Residential Turf Management

Most homeowners look to turf to keep their home looking "clean and green." While some prefer the easy way out by hiring a landscape maintenance company to come in weekly to maintain their landscape, great enjoyment can be experienced by taking an active part in maintaining their turf and landscape.

Maintaining a small area of turf has many benefits, some of which include the "clean and green" aesthetics, cooling effect that turf can have in absorbing the heat from the sun, limiting reflection of the sun rays, and the cooling effect from evaporation and transpiration. Personally, I enjoy the exercise, the fresh air, and the satisfaction of taking care of my turf or lawn area and with a little initiative on my part, I can learn how to care for my lawn properly and efficiently and measure up to the challenge of keeping "my turf" clean, green, and healthy.

Selection of turf variety primarily has to do with the intended purpose of the turf. Is it primarily aesthetics, recreational, play ground for the children (or the dogs), or maybe 'dad' just needs a putting green to practice on? Here in the lower desert areas, hybrid Bermudas are usually the turf of choice. They are very hardy, salt tolerant, and there is a variety or cultivar for most intended functions. For families with dogs or with children, a variety that will take the wear and tear from constant use needs to be selected, which usually means turf with a higher mowing height. For the golf enthusiast, a variety that will stand up to close mowing should be selected and the close cut has a special quality of aesthetics.

There are several cultivars of hybrid Bermudas available, but the selection pretty well depends on the intended purpose, how much time one wants to spend in the yard, and lawn mower available. ‘Santa Ana’ and ‘Midiron’ are two varieties that hold up well under heavy use and can be mowed with a rotary mower at a higher height. ‘Tifway’ and ‘Tifgreen’ can take the close mowing but must be mowed with a reel mower and is usually mowed more often to offer the "putting green" effect.

All the hybrid Bermudas are sterile and must be established by sod, plugs, or hydroseeding. Obviously the sod provides the instant lawn but it costs more. Once we have a beautiful green lawn, how do we maintain it? Most people use more water and fertilizer than is needed and probably no single factor has as direct and far-reaching consequences than the mowing height of the grass. Grass, like other plants, depends on photosynthesis for food production. Cutting too short reduces the food-producing capacity of the turf and can affect the turf’s ability to compete with weeds, insects, and resist disease. Short mowing can be detrimental for the turf in maintaining vigor, ability to access water and nutrients, and decrease the plants’ tolerance to mechanical and environmental stresses, such as heat, drought, and heavy use. Excessive height mowing can also present problems such as disease, thatch build-up, "bunchy" appearance and scalping.

It is not my intent to discourage anyone from having a turf lawn and doing the maintenance themselves. I do want to provoke thought that a beautiful, clean and green lawn does have its challenges but it really isn’t that difficult to achieve.

‘Midiron’ turf was my choice. I mow with a rotary mower once a week, double-cutting the lawn and leaving the cuttings to decompose and recycle the nutrients. I water for 20-25 minutes every 4th day (during the hot growing season) and I haven’t fertilized in over a year, yet my turf remains moderately green and healthy. I check my irrigation needs by probing with a screwdriver to insure I’m getting sufficient water down to a 4-6 in. depth and observe the color and appearance for signs of drought, chlorosis, or nutrient needs. If the turf is showing signs of iron or nutrient deficiency, I provide nitrogen at the rate of 1 lb. of nitrogen per 1,000 sq. ft. along with iron, such as iron sulfate (Ironite). With proper cultural care, disease and insects are seldom a problem and I try to avoid pesticides on my turf.

I also know that many people want a beautiful green and clean lawn the year around. Personally, I like to give my turf, as well as myself, a break. I usually do not convert to a winter lawn. If you stop and think about which is the dominant turf, you would have to agree the Bermuda is since it stays green 9-10 months of the year.

I watch my neighbors preparing their winter lawns, often in early October, hauling bags of thatch to the landfill. Often the weather stays warm and the ryegrass is slow to take off and the yard remains virtually bare and brown for 3-4 weeks then slowly the rye takes off and the lawn is green again. Just about the time when the ryegrass reaches its maximum beauty, hot weather arrives and its time to convert back to the Bermuda. The rye starts dying out.

(Continued on page 7)
Advice on Troublesome Turf

When it comes to our own health we know that prevention often is the best medicine. The same is true with turf. Knowing how to properly care for your lawn will keep it healthy and able to fend off most pests such as insects, fungi and weeds. However, even with the most diligent care, problems sometimes are unavoidable. Based on my experience, these categories cause the most trouble:

**Water** More than 90% of lawn problems are water-related: watering too much, too often or forgetting that desert lawns need more than rainfall. In addition, improper irrigation design without head-to-head coverage is a common mistake. The basic rule is water seldom, but deep, usually 2-3 times a week. Water long enough to penetrate the soil 8-10 in., since 80% of the roots are in the top 8 in. This also will help leach salts below the roots. Water for 30 minutes, wait another 30 minutes, then push a screwdriver into the soil. If it easily penetrates 8-10 in., you have watered enough. If the water does not penetrate 8-10 in. without runoff, it may help to program your sprinkler system to run for a few minutes then shut down long enough for the water to move down. Water a few more minutes, then wait again. Keep this water-and-wait cycle going until the water penetrates 8-10 in. without runoff.

Water often enough to avoid wilt between waterings. Symptoms of wilt include a bluish tinge, and noticeable footprints of crushed grass leaves after walking across a lawn. If wilt occurs 5 days after the last watering, water every 4 days. If wilt occurs after 4 days, water every 3 days. Normally 2-3 deep waterings a week are sufficient when the temperatures are 90°F and above. Most cities have free lawn watering guides on how much water to apply and how often. Get professional advice before installing a sprinkler system.

**Fertilization** The wrong blend, too much or too little causes problems. Use a complete fertilizer with a 3-1-2 ratio of nitrogen, phosphorus and potassium such as 21-7-14, 5-10 lbs. per 1,000 sq. ft. Use every 4-6 weeks (or at least 3 times a year). Sandy soils may need more frequent application. If the turf appears chlorotic or yellow, add supplemental iron.

**Mowing** Problems include mowing too often, mowing with a dull blade or when the lawn is wet. Cut the top 1/2 of the grass only (to avoid interrupting photosynthesis), use sharp mowing blades, change directions each time you mow and remove clippings.

**Thatch** Thatch is a layer of decomposing shoots, leaves and live roots between the soil and the green vegetation. A build-up of more than 1/2 in. can restrict movement of air, water and fertilizer into the soil. Dethatch or verticlut when the thatch reaches a thickness of 1/2 in. The best time to dethatch is when the bermuda is growing vigorously.

**Soil Conditions** Compaction or insufficient soil preparation causes problems. Core aerate the soil, rake up cores and mix with sand and organic matter, then top dress. Wetting agents may aid water penetration. Soil tests indicate nutrient deficiencies.

**Shade** Bermuda does not grow well in shade. Plan well, plant few trees, don’t over-fertilize and mow higher. Or plant St. Augustine or perennial rye in October. The rye may last until August.

**Weeds** There are 3 categories of turf weeds: broadleaf, grasses and sedges. If practical, hand pulling is the first choice for removing broadleaf and grassy weeds. For selective post-emergence control of weeds, you can buy different chemical products labeled especially for broadleaf weeds, grassy weeds, or sedges. For Bermudagrass, use non-selective products. Always check the label and apply and use only according to label instructions.

**Insects** The most common insect problem is pearl scale. These insects feed on the root system. Remove the soil and replace with uncontaminated soil. Or aerate the infected area and apply an insecticide in May and again in June. Other seasonal problems include Bermudagrass mite, grubs or larvae and cinch bugs. Spraying with pesticides can harm beneficial insects, so always identify the pest before choosing a solution. Your local Cooperative Extension Service can help you.

**Excessive Traffic** Physical wear injury to grass and soil compaction can result from excessive traffic. Different turf grass species vary in their tolerance to wear. Excessive traffic compacts the soil, so you may need to core aerate the soil, rake up cores and mix with sand and organic matter, then top dress. Consult a professional and choose the species appropriate for your intended use.

Disease organisms are always present in the soil and thatch, but only become a problem when the grass is weak (Continued on page 14)
Garden Recycling
Tips and Trivia

When I saw the request for a volunteer to write a column about recycling household items in the garden, I knew this was right down my alley. I’m concerned about the environment, as many gardeners are, but I’m also a natural born tightwad. Getting more than one use from any purchased item is a tightwad’s dream.

Are there any other reasons we should reuse materials in our gardens? Despite attempts to reduce waste, the amount of trash produced each day by the average U.S. resident has been rising: in 1990, each U.S. resident produced 4.3 lbs. of trash every day, compared to 4 lbs. in 1988 and 2.7 lbs. in 1960. (The 1994 Information Please Environmental Almanac, World Resources Institute, 1994.)

What can you use a second time? A simple plastic milk bottle can be reused in many ways. Cut off the front quarter of the bottle in front of the handle and use the remaining bottle as a scoop to water delicate plants or use it to mix liquid fertilizer. Also, cut the bottle the same way and keep it under the sink to collect vegetable scraps for the compost pile. Poke several holes in the bottom of a whole plastic milk bottle and fill it with water and use it as inexpensive “drip” system for plants.

I’ll have many suggestions to offer about reuse in future issues, I may not have tested every use I list, so any feedback or suggestions you pass on to me would be appreciated.

Coral Gallaher
Master Gardener

Website Wins National Award

The Maricopa County Home Horticulture website, “Environmentally Responsible Gardening,” was jointly recognized by the National Association of County Agricultural Agents (NACAA) and AT&T Communications recently for excellence in World Wide Web media. The award will be accepted by Lucy Bradley, Maricopa County Urban Horticulture Agent at the NACAA Conference in San Antonio, TX in July.

To visit the award-winning website, just type in the address: http://ag.arizona.edu/maricopa/garden/

Prodigious Tomato Plant

Decades ago I read a success garden story in Sunset Magazine by a California woman who harvested 228 tomatoes from a single plant. For years I sought to equal or break her record but failed to even approach it. Shortly after moving to New River, I renewed my efforts with some remarkable producers but still fell far short of her 228 total. Finally, eureka! From a single plant I took a whopping total of 342 fruits without counting the ones damaged by birds and mealy worms. The champion plant was a variety called Early Pick, probably an offshoot from the Early Girl which was developed in France. The tomato originally was a wild plant (weed) growing in the tropical Andes Mountains making its way via Mexico to Europe where it was long believed to be poisonous. Early Pick is an indeterminate variety that produces over a longer period than determinate types. I chose not to stake it, inasmuch as I’ve observed that sprawling vines seemed to set more fruit. The plant’s roots were in a sink with the elevated vines generally remaining dry. It produced early and over a long period.

For more than a week during its peak period I harvested up to two dozen fruits per day. The red fruits were medium sized, averaging 5 or 6 oz., sweet but with enough acid for distinct tomato taste. Friends and neighbors graciously saw that none went to waste. All this from a seed smaller than a freckle.

Alas, I have never been able to repeat this feat with an Early Pick or any other variety. Why? My garden soil was no longer virgin and mother nature hasn’t repeated the idyllic conditions of plentiful winter and spring rains, warm but not hot temperatures, and a minimum of insect pests. Our two nearby hives of Italian bees assisted the prevailing southwest winds in efficient pollination.

Then a friend on a Hawaii golfing vacation brought back a packet of sweet onion seeds from Maui, pushing tomato production records into a lower priority. Just consider, our 10th Annual Sweet Onion Festival could have been our 10th annual tomato festival instead. Ugh!

John JJ Ward
Master Gardener
Compost is King

Compost Bins

It was a day to do something a wee bit, well, eccentric. After reading the morning newspaper, I went outside to the compost bin and literally ran fingers through the warm, rich, home-grown compost with a very thankful touch. The front page headline in the March 27th edition of the Arizona Republic newspaper, “Toxic waste in fertilizer,” was certainly not calculated to reassure me about the health and safety issues involved with food production. I’ve got my fingers crossed, waiting for science to refute this headline and I have to tell you a big secret... it’s really, really hard to work in the garden with crossed fingers.

Now that you’re considering doing the community-friendly and Mother Nature-friendly thing and recycle at least some of your home-produced organic wastes, it’s time to consider what’s available to use as a compost container, which is often called a bin. If you’ve composted before, then you’ve already ‘bin’ there. 

<grim>

Does this mean your compost factory “Micro-workers” are demanding perks like premium housing or they’ll go on strike? Not really. Compost happens! What it does mean is setting up the best conditions you can in order to make the compost production as efficient as possible. There’s a wry irony in being a small-scale farmer or a home gardener because the need for compost always seems to outstrip the available supply! That may be the reason some composters have outdoor piles so big they have to turn them with front end loaders. They must have been really tired of running out of compost! It only makes sense to make conditions as congenial as possible for your tireless microbes.

People may be frugal and create a compost factory out of materials they happen to have around the home. This type, created of recycled materials, can provide a great supply of wonderful compost. If design and convenience are incredibly important to the gardener, then an elegantly engineered and much more expensive commercial bin might be just the thing! For those who are budget-minded and would still like some design features, it is easy to buy the relatively inexpensive components necessary to build a very nice compost bin. Often garden centers will have markdowns and clearance sales of plastic composters which may be snapped up for very little money.

The major cities of Phoenix, Mesa, Tempe, Gilbert, and Chandler have made composters or information kits available for free or for very low cost to residents, depending upon which city you reside within. Call your local municipal recycling or solid waste department for further information. A local resident, Al Franke, sent me two Polaroid pix of a pair of ‘posters he obtained from the city of Phoenix and he reports they work well for him. Way to go, Al!

The key factors that affect the compost factory assembly line are fairly simple, but whatever style of bin you select should meet the need for several requirements. These include allowing sufficient oxygen to circulate within the bin, assist in the retention of sufficient water for the bacteria to do their work, and hold the proper balance of raw organic matter in one place for the “good guys” to flex their “micro-muscles” upon.

Happily, bins can be constructed from wood, recycled wooden pallets, wire fencing, wire mesh, trash cans, metal drums, and even concrete blocks. (Some things to consider: Concrete blocks are said to leach lime into the soil which, depending on your soil chemistry, might not be a good idea. There is also controversy about arsenic leaching out of pressure treated wood and into the soil. You might want to delay using this type of wood product in your vegetable or herb garden until results are scientifically obtained to your satisfaction regarding plant absorption of these toxins. Unless you’re planning to eat your flowers, this type of wood could be used in building a composter whose sole output would be for an ornamental flower bed.)

The type of bin you select will be guided by your answers to questions such as: How much yard and kitchen waste will you have to compost? What design fits your budget? What are your preferences for ease of use, attractiveness, and convenience?

Ideas to aid personal selection: Is the organic matter easily accessed? That is, is the door, lid, or side of the bin easy to open and use? The bigger a pain in the bin it is to use, the less it will be used... this rule of human nature often applies. Will you be able to pick up the single bin, if you need to, and move it without straining your back or your knees? Does it need a cover to help retain moisture or prevent excess moisture during the rainy monsoons or do you have a sheltered area for the bin? If tumbler-style (Continued on page 19)
Compost is King (Continued from page 18)
commercial composters are desired, will you have the upper body strength to turn the drum? Is the design pleasing to your sense of proper garden style? Having to live with a composter design that irritates you can spoil the enjoyment of creating the best natural soil amendment possible for your personal slice of earth-y paradise.

Some composter design ideas include:

1. A wire mesh bin with a hinged front opening panel; made of wire held taut with sturdy wooden frames which are either nailed or screwed together (Composter A). Another style of a wood & wire bin is one built of 1 X 2’s and chicken wire (Composter B). This style of bin is light enough to pick up and move instead of opening a panel for access to the compost. This style can also be hinged to open.

2. A three-sided cement block bin with an open front; the open side can have a board placed across the opening (Composter C). Openings in the concrete blocks are positioned to allow for air flow into the heap from all sides. If you have solid blocks, the blocks can be stacked in such a way that there are air spaces between them. If more compost is needed, this principle can be expanded to stacking bales of straw to form the bin. The straw itself may be composted later.

3. A circular bin made from chicken wire or other sturdy wire; often stabilized with stakes driven into the ground (Composter D). The bin may be held closed with hooks and eyes mounted on a wood slat or the ends may be held closed with a bent wire. A 10-ft. length of wire fencing will create a bin with an approximate diameter of 3-ft.

4. A four-sided box with a removable front panel (Composter E). While similar to the first bin, this one is created out of recycled wooden pallets, garden lattice, snow fencing, or similar materials. The spaces between the slats provide for air circulation.

5. A “food grade” metal barrel (Composter F), a large wooden barrel, or a very large trash can be possible compost bins. Big 1½- to 2-in. air holes should be drilled through the sides for ventilation. The bottom is open for drainage.

6. Special situation composter bins such as tumbling systems or worm composting bins will be discussed in a later article.

The minimum size for a bin is considered to be 3-ft. long by 3-ft. wide by 3-ft. high (3 X 3 X 3). If the dimensions are less than that, the pile has a difficult time retaining the necessary amount of heat to make the rapid decomposition work. The maximum size for the home garden is often considered to be 5 X 5 X 5, but it gets rather awkward to turn and oxygenate the materials when it’s that big. The good news? You can have more than one bin working for you!

In fact, the classic composting system consists of three “turning” bins (Composter G). You can make one bin work quite easily; you’ll just have less compost. The first bin, the “working” bin, contains the newly added raw organic materials you’re handing off to the Micro-workers and ‘feeding’ into the assembly line. If you’re using a one bin system, then you will eventually find your finished compost at the bottom of this bin. The second bin contains the newly stirred, re-oxygenated, and partially decomposed organic materials that were removed from the “working” bin. This second bin is called the “finishing” bin. The compost then finishes turning into the brownish-black gold you’re dying to spread in the garden.

There are several possible uses for the third bin. It is most commonly used as a second “finishing” bin for another cycle of newly turned and re-oxygenated organic materials from the first finishing bin. It can also be a “holding” bin to contain your wonderfully rich compost until you can use it in the garden. This bin may even be used as the first step in the composting sequence by using it to store leaves and other dry organic materials which can be added to the “working” bin as needed. Most of the dry organic matter I use comes all at once from seasonal leaf drop, so I collect it in a holding bin, keep it covered, and use it as needed throughout the composting season. It seems to be more difficult to find enough dry, carbon-rich organic matter than the moist, green, nitrogen-rich organic wastes. We’ll find out why that matters in the next issue.

C. Dawn Earle
Master Gardener

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Healthy Gardening
Arizona Sun Sense

Arizona has more than 300 days of sunshine each year. The sun provides heat and sunlight, and as Arizona gardeners we must learn to live safely with both the sunlight and the heat.

Heat stress occurs when the body is unable to regulate its temperature. In extreme heat, strenuous activity can overload the body’s temperature regulatory system. When this happens:
- More blood flows to the skin for cooling, so less blood is available for the brain, internal organs, and working muscles.
- The body loses large quantities of fluid and salt through perspiration. If perspiration doesn’t evaporate, the body isn’t cooled. The body generates more heat than it loses through sweat evaporation.
- Sometimes the temperature-regulating system fails and sweating stops completely.

Heat affects everyone, especially the young, elderly, athletes, outside workers, and people who are ill, overweight or physically unfit. Some medications can cause dehydration by increasing heat production, decreasing thirst or decreasing sweat (e.g., thyroid hormones, antihistamines for allergies, some blood pressure medicines, etc.). If you are on medications, check with your health care provider about any potential heat or sun problems.

There are 3 main reactions to an extremely hot environment: mild heat disorders, heat exhaustion, and heat or sun stroke.

Mild disorders consist of fainting, cramps and prickly heat. With lightheadedness or fainting, the body has difficulty coping with the heat since dehydration causes the body to reduce skin blood flow. So remember to move around in the heat, stretch to improve circulation, and drink plenty of fluids. If a person does faint, keep them lying down and cool. If awake, give fluids. Muscle cramps usually occur in the legs and abdomen. There is no fever. If you experience muscle cramps, move to a cool place, drink ½ to 1 glass of water every 15 minutes for an hour, massage your cramped muscles and cool them with water. Prickly heat is a skin rash caused by heat and humidity. When sweat doesn’t evaporate, the sweat ducts become clogged and sweat glands become inflamed. To prevent this, keep the skin as dry as possible, shower often and wear fast-drying cotton clothing.

Heat exhaustion is caused by failing to replenish fluid lost in perspiration. Symptoms include: sweating, cold, pale, clammy skin, a normal body temperature (no fever), dizziness, fainting, weakness and nausea. First aid involves moving the person to a cool place and having them lie down on their back with their legs elevated. Fan the person and sponge them with cool water. Offer a conscious person a half glass of cold water every 15 minutes until they feel better. They may need medical help.

Heat stroke occurs when the body cannot cool itself because the temperature-regulating system is overloaded. This is a medical emergency. Heat stroke can occur suddenly, with little warning, causing permanent damage to the brain and vital organs, and possibly death. Symptoms include hot flushed skin, fever greater than 105°F, usually no sweating, confused and delirious behavior, shock (low blood pressure), loss of consciousness and coma. First, call for medical help! Put the person in a cool place lying down with their feet elevated. Fan and sponge with cool water. Offer a conscious person, cold water to drink every 15 minutes.

Heat Stress can effect your coordination, lessen your concentration, reduce your strength and alertness and make you irritable. You are more accident-prone when working in the heat. In hot weather, you must be alert for hot surfaces that can cause burns, spills and falls, and impaired vision due to foggy glasses.

There are three steps to avoid heat stress:
- Acclimatize - allow your body to adjust to the heat, gradually increasing the time you spend in the heat, until you reach the total time desired (most people need 4-7 days).
- Adopt special habits - Drink water, avoid alcohol, and eat light and nutritious meals (Fatty foods are harder to digest in hot weather). Plan ahead to do more strenuous work during the cooler parts of the day. Rest often, take short frequent breaks in the shade or air-conditioning. Don’t use salt tablets, they slow down water absorption.
- Use personal protective equipment - for outdoor work and recreation. Wear wide-brimmed hats, sunglasses, sweatbands, proper footwear and protective clothing.

Vicky Burke
Master Gardener, Certified Pediatric Nurse Practitioner
Summer Rose Care

Now that summer is upon us in earnest, it’s time to consider not just summer care, but in some cases survival of our roses. The high temperatures have afforded us respite from powdery mildew, but have created another problem, that being high soil temperatures. To alleviate or at least minimize the affect, I have found shade cloth to reduce soil temperature by as much as 9°F in beds and 11°F to 12°F in pots, depending on their size. The pots themselves can contribute to a variance in as much as 5°F. Black plastic pots absorb tremendous amounts of solar energy. I have found this can be minimized by painting the entire pot with a white primer and following it with 2 coats of white roof coating, which is effective in reflecting heat. Another method that I have employed with good results is to line the interior of the pot with 1/8-in. Styrofoam or a 2-in. layer of peat moss. The latter allows more water to be held and as a result, more evaporation and cooling. Raised beds also should be lined with Styrofoam. These methods, however, must obviously be accomplished at planting time or when building beds.

Water is absolutely of prime importance at this time of the year. Plants in the ground require less water than pots but still need copious amounts of water. The one factor to watch is drainage. If the roots remain in saturated soil, the plant will suffer from oxygen deficiency shown by inter- venal chlorosis, yellowing of new leaves or a heavy leaf drop of older leaves. Soil make-up will determine how much water will be drained or retained. Remember, sand drains rapidly and clay slowly. Adjust your watering schedule to your individual soil. Too many plants are sacrificed in the summer to the credo “Water, water and more water” without regard to the type of soil. Beds should be flooded to leach out any salt accumulation every two weeks and pots every week. You may see calcium buildup on the outside of clay pots. This will harm nothing but the appearance of the pot.

Hosing off the bushes as early as possible in the morning or late in the evening will have a dual affect. It will cool them and wash off dust and detrimental insects. By hosing the underside of leaves the stomates are unobstructed and carbon dioxide oxygen exchange and evapotranspiration are enhanced. Spider mites are found primarily under leaves and are washed off by this spray as are any whiteflies and other detrimental insects.

If plants are to remain viable even in an induced semidormancy during the summer, they must be fed, which brings up the subject of fertilization. Full fertilizing to produce vigorous new growth now will produce drying canes and no flowers. By using a half dose organic or slow release fertilizer you can maintain healthy plants until fall when a heavier fertilization may be employed.

Spraying, if any, should be remedial rather than preventative. Spider mites are predominately your only pest to deal with outside of whiteflies and can be done away with by the hose technique or detergent and water if you’re so inclined. Do this early in the morning before the sunlight hits and potentially burns the leaves.

Leaving spent blooms on the bush is a matter of opinion. One thing you may consider is leaving them on the plant since this will add to the shade and help prevent sunburn to the canes. If you do remove them, only cut down to the first set of leaves to again provide shade. Full deadheading can be resumed in mid- to late September.

Mulching, even now, will help reduce water loss and keep the soil cool and allow for root growth to produce those beautiful fall blooms. The type of mulch is a matter of preference so long as it serves its purpose. Three- to four- in. thickness does wonders.

After doing all this, sit back with a cold glass of lemonade and enjoy the rest of our “Dry Heat” summer and look forward to healthy fall plants and a prolific bloom.

Larry Bell
Master Gardener

1998 Fall Garden Fair
Saturday, October 17
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Free Admission
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