

Chester County Water Resources Authority

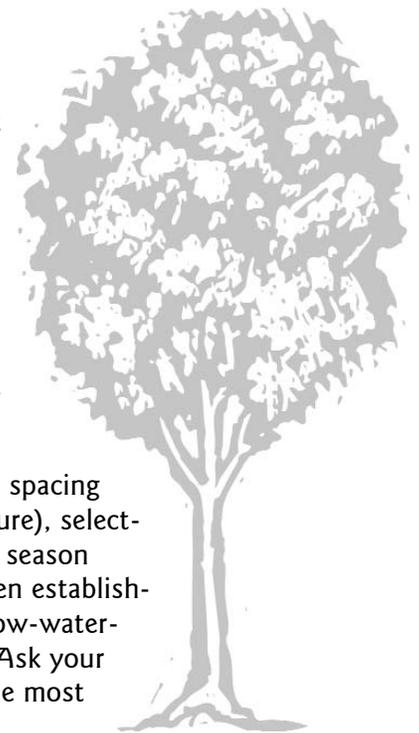
Surviving Summer with a Healthy Lawn

A recent study published in 1993 found that between 30 to 60% of urban fresh-water is used for watering lawns (depending on the region) (F. Bormann, et al, 1993). If you decide to water your lawn, careful oversight and planning can help you save a valuable resource—water. This brochure includes several easy-to-do tips to keep a healthy lawn without wasting water. The material presented here is taken from an article written by Joe Provey that appeared in the July/August 2000 issue of *Handyman How To* magazine, and is reprinted here with permission from the Handyman Club of America. Please remember, **lawn watering is not recommended during droughts.**

Efficient designs

As you improve your yard's design, remember that mulched beds around the perimeter of your yard conserve water in the entire yard. They act as a sort of moisture reservoir by holding water and reducing evaporation. Deciduous trees, fences, arbors and trellises shade beds and lawns and help reduce evaporation and irrigation needs. Just be sure you mulch under the plants so they don't compete with the lawn for limited moisture during dry spells.

Other drought-busting designs include wider plant spacing in garden beds (crowded plants compete for moisture), selecting plants that flower and bear fruit before the dry season begins, and choosing drought-tolerant plants. When establishing a new lawn or overseeding an old one, select low-water-consuming grasses, such as turf-type tall fescues. Ask your county extension agent for recommendations of the most suitable grasses for your area.



Don't direct all runoff, especially from roofs, to one place. Too much water can saturate garden soil. This, in turn, may cause roots to rot or trees to topple because the muck cannot hold them in place. Distribute drainage water over as large an area as possible via perforated drainpipes or gravel-filled swales and trenches. Or collect it for future use. Several new versions of the old-fashioned rain barrel have reappeared in garden catalogues, complete with fittings for leaders (downspouts) that divert rainwater in the barrels and valve fittings that make it easy to use the collected water for irrigation.

When designing an irrigation system, put lawns and planting beds on separate zones. Lawns usually need more frequent watering than garden beds. And you might want to direct even more water to lawn that is heavily used or highly visible.

Water rights

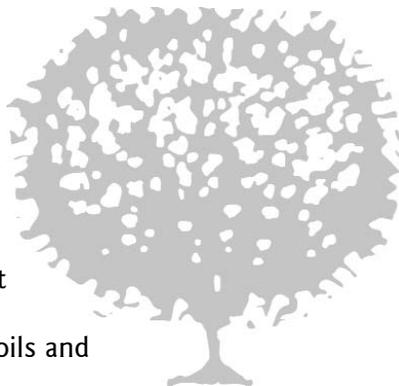
Water when your grass and other plantings are thirsty. Sounds simple, but unless you take a moment to observe your lawn and gardens, you will most likely run your sprinklers more than you need to. This is especially true if your sprinkler system is on an automatic timer. Thirsty grass looks limp and takes on a bluish or dull green color. Blades will begin to fold or curl lengthwise, and when you walk on the lawn, you'll leave footprints. The leaves on shrubs and trees will begin to droop and curl as well. These are your cue to water.

When you do water, do it long enough to get to the root of the problem...er, plants. Wait until it has not rained for several days. Set out several randomly spaced cans (large tuna cans work great). Turn on the sprinklers and check your watch.

When an inch of water accumulates in all of the cans, turn off the water and note the time. The next day, cut a wedge from your lawn with a garden spade. If the moisture has reached the roots, run your sprinkler the same amount of time each week. If the water has

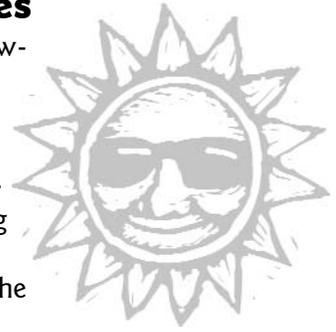
not reached the bottoms of the roots or has penetrated even deeper, adjust your watering time accordingly. Water longer if your soil is porous (sandy) and in very hot and windy weather.

Water less with clay soils and in cool weather.



Dry spell strategies

In dry weather, increase mowing heights to reduce water use and lawn stress. A sharp mower blade will cut more cleanly and slow evaporation. Hold off on applying fertilizer: promoting growth during a drought increases the plants' need for water.



If you're fighting a losing battle and it's not yet August, consider allowing all or most of your lawn to go dormant. Dormancy is the grass plant's natural defense against drought. Although the leaves are brown and look dead, the crown of the plant is alive and will grow new leaves once the rains return.

Established lawns can survive up to several weeks without water. Warm-season lawn grasses, such as Bermuda grass, can last even longer. When the rains do arrive, the grass should green up rapidly. If drought conditions persist, a deep watering (1 in.) every two or three weeks (depending on the grass variety) should keep the crowns hydrated and allow your plants to survive. **Caution: don't allow a lawn that is less than two years old to dry out or you might lose it.**

Despite their deeper root systems, trees and shrubs also need to be watered during long dry spells. Use a soil needle (root feeder) attachment for a garden hose to apply water to newly planted trees and to all shrubs. This accessory, available at many garden supply stores, allows you to get water to the root one without runoff or evaporation. Once a month during the summer, soak the soil under established trees and shrubs. Lay a soaker hose under the entire tree canopy and allow the water to run for several hours.

Preventive measures

Promoting root growth is key to enabling plants to survive drought. First, avoid overwatering in the spring. By allowing your soil to dry slightly, even to the point where lawn and plants show early signs of wilt, you help foster deep and high-volume root growth. Dethatch and core-aerate in the spring and fall—not when your lawn is stressed by drought.

Avoid synthetic fertilizers. Their high salt content robs plants of moisture. Test your soil for potassium, a necessary nutrient for root development, and apply slow-release organic fertilizers in the fall.

Apply landscape fabric and mulch over garden beds and around trees to conserve soil moisture. Work composted organic material into the soil when possible. It acts like a sponge to soak up and retain moisture.

Equipment issues

An obvious way to save water is to fix leaks at hoses, sprinklers, sprinkler heads and sillcocks. If you tolerate a small drip, it will add up to hundreds of gallons over the course of a season. Common causes of hose leaks include missing or worn hose washers, bent fittings (usually from running over them with the car), and faulty spray nozzles or sprinklers. Washers, nozzles and sprinklers are easy to replace. Sillcocks will either require new washers or packing around the valve stem.

If you have an in-ground sprinkler system, check for uniformity of coverage by laying out open containers in a grid pattern throughout the area being watered. If some containers fill faster than others, the uneven coverage may be causing you to over-water some areas in order to adequately water others. Most sprinkler heads can be adjusted to control the flow of water. Or call your installer to correct the problem.

If you water your lawn with portable hose-end sprinklers, select designs that apply water in fine droplets intermittently and in rectangular patterns. These units reduce the chance for waste by runoff and make it easier to position the device to apply water uniformly without wasting it on sidewalks, streets and driveways.

Invest in timers (either built into the sprinkler or installed at the sillcock). Studies show that homeowners who use hose-end sprinklers typically apply twice as much water as necessary! With a timer, however, you won't forget to turn off the sprinkler.

Caution: programmable timers that turn on and off automatically at the intervals you pre-set have a downside—they run rain or shine!



Think “Safety First” when Mowing Your Lawn

Follow these basic safety steps:

- ♦ Read all operating instructions.
- ♦ Keep equipment well-maintained.
- ♦ Dress properly for the job (sturdy shoes, long pants, no loose jewelry).
- ♦ Store gas in an approved container, away from the house.
- ♦ Clean up and clear the area before you start.
- ♦ Keep hands and feet away from moving parts.
- ♦ Never take passengers.
- ♦ Turn off the engine and remove the key when leaving equipment unattended.

Sources

Easy Gardener (Ross Root Feeder)

Waco, TX, (800) 327-9462
www.ushg.com

Gilmour Group (timers), a division of Vermont American

Somerset, PA, (800) 458-0107
www.gilmour.com

Bormann, F. Herbert; Diana Balmori; Gordon T. Geballe,
Redesigning the American Lawn, Yale University Press, 1993)





There are many other tips and techniques for managing your lawn in a fashion that is environmentally responsible. You and your family may have other techniques that work for you.

Share them with us!

Send in your ideas for “Caring for Your Lawn” and we will put them on our website to share with others. If you have questions concerning the ideas in this brochure, or would like additional ideas on ‘Watershed Stewardship’ or ‘Backyard Conservation’, please contact us.

WE’RE HERE TO HELP!!

Remember, “watershed stewardship” is everyone’s responsibility. But it can also be fulfilling. This weekend as you go about your chores, look at your watershed and be a watershed steward!!

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Tel: 610-344-5400
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Website: www.chesco.org/water.html
Email: wauth@chesco.org

Other sources of information and assistance:

Chester County Planning Commission
610-344-6285

Chester County Conservation District
610-696-5126

Chester County Health Department
610-344-6526

Penn State Cooperative Extension of Chester County
610-696-3500

Natural Resources Conservation Service, U.S. Department of Agriculture
(Chester County Office)
610-696-0398

