Farmers know the importance of conserving water, not only during periods of extreme dry weather, but throughout the growing season and beyond. Just as most of us are taught from childhood not to waste food, water conservation is similarly ingrained in the farmer’s psyche. Farmers use a variety of methods to conserve water. They know that soil composition plays a key role in helping plants cope with drought. The clay soils that are found throughout much of Maryland can harden and become brick-like under prolonged hot, dry, sunny conditions. To conserve moisture and reduce evaporation on sun-baked crop fields, farmers leave the stalks and leaves of harvested crops on the ground to create a type of natural mulch for newly planted crops. This practice, known as conservation tillage, can reduce evaporation by up to 35 percent. Winter cover crops of rye, wheat, or barley also help farmers conserve water. They help slow down rainwater runoff, control erosion, and recycle leftover nutrients remaining in the soil after the summer harvest. When lack of rainfall threatens the survival of a crop, farmers rely on high-efficiency irrigation systems that are designed to minimize evaporation and maximize the amount of water that reaches a crop field. During the past several years, many areas of Maryland have experienced persistent drought conditions, prompting backyard gardeners to keep an eye on the sky while practicing water conservation techniques in earnest. If you rely on the garden hose to keep your lawn green and your garden lush and attractive during dry conditions, consider the following water-wise tips.

Coping with Drought Conditions

- Be aware of water restrictions in your area. Watch or listen for news reports. Drought information and restrictions will be posted on the Maryland Department of the Environment’s website at mde.maryland.gov.
- Obey both voluntary and mandatory restrictions.
- If outdoor watering is restricted and you are limited to using a hand-held container or hose with an automatic shut-off valve, establish a priority system for your plants. First, determine which landscape plants are most susceptible to water stress. Large shade trees and mature shrubs can usually fend for themselves unless they begin to show signs of wilt or their root systems have been disturbed recently.
  1. Newly planted trees and shrubs should be given priority.
  2. Perennials, fruit trees, and vegetables are next in line.
  3. Established turf, ornamental grasses, and annuals should be placed at the bottom of your watering priority list. These are usually drought tolerant.
**PLANT SMART**

Use native and beneficial plants that grow here naturally and are adapted to Maryland’s climate and soil types. The plants shown here may need watering until they are established or during extended dry periods, but they should hold their own in most Maryland backyards with minimal care and maintenance. Contact your local nursery or the Home and Garden Information Center (HGIC) for additional suggestions.

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The Grass Isn’t Always Greener

Many species of turf naturally go dormant during the hot, dry summer months. It is not necessary to water grass that has gone dormant. The grass will green up once the rains return. Here are a few more tips to help see your lawn through the inevitable dry spells:

- Don’t select grasses that need a lot of water. Tall fescue is both drought-resistant and pest-resistant. Visit extension.umd.edu/hgic for recommendations.
- Mow the grass higher than usual to prevent scorching, reduce weed problems, shade the soil, and conserve moisture.
- Don’t walk on grass that has been stressed by drought. This will further damage the grass. Footprints and a blue-grey appearance are signs that a lawn is thirsty.
- If you must water your lawn (and watering of grass is not prohibited), do so early in the day with a sprinkler. As a rule, water less often for longer lengths of time. Avoid frequent, light watering—it promotes shallow root growth and weed problems, shade the soil, and conserve moisture.
- Don’t reseed or fertilize your lawn during the summer dormancy period. Late summer or early fall is the best time to reseed lawns (between August 15 and October 15 for Central Maryland).
- Fertilizer lawns between September and November 15, as long as the ground is not frozen. Never fertilize if heavy rain is forecast.
- It is unnecessary to apply fertilizer to lawns in the spring. So doing may contribute to nitrogen runoff.
- Don’t plant grass where it won’t grow. Grass is not always the best choice for steep slopes, shady areas, or walkways. Problem areas will only get worse during dry conditions. Plant ground covers instead.
- Perform a soil test in the fall and follow the recommendations to improve your soil. Soil testing information and soil sample bags are available at extension.umd.edu/hgic.

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**PERENNIALS**

- **AMERICAN BEAUTYBERRY** Callicarpa americana
- **PINXTERBLOOM AZALEA** Rhododendron periclymenoides
- **NEW JERSEY TEA** Ceanothus americanus
- **RED OR BLACK CHOKEBERRY** Aronia arbutifolia A. melanocarpa
- **SOUTHERN ARROWWOOD** Viburnum dentatum
- **SOUTHERN HAWTHORN** Crataegus orientalis
- **SPICEBUSH** Lindera benzoin
- **WITCH HAZEL** Hamamelis virginiana
- **AMERICAN HOLLY** Ilex opaca
- **WHITE FRINGETREE** Chionanthus virginicus
- **DOWNY SERVICEBERRY** Amelanchier arborea
- **EASTERN REDBUD** Cercis canadensis

**SHRUBS/GRASSES**

- **BAMBOO** Phyllostachys nigra
- **BIRDSEYE VIOLET** Viola canadensis
- **CHAMOMILE** Matricaria chamomilla
- **TALL FESCUE** Festuca arundinacea
- **TICKSEED SUNFLOWER** Coreopsis tinctoria

**SMALL/MEDIUM/ORNAMENTAL TREES**

- **PLUM** Prunus species
- **CHESTNUT OAK** Quercus prinus
- **PITCH PINE** Pinus rigida
- **WHITE PINE** Pinus strobus

**SHADE TREES**

- **BLACK LOCUST** Robinia pseudoacacia
- **RED MAPLE** Acer rubrum
- **PIN OAK** Quercus palustris
- **COMMON PERSIMMON** Diospyros virginiana
- **PIGNUT HICKORY** Carya glabra

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Give Landscape Plants, Shrubs, and Trees a Fighting Chance

- Watch for signs of stress caused by drought. Wilted, curled, dull, yellowed, or brown leaves and undernourished fruits and vegetables are signs of thirst.
- Use mulch to help plants retain moisture and reduce evaporation. A two-inch layer of mulch or compost is recommended. Too much mulch will prevent water from reaching plant roots.
- Condition your soil. Water does not easily penetrate clay soils and passes too quickly beyond plant roots in sandy soils. Mix in organic matter to increase the penetrability of clay soils and the water-holding capacity of sandy soils.
- Water landscape plants early in the day to reduce evaporation. Avoid watering at night—it promotes disease.
- If you must water at night, keep water off plant leaves.
- Create a shallow depression around newly planted trees and shrubs to catch and hold water.

Become a Water-Wise Gardener

- Purchase a rain barrel equipped with mosquito netting to store rainwater runoff from downspouts.
- Don’t waste water; repair leaking hose connections.
- Use a rain gauge to monitor rainfall and apply additional water to plants only if needed.
- Check the soil in your garden or flower bed before watering. Wilting plants are not always thirsty—they could be getting too much water. Using a screwdriver, dig 4 to 6 inches to see if the soil feels moist and cool. If so, leave it alone.
- Shut off the hose when moving between plants or purchase a water wand with a shut-off valve.
- Invest in a soaker hose or drip irrigation system to further conserve water. Slow, steady watering at the root area reduces evaporation substantially.

(List continued on back panel.)