

Horticulture Tips

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Oklahoma Cooperative Extension Service
Division of Agricultural Sciences and Natural Resources
Oklahoma State University

GARDEN TIPS FOR SEPTEMBER!

David Hillock

Landscape

- Watch for fall specials at garden centers and nurseries since fall is a great time for planting many ornamentals.
- Choose spring flowering bulbs as soon as available.
- Plant cool-season annuals like pansies, ornamental cabbage or kale, snapdragons and dusty miller when temperatures begin to cool.
- Watch for and control any late infestations of tree webworms.
- Twig girdler insects should be controlled if large numbers of small branches of elms, pecans, or persimmons are uniformly girdled from the tree and fall to the ground.
- Begin to reduce the amount of light on outside tropical houseplants by placing them under shade trees before bringing them indoors for the winter.

Vegetables

- You have all of September to plant cool-season vegetables like spinach, leaf lettuce, mustard and radishes, and until the middle of September to plant rutabagas, Swiss chard, garlic and turnips.

Lawn

- Last nitrogen fertilizer application of the year on warm-season grasses should be applied no later than September 15. ([HLA-6420](#))
- Winter broadleaf weeds like dandelion will begin to emerge in late September, which is also the best time to control them with a 2, 4-D type herbicide.
- If pre-emergent control of winter-annual weeds (henbit, chickweed, annual bluegrass, etc.) is desired in lawns, the application should be completed by the 2nd week of September. ([HLA-6421](#)) *Note: Do not treat areas that will be seeded in the fall.*
- Continue bermudagrass spray program with glyphosate products for areas being converted over to tall fescue this fall. ([HLA-6421](#))
- Plan to seed bluegrass, fescue or ryegrass as needed in shady areas in mid- to late September. Fall is the best time to establish cool-season lawns ([HLA-6419](#)).
- White grub damage can become visible this month. Apply appropriate soil insecticide if white grubs are a problem ([EPP-7306](#)). Water product into soil.

Firewise Landscaping

Kim Toscano

Sadly, many homeowners came face to face with the devastating impact of wildfire this summer. Wildfires pose an ever-increasing threat to people and property, particularly those living in the interface between wild lands and urban or suburban areas. Many of the subdivisions and small communities surrounding our urban centers fall into this high-risk category. Simply put, the wildland-urban interface can be found anywhere the more manicured, controlled environment of the cities meets the countryside. In these areas, fires that start in the grass, brush and trees can quickly move into the fringes of the developed areas and ignite homes. In worst case scenarios entire subdivisions can be impacted once a wildfire breaks into the community.

The National Fire Protection Association's (NFPA) Firewise Communities program encourages local solutions for wildfire safety by involving homeowners, community leaders, planners, developers, firefighters, and others in the effort to protect people and property from the risk of wildfire. The Firewise program helps to educate homeowners in the wildland-urban interface about proactive steps they can take to protect their homes.

Homeowners can adopt the principles of firewise landscaping to design properties that will make the home less vulnerable to wildfire. The primary goal is to limit fuels. Think of the area surrounding your home in zones, with Zone 1 being closest to the house and Zone 4 farthest away from the house. Specific landscaping goals are applied by zone to reduce the ability of wildfire to reach the home.

- Zone 1: Maintain a well-irrigated landscape encircling the building for at least 30 feet on all sides. Allow adequate space for fire suppression equipment in the event of an emergency. Limit plantings to carefully spaced fire-resistant trees and shrubs.
- Zone 2: Fire resistant plant materials should be used here. Select low-growing plants and irrigate this portion of the landscape.
- Zone 3: Place low-growing plants and well-spaced trees in this area. Keep the volume of fuel low.
- Zone 4: The area furthest from your home is a natural area. Thin vegetation selectively here and remove highly flammable plants and debris.

You can reduce the probability of wildfire loss by adopting these practices in an area 100 to 200 feet around your home.

- Remove materials that can burn easily such as firewood.
- Pick up leaves, branches, and pine needles regularly.
- Prune trees 6 to 10 feet off the ground.
- Clear dead and dense vegetation within a minimum area of 30 feet from the house.
- Remove flammable plants that contain resins, oils, and waxes from within 30 feet of your home.
- When planting, choose plants with high moisture content.
- Place trees and shrubs properly.

- Irrigate and maintain the landscape regularly.
- Mow dry grass and weeds.

For more information visit: www.firewise.org.

Preparing Landscape Trees for Winter

David Hillock

This summer is the second summer in a row, with a relatively dry winter in between, that our landscape plants have been subjected to extreme drought and high temperatures. Last year we saw many landscape plants struggling and this year has been no different, with some trees and shrubs giving up completely.

Many of us have done our best to keep plants alive this summer, but we aren't done yet; the fall and winter are equally important to a plant's health, especially our trees, which represent a long term investment and significant value to the overall landscape.

Tree roots continue to grow throughout the winter and need moisture to survive. Dry, cold soils can be damaging to a plant's roots. Moist soils hold more heat than dry soils; so the potential of damage to plants' roots during the winter increases if the soil is dry and cold. To avoid further damage to already stressed plants, it is important to send our plants into the fall and winter with good soil moisture.

Before we talk about how to water trees, it is important to understand how tree roots grow. Basically trees produce two types of roots, large perennial roots and smaller, short-lived absorbing roots. The large perennial roots provide anchorage for the tree, water and mineral conduction, and food and water storage. Perennial roots are woody and increase in size and grow horizontally. In fact, 90% of the tree's roots are located in the top 12 inches of soil.

The smaller, absorbing roots are only about 1/16 inch in diameter, make up the major portion of the roots surface area and are responsible for the absorption of water and minerals. These roots grow outward and predominantly upward from the large perennial roots toward the surface where minerals, water, and oxygen are generally abundant.

Both the larger roots and small roots occupy a large area consisting of at least the area under and out to the dripline (the outer edges of the tree's branches) and often well beyond that, up to two to four times the height of the tree.

Knowing how tree roots grow, helps us determine the best method to water our trees. First, because we know that most of the tree's roots are within the top 12 inches of soil, deep watering to a depth of 12 inches below the soil surface is recommended. Saturate the soil around the tree at and within the "dripline" to disperse water down toward the roots; watering only at the base of a large, mature tree is not adequate. The objective is to water slowly, dispersing the flow of water to get the water deep down to the trees roots. Watering for short periods of time only encourages

shallow rooting which can lead to more drought damage. Using irrigation methods that distribute water faster than it can be absorbed by the soil is only wasteful. Watering at ground level to avoid throwing water in the air is more efficient.

In addition to deep watering, here are some additional tree maintenance procedures that can significantly increase a tree's chance of survival.

Mulch around your trees with 2 to 4 inches of organic mulch to reduce moisture loss. Use wood chips, shredded bark, leaves or evergreen needles as mulch. While many homeowners prefer to have grass growing under their trees, maintaining mulch within the dripline of the tree is better for the tree and is more representative of its natural environment, the woods. Avoid the use of stone or rock near trees as this increases air temperatures and moisture loss from leaves and stems. Keep mulch 6 inches from the trunk of the tree.

Do not fertilize a tree that is under drought stress. Salts in fertilizer may burn roots when there is not sufficient water. Fertilizers may also stimulate top growth resulting in too much leaf area on the plant for the root system to maintain during periods of limited soil moisture. If fertilizer is needed and soil moisture is adequate, avoid high nitrogen fertilizers late in the season; actually, fertilizers should not be applied much after early September to avoid a flush of leaf growth that may not acclimate before freezing weather.

Keep your trees healthy and pest free. Postpone any construction activities planned near your tree to reduce impact to the trees' roots and avoid traffic as much as possible to reduce soil compaction. If your tree has any insect or disease problem that may be adding additional stress – treat them accordingly to reduce the overall stress to your trees.

Properly prune trees and shrubs during time of drought to improve structure, limb stability and to remove dead and weakened branches. Leaving broken, dead, insect-infested or diseased branches can further weaken a tree during drought and set the tree up for deadly secondary insect and disease problems.

Many tree species are harmed by herbicides used in the lawn. Trees already stressed by drought can be harmed by a heavy application of herbicide in the root zone. Avoid using herbicides during stressful times or only do spot treatments if possible. Be sure to always read and follow label directions.

Following these guidelines will help preserve our trees, the most valuable assets to our landscapes, and will also meet guidelines for water conservation during drought periods.

(Sources: [HLA-6404 Winter Protection for Landscape Plants](#); [HLA-6408 Landscape Maintenance Schedule](#); <http://www.colostate.edu/Depts/CoopExt/4DMG/Trees/caring.htm>; <http://www.extension.purdue.edu/extmedia/HO/HO-203.html>)

Xeriscape Landscaping

Kim Toscano

With two consecutive years of drought taking its toll upon the landscape, many homeowners are turning to water-wise gardening techniques. Chief among these is the xeriscape model of garden design and maintenance. The XERISCAPE concept stresses the use of xeric principles to establish a landscape that is colorful, attractive and looks lush, but requires far less water and maintenance than conventional landscaping. During extended droughts or water shortages, the landscape is designed, constructed and maintained to be more water efficient and in balance with the natural rainfall, while continuing to flourish and hold its beauty.

Simply put, XERISCAPE (pronounced zir'-i-skap) is creative, attractive landscaping that saves water. XERISCAPE is not rocks and cactus or yucca, or dull colors and the complete elimination of turf areas. The word XERISCAPE, from the Greek Xeros meaning dry and scape from landscape, was coined by the Denver Water Department and has become a commonly used term in the landscape industry, particularly in drier areas of the country. There are seven key principles to xeriscape:

1. Planning and Design
2. Soil Improvement
3. Practical Turf
4. Plant Selection and Placement
5. Efficient Irrigation
6. Use of Mulches
7. Appropriate Maintenance

Start with a Good Design – Many people create their own designs with excellent results. You may want to have a professional check your plans, or complete the entire design. Begin with a sketch (1/4 inch = 1 foot), showing your home and property. Consider slopes, soils, aspect (direction of slope), drainage, limited areas of turf, privacy areas, play areas, etc. Plants need to complement the site and structure, as well as look great and save water.

Improve the Soil – For best results, add 3 to 5 cubic yards of organic material per 1,000 square feet of planting area and rototill to 6 inches deep. If you like, your local County Extension Office will help have your soil analyzed.

Practical Turf Areas – Turf is important to the landscape, but it can have a significant water requirement. A reduction in the total amount of traditional lawn, targeting practical and essential areas based on function and aesthetics, will have a corresponding reduction in water use. Selecting the right species is also very important. Turfgrasses vary in their need for irrigation. Common turfgrass species used in Oklahoma in order of water needs from highest to lowest include: cool-season grasses (tall fescue, Kentucky bluegrass, and ryegrass), hybrid bermudagrass and zoysiagrass, common bermudagrass, and buffalograss. In most cases cool-season grasses are not recommended for full sun areas; however, they may be an appropriate selection for shady areas.

Use Mulches Effectively – Mulch covers soil, saves moisture, reduces weed growth, and adds interest. It should be spread about 3 inches deep over soil. Avoid using solid sheet plastic. Mulch areas cost about the same as turf and look best when plants are used to cover a major part of the mulched area. Mulch also helps plants thrive.

Use Irrigation Effectively and Efficiently – Plan to irrigate turf areas separately from other plantings. Use a zone irrigation system that groups the plants according to their water requirements. Drip irrigation can help save water and reduce weed growth.

Choose Low Water Demanding Plants – Scores of species are available. Colorful flowers, trees, shrubs, and attractive ground covers will complement your Xeriscape. Turf requiring less water is also available.

Practice Good Maintenance – Maintenance preserves the intended beauty of the landscape, and it saves water. Proper mowing height, fertilizing, pruning, and weeding all help promote a healthy garden. Fine tune your irrigation system, and follow recommended lawn watering guidelines.

It is also helpful to adopt the concept of water use zones. Different plants have different water requirements. A xeriscape design does not have to completely eliminate plants that have higher water needs. Concentrating these high water-use plants into one area that is irrigated more than others can help save water across the landscape. Consider applying the following water-use zones to your landscape design. The very low zone provides for a considerable savings in water use and maintenance compared to a traditional irrigated landscape. A low water zone provides reasonable water savings. A moderate water zone is the highest use zone in the garden. Irrigation is applied at a rate that allows for optimum and luxurious plant growth, while still employing the concepts of XERISCAPE.

Additional water management applications include rain gardens and rain water collection. Rain gardens are shallow depressions planted with native and other plants that soak up rainwater or melted snow from your rooftop, driveway, and lawn. Plants appropriate for a rain garden can withstand both wet and dry conditions. Rain gardens allow water to infiltrate into the soil rather than becoming runoff. Well drained soils are required for rain gardens, and must drain in less than 48 hours. If native soils do not meet this requirement, they should be replaced or amended to a depth of 3 to 4 feet. In some applications, a subsurface drainage pipe is necessary.

Rain water can easily be collected, stored, and used as a supplemental water source. Depending on one's needs, rain water can be stored in large quantities in cisterns or in small quantities in a rain barrel. During a 1-inch rain event, 500 to 600 gallons of rain water can be collected for every 1,000 square feet of roof area.

For more information on plants used in a xeriscape design look for OCES leaflet [L-333 Xeriscape Garden Plants](#).

Rock Gardening in Oklahoma Publication now in Electronic Form!

David Hillock

The publication, [E-965 Rock Gardening in Oklahoma](#), created by Steve Owens, former garden manager and host of the popular television show *Oklahoma Gardening* is now available online. Steve developed this publication as a result of creating a rock garden at the *Oklahoma Gardening* studio garden.

Rock gardens are uncommon in Oklahoma because they are typically composed of alpine plants indigenous to high altitude, mountainous regions usually above the tree line. However, by using a nontraditional approach to rock gardening, Oklahomans can create and enjoy beautiful rock gardens modified to fit our climatic challenges.

Any setting with a combination of plants and a few strategically placed rocks may be loosely considered a rock garden. Even in warm, dry areas of the world, small cacti and succulents can be used to create rock gardens. Although true alpine plants are found naturally only in mountains, many other plants have a similar dwarfed rock garden-type appearance and growth habits. Many of these plants also require well-drained porous soils.

Many natural rock out-croppings and formations occur throughout Oklahoma. By using these formations as an example, along with rock garden-type plants and a special soil mix, a successful rock garden can be created for Oklahoma.

Upcoming Horticulture Events

Turfgrass, Landscape and Nursery Field Day

September 12, 2012 – The Botanic Garden at OSU – Stillwater, OK

Tree Care Conference

October 3, 2012 – Wes Watkins Center – Stillwater, OK

GardenFest

October 6, 2012 – The Botanic Garden at OSU – Stillwater, OK

Global Horticulture Conference

November 7, 2012 – Wes Watkins Center – Stillwater, OK

For more information about upcoming events, please contact Stephanie Larimer at 405-744-5404 or stephanie.larimer@okstate.edu.