Things to Expect

GROWTH RECOVERY of summer weary plants can be expected with the cooling nighttime temperatures.

PREMATURE LEAF DROP late in October could be a result of the stresses of the summer.

ORANGES AND TANGERINES WILL START SPLITTING during this season when they are enlarging in size. The damage from the sun on the rind makes the rind less supple and less resilient to stretching and growing, thus the cracking.

MESOPHYLL COLLAPSE is a sudden wilt or drop of citrus leaves provoked by abrupt weather changes. Twig dieback and gumming often occur with this condition.

AGAVES may collapse into a putrid, rotting mess during late summer as a result of internal infestations of agave weevil larvae. They also infest the bases of yucca stems, causing chlorotic decline and death of infested stalks. Controls should have been applied during May and June.

Things To Do

EARLY FALL ROSE BUSH CARE includes pruning out all dead canes and moderately pruning back weak top growth; fertilize and follow with a deep watering.

PLANT WINTER HARDY TREES, SHRUBS AND VINES. The frost sensitive ones (citrus, bougainvilleas, etc.) can be bit risky this time of year.

SOW WILDFLOWER SEED in October to have a spectacular show in late spring.

PLANT ANNUAL SPRING COLOR in mid- to late October. The nurseries will be packed with glorious selections in every size, color and shape. Spend a lot of time preparing the soil for the explosive growth of these plants. Everything you do “up front” will be rewarded later. It’s hard to overcome a poor start with flowers and vegetables. Watch for a new bulletin on flowers by Lucy Bradley - it’s great.

CUT BACK WATERING FREQUENCIES to minimize anaerobic conditions in the soil. The cooling temperatures and slowing plant growth allow the soil to remain wetter longer.

OVERSEED ESTABLISHED BERMUDA GRASS LAWNS from mid-October through mid-November for green grass (and mowing practice!) all winter. If your lawn has suffered from the late spring and hot summer, you might opt to not overseed this year to help it out.

BERMUDA RESPONDS with a light fall application of potassium, no matter whether you overseed or not. We rarely recommend potassium for plants here, but potassium for Bermuda helps it ‘rest’ better and then come out of dormancy with greater vigor.

PLANT COOL SEASON VEGETABLES starting in October. The cool season vegetables are the versatile ones — you eat the roots, stems, leaves or immature flowers. If planting these cool season vegetables is done and the days are still warm, you will find that sprinkling the seed bed will cool the soil more. Many of these seeds need cool temperatures to sprout.

ONIONS PLANTED FOR BULBS should be sown in mid-October (Remember Grano 1015Y? The 1015 indicates the planting date). Seeds or seedlings work the best. If you want the best scallions, plant the onion sets. These grow quickly into thick, luscious green onions, but rarely perform as well as seeds or seedlings for the later bulbs. The Grand Canyon Sweet is 1033Y.

Terry H. Mikel
Extension Agent, Commercial Horticulture
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Letter from the Editor

We need your help again. Do we have some volunteers to learn how to format the Communicator (at the present time Shanyin is the only one that does this — if she is out sick, then we have to wait till she returns), people to surf the ‘Net for clipart (Shanyin will teach you how to do this... just think, one more thing you will know how to do on your computer) and people to furnish “filler” info (those 3 or 4 line things that fill up the rest of the column — we can use jokes, sayings about plants, the language of flowers, short informational things, like gardening is the #1 hobby in the U.S., which it really is). If you would like to volunteer, please contact Shanyin or me.

We can also use more writers. I would like articles written on poisonous plants, community gardening, school gardening, botanical gardens (both here in Arizona and the surrounding states), gardeners who have influenced your life, or pick your own subject.

The Communicator will be celebrating its 10th anniversary in October 1999. To honor this anniversary, we are going to be printing “Classic Articles from the Past” over the next few issues. For more fall gardening information, please review the September/October issue of 1997: Wildflowers, herbs, vegetables, and color ornamentals. Also, I am trying to locate the librarian who came up and talked to me after an Update a couple of months ago. Will you please call me?

Val Carey
Master Gardener, Communicator Editor
Did You Know?

In colonial days the tomato was assumed to be poisonous. The early settlers had reason to be wary, as tomatoes were known to be members of the Nightshade (Solanaceae) family, which includes many poisonous plants. The Aztecs, however, were using the tomato as food as far back as the 1500s. A couple of centuries later, some of the North American colonists were trying their hand at growing this interesting plant with the attractive little yellow flowers and the bright red fruit. One of those experimenters was Thomas Jefferson. In 1781, he was growing tomatoes at Monticello — as ornamentals.

A major factor in changing perceptions about the tomato was an event staged in 1820 by one Colonel Johnson. As the National Garden Bureau tells it, Johnson proposed to eat a basketful of tomatoes at the Salem, New Jersey, courthouse. The man’s doctor had predicted that, if this foolish undertaking were carried out, the Colonel would “foam and froth at the mouth... double over with appendicitis... [all the while] exposing himself to brain fever.” As might you might imagine, the prospect of watching this spectacle drew a crowd. When the doughty colonel survived his encounter with the tomatoes, people began to revise their opinion of this particular garden item.

That three-quarter-inch-long critter, black in front and sporting a fat scarlet abdomen, may look like some kind of jazzed-up ant. It isn’t what it seems. The solitary, wingless individual that you’ve spotted making its way across a gravelly patch of ground is the so-called Velvet Ant, and it’s a wasp. The velvety appearance comes from body hair: there is nothing soft about this wasp’s lifestyle.

This is a female (the male has wings) and you would be well advised to let her be. She comes equipped with an impressive stinger. In carrying out the reproductive cycle, the velvet ant searches for the burrow of one of the other kinds of solitary wasps, and once such a burrow is located, the female proceeds to deposit her eggs in the cells provided. To do so successfully, she must fend off attacks by the defending wasp.

Velvet Ants, as described in “Insects of the Southwest,” by Werner & Olson, are not limited to a single color scheme nor to a single size, but “most are from half an inch to an inch long, clothed in long, brightly colored hairs.”

There is some pruning you should not do. Don’t, for example, prune a bottlebrush tree unless there is a compelling reason, such as a safety hazard. In alkaline soils such as ours, the bottlebrush tree (Callistemon citrinus), also known as Scarlet Bottlebrush, is subject to iron chlorosis. The burst of new growth initiated when the tree is pruned causes a severe iron deficiency, which, in turn, not only weakens the tree but causes the foliage to yellow.

And don’t “prune back” an ocotillo ( Fouquieria splendens). Lopping off the tops of the stiff, whip-like stems removes the tips that form the blooms. Worse yet, you’ll get a cat-whisker effect as new, weak whips emerge from below the cut and thrust outward. Mary Irish, the Desert Botanical Garden’s Director of Public Horticulture, says the tips on the new growth will eventually bloom. The ocotillo’s distinctive silhouette will, however, be gone. Patrick Quirk, Cactus Horticulturist at the DBG, is knowledgeable about the Fouquierias as well. His advice: don’t prune; if one of the whips gets broken or presents a hazard, then cut it off at ground level.

Despite its name, the Jerusalem artichoke ( Helianthus tuberosus) is native to the Americas. This vegetable, a species of sunflower with a root that tastes something like a globe artichoke, was introduced to Europe in 1617 and cultivated in Italy. The Italian word for sunflower is “girasole,” sun-turner (from “girare,” to turn, plus “sole,” sun). The sun-turner allusion is to a well-known characteristic of sunflowers, i.e., they orient themselves toward the sun as it moves through the sky.

When the phrase “girasoli articocci” passed from Italian into English the plant’s name got corrupted, gradually evolving into a phrase that had a more familiar-sounding set of syllables. Thus, “Jerusalem artichoke.”

Dolly Clark
Master Gardener
Ask A Master Gardener

The following are some questions taken from the Maricopa County Master Gardener Hot-line.

“An airplane crashed into my fruit tree. What should I do?” After the pilot has been extricated and safely transported to a local hospital, it’s time for you to hit the yellow pages of the telephone directory. Cataclysmic damage to a tree (like monsoon damage, car accidents, the like) is likely to require an arborist’s care. A certified arborist will be able to advise you whether or not the tree can be saved, and if not, what the safest way to remove the tree will be. Let your fingers do the walking, and look under “arborist” or “tree removal,” checking for arborists who have been certified by the International Society of Arboriculture (a current list of certified arborists in your area can also be obtained by contacting ISA at 217-355-9411, or visit their web site, http://www.ag.uiuc.edu/~isa/). Get several estimates before hiring an arborist. For more information, request Publication #AZ1003 How to Hire a Tree Expert.

“My neighbor’s nutgrass is creeping into my lawn. What can I do to prevent it?” In Arizona, nutgrass and natsedge are interchangeable names for an insidious pair of weeds. Yellow and Purple natsedges, Cypers esculentus and C. rotundus are prohibited noxious weeds in Arizona, and very difficult to eradicate. The triangular-shaped stem (or clump) produces rhizomes (underground stems) and tubers called “nutlets,” both of which spread beneath the soil and sprout new natsedge plants. Recommended chemicals include MSMA (don’t use in St. Augustine lawns), halosulfuron (available to professionals only) and Imazaquin (perennial rye may be sensitive). This may be a multi-year control project for you and your neighbor — spraying and/or pulling the plants out of the ground, waiting for new plants to sprout from the rhizomes and tubers, then repeating the whole process. The goal is to literally starve the weed by immediately and consistently removing all green food-producing leaves. If anyone comes up with an easier, fool-proof way to control natsedge, you have made your millions!

“Will my tree be affected if I scatter the ashes of a loved one under it?” Botanically and physically speaking, probably not. Ashes tend to increase the soil’s pH, and make it more alkaline (the opposite of acidic). Our Arizona soils generally fall into the 8.0-8.5 range of pH, making them pretty alkaline already (remember: pH of 7 is neutral, 0-6.9 is acid, and 7.1-14 is basic). Many desert-adapted plants are “comfortable” in these alkaline conditions, while many non-native plants prefer soil pH to be closer to neutral, or even acidic. So, as a rule, we do not recommend that Arizona gardeners add ashes or lime to their gardens. However, I doubt that you have enough ashes to significantly alter the soil pH for any lasting amount of time.

Pete Fumusa, Master Gardener and Shannyn Hosier, Instructional Specialist

Seeds to Plant in September and October


Vegetables: Beets, Broccoli, Cabbage, Cauliflower, Carrots, Celery and Chard.

Be sure to check the seed packets to see what minimum and maximum temperature is recommended for germination. Be sure to buy seed packets that are packed for the current year. If you grow seeds that can be planted for longer periods of time or different periods of time, I would appreciate you letting me know. (T) = transplants.

Val Carsey
Master Gardener
Fall Rose Care

Even though we are enjoying our "Dry Heat" now, we should be thinking cool, for fall is fast approaching. We want large, green bushes covered with blooms that we can be proud of in October through December. In order to accomplish this, let's look at some things that can be done to promote good growth: pruning, watering, fertilizing, and pest and fungus control.

The first of these, pruning, is essential to promote new growth. Remember, blooms are only produced on new growth. If dead-heading was practiced over the summer and garden roses are desired, not much work is needed. Just select canes capable of supporting a bloom or spray, usually at least the thickness of a pencil, and cut on an angle, ¼-in. above a healthy leaf. This will allow lateral growth above the leaf to produce the desired bloom. Any spindly growth and blind ends should be removed for they will rob the bush of energy that would otherwise go to produce larger flowers on heavier stems.

If exhibition blooms are what you are seeking, look for a cane ⅜-in. thick or go down the cane to this size, again cutting on an angle ¼-in. above a healthy leaf. After new growth begins, it may be necessary to stake the stem to keep it straight. Again remove all dead or blind ends and spindly growth. Now, too, is a good time to examine each bush for any indication of disease or deficiency. Remove any dead leaves or canes showing mosaic virus as well as any suckers which may have developed. Make sure to seal any major cuts with a good carpenter's glue. You don't want to leave a way for insects or disease to gain entry into the vascular system or pith of the canes.

If the heat continues, it may necessitate watering heavily until the temperature drops below 100°F. When the temperature drops to the 90°F range, watering may be cut back, depending on your type of soil. Remember, we want water along with soluble food to get down 24-inch into the soil and out to the drip line of the bush, for this is where the feeder roots are. A good way to check is by using any solid instrument such as a long piece of rebar and penetrate the ground to test for depth of moisture. Don't over-water — look for yellowing of leaves. If this is evident, check to see if the roots are standing in water.

Fertilizing, which was cut back during the hot dry days of summer to avoid burning, can be resumed in September. The middle of the month is a good time to start. Once more your goals will determine your approach to feeding your bushes. All bushes at this time will benefit from an application of ⅓-cup of Epsom salts (to supply magnesium), watered in well, along with a cup of alfalfa meal, which contains triacontanol, a chemical that makes long stems.

If garden roses are the goal, a good 15-15-15, 18-18-18 or 20-20-20 inorganic granular might be scratched into damp ground and watered thoroughly. Another alternative might be an organic fertilizer having a 5-8-5 composition applied in a similar manner. A third method would be a liquid fertilizer, but this must be applied every 7 to 10 days, as opposed to once a month for granular.

For exhibition a more intense fertilization program is needed. Feeding every 7 days is not an unusual practice. Starting 45-50 days before picking the blooms, a practice of repeatedly feeding/fertilizing using fish emulsion, a high phosphorous fertilizer, iron, zinc, sulfur, magnesium, manure, blood meal and liquid fertilizer, should (along with other good practices), give you large colorful blooms. The alfalfa meal will give long stems and the Epsom salts will help green up the leaves. There is a formulation (Magnumgro) that has been on the market for only a short time that shows promise of producing the same results as all of the above materials but in one application.

With the defoliation of the cotton plants soon, we can look for the whitely invasion. Heretofore they have been a problem but need not be a problem any more. I have used a material called Merit-WSP75 for 3 years, not only on roses, but on sage and other plants and have seen very few, if any, whiteflies on any plants. It was being sold at the American Rose Society National and District Rose Convention in Albuquerque, New Mexico.

If hot weather continues, keep on spraying your bushes (early a.m.) with a strong stream of water having about a 10° spray to flush off any spider mites that still may want to feed on the leaves. Orthene, Orthanex, or any other good insecticide should control any grasshoppers that might be feeding on your bushes. I must admit that after spraying the Merit-WSP75 in May, I have had no "hopper" damage to roses but (Continued on page 6)
Blues for the Garden

There are many shades of blue, from dark to light that we can grow in our low desert gardens. The truest blue flowers seem to be some of the smallest that grow so if you need blue to be big then you will need to use paint, plastic or polyester. Some of the plants that I included may lean more to the violet side of blue, but I tried to stay blue and not pinkish lavender. Many can be grown from seed, but perennials may not bloom until the second season.

You can set off your blues by mixing them with contrasting and complementary colors. White, yellow, and orange will really make blue pop out in the garden, and it is the blue flower that completes the mixed bouquet; you can’t have red and yellow flowers together without blue.

I used the Sunset Western Garden Book, Royal Horticultural Society Manual of Bulbs, and Cooperative Extension publications on Annuals (Q373, 188029) Perennials (110385) and Bulbs (110382) for references; where you will find more detailed information on each plant.

Annuals (A) and Perennials (P)

- *Agapanthus*, Lily-Of-The-Nile, P.
- *Amsonia tabernaemontana*, Blue Star Flower, P.
- *Aster*, different varieties, A&P.
- *Borago officinalis*, Borage, Annual herb.
- *Brachycome iberidifolia*, Swan River Daisy, A&P.
- *Browallia*, Amethyst Flower, A.
- *Centaurea cyanus*, Bachelor Button/Corn Flower, A.
- *Consolida ambigua*, Larkspur, A.
- *Cynoglossum amabile*, Biennial grown as Annual.
- *Delphinium Elatum group*, Candle Delphinium, Perennial treated as Annual.
- *Echinops exaltatus*, Globe Thistle, P.
- *Eichhornia crassipes*, Water Hyacinth, Aquatic plant.
- *Felicia amelloides*, Blue Marguerite, P.
- *Gilia capitata*, Blue Thimble Flower, A.
- *Limonium sinuatums*, Statice, A.
- *Linum lewisii*, Blue Flax, P.
- *Lobelia erinus*, A.
- *Lupinus sparsiflorus*, Desert Lupine & L. succulentus, Arroyo Lupine, A.
- *Myosotis sylvatica*, Forget-Me-Not, A.
- *Nemophila maculata*, Baby Blue Eyes, A.
- *Nepta fastenseni*, Catmint, P.
- *Penstemon spectabilis*, Royal Penstemon, P.
- *Phacelia campanularia*, California Desert Bluebells, A.
- *Platycodon grandiflorus*, Balloon Flower, P.
- *Rosmarinus officinalis*, Rosemary, different varieties, P.
- *Salvia farinacea*, Mealy-Cup Sage, A.
- *Salvia superba*, P.

**Bulbs, Corms and Rhizomes**

*Brainea unlus*, Bulb.
*Brodiaea*, Corm.
*Crocus*, Corm.
*Endymion hispanicus*, Spanish Bluebell, Bulb.
*Hyacinthus*, Hyacinth, Bulb.
*Iris*, Bearded and Dutch, Rhizome and Bulb.
*Ixia tataricum*, Bulb.
*Leucocoryne xiiodes*, Bulb.
*Muscaria*, Grape Hyacinth, Bulb.
*Scilla v. messeniaca*, Bulb.

**Lynne Senzek**
Master Gardener

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**Fall Rose Care (Continued from page 5)**

Witnessed damage to vegetables that have not been sprayed. Perhaps the Merit-WSP75 has also repelled these pests as well as it does aphids and thrips.

When the temperature does drop, watch for the typical deformation of leaves and the white mycelia of powdery mildew. Should it show its wicked head, a good fungicide such as Bayleton, Benlate, Rubigan or Rally can be effective in combating it. As a preventative Funginex or Immonox applied every 10 days should keep the bushes free of this fungus.

Last but certainly not least, for insect pests don’t forget natural predators. Those lacewings have a voracious appetite and wasps still use insects for larval nourishment. Birds too control many pests. The cactus wrens do an admirable job in devouring insects in rose beds and the entire area. Therefore, I advocate using insecticides only when natural controls can’t keep up with the pests.

**Larry Bell**
Master Gardener
Cool Season Vegetable Gardening

Vegetable gardening can be a year-round activity in our Southwestern deserts. Cool season vegetables are usually planted in the fall and, in some cases, throughout the winter season. Most of the vegetables that can be grown successfully during our cool fall through early spring season are of the leafy variety, cabbage related varieties, and edible roots that can survive a light frost. Some short season tomato varieties can also be grown successfully outdoors in the fall but none are frost hardy. The following descriptions are based on gardening experience in low desert area near Phoenix, Arizona. Refer to Maricopa County Fact Sheets MC4 and AZ1003 for specific recommended planting dates.

Edible Leaf Types: Swiss Chard, Spinach, Lettuce, Chinese Cabbage, Celery, Mesclun

Swiss chard is our most versatile cool season vegetable and the easiest to grow in the low desert. It can be used raw in salads, as garnish for main dishes or cooked as a spinach substitute. Plant from seed around October 1 and you can harvest continuously from December 1 until June 1 of the following year. It can also be grown from transplants or seed in the spring after late January. Between mid-October and February 1, it’s best to start seeds indoors and transplant because of poor germination outdoors during the cooler winter months. Most Swiss chard varieties perform well in our climate but my personal favorites are Fordhook Giant and Rhubarb. Swiss chard is biennial and will cross with other Swiss chard varieties as well as with beets so the plants should be isolated in the second year to obtain true seeds. Spinach is not very well adapted and is more climate-sensitive than chard. It can be grown successfully but it requires much more effort.

Lettuce is well adapted and head lettuce is an important commercial crop in our valley. Urban gardeners may have more success with the bibb and leaf lettuce types because it’s more difficult to control insect pests on head lettuce without resorting to chemicals. It’s pretty easy to grow lettuce from seed. Germination is faster if sown before the end of October but it can be grown by direct sowing throughout the winter. Germination is best below 80°F and lettuce requires light to germinate.

Leafy Chinese cabbage like mizuna (mustard cabbage) is also well adapted and is grown much the same as lettuce. Like Swiss chard it also holds up into the warm spring season well after lettuce and spinach have gone to seed. And it can be cut back many times. Celery presents more of a challenge but it can also be grown if seeded or transplanted before the end of October. It’s slow to germinate, not very well adapted to heavy clay soils, is intolerant to temperature extremes, and takes up to 5 months to mature.

Mesclun is a salad made up of a melange of leaf lettuces mixed with various herbs, domestic or wild greens, or flower sprigs. In the gourmet version, the plants are very young and the tender plants harvested at about the same stage of maturity. These are probably best grown in nursery flats. It is pretty easy to grow a balanced mix while growth is pretty rapid early in the fall season or in the spring before the weather begins to warm by selecting one of the prepared mixes offered in seed catalogs. But it becomes more difficult in winter when the growth is slower and more variable. As a practical matter, much of the so-called mesclun is grown in the garden and is simply a mix of salad greens, some of it pretty mature; it is often made up from successive shearing of the plants. It is usually served with a light salad dressing such as oil and vinegar so as not to obscure the flavor of the individual plants. Typical mesclun "collections" which are pretty easy to grow may include various varieties and colors of leaf lettuce, rocket (arugula), beet or turnip greens, endive, escarole, chervil, kale, mountain spinach (orach), etc., selected for flavor, color variation, compatible growth rates and adaptability.

Edible Root Types: Radishes, Carrots, Turnips and Rutabagas, Beets, Parsnips, Salsify

If sown before mid-September, the root crops will grow lush foliage but there is little root development so it’s best to wait until the daytime high temperature drops below 100°F. Propagation is by direct sowing although beets are sometimes grown from transplants.

Radishes are fast growing and relatively free of insect pests. As a fall crop, time to maturity can be from 1 to 2½ months. Cherry Belle, Sparkler, French Breakfast and Icicle are all popular varieties. The initial radish crop doesn’t require additional garden space if sown in the same

(Continued on page 8)