dog sculpture (or is it a lion) in a yard on the north side of
the street. I like to call this area a "sidewalk garden." Do
you know of an area like this, where you can enjoy the
flowers by just driving slowly by? If so, please send me
the address as I like to enjoy all the flowers I can.

I would like to find writers for the following subjects:
pets and gardening, book reviews, new plant introductions,
poisonous plants, Botanical Gardens you have visited,
gardeners who influenced your life.

Our July/Aug issue is going to concentrate on landscap-
ing. If you have a subject you would like to see covered,

questions you would like answered, or know of a writer,
I would appreciate your suggestions.

I would like to thank again all the people who write
articles for this publication. It makes it a joy to be the
editor.

Val Carsey
Master Gardener, Communicator Editor

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Northwest Valley Satellite location:
Property Owners & Residents Association (PORA) Office, 13815
Camino del Sol Blvd., Sun City West, AZ 85375. Phone 602-546-
1672. Hours: 9 a.m. - 1 p.m. Tue., Thu., and Fri.

East Valley Satellite location:
East Mesa Intergenerational Center, 7550 E. Adobe, Mesa, AZ
85207. Phone 602-357-9211. Hours 9 a.m. - noon, Thursdays.

Northeast Valley Satellite location:
Scottsdale Senior Center, 10440 E. Via Linda, Scottsdale, AZ 85258.
Phone 602-312-5810. Hours 9 a.m. - 4 p.m., Thursdays.

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Did You Know?

Want to keep your young pine attractive, yet compact? The technique you use will be distinctly different from the approach that is standard for pruning many types of woody plants.

For pines, spruces, and firs (all part of a group of conifers that complete a full season's growth in one springtime burst of activity) pruning involves shortening the newly-emerging candles. These candles are the light-colored shoots that arise each spring from the cluster of buds that were produced in the fall.

All of these shoots will reach full size in just a few weeks. The trick is to work with the candles while they are only partly grown and before the needles that they carry are fully developed. During this window of time the new candle will be soft enough for you to be able to snap off the upper part of it. Remove no more than ½, or at most ¾, of the candle. Use your fingers to pinch off the segment, or you can use clippers. When the candle is shortened during this growth stage, buds then form behind the stub and send out a spray of foliage. The following year, the foliage will be denser and more compact than if the candle had grown to full length. Note: Do not snip off any needles sprouting from the remaining part of the shortened candle. You want to manage the pine’s growth, not stop it altogether.

One of the more interesting developments in the world of roses is the introduction of the “Flower Carpet” series of low, mounding roses. Having garnered numerous awards, including the prestigious All-Deutsche Rose Trial gold award in 1991, where it received the highest rating for natural disease resistance ever given, “Flower Carpet Pink™” was introduced to the American Market in 1995. A white-flowered version followed in 1997, and a blush pink in 1998.

The disease resistance, masses of blooms, and long bloom period made “Flower Carpet” hard to resist, especially so since the series had proven itself in Europe, New Zealand, and other far-flung places. But (can you hear it coming?), the series has seemed to have a difficult time acclimating itself here in the desert. Informational sheets suggest that, in areas of intense heat (read “Phoenix metro area”), the plants should be grown in filtered shade, stating that the roses will still bloom, but the bloom count will be reduced.

If you’re not sure you’re up to the challenge, and you won’t be moving to New Zealand anytime soon, you might want to check out the desert-adapted offerings at such places as Berridge Nurseries, Baker Nursery, and the Harper’s branch located on McKellips Road in Mesa or the one located on Hayden Road in Scottsdale. Another way to find out what’s growing well, and what you like best, is to pay a visit to the rose garden located on the campus of Mesa Community College, at Dobson & Southern in Mesa. The garden is open to the public and contains over 2,000 plants, including shrub roses, old garden roses, climbers, miniatures, floribundas, grandifloras, and hybrid teas.

And for those interested in hearing more about the undeniably impressive attributes of the Flower Carpet series, Sean M’Cann has an article scheduled for the March 1999 issue of “American Rose,” published monthly by the American Rose Society. M’Cann, an internationally-recognized rose expert, reports regularly on topics of interest.

The self-described landscape expert gazed upward at the 20-ft. high silk oak, noted the thinning foliage that only partially hid the yellow-orange growths dotting the upper portions of the tree, and informed the worried homeowner that her tree had cancer. Scratch that diagnosis.

The silk oak (Grevillea robusta) certainly wasn’t suffering from cancer. And what the ‘expert’ said wasn’t caused by canker or, for that matter, any other kind of infection. So what exactly was going on? The silk oak was blooming. Those dense orange-yellow clusters, located in the upper ¾ of the tree, were signaling that the tree involved had reached maturity.

A peculiarity of this native of Australia is that the blossoms, instead of being borne on the branch tips, are carried on short, leafless branches of old wood. As for the increased leaf drop, this is typical in spring at bloom time; and, in fact, the silk oak can become briefly deciduous just before the new leaves emerge.

Dolly Clark
Master Gardener
Aren't All Carrots Created Equally?

Not according to plant genetic engineers working with *Daucus carota* varieties. Recent research efforts have produced varieties of carrot that have increased levels of beta-carotene. For instance, the “Healthmaster” variety has approximately 35% more beta-carotene than other Chantenay-type carrots. Other researchers at the Vegetable Improvement Center of Texas A&M have developed a variety called “Betasweet,” which is a maroon-colored carrot, with a high beta-carotene level plus a relatively high sugar content. Developments such as these may offer a relatively inexpensive source of an important antioxidant.

Beta-carotene is one of many carotenoids that has vitamin A activity. In fact, beta-carotene has the highest level of vitamin A activity of all the carotenoids. Vitamin A is chiefly responsible for preventing night-blindness as well as having antioxidant properties.

However, beta-carotene is not the only nutrient that carrots provide. Carrots contribute protein and dietary fiber, with early maturing varieties have the lowest amount of protein and late-maturing varieties have the highest amount of protein. The quality of protein stored in carrots also differs. Early maturing varieties have more essential amino acids (those which must be supplied by the diet). Late maturing varieties have more non-essential amino acids (those which can be made by the body). Keep in mind that a serving of vegetables, in general, provides only a small fraction of the protein necessary to maintain good health.

Of course, growing conditions, such as soil type and fertilizer application, influence the nutritional content of carrots. It is interesting to note that heavy nitrogen fertilization results in the protein content of carrots being primarily made up of non-essential amino acids. So if your looking for a good source of beta-carotene, try some of the new varieties mentioned. Who knows, maybe a maroon-colored carrot will be more than just a novelty.

Lori Thompson  
Master Gardener, M.S., R.D.

Citrus Tips for March and April

During March and April, deep water at least every 3 weeks, depending on the average daily temperatures and the amount of rain during each month. Increase your frequency of deep watering as the temperature climbs to every 2 weeks as the temperatures enter the range of 90°F to 100°F degrees. In 1998, the temperatures remained quite a bit cooler than recently previous years, so each year must be treated individually. Not all years are El Niño years.

The first fertilizing for the year should have been completed by now, but if not, it should be done as soon as possible. This will promote the new growth and blossom production. The second fertilizing for adult trees may be done during April if following the schedule in MC91.

Pruning should have been completed by now if any was necessary. Pruning should be done with care to avoid cutting-off excess amounts of new growth and buds. This could significantly reduce the amount of fruit that the tree(s) could bear.

Continue picking of ripe fruit. Parent Washington Navel oranges should have been picked by now. If left on too long this fruit may not be particularly edible and will not be juicy. Other fruit is just beginning to reach its prime and getting sweeter. Consult Fact Sheet AZ1001 (formerly MC 87) as a guide for picking fruit of each variety - note that Valencias will be ripe in this time period.

The trees should bloom during this time period along with new leaf and branch growth. Some leaf deformation may occur due to insects, usually thrips. The deformed leaves are not particularly hurt and will continue to be able to do their work. Do not use insecticides unless there is significant danger to your tree from some other insect. Using insecticides at this time can kill off the pollinating insects and affect the trees fruit production.

March through April is the best time of the year to plant your citrus. Deep water newly planted trees 2 to 3 times a week for the next several weeks. Note that newly planted trees will require more frequent watering during Continued on page 5.
If I Had Only Known Then
What I Know Now

"If I had only known then what I know now." It is an often repeated phrase, but in the case of my garden, an appropriate one. My husband and I moved here from northern California just two years ago. We purchased a new home and along with it came a backyard filled with dirt and weeds. Not knowing a lot about gardening and even less about gardening in Arizona, we hired a landscape designer to help us plan our yard and garden.

We gave him a description of the desired "look" that we wanted to achieve and he soon presented us with a design. We commissioned the landscape company that he worked for to implement the design, and initially we were quite pleased with the results. It wasn’t long however before we realized that the results weren’t exactly what we had hoped for. The Lantana attracted whiteflies, the Vinca major was spreading where I didn’t want it, the Oenothera threatened to take over our Bermuda, and the sixteen Rhaphiolepis ‘Ballerina’ managed to look pretty for approximately fifteen minutes a year.

Oh, how I wish I had known about the Master Gardener program when we first moved here. The basic design would have stayed the same, but many of the plants would have changed. Realizing that something had to be done, I enrolled in the Master Gardener course. With my new found knowledge and a year of experience I am now growing lavender, catmint, daylilies, and roses. My perimeter walls are supporting newly planted Pink trumpet vines, my trellis is abloom with Carolina jessamine, and my herb garden is filled with rosemary, oregano, thyme, sage, fennel and chives, just to name a few. I grew enough basil to make a year’s supply of pesto (I had no idea that the seed that produced a tiny little plant in northern California, would produce a bush in Arizona). This spring we will be enjoying our first crop of Arizona wildflowers and I am currently busy with the preparation of my first composter.

When I arrived in Arizona I lamented about leaving my small California garden because I was given the impression that the entire range of perennial plant selections for Arizona could be seen at the local Chevron station. Nothing could be further from the truth. Though I know I still have much to learn, thanks to my participation in the Master Gardener program, it is now very apparent to me that with a little care and planning the Arizona climate and soil will support an array of trees and plants rich enough to satisfy the most discriminating gardener.

Sandy Browne
Master Gardener

Citrus Tips (Continued from page 4)

the summer months but about every 5 to 7 days. Deep watering should be to the depth of the root ball and somewhat deeper as summer arrives. Fertilizing of newly planted trees is not required and should only be done with great care. See MC91 for the amount of fertilizer to be used in the first year. Do not burn your newly planted trees with fertilizer. Consult Fact sheet AZ1001 for the best citrus varieties for our desert environment. Don’t overlook the new Grapefruit x Pummelo hybrids of Melogold and Oro Blanco for a taste treat.

The trunk and branches should be protected from the sun as our days get longer and the temperatures increase. Any bark which is exposed to the sun should be covered in some manner to shade the trunk or branches that are exposed - from now through the summer until late fall. An effective method is to paint the trunk or exposed branches with a “Tree Trunk White - Latex Paint.”

George Chott
Master Gardener

Harvest Recipes
Top of the Stove Scalloped Turnips
1 c. water
1 c. milk
1 tsp. salt
3 c. thinly sliced white turnips
2 c. sliced carrots
½ c. sliced onions
¼ c. diced celery
1 tbs. margarine
¼ lb. Processed cheddar cheese, grated (1 c.)
5 tbs. finely crumbled saltines

Bring water and milk to boil; add salt, turnips, carrots, onions, celery, green pepper. Simmer covered about 20 minutes, or until tender. Do not drain. Add butter, cheese, saltines. Heat covered, until cheese is melted. Makes 5 servings.
Plant Profile: Raywood Ash  
*Fraxinus oxycarpa* ‘Raywood’

If you are considering a deciduous shade tree for your garden, what better than a *Fraxinus oxycarpa* ‘Raywood’ or commonly know as the Raywood Ash. Ashes in general are undemanding, tough, fast growing trees. Here in the Southwest they tolerate the poor drainage and alkalinity of our soils and the heat of our summers. If you would like to see a mature specimen, there is a grove of Raywood Ashes at ASU which are very healthy. When considering the Raywood Ash there are other good points besides those above — shade and color being the two I will be speaking about.

Shade is a necessity in the summer here in Arizona. In the winters, we could use Shakespeare’s quote “To be, or not to be? That is the question,” as shade is not as important of an issue. The Raywood Ash is one of the smaller sized ashes reaching 25- to 35-ft. in height when mature. It has a finer textured foliage with compound leaves with leaflets 2½-in. long. The shape is round-headed. With these characteristics, the Raywood Ash should provide a dense shade for the area you choose. Being deciduous, the sun will shine through in the winter to warm the area.

But how do you choose where to plant your Raywood Ash for the best shade during the hottest time of the year? There are many factors to take into consideration: seasonal sun patterns, shadow patterns, shade for windows, planting away from house for root and branch space, over paved areas and air conditioners to keep them cool, away from utilities and many more.

You need to know the seasonal sun patterns and the vertical angle of the sun for your garden. You can observe in your garden how the summer the sun rises farther in the northeast and sets farther in the northwest with a 72° angle, resulting in much more direct sunshine on the house during the day. The placement of the trees should be in correlation with this sun pattern and angle.

The shadow pattern varies through the seasons because of the seasonal sun patterns. Once you know the seasonal sun pattern, you can predict the shade pattern of the mature tree by the height and canopy type. The taller and the broader in canopy the tree is, the more shade will be produced during the noon and afternoon. In the southwest we need shade in the afternoon the most and need to consider planting our Raywood Ashes in the southwest, west and northwest to cover the area chosen with shade during spring, summer and fall.

Color and fragrance are what draws us toward plants. We see a splash of color or smell a whiff of a fragrant flower and we turn our heads. In Arizona we have a lot of color in the spring but not much in the fall. Raywood Ashes have a wonderful fall color which is unique for our area because their leaflets turn purpulish red in contrast to our normal yellows, reds and oranges. For those of you who like the purple ornamental plum, the color of the Raywood Ash is similar in the fall. Why not have a change in your garden, after all purple is the color of royalty.

In conclusion, the *Fraxinus oxycarpa* ‘Raywood’ can provide you with much more than shade and color. As with any tree, it is a boon to our psyche in the hustle-bustle world of machines.

Nicole Bankston  
Master Gardener Intern

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**Rarin’ to Grow**


Val Carsey  
Master Gardener
Garden “Stand Out’s” are honored at the Second Annual Southwest Community and School/Youth Gardening Conference, “Growing Awareness”

One of the conference goals is to showcase and recognize outstanding community and school gardens in the Southwest. Thanks to the efforts of Emma Figueira and Dana Newell from the Arizona Community Action Association, we were able to pull it off again this year! They worked hard to develop the award criteria, get the word out and assemble a team of judges from across Arizona to choose the winners. Emma and Dana will be the first to admit the decisions are tough! All deserve an award. The lucky winners are honored at the “Seeds for Change” dinner and receive sandstone plaques or galvanized watering cans engraved with their award. We salute the efforts and inspiring work going on in our schools and communities in the Southwest. Congratulations!

Outstanding School Garden — Gateway Community School and Satellite Garden Projects, Camarillo, CA
Honorable Mention for School Garden — Cajon Valley Middle School, El Cajon, CA
Honorable Mention for School Garden — Sunnyside High School, Tucson, AZ

Outstanding Community Garden — The Stan Kleiner Mitzvah Garden, Phoenix, AZ
Honorable Mention Community Garden — Sun City Agricultural Club - Community Garden, Sun City, AZ

Outstanding Agency in a School Garden — Santa Cruz Service Corps, Santa Cruz, CA
Outstanding Agency in a Community Garden — The Mohave County Health Department, Kingman, AZ

Outstanding Volunteer in a School Garden — Leslie Schexnayder, Madison Simis Elementary School, Phoenix, AZ
Outstanding Volunteer in a Community Garden — Vardell Blau, Mesa Area V Garden of Pride, Mesa, AZ

Leslie Honaker
Conference Director, Master Gardener

Roll Out the Red Carpet
Welcome Hummingbirds Into Your Garden

Whether I’m relaxing or working in my garden, it is always a special event when a hummingbird alights on a slender yucca leaf or chooses the highest bare twig of a tree to sit and survey its low-desert kingdom. One of the most delightful sounds in any garden is certainly the squeaky chattering of these diminutive birds. Hummingbirds dipping, diving and hovering, sometimes missing gardeners’ heads by less than a beak-length is another reason to spend more time in the garden.

You can roll out the red carpet for these endearing birds in a variety of ways, including using commercial feeders of varying shapes and sizes. But the easiest and most natural way to invite hummingbirds to your garden is to provide three things: a source of water for bathing, a variety of trees and shrubs for shelter, and last but not least, many plant species with brightly colored, nectar-rich flowers. These flowers, as well as the water source, will harbor insects that are also an important part of the birds’ diet, especially when they are raising their young.

The most common hummingbird species in the Valley of the Sun are Anna’s, Costa’s, Black-chinned and Rufous. Many are year-round residents. They feed by inserting their long tongues into tube-like flowers to lick up nectar, which makes up most of their food. Their eating habits allow them to pollinate the plants that feed them, collecting pollen from one flower on their crowns, bills and throats and transferring it to the stigma of the next flower.

Many easy to care for plants bear what are referred to as ‘hummingbird flowers’ because they are attractive to hummingbirds. They are often but not always red, a color which is invisible to most insects. These flowers do not have a platform on which to land, are tubular in shape, and have little or no scent. Furthermore, they have plenty of space for their tiny wings to flap. Hummingbird flowers bloom during the day when the birds are active, and they bloom for a longer period of time than many other flowers. Hummingbirds love red flowers most, followed by pink, orange, purple, blue and yellow flowers. Drought-tolerant native species that require little care and definitely will attract hummingbirds to your garden are ocotillo, desert willow, any of the penstemons, chuparosa, and agave. Saguaro flowers, which remain open during Continued on page 16.