

Horticulture Tips

April 2007

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

GARDEN TIPS FOR APRIL!

David Hillock

Fruit and Nut

- Don't spray insecticides during fruit tree bloom or pollination may be affected. Disease sprays can continue according to schedule and label directions. ([F-7319](#))
- Avoid using Sevin on apple trees until 30 days have passed from bloom, or fruit is near the size of a quarter.
- Control cedar-apple rust. When the orange jelly galls are visible on juniper (cedar), following a rain, begin treating apple and crabapple trees with a fungicide. ([F-7319](#), [F-7611](#))
- Fire blight bacterial disease can be controlled at this time. Plant disease-resistant varieties to avoid diseases.
- Continue spray schedules for disease prone fruit and pine trees.

Tree and Shrub

- Proper watering of newly planted trees and shrubs often means the difference between success and replacement.
- Remove any winter-damaged branches or plants that have not begun to grow. Prune spring flowering plants as soon as they are finished blooming. ([F-6404](#), [F-6409](#))
- Control of powdery mildew disease can be done with early detection and regular treatment. Many new plant cultivars are resistant. ([F-7617](#))
- Leaf spot diseases can cause premature death of foliage and reduce plant vigor.

Flowers

- Most bedding plants, summer flowering bulbs and annual flower seeds can be planted after danger of frost. This happens around mid-April in most of Oklahoma. Hold off mulching these crops until spring rains subside and soil temperatures warm up. Warm-season annuals should not be planted until soil temperatures are in the low 60s.
- Harden off transplants outside in partial protection from sun and wind prior to planting.
- Let spring flowering bulb foliage remain as long as possible before removing it.

Vegetables

- Wait a little longer for it to warm up before planting cucurbit crops and okra.
- Plant vegetable crops in successive plantings to ensure a steady supply of produce rather than harvesting all at once.
- Cover cucurbit crops with a floating row cover to keep out insect pests. Remove during bloom time.
- Watch for cutworm damage and add flea beetle scouting to your list of activities in the vegetable garden.

Garden Planting Guide for Warm-Season Vegetables

<u>Vegetable</u>	<u>Time to Plant*</u>	<u>Days to Harvest</u>	<u>Method of Planting</u>
Bean, Lima	April 15-30	90-120	Seed
Beans, Green or Wax	April 10-30	50-60	Seed
Beans, Pole	April 10-30	60-90	Seed
Cantaloupe	May 1-20	80-100	Seed or Plants
Cucumber	April 10-30 or later	50-70	Seed or Plants
Eggplant	April 10-30	80-90	Plants
Okra	April 10-30 or later	60-70	Seed
Pepper	April 10-30 or later	90-110	Plants
Pumpkin	April 10-30	90-120	Seed
Southern Pea	May 1-June 10	85-100	Seed
Squash, Summer	April 10-30 or later	40-60	Seed or Plants
Squash, Winter	May 15-June 15	110-125	Seed or Plants
Sweet Corn	Mar. 15-April 15	80-100	Seed
Sweet Potato	May 1-June 10	100-120	Plants
Tomato	April 10-30	70-90	Plants
Watermelon	May 1-20	90-120	Seed

*These dates indicate planting times from southeast to northwest Oklahoma. Specific climate and weather may influence planting dates. For Cool-Season Vegetables, the soil temperature at the depth where the seeds are planted should be at least 40°F.

Landscape - General

- Hummingbirds arrive in Oklahoma in early April. Get your bird feeders ready using 1 part sugar to 4 parts water. Do not use red food coloring.
- Keep the bird feeder filled during the summer and help control insects at the same time.
- Lace bugs, aphids, spider mites, bagworms, etc. can start popping up in the landscape and garden later this month. Keep a close eye on all plants and use mechanical, cultural and biological control options first.
- Be alert for both insect pests and predators. Some pests can be hand picked without using a pesticide. Do not spray if predators such as lady beetles are present. Spray only when there are too few predators to be effective.
- Schedule a group tour of the *Oklahoma Gardening Studio Gardens* in Stillwater between the first of May and late October!

Lawn

- Warm-season grass lawns can be established beginning late April from sprigs, plugs or sod. ([F-6419](#))

- Warm-season grasses can be fertilized four times per season using one pound of actual nitrogen per 1,000 sq. ft. in each of four applications. Apply one pound in April, May, June and September. Water in nitrate fertilizers. ([F-6420](#))
- Mowing of warm-season lawns can begin now ([F-6420](#)). Cutting height for Bermuda and zoysia should be 1 to 1½ inches high and buffalograss 1½ to 3 inches high.
- Damage from Spring Dead Spot Disease (SDS) becomes visible in bermudagrass ([F-7665](#)). Perform practices that promote grass recovery. Do not spray fungicides at this time for SDS control.
- Grub damage can be visible in lawns at this time. Check for the presence of grubs before ever applying any insecticide treatments. Apply appropriate soil insecticide if white grubs are a problem ([F-7306](#)). Water product into soil.

April is Critical Time for Fruit Crops

Eric T. Stafne

As we all know, spring in Oklahoma is a wild and crazy time. We can have hail, rain, tornados, high temperatures and low temperatures. Especially problematic for growers are these early spring frosts and freezes. Right now all fruit crops are in bloom or even past bloom. Budbreak for grapes started this year in mid-March in Stillwater, as was the case for some peaches. So far this year, we even have apricots! But, the threat of frosts and freeze exist until about mid-April. Quite a bit is known about the temperature tolerances of peach crops. The following table shows those temperatures and phonological stages at which damage is shown:

Critical Temperatures (°F) at Various Stages of Development in Peach

Stage	10% kill	90% kill
Dormant	-12	-18
Swell	18	1
Calyx green	21	5
Calyx red	23	9
First pink	25	15
First bloom	26	21
Full bloom	27	24
Petal fall	28	25
Shuck split	31	29

If the critical temperature is reached for 30 minutes or more then more severe damage may occur than is indicated in the above table. Sometimes, a peach flower can appear normal, but the ovary is dead; this is what happened last year to some peaches. There are instances when a well-timed frost can be helpful – it thins the crop for you, but looking at the table above, the difference between 10% kill and 90% kill at full bloom is only 3 degrees. Dormant buds are the most tolerant of cold temperatures and since we didn't reach anything approaching -12°F this winter I would expect an excellent crop.

Ten Tips for New Tree Care

David Hillock

1. Dig the planting hole 2-3 times the diameter of the tree's rootball.
2. Avoid digging the hole too deep since the tree should be planted at its original grade or slightly higher (1-2 inches above grade). If the tree is planted above grade it is important to cover the edges of the exposed rootball with soil tapered down to the surrounding soil line.
3. Fill in the planting hole with native soil and tamp lightly.
4. Do not overfertilize the new tree. A newly planted tree has a very limited capacity for utilizing fertilizer until it starts to establish itself.
5. Stake young trees (topheavy or planted in windy areas) when necessary but allow for sway. Remove all stakes after the first season if possible.
6. Avoid overpruning new trees. Leave lower limbs intact the first season if possible.
7. Keep a 5-6 feet weed- and turf-free circle around the tree. Place an organic mulch 1-3 inches deep around the tree.
8. Apply at least one inch of water weekly.
9. Wrap young trees as fall approaches. Tree wraps protect tender bark from rodent damage and environmental stresses as a result of temperature fluctuations. One should note that some young trees benefit from summer wrapping to avoid sunscald.
10. Winter irrigate, when temperatures remain above freezing for more than a few days, to avoid dehydration injury.

Common Hackberry (*Celtis occidentalis*)

David Hillock

Common hackberry is 40-70 feet at maturity. It is a very tough, making it an ideal tree for difficult sites and is very drought resistant. It has an occasional yellow fall color. Common hackberry is not without some problems and is susceptible to nipple gall, which will not harm the plant, but may make the tree unsightly. It has a medium to fast growth rate and is hardy throughout Oklahoma (zone 2 to 9). A related species is *C. laevigata* (Sugarberry).

Turfgrass Selection

David Hillock

Turfgrass selection involves choosing a turfgrass species and cultivar that is adapted to the environmental conditions of Oklahoma and that fits your personal needs and interests. The grass should also be suited to the physical or environmental limitations of the planting site, such as shade, no supplemental water or poor soil conditions. Bermudagrass, buffalograss and zoysiagrass are the warm-season (grows in the summer and dormant in the winter) turfgrass species most commonly planted in Oklahoma. Occasionally, cool-season turfgrass species, such as tall fescue, Kentucky bluegrass and perennial ryegrass are planted on shaded sites because the warm-season turfgrasses cannot tolerate shade. These grasses also can be utilized in the full sun,

but only when a convenient means of irrigation is available. Choosing the right cool-season turfgrass cultivar is essential for its success during the hot, dry summers of Oklahoma.

A summary of the commonly planted turfgrasses in Oklahoma and some of their characteristics that should be considered when selecting a turfgrass species can be found in [F-6419](#), "Establishing a Lawn in Oklahoma." For more detailed information, see [F-6418](#), "Selecting a Lawn Grass for Oklahoma."

Lawn Aerification – An Approach to Managing Compacted Soils

David Hillock

Turfgrass plants absorb oxygen and emit carbon dioxide through root surfaces. An adequate amount of air space in the soil is needed to provide aeration and proper soil water movement into and through the soil. Due to heavy use, the upper 2 to 3 inches of soil may become compressed into a more dense, hard soil mass, restricting air and water movement. This is called soil compaction. Hard, tight, clay soils also impair the movement of air and water into and through the root-zone soil. In both situations, root growth is restricted, leading to a shallow-rooted turfgrass unable to withstand the stresses of traffic, extreme temperatures, and low moisture.

The remedy for compacted soils or hard, tight, clay soils involves the removal of 0.5- to 1-inch diameter cores to a depth of at least 2 inches. This practice is called core cultivation or aerification. Normally, a machine inserts a hollow metal tine or spoon into the soil and extracts a core from the turf. The length of the cores will vary due to soil strength and penetration capacity of the coring device, but they should be at least 2 inches in length for effective aeration. Adding weight to the machine and wetting the upper 4 to 6 inches of soil one to two days prior to core cultivation will aid in the penetration of metal tines or spoons. At least two passes should usually be made with the coring unit for each cultivation. Cores displaced on the surface should be allowed to dry, and then chopped with a rotary mower. Proper eye and ear protection as well as a dust mask may be necessary when chopping up cores with a rotary mower. Incorporate the soil back into turf by hand raking with a garden rake or dragging a flexible steel door mat or piece of chain-link fence over the area.

Many lawns in Oklahoma would benefit from one or two core cultivations each year to improve the movement of air and water into the root-zone soil. Core cultivation also reduces excessive thatch layers. The best time to core cultivate is during periods of active plant growth. Core cultivate warm-season turfgrasses just prior to green-up in late winter or early spring and core cultivate cool-season turfgrasses early in the fall.

Drip (Trickle) Irrigation Systems

David Hillock

Drip irrigation systems are an efficient way to water the garden and landscape when compared to traditional sprinkler irrigation. Drip irrigation is a method of applying small amounts of water, often on a daily basis, to the plant's root zone. Drip irrigation works well in commercial

operations as well as in home landscape situations. It is not an efficient system for irrigating lawns; here a sprinkler irrigation system is more conducive.

A drip irrigation system has four major components:

- delivery system: emitters or line source drip tubing
- filters: sand, disk, or screen
- pressure regulators: spring or valve
- valves: hand-operated, hydraulic, or electrical

How you put these components together will depend on the size of the system, the water source, the crop and the degree of sophistication you desire.

Advantages and Disadvantages

Although many advantages favor installation of a drip system, there are some limitations as well.

Advantages

1. Smaller water sources can be used, as trickle irrigation may require less than half of the water needed for sprinkler irrigation.
2. Lower pressures mean reduced energy for pumping.
3. High levels of water management are achieved because plants can be supplied with precise amounts of water.
4. Diseases may be lessened because foliage remains dry.
5. Labor and operating costs are generally less, and extensive automation is possible.
6. Water applications are precisely targeted. No applications are made between rows or other non-productive areas.
7. Field operations can continue during irrigation because the areas between rows remain dry, resulting in better weed control and lower production costs.
8. Fertilizers can be applied efficiently to roots through the drip system.
9. Watering can be done on varied terrains and in varied soil conditions.
10. Soil erosion and nutrient leaching can be reduced.

Disadvantages

1. Initial investment costs may be more on a per acre basis than on other irrigation options.
2. Management requirements are high. A critical delay in operation decisions may cause irreversible damage to crops.
3. Frost protection that can be achieved by sprinkler systems is not possible with drip systems.
4. Rodent, insect or human damage to drip tubes may cause leaks.
5. Filtration of water for trickle irrigation is necessary to prevent clogging of the small openings in the trickle line.
6. Water distribution in the soil is restricted.

A simple drip system can be designed for containers on patios making water management much easier. Instead of having to drag a hose around your patio or deck where container plantings may be placed, a relatively cheap controller can be attached to the spigot with a drip system attached

to water all those pots. Another advantage is if you go out of town for a little while you won't have to worry about asking your neighbors or a friend to water your plants for you.

For more information about drip irrigation systems, see [F-1511](#), Drip (Trickle) Irrigation Systems.

"Plow and Prep Day"

Sue Gray and Lynn Brandenberger

A field day hosted by the Oklahoma Vegetable Research Station in cooperation with Tulsa County Extension will be held on Saturday, April 14, 2007 from 10 a.m. until Noon. The research station is located at 13700 S. Mingo Rd. in Bixby. For more information about the field day, visit Tulsa County Extension's web site - www.oces.tulsacounty.org.

Master Gardener Corner

David Hillock

2007 Oklahoma Master Gardener Continued Training Summer Conference!
June 7-8, 2007

By now Master Gardeners should have received a postcard in the mail reminding them of the conference. "The Perennial Gardener – Planting the Seeds of Hope, Come Grow with Us!" is this year's State Master Gardener Conference theme. The conference will be held at the Claremore Expo in Claremore. The conference will include an evening social on Thursday at the Will Rogers Museum (a change from previous announcements), many wonderful speakers, garden tour to a local garden, door prizes, and of course – lots of excellent food!

Speakers for the conference include keynote speaker C. L. Fornari, Master Gardener with Barnstable Cooperative Extension, writer, speaker, radio host of GardenLine on WXTK, and works at Hyannis Country Garden Center on Cape Cod. Her presentation will be "Myths, Lies and all the Latest Dirt." Much commonly held knowledge often turns out to be misinformation. This straight talk from a fellow gardener will sort out garden fact from garden fiction.

Breakout topics and speakers include: Digging into Your Garden Psyche, Leslie Barnes; Enduring Roses, Phil Pratt; A Garden Pond: Your Private Oasis, Conrad Kleinholz; Beyond Hostas: Other Socially Acceptable Shade Perennials, Russell Studebaker; Drying Flowers – Preserving the Floral Season, Vicky Hensley; What's Really Bugging Oklahoma Gardeners?, Allan Storjohann; Gardening In Spite of Oklahoma Weather, Al Sutherland; Our Best Foot Forward, C.L. Fornari; Easy Care Plants for Diverse Oklahoma Landscapes, Larry Ahrens; Landscaping with Shrubs and Ornamental Trees, Larry and Jared McClure; The Garden Tour, Master Gardener Association of Rogers County.

For more information about the conference and speakers, go to our conference web site at www.hortla.okstate.edu. Program and registration information will be sent out in mid-April.

Upcoming Horticulture Events

Oklahoma Gardening Summer Gardenfest

June 9, 2007, OSU Botanical Garden, Stillwater

Greenhouse Production Short Course

June 27-28, 2007, OSU-Oklahoma City

Mark your calendars now for the Oklahoma Greenhouse Growers' Association's Greenhouse Production Short Course at OSU-Oklahoma City. This event, organized by Oklahoma green professionals and university personnel, is designed to meet the needs of both seasoned as well as novice growers. Topics relevant to retailers will also be discussed. For more information, contact Mike Schnelle at 405-744-7361 or mike.schnelle@okstate.edu.

Specialty Cut Flowers Workshop

September 5, 2007, Stillwater

Learn how to grow ordinary flowers for sale to florists, farmers' markets, etc. Commercial growers as well as university instructors will co-teach this course. For more information, contact Mike Schnelle at 405-744-7361 or mike.schnelle@okstate.edu.

OSU Turfgrass, Nursery and Landscape Field Day

September 12, 2007, OSU Botanical Garden

Plant Materials Conference

October 9-10, 2007, Stillwater

This workshop will feature speakers lecturing on both herbaceous and woody ornamental species. Both native and non-native plant materials will be presented. For more information, contact Mike Schnelle at 405-744-7361 or mike.schnelle@okstate.edu.

Oklahoma Greenhouse Growers' Fall Update

October 10, 2007, OSU-Stillwater

Contact Mike Schnelle for additional information at Mike.schnelle@okstate.edu or 405-744-7361.

Tree Care Workshop

November 7, 2007, OSU Botanical Garden, Stillwater

University personnel at OSU-Stillwater will host a tree care workshop designed for arborists, horticulturalists, urban foresters and other allied professionals. The workshop will be taught primarily indoors with afternoon laboratories offered at the OSU Botanical Garden. For more information, contact Mike Schnelle at 405-744-7361 or mike.schnelle@okstate.edu.

62nd Annual Oklahoma Turf Conference & Trade Show
November 13-15, 2007, Watkins Center, OSU-Stillwater

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