



HORTICULTURE

TIPS



Division of Agricultural Sciences and Natural Resources * Oklahoma State University

July 2011

Saving Water in the Yard during July

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Don't be discouraged if the heat is beating your plants this July. There are several actions you can take in your landscape that will keep your plants looking good despite the lack of rain and high temperatures. Keeping an eye on your plants and giving them a little TLC when needed will help to avoid these problems. Be aware that some plants may need more water than others during the summer. Here are some ways that you can save water in the yard while maintaining a healthy landscape.

- Mow the lawn at the highest recommended height. Bermudagrass can be mowed at 1-2 inches and tall fescue lawns can be mowed at 3 inches during the summer.
- Use a mulching mower blade and leave grass clippings on the lawn.
- Keep the mower blades sharp. Dull blades tear the grass as opposed to giving it a clean cut.
- Avoid fertilizing cool-season grasses such as tall fescue in the summer.
- Aerate the lawn when needed. Aerating is the process of taking small plugs out of the ground to increase oxygen flow, soil drainage, and nutrient intake. When the soil is healthier and can breathe, the water that is given to the turf can soak in better, and decreases wasted water due to runoff. An aerator machine can be rented from a farm equipment store. There are several types of aerators, but the best one to use is a *core* aerator because the spikes on the machine are hollow as opposed to solid spike aerators.
- Use automatic pop-up irrigation sprinklers with a rain gauge. The rain gauge will tell the system to shut off when it has rained recently, avoiding excess watering. Pop-up sprinklers also avoid the need to manually move the sprinkler around the yard, saving labor and time. They also go back into the ground so that the mower can easily go over them and foot traffic can easily walk across them.
- Avoid watering when it has rained in the past 24 hours or it is going to rain in the next 24 hours. Always check the weather forecast and avoid unnecessary irrigation events.
- Water early in the morning. Watering late at night can increase disease problems that happen when water sits on the leaves overnight. Watering during the heat of the day can lead to water loss through evaporation.
- Use drip irrigation. Drip irrigation saves 80% more water than sprinklers. Drip irrigation slowly releases water into the soil, or drips on the soil. Slow water release allows the plant time to soak up all the water, eliminating runoff. Drip irrigation also releases water at the base of the plant, avoiding unneeded water on the leaves. Drip irrigation systems do have to be checked regularly for clogs or salt accumulation. Clogging can prevent water from reaching the full length of the irrigation line, and excess salt can kill the plants.

If you have flower beds or beds with shrubs, trees, annuals, perennials, and/or groundcover, here are some tips to save water.

- Water plants at the base. Water where the plant meets the soil to avoid wasted water on the leaves. The plant needs water in the roots, not in the leaves.
- Mix compost into the soil. Amending the soil with compost in flower beds will add nutrients to the soil and help the soil retain moisture, reducing the need to water.
- Add a 3- to 4-inch layer of mulch to flower beds. This will help retain moisture, reducing the need to water, will help maintain constant soil temperatures for the plants, and reduce weed growth. Pine mulch is best recommended because of its organic ability to break down into the soil, and for its dark color that absorbs the light as opposed to reflecting the light back on to the plant. Light colored mulches reflect light back on to the plant, which can sunburn the plant and also cause it to need more water.
- Pull weeds when they are young. Weeds compete with bedding plants for water. Eliminating them when they are young will save water in bedding areas.
- When planting plants, group them together in the landscape according to water needs. Plants that require a lot of water should be placed with other plants that require a lot of water, and vice versa. This tactic reduces wasted water, disease problems, and dead plants. When plants are randomly placed together and they receive the same amount of water, the plants that need very little water may get fungal and disease problems because they are receiving too much



water, and/or the plants that need a lot of water may die because they are not getting enough water.

- Choose plants that can take the heat and naturally save water. There are many trees, shrubs, annuals, perennials, groundcover, and grasses that are drought tolerant in Oklahoma.
- Water in the morning. Watering late at night can increase disease

problems that happen when water sits on the leaves overnight. Watering during the heat of the day can lead to water loss through evaporation.

- Water infrequently and deeply. Let the soil dry out between waterings. Overwatering can be harmful to plants by reducing available oxygen in the soil.
- Check the soil to see if it is dry. Instead of watering on a schedule,

check the soil to see if it needs to be watered. Check at a 3-inch depth, and if it's dry, it's time to water. This can be done with your finger or with a trowel or shovel.

- Place plants that need a lot of water in places that tend to naturally collect a lot of water. Pay attention to areas in your yard that collect more water than others, and plant the plants that need more water in those areas.

Wondering what to do with Damaged Crapemyrtles and other Shrubs?

David Hillock

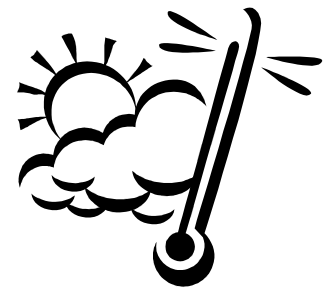
We continue to get questions from the public regarding plants damaged this past winter. Plants such as crapemyrtle, photinia, and some of the hollies have been the plants most talked about, especially the crapemyrtles. By this time you should be able to tell what is alive and what is not. Some plants have surprised us and have done much better than I anticipated; others have not fared so well. Due to the heat we are currently experiencing, I would not recommend any

drastic pruning at this time. However, it is okay to remove any dead wood. Remove dead limbs or branches back to live wood avoiding damage to any new shoots if possible.

Next year, late winter/early spring, you can do any shaping or training necessary to encourage your plants to return to their original splendor. Crapemyrtles that were once large, multi-trunked shrubs or small trees will need time, patience, and tender



loving care to help them return to what they once were. As time goes on, select the healthiest of about five new shoots to become your new trunks and thin out the rest. For training and pruning tips of trees and shrubs see OSU Fact Sheets [HLA-6415 Training Young Shade and Ornamental Trees](#) and [HLA-6409 Pruning Ornamental Trees, Shrubs, and Vines](#).



Heat Stress

David Hillock

With the brutal temperatures remaining over 100 degrees many landscape plants are really struggling. Trying to keep them properly hydrated can be a challenge. A general rule for watering is to apply about 1 to 2 inches per week per application. This generally moistens the soil to at least a 6 inch depth, encouraging deeper root growth. However, with the intense heat, and depending on other factors such as the age of the plant, soil type, exposure to wind and sun, and the water needs of the plant(s), watering may need to be more frequent. The key though, is to water deeply when you do water and try to avoid frequent shallow irrigation that results in shallow roots more susceptible to stress.

Rigging up a shade structure to protect a plant or a small group of plants from the hot afternoon sun may be helpful for newly installed plants.

With all that said, be careful not to over water. Over watering tends to be a problem when it is very hot and dry and will result in root loss and thus the same symptoms of water stress - wilt. If plants are wilting when you water them, and they remain wilted or don't respond by perking up within a few hours, then it is possible they are receiving too much water. Poke around in the soil near the plant to see how wet the soil is several inches down. If it is real wet stop watering.

Another frequently asked question when it is hot like this is, "Why are my cottonwoods or river birches dropping leaves even when it seems adequate water is being applied?" This is called cladoptosis (or kladoptosis), the dropping of leaves or twigs under conditions of stress. Cladoptosis is a natural defense mechanism of plants under drought or other stress conditions. The leaves may turn yellow before dropping, mimicking fall conditions. Many deciduous species will drop leaves under stress, but the condition is most commonly seen in birches, cottonwoods, and willows. Over watering, under watering, excessive heat, or root damage may all cause leaves to drop.

Garden Tips for July

Vegetable Garden

- Make fall vegetable garden plantings in late July. Fact Sheet [HLA-6009](#) gives planting recommendations.

Lawn

- Brown patch disease of cool-season grasses can be a problem. ([HLA-6420](#))
- Meet water requirements of turfgrasses. ([HLA-6420](#))
- Fertilization of warm-season grasses can continue if water is present for growth. ([HLA-6420](#))
- Vegetative establishment of warm-season grasses should be completed by the end of July to ensure the least risk of winter kill. ([HLA-6419](#))
- Mowing heights for cool-season turf grasses should be at 3 inches during hot, dry summer months. Gradually raise mowing height of bermudagrass lawns from 1½ to 2 inches.
- Sharpen or replace mower blades as needed. Shredded leaf blades are an invitation to disease and allow more stress on the grass.

Tree and Shrub

- Control bermudagrass around trees and shrubs with Poast, Fusilade or Glyphosate herbicides. Follow directions closely to avoid harming desirable plants.

Fruits

- Continue insect combat and control in the orchard, garden, and landscape. ([EPP-7306](#), [EPP-7313](#), [EPP-7319](#))

- Check pesticide labels for “stop” spraying recommendations prior to harvest.
- Harvest fruit from the orchard early in the morning and refrigerate as soon as possible.

Flowers

- Divide and replant crowded Hybrid iris (Bearded Iris) after flowering until August.

General Landscape

- Water plants deeply and early in the morning. Most plants need approximately 1 to 2½ inches of water per week.
- Providing birdbaths, shelter and food will help turn your landscape into a backyard wildlife habitat.
- Insect identification is important so you don't get rid of the “Good Guys.” ([EPP-7307](#))
- The hotter and drier it gets, the larger the spider mite populations!
- Expect some leaf fall, a normal reaction to drought. Water young plantings well.
- Have you visited The Botanic Garden at OSU in Stillwater for a group tour?



Fourth Annual Oklahoma Organic Workshop and Field Day

Jim Shrefler

The 2011 Oklahoma Organic Workshop and Field Day is scheduled for Tuesday, July 26, 2011 at the Lane Agricultural Center at Lane, Oklahoma in Atoka County. The event is sponsored by Oklahoma State University, USDA Agricultural Research Service, Wes Watkins Agricultural Research Laboratory, The Oklahoma SARE program, Kerr Center for Sustainable Agriculture and the Pushmataha and Atoka County Extension Offices.

The program will begin at 2:00 p.m. with an afternoon workshop focusing on Soils, Economics, Transitioning to Organic, Weed Management and Cover Crops. Dr. Hailin Zhang, soils specialist in the OSU Plant and Soil Department, will discuss soil fertility management in organic systems. Dr. Warren Roberts, vegetable and soils specialist with OSU at Lane will

share information on the use of cover crops in organic production. George Kuepper of the Kerr Center for Sustainable Agriculture will talk about keeping bermudagrass under control in organic vegetable systems. Dr. Vince Russo, Plant Physiologist with USDA, will discuss shifting to organic production. Dr. Merritt Taylor, Agricultural Economic Specialist, will discuss observations and findings on economic aspects of organic production in Oklahoma.

Following the workshop there will be a meal and time to visit with scientists and fellow growers. After the meal, we will tour research and demonstration field projects on the Research Station including plot area that has been Certified Organic since 2005. The certified organic work underway includes comparison of

vegetable production in hoop houses with outdoor production, demonstration of mulching practices, organic weed control practices and okra transplanting for earliness. Other organic-focused research will also be available for viewing and discussion. During the tour scientists will speak briefly about project goals and results. The program should be completed at about 8 p.m.

The Lane Agriculture Center is Located at Lane, OK which is 10 miles east of Atoka, Oklahoma on State Highway 3 (or 24 miles from Antlers, Oklahoma). If travelling from McAlester, take US Highway 69 to Atoka. For more details on directions, call 580-513-5544 or send an email to jim.shrefler@okstate.edu and put “organic workshop” on the subject line.



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Upcoming Horticulture Events

Current Challenges in Horticulture and Landscape Architecture - August 25, 2011, Wes Watkins Center, Stillwater, OK

Tree Care Conference - November 16, 2011, The Botanic Garden Educational Center, Stillwater, OK

Larimer at 405-744-5404 or stephanie.larimer@okstate.edu.

For more information about upcoming events, please contact Stephanie

The *Horticulture Tips* newsletter is distributed monthly (except January) by the following:

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This newsletter is one way of communicating horticultural information to those interested.

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