Things to Expect:

CITRUS FRUIT DROP is a natural thinning process, worsened by hot dry winds.

FERTILIZE CITRUS in late Aug. or early Sep. to ensure good fruit sizing that will occur soon after.

CICADAS emerge and the males fill the air with a buzzing cacophony. Little damage is caused and no practical control is available.

SEASONAL LEAF DROP of Carob, Rhus lancea, pines, etc. is a normal tendency, intensified by hot weather or drought.

ANTS AND TERMITES become more active and swarm during Arizona’s summer storm season.

ROOT ROTS are often the result of overly wet soils brought about by summer rains coupled with over-watering. Let the soil breathe.

LAWN FUNGUS DISEASES increase in warm, wet grass. Thick thatches, excessive watering frequencies and night watering increase fungus disease potential.

IRON CHLOROSIS can be induced with wet soils keeping the oxygen levels low. Iron absorption by roots requires an active oxygen transfer and the less oxygen there is, the less iron can be absorbed. Also, the wet conditions place the iron in a reduced (ionically) form that is less available for plants. If the symptoms occur and controlling water to dry the soil is difficult (e.g. lawns), use a chelated iron on plants with symptoms.

TOADSTOOLS AND SLIME FUNGI increase around the landscape with the warm wetness of the season.

PALO VERDE BEETLES will continue to emerge from the ground under infested trees. Extra TLC remains the best treatment.

Things to do:

WATER THOUGHTFULLY for better plant growth and to save water. Watering needs of plants increase with hot, dry weather. Be attentive to wilt symptoms. Water deeply, but only as often as necessary to maintain good growth.

MULCH SOIL SURFACES of tree, shrub and flower beds to keep root zones cooler and minimize evaporation loss of water.

WATER, MOW AND FERTILIZE LAWNS ATTENTIVELY. Stress can quickly become a severe problem now. Late season blooming is common but greater with stress.

REPLENISH DEPLETED SOIL FERTILITY with a fertilizer application in August. Watering and rains leach away much of the soil’s nutrients, and they will be needed for the second flush of growth in late September.

PROTECT TENDER BARK of both young and heavily pruned trees. Tree white paint can work acceptably as can other products designed for that purpose.

TRANSPLANT PALMS in the heat of summer for best results.

GET THE GARDEN SOIL READY for our glorious fall growing season.

Terry H. Mikel
Extension Agent, Commercial Horticulture

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A Letter from the Editor

CONTEST CONTEST CONTEST

Last month we mentioned a contest about renaming some of our regular columns in the newsletter. We forgot to give a deadline. For that reason, we are continuing the contest (and also because we weren't exactly overwhelmed with entries). The deadline is July 31.

You can enter as many suggestions for names as you want. Send your suggestions to Shanyg Hosier, 4341 E. Broadway Rd., Phoenix, AZ 85040-8807. We will put the names of the winners of each category in a hat. The person whose name is drawn will win a $20 gift certificate from a nursery.

Please put on your thinking caps and see what suggestions do you have for unusual or catchy titles for the following regular columns: ☑ Letter from the Editor; ☑ Seeds to Plant Now; ☑ Calendar of Events; ☑ Book reviews; ☑ Garden Clubs - we will be highlighting a different garden club each issue; ☑ New Introductions - a column about new plants that are being introduced.

Val Carsey
Master Gardener, Communicator Editor

Special Turf/Grass Segment
Page 8 - Page 16
Did You Know?

...that ornamental grasses, part of the same plant family that contains such major food crops as rice, wheat, corn, and barley, can make a substantial and pleasing addition to your landscape? Fountain grass (Pennisetum setaceum) is worth consideration. It comes into its own with the advent of warm weather, and is available in a form sporting deep reddish foliage as well as the more-familiar version with green foliage. The former, a cultivar called “cupreum,” does not set viable seed, whereas the green-foliaged version re-seeds prolifically.

Newer on the scene is Muhlenbergia capillaris Regal Mist™, an introduction of plant wholesaler Mountain States Nursery. This grass, distinguished by an outstanding display of pinkish-red flower spikes in the fall, has glossy green foliage and grows well in a variety of exposures ranging from filtered sun to reflected heat. Some places you can see Regal Mist™ on site: the Centerpoint complex in downtown Tempe (University Dr. and Mill Ave. intersection, near the Rabbit Sculptures), the Raven Golf Course in Phoenix, and several courses in Sun City West. Like other Muhlenbergia species it is a good choice for planting around water features. As is true for many ornamental grasses used here in the low desert, fall is an ideal planting time.

♦ ♦ ♦ ♦ ♦

Weeds are a pain, no doubt about it. But did you realize that the Federal Noxious Weed Act of 1974 actually categorizes some weeds as “prohibited?” Other weeds (ex: Puncturevine) are “regulated;” still others (ex: Scotch Thistle) are “restricted.” The Arizona Department of Agriculture is charged with enforcement of this Act, designed to protect crops and the environment from plants deemed to be particularly undesirable, destructive, and difficult to control.

While, happily, none of the plants on the “Prohibited” List are known to occur in Arizona, the state does harbor some of the other categories of undesirables. And appearances can be deceiving. A case in point is a little plant that comes complete with attractive funnel-shaped, white or pink blossoms ¾-in. to 1-in. across. A delicate-looking vining or trailing plant, Convolvulus arvensis (a.k.a. Field Bindweed) is considered the most noxious of all weeds in several western and midwestern states, and can be a major problem in cultivated fields, choking out alfalfa, small grains, and cotton.

♦ ♦ ♦ ♦ ♦

Wondering why your yellow roses fade to an unattractive white? A check with several rosarians about this low-desert gardening problem made it clear that opinion is divided as to whether it is the sun’s heat or the ultraviolet rays, or a combination of both, that causes this phenomenon. There was general agreement, however, that some protection from the hot afternoon sun will reduce the fading.

One way around the problem is choosing varieties that aren’t as vulnerable to sun fade. Come planting time, try a hybrid tea called St. Patrick, or another called Henry Fonda. Both roses come closer to providing a non-fading yellow. With the St. Patrick, the bloom, as it progresses from bud to full-blown rose, changes color, going from dark green, to chartreuse, through dark yellow, and then to a lighter yellow. With the Henry (Continued on page 7)
Low Desert Gardener Profiles

Ann Turpin Thayer - Herb Gardener

Ann grew up on a farm in Woodstock, Illinois until she was about 10 years old, but never had anything to do with gardening. Instead, she concentrated on the animals. Her father grew crops for the “Jolly Green Giant.” In the late ‘50s he won an award from the gentle giant for the highest tonnage per acre for sweet corn. Later, her dad moved to the suburbs and had a big back yard. He grew so much produce, her stepmother had to buy 3 freezers and several shelving units to put up everything he raised.

The one thing Ann remembers her Dad saying is “Rotate the crops.” Among the crops he grew were sweet corn, field corn, peas and soybeans — the next year their 160 head of cattle would graze in the field that grew soybeans because soybeans strip the soil.

Ann had been coming to Phoenix to visit her brother and his family for 20 years and fell in love with Arizona on the first visit. She remembers seeing a display at the Desert Botanical Garden in the early ‘80s that really impressed her. It was a display of 3 saguaros: the columnar saguaro was 70 years old, but the one with arms was 150 years old.

Ann got into herbs and a desire to be self-sufficient in the late ‘80s. She raised a few herbs, mainly for soapmaking (from scratch) and potpourri. She and her husband, Ray, moved here in 1994. They were touring the Botanical Garden, one of many times, when she picked up their class schedule. She started taking classes in ‘95 and Kirti Mathura was her teacher for many of the classes Ann took at the DBG. She credits Kirti for Ann’s becoming a volunteer at the Desert Botanical Garden and joining the Arizona Herb Association.

In the fall of 1996, Ann took the Master Gardener Course. In the spring of ’96, the Thayer’s tore out their grass and put in 5 raised beds, each approximately 11-ft. long, 4-ft. wide and 18-in. tall. One is by itself in the yard and is called the “Salad Bar.” She grows southwestern herbs in one bed, culinary herbs in another, and lavender in the 3rd bed. She has had troubles with the 4th bed, which is in partial shade, but they were mainly in connection with the irrigation and learning about the right shade-loving herbs.

Ann’s mother was an avid gardener who loved flowers. She remembers hearing her mother use the botanical names of lots of plants. However, Ann doesn’t follow in the footsteps of either parent in her growing habits. She enjoys growing herbs. Among her favorite plants are nasturtiums, Salvia apiacea (white sage) and lavenders.

Ann is active in the Culinary Group of the Arizona Herb Association. Recently, their theme for a meeting was “Edible Flowers.” Recipes served included were nasturtium flowers stuffed with guacamole served on a slice of jicama as well as strawberries dipped in white chocolate and sprinkled with diced pansies (confetti). Don’t you wish you had been there?

Val Carsey
Master Gardener

Tookie Appelbe - “Everything” Gardener

Tookie has been gardening ever since she can remember. She grew up gardening with her mother in California. She has lived in the Phoenix area since 1957. She grows a little bit of everything. She has 100 rosebushes, veggies, hollyhocks, sweetpeas, herbs, oaks, annuals and 2 topiary bears. She recently started growing a topiary elephant.

She takes the National Gardening, Organic Gardening, Horticulture, Herb Companion (which she considers one of the best), Home & Garden (English version) magazines and Farmers’ Almanac. For reference books she uses Sunset Western Garden Book, Cultivated Plants of the Southwest by Rupert Streets (now out of print), and The Rose Bible by Reidell. Among her favorite catalogs are Burpee, Parks, Wild Seed, White Flower Farm and Dutch Gardens (bulbs). Most of her plants are grown from seed. She buys bedding plants of those that are hard to grow from seed. Tookie improves her soil by adding compost which she makes, year after year after year.

Her favorite plant is her avocado tree which she grew from a pit 17 years ago. It is as tall as a telephone pole. Tookie knows because the electrical company recently trimmed it! It has lots of edible avocados, the cocktail kind which have an undeveloped pit.

Tookie thinks it is very important to plant at the proper time and to provide the proper amount of water. She enjoys (Continued on page 9)
Conference Speakers Announced

The 1998 Southwestern Low Desert Gardening and Landscaping Conference will once again be held at the 5-Star Wigwam Resort in Litchfield Park on August 7 and 8. Litchfield Park is a brief 20 minute drive from Central Phoenix.

Ms. Carolyn Polson O’Malley, Executive Director of the Desert Botanical Garden, will be the keynote speaker on Friday, August 7. Other featured speakers include Cass Turnbull, Executive Director and Founder of PlantAmnesty from Washington State, Mary Irish, Director of Public Horticulture at the Desert Botanical Garden, and Christy Ten Eyck, noted Phoenix landscape architect.

The Friday night reception will feature Western Balladeer, poet and storyteller Marshall Trimble. An evening of song, antidotes and stories await the attendees and their guests to the conference.

The 1998 theme for the 8th annual conference is “Growing Through Knowledge.” The conference will bring together Master Gardeners, horticulture professionals and others who enjoy gardening for educational programs and to exchange ideas. Of special interest this year is a new Teacher Track series with sessions designed to educate, train and inform teachers about the benefits of establishing and maintaining a school garden.

The two-day conference will also feature over 25 different sessions highlighting native vegetables and gardening in the Sonoran desert, new varieties of citrus for the low desert, designing with cacti and succulents, art in the garden, low-water/high-color perennials, harvesting micro-chips and subtropical gardening in the low desert. There will be several special sessions including a hands-on photography class as well as an interactive session with Executive Chef Jon Hill who has one of the few 5-Star dining rooms in Arizona.

There will also be the first annual Terry Mikel golf tournament on the Blue Golf Course at the Wigwam Resort on Sunday, August 9. The course was designed by Robert Trent Jones. Master Gardeners and their guests will play 18 fun and lively holes with Terry munching his way across the fairways.

This non-profit conference is presented by Master Gardeners from the University of Arizona Maricopa County Cooperative Extension. Call 470-8086 ext. 824 or email Sandy Cielaszyk at cacti@doitnow.com to request a registration form be sent to you to reserve your space at this exciting and always interesting conference.

The 5-Star Wigwam Resort is offering wonderful opportunities for the 1998 Low Desert Conference registrants and their guests. The fully air-conditioned resort has fantastic dining opportunities in the 3 uniquely different dining rooms, three 18-hole golf courses, 19 tennis courts, 4 spas, exercise center and 2 guest locker rooms with exercise equipment. There are 3 bars, 2 pools and 2 pool cabanas.

There is wonderful historical significance for The Wigwam Resort in the history of Phoenix. It was originally constructed in 1918-1919 as an overnight facility for Goodyear representatives. On Thanksgiving Day, 1929, the Wigwam was opened as a public resort with a guest capacity of 24 guests. The existing Fireplace Lounge and part of the executive offices date back to the year of the first facility. Shopping is available for the diehard bargain hunter at the Wigwam Factory Outlet Stores, a mere mile or so from the hotel.

Don’t look at the Conference as simply a learning experience. Look at it as an opportunity to have a fantastic mini vacation for less than $100 per night at this wonderful, “world famous resort with a western flair.”

Suzanne Piper
Master Gardener, Conference Committee Member

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Harvest Recipes

Poppy Seed Cole Slaw

- 1 medium head fresh green cabbage, finely shredded (about 4-5 cups)
- ¼ c. finely chopped fresh onion
- 1 tbs. water
- ½ c. dairy sour cream
- 2 tsp. lemon juice
- 1 tbs. poppy seed
- ½ tsp. salt
- dash black pepper

Combine onion, dairy sour cream, lemon juice, water, poppy seed, salt and ground black pepper in a small bowl and mix well. Pour over the cabbage and toss. Chill thoroughly. Garnish with sliced, pitted ripe olives. Serves 6-8.
Monsoon Season
Vegetable Gardening

The summer monsoon season in Arizona occurs when the prevailing winds change direction. Land temperature variations cause high pressure areas to become low pressure areas and vice versa such that the winds change direction to draw moist air from the Sea of Cortez (Gulf of California) and the Gulf of Mexico. It’s pretty technical so for this article we will simply define the monsoon season as the period when “swamp” coolers don’t work very well; this seems to occur when the dew point temperature exceeds 55°F while the daytime temperature remains above 100°F.

Typically, this season endures for two months, begins around July 8, starts to break around mid-August and ends by mid-September. But it may start as early as mid-June or as late as July 26, and it may endure for one to three months. So what does this have to do with gardening since most gardeners estimate during this period (akin to hibernate except it happens in the summer)? Well, there are quite a few plants that can take the hot weather if the ambient weather cools.

The Native American CBS staples (corn, beans, squash) were often planted during this period. Corn thrives in hot, humid weather but it’s sometimes possible to evade the noctuid earworm moth if planting is delayed until late in the monsoon season so the silks will emerge in cooler weather when the moth is less active. Muskmelons and winter squash are well adapted and will produce a good crop if planted around August 1, but will require protection from and control of whiteflies. Snap beans are also sometimes successful if planted mid- to late August.

It’s possible to extend the usual growing seasons by using coverings like shade cloth at the hot end of the season and clear plastic to help retain heat when the weather is cooler. But with the diversity and availability of plants adapted to our climate, it is often more gratifying to garden in harmony with the seasons using drought tolerant, adapted plants. Following is a description of a few of the adapted plants that can be grown successfully during the monsoon season. Many are new to us but have been cultivated by Native Americans for centuries.

Amaranth — Some years ago, the Rodale Institute was encouraging individuals to cultivate this ancient cereal grain as part of their sustainable agriculture programs and offered free seeds of several different varieties for seed trials in various climate zones in the U.S. Primarily due to their efforts, amaranth has become more popular and is now available by mail order from many of the main line seed companies. It is an annual that is usually planted in the spring but may also be planted throughout the summer in our climate. For grain amaranth, the seeds are harvested and, depending on the variety, may be parched, popped, cooked whole, or ground and used as flour. With leaf amaranth, the leaves are edible but become less palatable as the plant matures. There are over a dozen varieties readily available. Some are used primarily as annual ornamentals.

Tepary Beans — Teparies have been grown continuously since the time of the Hohokam and are adapted to our alkaline soil, high temperature and dry climate. The best planting time is during the summer months. Teparies are drought tolerant. One of the most common cultural errors is overwatering which produces lush foliage but reduces bean production. They are harvested as dry beans and should be harvested when the pods turn brown. If left to mature completely as with most dry beans, the pods split and the beans drop and are difficult to collect.

Devil’s Claw — Although the edible young pods of these plants may be prepared and cooked the same way as okra, they are also grown for the mature pods which, when dried, can be used for crafts or as decorations. The plants bloom in the summer, are very heat tolerant, and respond to the humid conditions of the summer monsoon season. White-seeded varieties have been domesticated and grown as ornamentals or for claw characteristics which may be multi-clawed and from several inches to over 1 ft. in length. Our local, wild, black-seeded variety has pods of medium length and I’ve found they are somewhat difficult to germinate in a garden situation but they seem to grow like weeds if left alone.

Sunflowers — One of the easiest American native plants to grow, there are many varieties. The 1996 Burpee catalog listed 13 varieties with one mixed offer of 10 different varieties in the same seed packet. Sunflowers may be planted anytime from the spring planting season through August. Cultural precautions include care in seed saving from cross-pollinated, insect-pollinated plants such as the Burpee mix and consideration of allelopathic growth inhibiting properties which may retard growth of some neighboring plants. Sunflowers are native (Continued on page 7)
Seeds to Plant in July and August

Vegetables: pumpkins and cantaloupe/muskmelons (Jul.), corn seeds and tomato transplants (to Aug. 15), snap beans (Jul. 15-Sep. 1), carrots (Aug. 1-May), broccoli, Brussels sprouts, cabbage, cauliflower, collard greens, cucumbers, kale, head and leaf lettuce, leeks (start Aug. 15). See Fact Sheet MC84.

Flowers: kochia and vinca (Jul.), cosmos and portulaca (Jul.-Aug.), sunflowers (to Jul. 15).

Monsoon Vegetables (Continued from page 6) to the Great Plains of the U.S. and some parts of Mexico and South America and were introduced into Arizona. One of the best known commercial types is the large-seeded mammoth Russian grey-stripe which may grow up to 12 ft. tall with huge heads popular for sunflower contests. But there are also white-seeded, Havasupai striped, and Hopi black seeded that are fairly drought tolerant and interesting to grow.

Seeds of these and other adapted varieties of squash, beans, greens, etc. are usually not readily available at local garden centers but may be ordered by mail order from specialized seed companies such as "Plants of the Southwest," "Seeds of Change," or "Native Seed/Search."

Olin Miller
Master Gardener

Did You Know? (Continued from page 3) Fonda, you get a brilliant yellow that holds up well. A third possibility is Lanvin, which has a light yellow bloom.

Winter dormancy is a familiar concept; summer dormancy is less familiar. The globe artichoke, like some other plants grown in the Valley, goes dormant as a response to our summer heat. The leaves yellow out and the plant dies down to the ground. When temperatures drop into a suitable range, this perennial will begin a new cycle of growth.

Nitrogen is the element most needed by turf for quick green up and growth response. Try and select a fertilizer with some slow release N, that way nitrogen is provided to the turf over a longer period in lesser amounts, resulting in slower growth and less cuttings. But remember, it’s easy to over-water and over-fertilize. You would probably be surprised at how well your turf grass will perform for you with less water and fertilizer, maybe a little more iron, then mowed and kept mowed at the proper height. Keep your mower sharp, then you can sit back and enjoy the quality aesthetics of a beautiful green lawn that you helped create!

Researcher, Anurag Agrawal, whose work was scheduled to be published in the journal Science, has done "the first field test to show how an insect-triggered response [can] ultimately benefit the plant."

Using the wild radish as a plant model and cabbage worms as the "triggering" insect, Agrawal’s work seems to verify the long-held thesis that plants exposed to insect attack early in the growth cycle do better. The plants subjected to this measured munching underwent chemical changes that made them more resistant to other, later, insect predations. What’s more, those plants also had a higher seed yield than the controls.

Dolly Clark
Master Gardener

Turf Maintenance (Continued from page 15) leaving "patchy" spots of brown and green grass. Since Bermuda doesn’t start greening up until nighttime temperatures reach 60°F or higher, the lawn continues turning shades of brown and green. Meantime, I’ve saved over 11,000 gal. of water for each 1,000 sq. ft. of turf by allowing my lawn to go dormant, watering once every 3-4 weeks, and no need to mow during December and January.

For those who insist on a winter lawn, be sure to over-seed hybrid Bermuda with a high quality perennial rye. Even though annual rye is cheaper, it is a larger plant, both in top growth and root growth, and can severely damage the hybrid Bermuda turf, which after all is the grass you enjoy over 9 months of the year. Remember that mowing height, ¼- to ½-in. on 'Tifgreen' and 'Tifway,' and ¾- to 1¼-in. on 'Santa Ana' and 'Midiron;' and mowing frequency, mowing every 3-7 days maximum, are crucial elements to maintaining a beautiful healthy lawn.

Errol Heslop
Master Gardener