

Horticulture Tips

October 2014

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

GARDEN TIPS FOR OCTOBER!

David Hillock, Consumer Horticulturist

Turfgrass

- You can continue to replant or establish cool-season lawns like fescue.
- The mowing height for fescue should be lowered to approximately 2 ½ inches for fall and winter cutting.
- Broadleaf weeds like dandelions can be easily controlled during October.
- Mow and neatly edge warm-season lawns before killing frost.

Ornamentals

- Plant cool-season annuals like pansies, ornamental cabbage or kale, snapdragons and dusty miller when temperatures begin to cool.
- Begin planting spring-flowering bulbs like tulips, hyacinths, crocus and daffodils.
- Good companion plants for bulbs are ground covers such as ajuga, vinca, English ivy, alyssum, moneywort, thrift, phlox, oxalis and leadwort.
- Peonies, daylilies, and other spring-flowering perennials should be divided or planted now.
- Dig and store tender perennials like cannas, dahlias, and caladiums in a cool, dry location.
- Purchase trees from nurseries and garden centers at this time to select the fall color you prefer.
- Many perennials can be planted at this time and the selection is quite nice.
- Plant fall mums and asters and keep them watered during dry conditions. Don't crowd since they take a couple of years to reach maturity.
- Plant container-grown trees and shrubs this month.
- Check and treat houseplants for insect pests before bringing them indoors and repot rootbound plants.

Fruits & Vegetables

- Dig sweet potatoes and harvest pumpkins and winter squash.
- Remove green fruit from tomato plants when frost threatens.
- Harvest Oriental persimmons and pawpaws as they begin to change color.
- There is still time to plant radishes and mustard in the fall garden.
- Use a cold frame device to plant spinach, lettuce and various other cool-season crops for production most of the winter.

- Plant cool-season cover crops like Austrian winter peas, wheat, clover, and rye in otherwise fallow garden plots.
- Remove all debris from the garden to prevent overwintering of various garden pests.
- Start new planting bed preparations now with plenty of organic matter.

Water Gardens

- Take tropical water garden plants indoors when water temperatures near 50 degrees Fahrenheit.
- Close the water garden for the winter by placing hardy plants in the deeper areas of the pool. Stop feeding the fish.
- Cover water gardens with bird netting to catch dropping leaves during the winter months.

Cover Crops

David Hillock

Cover or green manure crops are usually grown when the garden soil is idle but are also sometimes planted between rows of fruits or vegetables to serve as a living mulch.

Cover crops are sometimes called "catch crops." Their deep roots absorb nutrients from the soil that could otherwise leach away or are unavailable to garden crops with shorter roots. When tilled under, cover crops decompose and release those "caught" nutrients.

Some cover crops, those from the legume family, even trap and transform atmospheric nitrogen in their roots. This nitrogen serves as a fertilizer source for future crops.

Cover crops in the grass or grain family don't actively fix nitrogen but usually create a thick mulch, produce a large amount of organic matter to be tilled under, and have deep roots that loosen compacted soils, thereby improving drainage and aeration.

Cover crops are divided into two categories: warm-season and cool-season, based on the optimum times to plant and grow.

Warm-season types will not tolerate freezing temperatures and should be planted after all danger of frost. Most take six to eight weeks (or longer) to grow large enough to turn under. An exception is buckwheat, which may need only four weeks under good growing conditions.

Cool-season cover crops will survive through the winter. They are planted in the fall, from mid-September until the end of October, and left over the winter to provide protection from soil erosion. They need to be planted early enough so their roots develop before winter but late enough so they do not complete their growing cycle (and die) before the weather gets cold.

Because they are used in rotation with other crops in the same garden location, cover crops can help suppress harmful soil nematodes. Nematodes, which are parasites, tend to be host specific,

attacking just one crop or crop family. They do not "like the taste" of other plant families and their numbers will decline without the preferred food source.

Some cover crops, just like any other crop, may attract insects that could harm other garden crops. Gardeners should watch for pest insects in cover crops and other crops and be ready to use various IPM or best management methods while the pest problem is in its early stages.

Legumes need certain strains of bacteria to enable them to convert nitrogen gas from the air into a form that plants can use. The bacteria needed by various kinds of legumes may or may not already be in your garden soil. To be certain, legume seeds should be coated with an inoculant powder that contains living *Rhizobium* spores. Commercial inoculant is usually inexpensive and widely available. Some legume seeds are sold pretreated with the proper bacteria.

Cover Crop Planting Guidelines

- Prepare the soil as you would if planting vegetables. Legumes will produce the nitrogen they need, but non-legume crops will need to have nitrogen fertilizer (1 to 1-1/2 pounds of actual nitrogen per 1000 square feet) added to the soil to produce maximum yields of organic matter.
- Inoculate legume seeds by moistening them, draining the excess water, adding the inoculant powder, and mixing well.
- Broadcast the seed evenly.
- Cover seed with a thin layer of soil by raking it in or going over the area with a rototiller set very shallow.
- Keep the area moist until seedlings emerge. Light watering may be needed twice a day, or more, in hot weather.
- Mow and harvest cover crops before they flower and produce seeds, and till under at least 10 days to 2 weeks before planting garden crops.

Below is a list of cool-season cover crops. For more information about these species and the warm-season species see OSU fact sheet [HLA-6436](#) Earth Kind Gardening Series: Healthy Garden Soils.

Hairy Vetch (*Vicia villosa*)
Austrian Winter Peas (*Pisum sativum* variety *arvense*)
Winter Rye (*Secale cereale*)
Winter Wheat (*Triticum* species)
Crimson Clover (*Trifolium incarnatum*)
Red Clover (*Trifolium pratense*)
White Clover (*Trifolium repens*)
Yellow-Blossom Sweet Clover (*Melilotus officinalis*)
Arrowleaf Clover (*Trifolium vesiculosum*)
Ball Clover (*Trifolium nigrescens*)
Birdsfoot Trefoil (*Lotus corniculata*)
Fava Bean (*Vicia faba*)
Garden Pea (*Pisum sativum* varieties)

Barley (*Hordeum vulgare*)
Ryegrass (*Lolium* species)
Purple Vetch (*Vicia benghalensis*)
Common/White Vetch (*Vicia sativa*)
Alfalfa (*Medicago sativa*)
Oats (*Avena sativa*)

Soil Testing for Vegetable Crops

David Hillock

Now is the time to start thinking about next year's garden or commercial vegetable crop. Soil testing for next year's crops should be done at this time, so that any needed adjustments can be made prior to next spring. The best way to insure that you get full value from fertilizer is to make sure the pH is ideal. For most vegetable crops, an ideal pH is between 6.0 and 6.5. If lime is needed to raise the pH, it should be added in the fall. While lime may start to react as soon as it is applied, several months are required for it to completely react. If the pH is too low, fertilizers cannot be as effective as they should be.

Trunk Protective Materials

David Hillock

Young, thin-barked trees such as ash, birch, linden, maples and others often sunscald unless protected. The twigs that shade the trunk should be left, but cut back a few inches so they become denser. A twiggy trunk is preferable to tree wraps, but not all trees have enough twigs, nor is it always practical or aesthetically pleasing to leave lower limbs.



Protective wraps are available and may provide protection by modifying temperatures for thin-barked trees. Plastic wraps may provide better protection than paper wraps against lawn mower, weed-eater, and rodent damage. If misused, however, damage may occur in the form of trunk girdling or constriction, insects, diseases, and excessive bark moisture.

Protective wraps may not be necessary at planting time. Use based on the type of protection needed. Normal application of tree trunk wraps is October to March for the first two growing seasons. Wraps should be removed each spring prior to spring growth. During spring growth the trunk expands and increases in size. Wraps too tightly wrapped or left on during this time may result in constriction to the trunk. Tree wraps should be applied loosely from base up to the first branch by overlapping for a shingle effect. Plastic wraps should fit loosely and include holes or slits for good air movement. Periodically inspect the wraps for trunk damage and insects



Advantages of tree wraps for young plants:

- Deter animals from browsing on bark.
- Reflects sun that either scalds the trunks or makes them susceptible to southwest injury during the winter months (bark is warmed followed by a sudden plunge in temperature which kills that portion of the bark).

Propagating Southern Magnolia Seeds

David Hillock

The Southern Magnolia has lustrous dark green foliage; large, creamy white and beautifully fragrant flowers, which are followed by the rose-red aggregate fruit that splits open in the fall revealing a bright red seed. It is this seed that probably sparks the curiosity of many a gardener to try their hand at propagation. Some of the advantages of raising magnolias from seed are:

- It is cheaper than raising them by vegetative means.
- It generally gives fast establishment and good growth.
- It produces a vigorous root system.

A disadvantage is that they generally take longer to flower than vegetatively raised plants. They may also not be true-to-type, or in other words, will have different characteristics from the parent plant due to open pollination.

Magnolia seeds are gathered in the fall as soon as possible after the fruit is ripe, when the red seeds are visible all over the fruit. The outer seed coat, red fleshy pulp, must be removed before the seed is stratified. Soak the seed for one or two days in warm or hot water to which a detergent has been added to remove any remaining traces of the oily film which protects them from drying out. Separation of good, well-filled seeds from the empty ones can be easily accomplished while they are still in water. The good seeds (without the red pulp) sink, while the empty seeds and the pulp float. After cleaning, the seeds should either be sown immediately in the fall or prior to spring planting, stratified for two to three months at about 40°F.

If you plan to sow them now, in the fall, this can be done two ways. Either by sowing them directly into the soil in a well-prepared spot in the garden or by sowing them thinly in a seed tray or similar container filled with a well-drained potting medium. Water the seeds. Place the labeled and dated seed tray in a cold frame where the seed will be exposed to low temperatures. As this system is not controlled, germination of some seed may be delayed for a season.

A more controlled method is done by mixing the seed with moist sand or peat moss, placing it into a container and storing in a place where temperatures will be maintained at 40°F. The readiness of the seed to germinate is marked by the splitting of the inner seed coat.

Allowing the seeds to dry out at any time seems to be harmful. After sowing, the germination medium must not become dry. *M. grandiflora* (southern magnolia) seeds, and perhaps those of

other species, lose their viability if stored through the winter at room temperature. If prolonged storage is necessary, the seeds should be held in sealed containers at 32 to 40°F. After the seed has gone through the stratification period, it can be sown in the same way as mentioned previously and placed where temperatures are about 70°F. Germination will take place in about 30 to 40 days. Magnolia seedlings grow rapidly, and generally are large enough to transplant by the end of the first season. Transplanting should be kept at a minimum, since this retards the plants.

(Sources: Plant Propagation Principles and Practices, by Hartmann, Kester, & Davies, 5th edition, pg. 585, Prentice Hall; Magnolias, by J. M. Gardiner, pg. 23, 24, The Globe Pequot Press; Propagation of Trees and Shrubs by Seed, revised by Campbell & Mitchell, Hort 4, Oklahoma Gardening information sheet).

New Resource Available: Smart Irrigation Technology

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

Water conservation is becoming more prevalent across Oklahoma following increasing drought conditions and demand on water systems due to population growth. An average of 30 to 50% of summer household water use is used outdoors in Oklahoma. A large amount of irrigation water may be lost due to evaporation, wind, and runoff due to improper watering methods or poor scheduling. Many homeowners have difficulty scheduling irrigation and may over-irrigate their landscape. A new factsheet discussing smart irrigation technology is now available through the Oklahoma Cooperative Extension Service titled *Smart Irrigation Technology: Controllers and Sensors*.

Outdoor water savings can be achieved using smart irrigation technologies. Smart irrigation controllers and sensors have been developed to reduce outdoor water use by irrigating based on plant water need compared to traditional automatic system timers, which irrigate on a user-determined fixed schedule. This technology exists as a complete controller or as a sensor that can be added to an existing irrigation timer to create a smart controller. Smart irrigation technology uses weather data or soil moisture data to determine the irrigation need of the landscape. Irrigation scheduling often becomes an issue for homeowners since they may be unaware of the amount of water they are using each time the irrigation system comes on.

These products maximize irrigation efficiency by reducing water waste, while maintaining plant health and quality. Incorporating smart irrigation technology in the landscape can potentially reduce outdoor water consumption. This technology is appropriate for small, residential landscapes as well as large, managed landscapes. Irrigation managers and homeowners should be aware that smart irrigation technology does not work based on the “set-it and forget-it” approach. It will need to be periodically adjusted and maintained for maximum water savings. The Environmental Protection Agency (EPA) has created performance criteria for irrigation technology manufacturers under the WaterSense program. For more information go to www.epa.gov/watersense. Often, it depends on consumer preference when deciding which

irrigation controller or add-on sensor is appropriate for the end user. Many local irrigation distributors have smart irrigation technology available for customers.

The new [*Smart Irrigation Technology: Controllers and Sensors*](#) factsheet is now available on the OSUFacts.okstate.edu website.

State Fair Classes and Contests in Horticulture

Shelley Mitchell, Extension Associate, 4-H & Youth Programs

The state fair judging contests in Oklahoma City at the Oklahoma State Fair and in Ft. Smith at the Arkansas/Oklahoma State Fair had a total of about 100 contestants this year. At the Oklahoma State Fair, contestants represented Oklahoma, Pontotoc, Bryan, Payne, Grady, Lincoln, and Garfield counties. Adair, Muskogee, Haskell, Cherokee, and LeFlore counties competed at the Arkansas/Oklahoma State Fair. Bryan County will also compete in the National Junior Horticulture Association's Horticulture Judging and Identification Contest being held in conjunction with the 2014 convention October 10-13 in Lexington, Kentucky. Bryan County held several fundraisers to pay for their trip, and we wish them luck in Kentucky!

The dish garden class at the state fairs was created to give cactus and other succulents a place to be shown, since there were a lot of terrariums using cactus, and that is inappropriate—cactus will rot inside the high humidity of a terrarium. Terrariums must have their lids on at all times (solid lid, not screen) to truly be a terrarium. The terrarium class description notes that plants should represent woodland or tropical areas. There are still cactus-filled terrariums at the state fair level. Please educate your 4-H members on the appropriate place for cactus.

We have added new state fair classes in the horticulture area. Several years ago, posters about horticultural crops were added, as well as models of greenhouses or gardens. The poster category has had several entries since then, but there have been few models entered. This might be a good project to do a workshop on, since the competition is a lot slimmer than in more popular areas, such as arts and crafts (and it is still 'crafty').

There are also classes in residential landscape design. Guidelines and templates can be found at <http://www.hortla.okstate.edu/research-and-outreach/programs/youth/4-H>.

OSU Pecan Webpage Improvements

Becky Carroll, Extension Assistant

Have you ever browsed the OSU Pecan Webpage? It's available at www.okpecans.okstate.edu. On the webpage you can find information on the pecan management course, pecan pests, propagation and grafting, pecan fact sheets and a management section with links to many important sites.

There is a news section too. If you know of pecan activities, meetings or festivals that are coming up in your county or area, let us know and we can add to the news section.

Next time you are on the web, take a peek at what we have available!

Updated Fact Sheets

HLA-6200	A Calendar for Pecan Growers
HLA-6201	Pecan Varieties for Oklahoma
HLA-6204	Bark Grafting Pecans
HLA-6205	Splice and Tongue Grafting Pecans
HLA-6206	Patch Budding Pecans
HLA-6207	Starting Pecan Trees
HLA-6217	Collecting and Storing Pecan Propagation Wood
HLA-6230	Four-Flap Grafting of Pecans
HLA-6232	Fertilizing Pecan and Fruit Trees
CR-6242	Weed Control in Pecan, Apple and Peach

Online Pecan Management Course

Did you know an online version of the Pecan Management Course is available? It is designed for those who are unable to attend the regular pecan course. Students can have a one-year access to use the study for a \$75 fee. It is also available to the Pecan Management Class members free of charge to supplement the in-class studies.

Over the last 10 years, more than 400 people have had access to this self-study pecan webpage. People from 24 different states have enrolled in the course as well as growers from Australia, Brazil, Chile, Israel, Spain and Turkey.

For more information please go to www.pecan.okstate.edu.

OKLAHOMA STATE PECAN SHOW 2014

Becky Carroll

It's that time of year again! Remember to save back a couple of pounds of your best pecans to enter in the state show this year. We've made a few changes to the list of classes that we will be using this year. We removed several classes that hadn't had any entries in the last several years such as Apache, Mahan, San Saba, Sioux and Success and added some that have had more entries but were only able to participate in the Other Cultivar class. The new classes are Oconee, Lakota, Waco, Nacono and Podsednik.

There will not be any qualifying regional or district pecan shows this year. However, some county/area shows will be held at the discretion of the County Extension Educator. Winning

entries from county shows will be sent to the state show. If no county/area show is available, growers may enter pecans directly by sending samples to Oklahoma State University, Department of Horticulture, Attn: Becky Carroll, 358 Ag Hall, OSU, Stillwater, OK 74078. Samples should arrive by January 23, 2015.

Samples should be entered in a sealed plastic or paper bag. Label the bag on the outside and place a label inside the bag. Information should include exhibitors name and address, county, and type of pecan entered. Be sure to follow the guidelines that are listed below before sending entries.

A few helpful hints: Take the time to select pecans that are all the same cultivar, or same size and shape natives – *don't send mixed pecans*. Select uniform, clean, uncracked pecans. Presentation can make the difference between two very similar samples. Make sure to send two pounds of pecans in a labeled and sealed bag.

General Rules and Guidelines

- All entries must be grown in Oklahoma during the current season.
- Each entry shall consist of two pounds of nuts.
- Entries deemed unworthy by the judges will not compete for awards.
- Label each entry as to exhibitor's name, address and cultivar of nuts. If more than one native (seedling) pecan exhibit is made, identify the nuts from separate trees by numbers. Only one exhibit of each cultivar or native tree may be entered by one individual.
- Each entry will compete in one of the following 26 classes:

1. Barton	11. Mohawk	21. Waco
2. Burkett	12. Nacono	22. Western
3. Cheyenne	13. Oconee	23. Wichita
4. Choctaw	14. Pawnee	24. Other Cultivars
5. Comanche	15. Peruque	25. Large-Native (seedling) 60 nuts/lb or larger
6. Gratex	16. Podsednik	26. Small-Native (seedling) more than 60 nuts/lb
7. Kanza	17. Schley (eastern)	
8. Kiowa	18. Shoshoni	
9. Lakota	19. Squirrels Delight	
10. Maramec	20. Stuart	
- Each grower is allowed to participate at one county show of his or her choice.
- Each grower is allowed to enter one entry in each show class with the exception of Class 24 (Other Cultivars), Class 25 (Large-seedling) and Class 26 (Small- seedling)
- Each grower may enter one entry from each native (seedling) tree.

- Entries should be shipped or mailed to arrive at the show at least one day prior to the deadline.
- County pecan shows will not be affected by these rules and procedures.
- Samples will be placed in cold storage, and judged before the Oklahoma Pecan Growers Annual Meeting. At that time, the winning entries will be displayed with awards and recognitions. All entries will become the property of the OPGA.
- First, second, and third place winners in each class at the State Pecan Show will receive ribbons.
- State Pecan Show Special Awards – Plaques will be awarded for the largest pecan entry, the entry having the highest kernel percentage, the champion native and the best entry of the show.
- If a qualifying show is not available, growers may submit entries in accordance with these guidelines directly to the State Show. Entries in the state show must be received by January 23, 2015 at the following address:

Oklahoma State University
 Department of Horticulture & LA
 Attn: Becky Carroll
 358 Ag Hall
 Stillwater, OK 74078

Advanced Viticulture and Enology Workshop Scheduled October 10

Becky Carroll

Advanced training opportunities in Oklahoma for grape growers are not that prevalent, but thanks to a grant from the Department of Commerce Viticulture and Enology Fund, OSU is offering grape growers an opportunity to enhance their knowledge. October 11 will be the third workshop in this series to be able to provide growers with access to specialists from other institutions and industry professionals who will share new and up-to-date educational programs. Dr. Bruce Bordelon, Professor of Horticulture from Purdue University, will be speaking about the topic of grape varieties. His title is *Matching Grape Varieties to the Climate: Options for the Future*. Bordelon specializes in grapes and small fruit with emphasis on integrated crop management to improve economics of production, fruit quality and sustainability. The group will also have interactive time with Bordelon while in the vineyard.

The free workshop will be held October 10 from 1-5 p.m. at the Cimarron Valley Research Station. (10820 S. Jardot, Perkins, OK – Travel North ½ mile from the intersection of Highways 177 and 33 north of Perkins, OK. For reference there is a Sonic Drive-In at that intersection.)

Please register with Stephanie Larimer by emailing stephanie.larimer@okstate.edu or calling 405-744-5404.

A link to more information on this workshop and information from the previous May and July workshops is available at <http://www.grapes.okstate.edu/advanced-viticulture-workshops>.

Upcoming Horticulture Events

Global Horticulture Conference

November 6, 2014

Wes Watkins Center – Stillwater, OK

Lecturers will discuss various horticultural projects conducted across the world. While an emphasis will be placed on edible and/or ornamental crops, related agricultural topics may also be reviewed. Anyone who enjoys horticulture and/or travel would benefit from this event.

For more information visit <http://www.hortla.okstate.edu/events/global-horticulture-conference>.

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