Things to Expect

**Frosty mornings.** Wrap the trunks of young citrus and other cold-tender trees to protect them from the winter freeze. Cover sensitive vegetables and bedding plants with cloth, as freezing nights are forecast. Remove these coverings every morning. Leave on trunk wraps. If using lights for heat remember: 1. Place the lights on or pointing at the trunk or large branches. (Always heat the most mass.) 2. The higher the wattage, the more heat is produced.

**Cold weather discolors foliage.** Older leaves of evergreens turn dull green to yellow and even drop. Even some actively growing shoots may appear chlorotic. Winter lawns or some shrubs may develop purplish-green leaves.

**Chlorosis and leaf drop** of citrus and other evergreens can occur. Short days, winter weather, drought or over-watering may be responsible.

**Damaged citrus fruit.** To determine if citrus fruit have been damaged by the cold, simply put them in water. The ones that float or "bob" are damaged.

**Aleppo Pine Blight** is thought to be induced by day/night temperature extremes on tender, actively growing sections of these trees. Brown needles cling to plump, healthy branches. Sun-exposed sides are most affected. Normal refoliation occurs in the spring.

**Powdery Mildew** often appears on new growth. Repeated sulfur powder (when temperatures are less than 90°F) or fungicide applications are often needed to protect successive leaf growth. Roses, grapes, cucurbits and euonymus are the most likely hosts. As an alternative, Cornell University suggests trying a mixture of ½-tsp. baking soda, dash of dish soap, and 12-oz. water. Spray every 3-4 days.

**Aphids on trees, shrubs, vegetables or flowers** may occur. Populations are often temporary. Use soapy water sprays or add detergent to other spray formulations for better coverage.

Things to Do

**Prune deciduous fruit and shade trees, roses and grapes** before March. Prune citrus, bougainvillea and other freeze-tender shrubs and trees after they begin to grow. Take advantage of the many fruit and pruning demonstrations (see page 21).

**Fertilize winter lawns** monthly for good green color. Nitrate fertilizers give quickest response during cool seasons. Fertilizing dormant Bermuda lawns will stimulate weeds. Mow when grass is dry.

**Prepare garden soils** for spring vegetable planting; early planting means better yields in most spring crops.

**Water dormant bermudagrass lawns** about monthly if rains aren’t sufficient.

**Fertilize fruit, nut and shade trees, shrubs, and vines,** but don’t fertilize overseeded rye lawns after February. Don’t dethatch common or hybrid Bermudagrass lawns until early May or later.

**Apply iron** to bottle brush, pyracantha, silk oak, and other plants with iron deficiency symptoms. Chelated forms of iron work faster.

Terry H. Mikel  
Extension Agent, Commercial Horticulture
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From Me to You

I need some help again. I really appreciate all the people that have volunteered to write articles for the newsletter. I think we have some outstanding writers. We need a couple of people willing to learn how to format the newsletter as I don’t know how. We have a volunteer who is learning (thanks Christine!), but I would hate to have the responsibility fall all on one person’s shoulders.

I would like to find someone interested in writing some articles about pets and gardening.

Is anyone interested in planning garden tours? Maybe a tour of several Master Gardener yards a couple of Saturday mornings in March and April? I would like to tour some gardens in the Los Angeles, CA area in the spring. Is anyone interested in planning this?

Arable Parables was the name of a new column submitted by Mike Mekelburg. He suggested that this column include articles by Master Gardeners on your success stories (or failures), humorous anecdotes, bloomers and blunders, etc. I hope that the articles will start coming in so we can start this column in the March/April issue.

Please contact Shanyn or me if you have any questions.

Val Carsey
Master Gardener,
Communicator Editor
Did You Know?

Chocolate Aroma Mulch? Yes indeed! Step outside as rain begins to fall and, here in the desert southwest, the scent of the creosote bush will be on the breeze. Step outside in south-central Pennsylvania and chances are good that the scent on the rain-damped air will be that of chocolate. Yes, chocolate.

Gardeners there who are looking to purchase mulch can drop in at their local nursery and choose from the usual materials, like peat moss, shredded pine bark, or redwood chips — or they can head home with cocoa bean hulls. The explanation lies in the fact that the region is home to the Hershey Company. Headquartered in a city bearing its name, some 15 miles from Harrisburg, the famous candy maker produces a lot of chocolate. This in turn means it also produces, as a by-product of that process, a lot of cocoa bean hulls. Put a fine mind to work and a chocolate-maker’s disposal problem becomes a moneymaking product for the nursery trade. As it happens, cocoa bean hulls make an excellent mulch, one which is capable of absorbing 2½ times its weight in water.

Paradoxically, one of the few disadvantages to this particular mulch is the intense chocolate aroma that the freshly spread hulls emit. Some find that aroma just too much of a good thing. Other gardeners enjoy the fragrance while they can, knowing that the scent will soon be gone. The same rain that revives the fragrance of the hulls also hastens their decomposition.

With Valentine’s Day on the horizon, here is a sampler of some plants whose common names fit the spirit of the occasion. Your job, should you choose to accept it, is to match the plant’s common name, listed in the first column, with one of the plant descriptions given, in random order, in the second column.

Keep in mind that a single species may acquire a number of common names. For example, Epple’s “Plants of Arizona” lists 7 different common names for the cactus included on this list. Note also that the list includes at least one “stumper.” It’s a lawn and garden weed not seen in Arizona, but common throughout eastern North America. If you get that match-up right, you’re either a transplanted Easterner or you are entitled to, um, a hearty round of applause.

A. Cupid’s Dart 1. a grass
B. String of Hearts 2. a grain
C. Love-in-a-Mist 3. a cactus
D. Love-Lies-Bleeding 4. a frost-tender succulent
E. Heart’s Ease 5. a non-edible member of the Parsley family
F. Venus’ Looking-Glass 6. bouquets & dried arrangements of horned seed capsules
G. Heart Twister 7. rounded leaves, blue flowers in leaf axils
H. Love Grass 8. bouquets & dried arrangements of straw-like, shining bracts
I. Venus’ Comb 9. bedding & medicinal plant

(see the Answer Box at the end of the article)

What to do with that little potted holiday tree? Did the close of the holiday season find you with a new little tree on your hands? Was it one of those 12-in. versions that come in a foil-wrapped container and already decorated with miniature ornaments?

If the specimen you have is an Italian Stone Pine (Pinus pinea), you have an item that you can plant out with some hope of success; and if you and the tree live long enough, a specimen that, in time, may reward you with cones filled with edible seeds. P. pinea is one of the so-called nut pines, one of several species that produce what are known as pignolia, or pine nuts.

An inspection of the needles will help you determine the tree’s lineage. With a Douglas Fir, the needles will be soft, flexible, and rounded off at the tip. With the Italian Stone Pine, the ¾-in. juvenile needles have a distinctly blue-green cast, and the tip comes to a sharp point. The needles on a

Continued on page 4.
Urban Homeowner Tree Care Clinic
Free to Public

The Arboretum at ASU, the Arizona State Land Department, Urban and Community Forestry and the Arizona Community Tree Council is sponsoring a free Urban Homeowner Tree Care Clinic at Arizona State University’s Memorial Union in the Ventana Room on Saturday, January 23, 1999 from 8:00 a.m. to 4:00 p.m. Pre-registration is required. Call 602-965-8467 for more information or to register. You may pick up a flyer at the Cooperative Extension Office, ASU Visitors’ Center or various nurseries throughout the Valley.

The Clinic will provide insight on the benefits of trees as long-term investments in the value of property, as energy savers, and as a means to enhance the quality and beauty of your living environment. It will provide an opportunity to learn how to care for trees in the landscape and protect them through responsible selection and proper maintenance.

A distinguished panel of speakers will be presenting various topics of interest to all homeowners in the Valley. Additionally, an exhibition hall will be open with vendors. Following are the scheduled sessions for the Clinic: Tree Selection for the Valley of the Sun by Janet Rademacher, of Mountain States Wholesale Nursery; Palm Care in the Desert by Richard Harris, ASU Arboretum Program and Date Palm Program; Troubleshooting Tree Problems by Dr. Jean Stutz, Associate Professor, ASU Plant Biology; Watering & Planting Standards by Terry Mikel, Commercial Horticulture Agent, Maricopa County Cooperative Extension; Tree Planting Demonstration by Don Dickerman, ASU Grounds Maintenance Superintendent; Tree Pruning: The Right & the Wrong Way by Dr. Ralph Backhaus, Professor, ASU Plant Biology; and Citrus Selection & Care by Dr. Michael Maurer, Fruit Crops Agent, Maricopa County Cooperative Extension.

Tours of the ASU Campus Arboretum’s wide variety of mature trees, conifers and palms have been arranged and will be conducted throughout the day. All parking on campus will be free unless otherwise posted.

Anna Bowers
Master Gardener, Urban Homeowner Tree Care Clinic Steering Committee

Did You Know? (Continued from page 3)
mature P. pinea come bundled in sets of two and are significantly different in other respects as well.

If your little Christmas tree does appear to be P. pinea, and you feel like trying your hand at growing one, know that this species is grown successfully in Tucson and take your cue from that in deciding how to situate your tree. Growing out this pine does pose a challenge, but there is at least one specimen here in Phoenix that has made the transition from holiday decoration to backyard tree.

Now some 12 years old, and about 15-ft. high, the tree sits in a spot where it gets filtered afternoon shade, and where the conjunction of two block walls keeps the root area cool. The owner is still waiting for it to set cones.

Dolly Clark
Master Gardener

Harvest Recipes
Cheesy Cauliflower O’Brien

1 lg. cauliflower
1- 11 oz. can cheddar cheese soup
¼ c. milk
1- 2 oz. jar pimiento pieces
¼ c green pepper, diced
3-4 drops Tabasco sauce

Wash and break cauliflower heads into florets. Cook florets in boiling water for 8-12 minutes or until tender. Drain. Put the remaining ingredients in a small saucepan and bring to boil. Put cauliflower in a bowl or on a platter. Pour hot sauce over top. From FCS Publication 2409, available at your local Extension Office.
Citrus Tips for January and February

During January, deeply water trees once every 3 weeks to a month (deep watering means at least 3-ft. deep on adult trees, 3 years or older). Trees that are 1 and 2 years old need be watered every 2 weeks, deeply enough to reach the bottom of the roots. Note that the age of trees begins with the first day they are planted.

Prune only if necessary, in mid- to late January before new growth starts. Remove dead branches, cut off vertical sprouts at the top of the tree (if the tree is getting too tall), and remove suckers on a lower trunk (particularly those that are below the graft point). Do not leave stub ends when pruning off branches.

Provide freeze protection. Cover trees, particularly small trees. Be sure to protect trunks of trees.

Pick ripe fruit such as grapefruit, sweet oranges (Trovita variety), mandarins or tangerines (Algerian, Dancy, Kinnow varieties), tangelos, blood oranges, lemons, kumquats, and limequats. All navel oranges should be picked by the end of January. Refer to chart in Fact Sheet AZ 1001 (formerly MC87) available from Maricopa County Extension Office.

Fertilize this month and/or in February. Homeowners that leave the area in the spring should fertilize by mid-January, so that they may apply the year’s total of nitrogen in 3 parts before leaving for the summer. Follow the instructions on the bag or package or use Fact Sheet MC91.

In February, Deeply water once every 3 weeks as the weather warms. Prune if necessary before new growth starts (see January above).

Complete harvesting all fruit from Washington navel trees as soon as possible. Pick sweet oranges, but first test Valencia for taste, these should be sweeter next month. Marrs and Hamlin should already be picked. All other sweet oranges should be harvested by the end of the month with the exception of Valencia which are just beginning to ripen. Mandarins (tangerines), tangelos and blood oranges should be harvested by the end of this month. Eureka and Lisbon lemons should be harvested by mid-February. Note that the weather conditions can affect when it is best to pick fruit from year to year so use common sense and judgement.

Provide freeze protection if required (see January above). New growth may start this month, by the end of this month on most varieties.

Complete first of the 3 annual fertilizing periods by the end of this month (see January and/or MC91)

Planting New Citrus. Spend some time in January and February selecting citrus varieties for planting in March and April (best times). If you planted in the fall, remember that winter adds the responsibility of protecting the trees from cold weather and frost. Use Fact Sheet AZ1001 to help you select varieties. Make certain that trees purchased are properly tagged with the variety, the rootstock and the nursery that grew them before selling them to the retail nursery.

Select varieties adapted for your area. The location of the afternoon and evening sun, cold areas in the winter and distance from buildings, overhead wires and other trees or plants will have a bearing on how your citrus tree will grow. For people who do not want tall trees or if space is a consideration, don’t forget about the dwarf citrus trees. These trees are planted on Flying Dragon rootstock. Dwarf varieties produce the same quality fruit, but with about 40% less yield and take up less space.

George Chott
Master Gardener

Rarin’ to Grow
Seeds to Plant in January & February

Ageratum (to Jan. 15), beets, carnation, carrots, collard greens, dianthus, dill, English daisy (Bellis perennis), gaillardia (grandiflora and pulchella), gloriosa daisy (Rudbeckia hirta), larkspur, leek, mustard, nasturtiums, nemesia, nierembergia, green onions, peas, Iceland poppy, potatoes, primrose (fairy and polygonus), radishes, snapdragons (to Feb. 15), spinach, stock, strawflower, sweet alyssum, sweet peas, thyme, turnips, and Verbena gooddingii.

After Feb. 1: bee balm, borage, garlic chives, cumin, gazania, gilia, hollyhocks, marigold (French, African and American), parsley, Mexican sunflower (Tithonia rotundifolia), ranunculus, sage, sunflowers, and yarrow.

After Feb. 15: corn, cucumbers, cantaloupe, desert marigold, muskmelon, summer squash, and watermelon.
Winter Color for Desert Gardens

For some gardeners, especially recent arrivals from the temperate zones of the United States, the lack of big deciduous trees, turning into brilliant displays of red, yellow and gold in the fall makes the place seem drab and incomplete, as if fall had never really come. The truth is we have a very different cadence to our end of the year color season with a wide range of plants that provide excellent late season color. In addition, these colorful plants provide a much longer season of color for the desert gardener.

Very few desert trees are truly winter deciduous and even fewer lose their leaves with a colorful gesture of farewell. Arizona ash (Fraxinus velutina) and the sycamore (Platanus wrightii) can be lovely, but they are really denizens of the creeks and river sides of the region. Mt. Atlas pistache is exquisite and is from very arid regions of North Africa, but most of our desert trees are pale by comparison. However, the range of late season color in desert shrubs is much more exciting.

Mexican jumping bean (Sapium biloculare), is a large, full, nearly an evergreen shrub that occurs throughout southern Arizona in sporadic populations within the desert mountains near Phoenix, and more commonly as one approaches the Mexican border including Organ Pipe National Monument. This shrub turns a fiery red in the winter, beginning in November, with good color through at least February. Leaves range from a dull, brick red to a brilliant, glossy crimson, removing this plant from a ho-hum shrub to a wondrous and distinctive feature of the winter garden. The hillsides of Organ Pipe National Monument can be breathtaking when this plant is in full color; it could have been the model for the burning bush of the Bible.

Two other shrubs are known for good winter color. Hopbush (Dodonaea viscosa) is quite variable in the amount of coloring in the winter. Some individuals are very red or purple while others have only a tinge or border on the leaf. Firebush (Hamelia patens) turns an intense burnished copper color in the fall and will retain that color at least until January. During the early part of the fall, as the color begins, it is charmingly accented by the remaining orange flowers and the dark black fruit.

There are a few perennials that have good cool season color. Plumbago scandens, a very local native to the Phoenix area, are sensational in the late fall and throughout the winter. This is a tight growing perennial with a rounded form that is usually 3-4 ft. tall and nearly as wide. It has white blooms in the spring, late summer and fall. Leaves are generally green, but in the fall begin to turn a brilliant deep maroon that remains for months. It is not uncommon to have plants bloom while the leaves are still red, making a stunning color contrast. It appears that there are two entirely different plants in the same spot.

The native Dicliptera resupinata shares the same trait but is rarely so intense as the plumbago. Color in this plant is purple around the edge of the leaf. Next fall the Desert Botanical Garden will introduce for sale Justicia ruynontii, which is a low perennial with dark blue blossoms but has the same vivid red foliage through the winter as plumbago.

Here in the desert, happily we are not restricted in late season color by only herbaceous or woody plants. There are succulents, too, that can be irresistible in our gardens. Purple prickly pear (Opuntia violacea) is usually purple on the new pads and around the edges of more mature pads. But if it gets cold, the extent and depth of purple increases and in some plants is just unimaginable in its intensity. Yucca aloifolia is a changeling, with fine green to grey-foliage in the summer that turns a lovely wine purple in the winter. Each individual is different in the amount and extent of the color, so for this feature it is best to buy the plant in the winter.

Many aloes’ leaves turn red in the cool season, as well. The color change is actually a cold response, but it becomes a thing of beauty in our gardens. While the number of aloes which share this trait is vast, one of the most spectacular to my eyes is Aloe vera. This is one of the arborescent, or treelike, aloes and can grow to 5 ft. or more in the garden and have a width of at least that. The long, smooth leaves turn a stunning shade of red in the winter reaching their peak of color at the same time that the red blooms are fully developed and open. It makes for some high drama in the garden in the middle of January. While not common, this aloe and many others like it can be found from specialty succulent dealers.

So, instead of letting a late season garden droop and fall into the doldrums, try some of these selections for some sparkle and life in the winter garden.

Mary F. Irish
Desert Botanical Garden
Rose Care
The three P's: Purchasing, Planting, and Pruning

December and January is an exciting time of year for rose lovers, second only to spring and fall blooming times. The nurseries will be receiving their new stock of roses in mid-December, and we Rosarians all look forward with anticipation to the new rose varieties. For the best selection of varieties, don’t delay. If you wait until late January you may have trouble finding that favorite rose.

You have three options as to where to buy roses: nurseries, mail-order catalogs, and discounters. There is also the option of buying either bare root or potted plants. My preference is to buy bare root from a nursery that stores the roses in a sawdust bin. The roots of roses stored in a sawdust bin can be examined, and if you don’t like the appearance of the roots you don’t have to buy. With a packaged rose you don’t have that option. After the middle of February my preference is to buy potted roses because they have already started the rooting process, and the chances of survival are much better.

If you are unable to find the variety wanted locally, then your only option is mail order. If the mail order option is used, again be sure to order early, not only for the best selection, but also you won’t want bare root roses shipped to the Phoenix area in March.

It’s time to plant. Dig the hole a month before you plant if possible, replace the soil with amendments and soak well. Do not put fertilizer in the planting hole at this time. Most rose books recommend a planting hole of at least 18-in. x 18-in. My recommendation is to make the planting hole 30-in. x 30-in., especially if the soil is dense clay as is found in most of Maricopa County. If you have much caliche your options are to either dig out the caliche or to build raised beds.

It’s now planting time. Soak the bare root roses over night in water; dig out some of the planting mix, form a cone of soil in the hole, spread the rose roots on the cone with the bud graft 2-in. above grade, backfill and water in well. To keep the canes from drying out mound up either the planting mix or mulch around the canes.

When to prune. January is the time to prune roses for those of you who already have them in your garden. Basically, cut your hybrid teas, floribunda, and miniature back from ⅔ to ⅓ depending on the size; cut out the dead wood, and strip off all the leaves and clean up around the bush. It is always helpful to attend one of the pruning demonstrations held in public rose gardens by most of the rose societies in the Valley. Check out those listed in the Calendar of Events on page 21, and watch the Saturday newspapers home section for the time and place. If you have problems with roses or have questions to be answered, call the Master Gardener hotline or talk to one of the many Master Gardener Consulting Rosarians.

Rod M. Kusick
Master Gardener and Consulting Rosarian

Garden Potpourri

To increase the yield on your tomato and pepper plants, you might try growing some old-fashioned flowers. Some of the new varieties of flowers aren’t as attractive or suitable for bees. Try planting the old-fashioned varieties of bachelor buttons, larkspur, single forms of hollyhocks, snapdragons and nasturtiums nearby.

If you notice a rise in the price of garlic, it is because a rust disease (a fungus) hit the California crop this spring. California supplies about 90% of the nation’s garlic. Preliminary reports indicate a 20% drop in the state’s crop. This might be the nudge you need to grow your own garlic. It grows very easily in the Phoenix area.

In an article that appeared in Garden Design magazine, Oct. 1998, the following were listed as source books for researching gardening information: Andersen Horticultural Library’s Source List of Plants & Seeds, The RHS Plant Finder 70,000 Plants and Where to Buy Them, The Gardener’s Source Book by Sheila Buiff, Gardening by Mail by Barbara J. Barton, The Seed Search by Karen Platt, Curnicopia by Stephen Facciola, The Combined Rose List by Beverly Dobson and Peter Schneider, and The Garden Tourist by Lois Rosenfeld.

Steve Frowine, White Flower Farm’s former vice president of horticulture, is starting a mail-order nursery. He wants to get new plants to gardeners sooner. The Great Plant Co., New Hartford, Connecticut, will be shipping its catalog in January. The catalog will list 80 plants. Supplies will be limited, so you will have to order quickly. You can visit the new company online at www.greatplant.com. (from Garden Design magazine)