

Horticulture Tips

July 2013

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

GARDEN TIPS FOR JULY!

David Hillock, Consumer Horticulturist

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.

July is Smart Irrigation Month in Oklahoma

Justin Quetone Moss, Assistant Professor

Governor Mary Fallin has proclaimed July as “Smart Irrigation Month” in Oklahoma. In the proclamation, it is noted that July is a peak month for irrigation water use in Oklahoma and water is a vital resource that must be managed smartly. It also states that using appropriate irrigation technologies, combined with best management practices, can reduce water usage while maintaining beautiful and healthy lawns, landscapes, and sports fields. The Oklahoma Nursery and Landscape Association and leading irrigation companies in the State were critical for moving the proclamation forward. Following the State’s lead, the Cities of Tulsa and Oklahoma City also proclaimed July as “Smart Irrigation Month”. This is a good time to remember irrigation systems should be regularly checked to ensure water is being used efficiently in the landscape. This can be accomplished by using the following tips:

- Establish a periodic maintenance schedule. Inspect your system monthly. Take note of any deviations from the original design.
- Fix or replace broken sprinkler heads. Heads and nozzles are relatively inexpensive. First dig out around the sprinkler head. Then unscrew the sprinkler head making sure not to get dirt into the riser. Take the broken irrigation head with you when you go to buy a new one to ensure you buy the same type.
- Repair stuck sprinkler heads. If you have a pop up sprinkler that is stuck in the up position, unscrew the spray head and clean whatever is stuck in the wiper seal.
- Check the pressure. Pressure can change over time and can cause misting or overspray.
- Check for leaks. If you have a sudden increase in your water bill, dry or soggy areas in your yard, overgrown turf areas you might have a leak. To figure out where the leak is locate your water meter and turn off the water to everything that uses water indoors and outdoors. If your water meter dial is still moving, you have a leak. Check your control valves and each irrigation zone. A good contractor can also check for leaks.
- Maintain large plants. Trim and maintain plant materials to preserve system performance.
- Realign sprinkler heads so sidewalks, roadways, and other hardscapes aren’t being watered.
- Consider low volume, micro irrigation for gardens, trees, and shrubs. Drip irrigation and micro irrigation slowly apply water which minimizes evaporation and runoff.
- Check for buried or clogged sprinkler heads. If they are clogged or broken, make sure to replace them.
- Consider upgrading to a “smart” water controller. Smart water controllers evaluate weather or soil moisture conditions and automatically adjust the irrigation schedule to meet the specific requirements of your landscape.
- Check soil moisture conditions and automatically adjust the irrigation schedule to meet the specific requirements of your lawn.
- Install a rain sensor. This inexpensive sensor can be retrofitted to most systems and will turn off your irrigation system during a rain event.

- Adjust the irrigation schedule based on soil moisture, plant need, evapotranspiration, season and weather. Try to avoid the “set it and forget it” mistake that many make when using automatic irrigation systems.

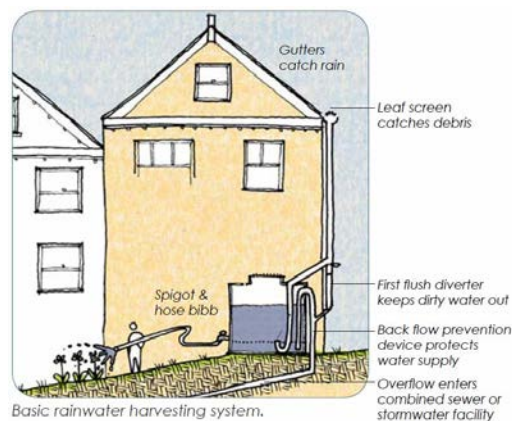
For more information, visit our website at <http://thinkwater.okstate.edu>.

A Quick Guide to Rainwater Capture

Morgan Hopkins, Graduate Assistant

Drought is increasingly becoming a hot topic in our current society, and water conservation is becoming a popular solution to this issue. A beneficial and easy water conservation method is rainwater capturing or harvesting. This is a simple technique that any homeowner can implement at their residence. Rainwater harvesting captures rainwater, diverts into a tank, and stores the rainwater until necessary.

Rainwater can easily be used to irrigate lawns and for in-home use. Rainwater capturing systems can range in size and complexity, based on homeowner preference and yard size. The basic components to a rainwater harvesting systems include a catchment surface, conveyance system, storage, distribution, and treatment. Catchment systems are usually placed on the side of the house, beneficial to catching rainwater from the roof. Rainwater harvesting is an innovative and advantageous practice because it reduces the demand on existing water supplies, reduces soil erosion, run-off, and contamination of the surface water. A simple diagram of a rainwater capturing system is located below.



Benefits of Mulching

John Schroeder, Extension Associate

Mulching during the hot summer months can be a very valuable tool for maintaining much-needed soil moisture, when rainfall is not abundant. Mulch can include an array of different materials ranging from organic to inorganic. Organic mulches are derived from natural materials such as straw, wood chips, cotton seed hulls, leaves, lawn clippings, etc. Inorganic mulches

include shredded rubber, crushed glass, and gravel. Organic mulch has advantages in terms of its ability to regulate soil temperature more effectively and its contribution of organic matter to the soil as it decays, providing nutrients for plants. Inorganic mulches can be desired to achieve a certain aesthetic goal and typically can be slightly easier to maintain since it will not decompose. Along with its temperature regulating characteristics, mulch also creates a layer that prevents sunlight from reaching bare soil which deters weeds and other undesirable plants from germinating in planting beds. This reduces the need for herbicides and ensures the desired plants in the landscape do not have to compete for water and nutrients. Listed below are some tips for proper mulch application.

- Add mulch to a depth of 3 inches within planting beds.
- Avoid mounding mulch around the base of trees and shrubs because it may cause trunk rot.
- Replace mulch as needed as it decays or is washed away during heavy rain events.

Mulching can be a very important technique in managing a healthy landscape. It serves as a temperature buffer for the soil, prevents excessive weed germination, and presents an aesthetically pleasing and consistent groundcover. More information on mulch can be found using Fact Sheet [HLA-6005](#).

Phosphorus in the Urban Landscape

Malarie Gotcher, Extension Associate and Justin Quetone Moss, Assistant Professor

Phosphorus is an essential element for plant growth. If continuously applied to landscapes, phosphorus can build up in the soil increasing the likelihood for particulate and water soluble phosphorus runoff. Phosphorus runoff has historically been attributed to agriculture, yet recent increases in urbanization and conversion of fallow land to residential areas has augmented fertilized landscapes and phosphorus runoff. A study conducted by the U.S. Geological Survey showed an increase in concentrations of phosphorus from 1999-2009 in parts of the North Canadian River watershed downstream from Oklahoma City. This increase is attributed to urban development, population growth, and agricultural activities. Because phosphorus is a limiting factor for algae and aquatic plants in freshwater systems, an influx of the nutrient causes algal blooms which have a negative impact on aquatic ecosystems and increases costs for water treatment facilities. It has also been shown that properly fertilized turf and lawn areas can reduce phosphorus loss to the environment. Lawns low on phosphorus can actually increase nutrient and sediment losses due to decreased turf density and cover. Homeowners should observe the following best management practices to reduce phosphorus loss.

- Soil test lawn and gardens ([L-249](#)) through your local County Extension office. In Oklahoma, a phosphorus soil test index of 60 is considered sufficient for lawns and fertilizer does not typically need to be applied until levels reach 30 or below.
- If you don't need phosphorus, make sure to use a fertilizer formulation with a "0" in the middle, such as a 10-0-10.

- Check with your landscape company to make sure they are taking a soil test and only applying the needed amount of fertilizer.
- Use a properly calibrated fertilizer spreader or weigh out and spread the exact amount you need over the area of your lawn.
- Remove fertilizer and grass clippings from sidewalks and hardscapes.
- Increase infiltration using pervious pavers and use mulch to cover exposed soil to reduce erosion.

A beautiful, healthy lawn and garden can be achieved while protecting water quality. Taking a soil test and following fertilizer recommendations can save money and protect water resources. Responsible landscape management starts with the homeowner.

Soil Solarization

Kim Toscano, Host, Oklahoma Gardening

In our IPM demonstration garden at The Botanic Garden at OSU we use a number of tools for managing insect pests, but another common problem in the landscape is weed control. And when it comes to weeds, there are very few effective organic chemical options. As an alternative to chemicals, we can use plastic to smother weeds, or solarize the soil.

Black plastic is often used in vegetable gardens to battle weeds and warm spring soils. Plastic mulches work by simply smothering weeds. The temperature under black plastic gets very high and kills plants growing below. However, some tough plants like bermudagrass are very difficult to kill by smothering.

Another option is to use solarization. This is a simple technique that captures radiant heat energy from the sun to kill seedlings and weed seeds. Solarization can also be used as a soil sterilization technique to kill some soil-borne disease organisms and nematodes. Solarization employs sheets of clear plastic to trap the solar heat. For solarization to work, we need the sunlight to pass through the plastic, warm the soil, and then get trapped inside. The plastic must be clear to allow sunlight to penetrate. Any clear, construction grade plastic will work. Thinner plastic (1-2 mils) will allow better soil heating since it will reflect less solar energy. Plastics are available from nursery, hardware or lumber establishments. You can even use a painting drop cloth.

Solarization is a great way to prepare a weedy area for planting the following season. Before laying plastic, we want the soil surface to be level and free of debris. It is also a good idea to till the soil and work up any seeds that may be laying deeper in the soil. You do not have to till, but if you plan to till before planting, you will want to do so before solarization. The soil should also be damp, but not saturated, about the same moisture level that you would have at planting.

Place clear plastic over the soil surface and secure the edges. To be effective, the plastic must lay on the soil surface, this is why it is important to remove debris and break up large soil clods. You need to prevent those strong Oklahoma winds from lifting the plastic. A great way to secure the plastic is to bury the edges in a foot deep trench. You can also use boards, rocks or tacks to

hold the plastic in place. The plastic should be left in place for about six weeks. Solarization is most effective when the sun is strongest, during July through September in Oklahoma.

We have had mixed results when using solarization to kill bermudagrass in the past. For bermuda, I recommend a longer solarization period of 12 weeks, and tilling the soil beneath the plastic every 4 weeks to draw up deep rhizomes.

You can combine solarization with other control methods. For example, you may choose to use an herbicide to make the initial kill, and then solarize to control subsequent seedlings and kill seeds in the soil. Solarization can also be combined with the application of soil amendments and fertilizers. In fact, solarization can speed up decomposition of organic matter, releasing soluble nutrients into the soil.

To learn more about solarization see OSU Extension Fact Sheet – [EPP-7640 Solar Heating \(Solarization\) of Soil in Garden Plots for Control of Soilborne Plant Diseases](#).

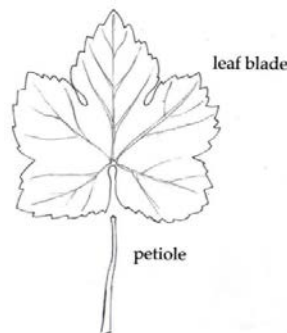
July is Grape Petiole Sampling Time

Becky Carroll, Extension Assistant – Fruit Crops & Pecans

Soil samples do not adequately reflect the nutritional needs of perennial woody species, but tissue testing can accurately assess a grapevine's nutrient status and serve as a guideline for supplementary fertilization. Well-planned and consistent petiole sampling will yield important vine nutrition information for the grower. This information along with proper timing of application can maximize fertilizer use efficiency, vine performance, protect the environment, and maximize profit. This service is available through the OSU County Extension Centers across Oklahoma.

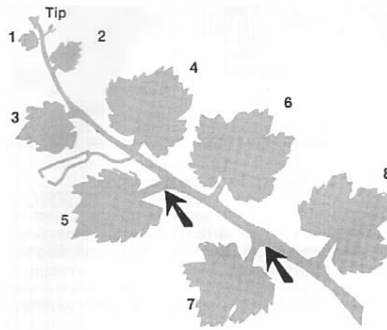
To ensure accurate results, the following instructions should be followed:

- Collect petiole samples at veraison or berry coloring which usually occurs in JULY.
- Sample should be uniform. Different cultivars, rootstocks, soil types, and management practices should be sampled separately.
- Should be representative of vineyard but not represent more than 10 acres.
- Collect **100** petioles for each sample.



- Select from vines in a pattern (i.e. every 10th vine in every 5th row, etc.). Sample from same vines annually.

- Petiole should come from the youngest fully mature leaf near the shoot apex (usually about 6 or 7 leaves from the end).



- Remove leaf blade and discard, place the petiole in a clean labeled paper sack (don't put fresh sample in sealed plastic bags since it will break down during shipping.)
- Record information regarding the sample for identification and later interpretation.
- Petiole samples should be taken to the county extension office as soon as possible.

Samples will be sent to the OSU Soils, Water, and Forage Analytical Laboratory for analysis. The fee for each sample is \$18 which includes N, P, K, Ca, Mg, S, B, Cu, Fe, Zn, and Mn. Results of analysis will be returned to the extension office for nutrient recommendations. Critical values for nutritional status of grapevines were primarily developed from 'Concord' – other cultivars may have other nutritional requirements. Application of certain fungicides and nutrient sprays can influence petiole sample results, so collection after rainfall or washing with distilled water may help. Fertilizer recommendations for grapes have not been researched in Oklahoma vineyards. Use visual inspections to evaluate the vines along with recommendations to tailor fertilizer programs.

Plant of the Year – 'Soft Caress' Mahonia

David Hillock, Consumer Horticulturist

'Soft Caress' Mahonia, *Mahonia eurybracteata* 'Soft Caress', was named the 2013 plant of the year by the Royal Horticultural Society at the Chelsea Flower Show in London. While this is not London, 'Soft Caress' Mahonia does great in Oklahoma as well; in fact, we planted 'Soft Caress' in the *Oklahoma Gardening* studio a couple years ago and it is doing wonderfully.



I have always been a fan of the genus *Mahonia*, which is the grapehollies, with their evergreen foliage, spring flowers and grape-like fruits. The grapehollies have prickly leaves and are medium to coarse in texture, 'Soft Caress' Mahonia has fern-like, soft foliage and bright yellow flowers that appear in early winter, November in our gardens, followed by small blue berries. 'Soft Caress' grows to about three feet high and wide and needs little to no pruning, we have ours growing in the shade garden, but it will tolerate part sun as well.

Upcoming Horticulture Events

GardenFest

September 21, 2013

10 AM to 4 PM

The Botanic Gardens at OSU – Stillwater, OK

Join us at The Botanic Garden at OSU for our annual GardenFest. The theme for 2013 is "Art in the Garden". GardenFest is a fun filled day of art and gardening ideas, demonstrations, children's activities and merchandise.

Indigenous Plant Materials Conference

October 10, 2013

Wes Watkins Center – Stillwater, OK

This conference will highlight underutilized ornamental plant materials, both native to Oklahoma and/or anywhere else in the Lower 48, and their possible uses in the green industry and ultimately in our landscapes.

Native American Horticulture Conference

November 21, 2013

Wes Watkins Center – Stillwater, OK

This conference will provide a horticulture overview of Native Americans' contribution to both historical and current-day foods, ornamentals and medicine.

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