

Horticulture Tips

April 2006

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 (F-7615) 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.

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, buffalo, and zoysia should be 1 to 1½ 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.

Fact Sheet Revised

David Hillock

This past winter we merged two fact sheets to create one with a new title. "Roses in the Landscape" (F-6400) and "Rose Culture in Oklahoma" (F-6403) were combined to create "Roses in Oklahoma" (F-6403). This new fact sheet has current recommendations for the selection and care of roses and includes several colorful images.

Drought Condition and Grapevines

Eric T. Stafne

Grapevines typically have an extensive root system when they reach maturity, if they have the benefit of being planted in a deep soil. Therefore, they are usually very tolerant of drought condition; however, crop quality and yield may suffer. New vineyards must have sufficient water for establishment, because unlike mature vines, new transplants are extremely vulnerable. The timing of water stress is greatest for grapevines in the late spring and early summer when rapid shoot growth and berry cell division occurs. Lack of water at this time can lead to poor berry set and small berries. The next most critical period is during berry cell expansion during the summer. This occurs before veraison (ripening). If water stress is severe during veraison small berry size and delayed maturity may result.

Efficiency of irrigation is important during drought conditions. Soil moisture should be monitored and water applied only when necessary. Included in this efficiency is the functionality of the irrigation system itself. The irrigation system should be in good condition and work properly for the best use of the irrigation water. In a case like this past year when winter precipitation has not been adequate, irrigate early in the season to fill the soil profile. Do not over irrigate, but make sure the soil moisture level is high enough going into the summer that the vines (and the crop) will not suffer.

Some cultural practices that may help in drought conditions are fertilize and prune to produce moderate growth and yields, reduce competitive weed growth in the vineyard, mow or remove cover crops, and thin heavy crops to moderate levels.

Beneficial Insects

David Hillock

Insects are considered to be the most successful animals on earth in terms of number of individuals, number of species, and range of habitats. There are more known species of insects (nearly 1 million) than all other forms of life, and they occupy nearly every terrestrial habitat.

Most people think only of pests when they think of insects. But, in fact most insects found in yards, gardens or crops do not feed on or harm plants. Many of these are just "passing through" or have very innocuous habits. Others feed on and destroy pest species. In many cases, the activities of these beneficial species can prevent or greatly limit pest problems. It is important to recognize these beneficial insects, so they can be appreciated and conserved.

Beneficial insects can be categorized broadly as either predators or parasites. During development, in both adult and immature stages, insect predators actively search out and consume several prey insects. Predators include lady beetles, green lacewings, and damsel bugs. Insect parasites develop in or on a single host from eggs or larvae deposited by the adult parasite. Common parasites include tachinid flies and many kinds of wasps.

Use of Beneficial Insects in Pest Control

Over the past few years, there has been a tremendous interest on the part of the general public to reduce the use of pesticides in and around the home and, at the same time, an increased interest in the use of natural enemies to control insect pests. Individuals should keep in mind that the use of natural enemies against insect pests (biological control) is nothing new and has been studied by entomologists for more than 75 years.

Augmentation (Releases)

Biological control of pests appears to be feasible in greenhouses. Various experiments have shown good control of spider mites, whiteflies, mealybugs, and aphids through releases of a variety of predacious mites, parasitic wasps, and lady beetles.

Experiments out-of-doors have not enjoyed the successes of those in greenhouses. One situation in which releases show considerable promise is in using parasitic wasps to control house flies and other filth-breeding flies around livestock operations. Several species of wasps have been tested, most commonly in caged poultry houses. They also show promise around swine and dairy operations.

Releases of trichogrammatid wasps (egg parasites) and green lacewings (predators) have shown some promising results in field crops, especially cotton. Some problems remain to be solved in the production and distribution of the large numbers of insects needed (e.g. 50,000 to 100,000 wasps per acre at two to three day intervals for good bollworm control in cotton.)

Releases of the convergent lady beetle seldom seem to be of much benefit in the release area. Either the beetles disperse rapidly or they remain but do little feeding, depending on whether they were collected in winter/early spring or in late spring/summer. Releases of preying mantids

also seldom show much benefit as they are not selective and will feed on beneficial insects, including each other, as readily as on harmful ones.

There have been a few reports of biological control of pest insects in commercial orchard and vegetable crops, but research has not been as extensive in these crops as in some of the field crops. Virtually no research has been conducted on releasing beneficials in areas such as parks, home lawns or backyard gardens. Overall, there seems to be little chance of gaining much benefit from yard-garden types of releases, and they are not currently recommended by the Oklahoma Cooperative Extension Service.

Conservation

The effects of naturally occurring parasites and predators can be enhanced through efforts to minimize their destruction by unwise pesticide use. Most insecticides are relatively broad spectrum, killing beneficials as well as target pests. However, a few insecticides, such as *Bacillus thuringiensis* (DIPPEL), are not toxic to predators and parasites. Where possible, the use of systemic insecticides, which penetrate the plant and have less contact toxicity, can help preserve natural enemies. Most importantly, sprays should only be used when necessary as determined by close examination of plants or through past experience. Minimizing insecticide exposure can greatly improve the chances of beneficials providing control of the target pest.

For more information see OSU Extension Fact Sheet F-7307 "Beneficial Insects."

Survey of St. Augustine Turfgrass in Southeast Oklahoma

Jim Shrefler

St. Augustinegrass (*Stenotaphrum secundatum*) is a major turf species in the gulf coast region of the United States and its distribution extends into northeast Texas and southern Oklahoma. As one moves further north, adaptation of the species is thought to be limited by its lack of cold tolerance. Although the grass is known to be present in southeast Oklahoma, being used extensively in several cities, documentation of the presence of this turf species is needed as a basis for the development of cultural and pest management recommendations. A survey was conducted during 2005 in southeast Oklahoma to obtain that documentation. The survey was a cooperative effort among County Extension Educators, Bryan County Master Gardeners, and Area and State Extension Specialists (representing Horticulture, Entomology and Plant Pathology Departments at Oklahoma State University at Stillwater). The project was made possible by a grant from the Integrated Pest Management (IPM) program of the OSU Department of Entomology and Plant Pathology.

The survey was limited to residential use of St. Augustinegrass and included the 14 counties in southeast Oklahoma listed in the table. Surveys were conducted by County Extension Educators, Area Horticulture Specialist and, in Bryan County, by the Bryan County Master Gardeners. The project attempted to include a cross section of communities and was designed to determine the distribution of the turf species and to characterize major features of sites having St. Augustinegrass. St. Augustine presence ranged from less than 1% in Shawnee (Pottawatomie County) to approximately 50% in Idabel (McCurtain County) and Durant (Bryan County).

The results corroborate previous observations by OSU turf specialists on the presence and northernmost distribution of St. Augustinegrass in Oklahoma. The turf species was found to be quite popular in some of southernmost counties and much less abundant in Counties such as Pottawatomie, Haskell and Seminole. A general observation made during the project was that St. Augustinegrass provides attractive lawn areas in situations including those receiving low and high maintenance. St. Augustinegrass appearance was often an improvement over areas in the same yard having other turf species. This suggests that, where it is adapted, St. Augustinegrass has potential to be a useful turf species for residential situations in Oklahoma. However, more information is needed to determine what specific site conditions contribute to St. Augustine adaptation in southeast Oklahoma.

Results of survey of St. Augustinegrass use in southeastern Oklahoma.

County	City / Town	Total number of lawns in survey	Number of lawns with St. Augustine ¹	Percent of total number surveyed having St. Augustine
Atoka	Atoka	315	52	16.5
Bryan	Durant	268	143	53.3
Bryan	Calera	48	8	16.7
Bryan	Caddo	51	33	64.7
Haskell	Stigler	130	3	2.3
Johnston	Tishomingo	104	32	30.8
LeFlore	Heavener	48	9	18.7
LeFlore	Poteau	119	0	0
Love	Marietta	159	53	33.3
Marshall	Madill	145	50	34.5
McCurtain	Idabel	194	107	55.1
Murray	Sulphur	157	1	0.6
Murray	Davis	75	5	6.7
Murray	Dougherty	10	0	0
Pittsburg ²	McAlester	143	1	0.7
Pontotoc	Ada	440	83	18.9
Pottawatomie	Shawnee	368	1	0.3
Seminole	Wewoka	297	18	6.1
Seminole	Seminole	255	3	1.2

1. St. Augustine presence obvious in lawn. Lawns may include other grasses as the dominant species in some areas.
2. Following the survey of Pittsburg County, an apparently greater incidence was found to occur in areas not included in the survey. Consequently, results may be an underestimate.

Ginkgo

David Hillock

Ginkgo, also known as Maidenhair Tree (*Ginkgo biloba*), is one of my favorite trees for the landscape. It is 40-70 feet at maturity and has unique fan-shaped leaves. It has beautiful golden

fall color and is extremely adaptable. It is pest free and is pyramidal to wide spreading in habit at maturity. Ginkgo makes a great city tree and is an attractive addition to the medium-sized landscape. Ginkgo is tolerant of a wide range of soils and growing conditions, but prefers deep, sandy, moderately moist soils; it is also very heat tolerant making it a good choice for the southern portions of Oklahoma. It is slow growing, often growing only a foot or less per year. Choose male selections to avoid foul smelling fruit.

April is a Busy Time for Pecan Educational Opportunities

Becky Carroll

April 24, 7 p.m. – Payne County Grafting Workshop, Heritage Hall, Payne County Expo Center. For information contact Kelsey McCollum at 405-747-8320.

April 25, 2 p.m. – Northeast Pecan Growers Meeting and Annual Grafting Demonstration, Walt Thrun's Orchard near Claremore in Rogers County. For Growers (Large or Small) and Homeowners who want to learn pecan management updates on pest and disease control, IPM methods, fertilizing, and marketing issues. Speakers include Eric Stafne, OSU State Extension Specialist, Fruit and Pecans; Phil Mulder, OSU State Specialist, Entomology, Pecans and Edible Crops; Michelle Buchanan, Northeast Area Pest Management Specialist; Josh Payne, Northeast Area Animal Waste Management Specialist; and Bill Ihle, Pecan Broker and Marketer. For more information contact John Haase at 918-341-2736 or Sue Gray at 918-746-3717.

April 27, 1 – 4 p.m. – Cleveland County Pecan Workshop, Frye Auditorium, Cleveland County Fairgrounds, Norman. Speakers tentatively include Dr. Eric Stafne, OSU Extension Specialist and Charles Rohla and Dooly Barlow from Noble Foundation. Topics covered will be: maintenance and care of pecan trees for the homeowner, harvesting, diseases and insects, and grafting. For information contact Samantha Wagner at 405-321-4774.

Lane Agriculture Center Field Day

Jim Shrefler

Mark your calendar! The 2006 Lane Agriculture Research and Extension Center Field Day is scheduled for Saturday, June 10. The event will feature tours of research and demonstration projects, an antique tractor show and competitions, a stock dog exhibit, fish fry and, of course, a watermelon seed spitting contest. Of particular interest to horticulture enthusiasts will be the certified organic vegetable production research and demonstration projects. Watch the center web site at www.lane-ag.org for details.

Master Gardener Corner

David Hillock

2006 Oklahoma Master Gardener Continued Training Summer Conference is scheduled for May 19, 2006. By now Master Gardeners should have received a postcard in the mail reminding them

of the conference. "*Master Gardeners – Nature's Helping Hands*" is this year's State Master Gardener Conference theme. The conference will be held at the Southeast Expo Center in McAlester. Speakers for the conference include keynote speaker Steve Aitkin, of Fine Gardening Magazine – "Container Gardening – Thrillers, Fillers, and Spillers"; Steve Upson – Season Extension Techniques for Home Gardeners; Joan Lindley – Oklahoma Roadside Wildflower Program; Debbi Beck – Growing and Using Herbs; Ray Huhnke – Accessible Gardening; Julia Laughlin – Vegetables, The Ones I Can't Live Without!; Keith and Cathy Amason – Bee Fore It Grows; Mark Erickson – Just Flowers; Brian Jervis – Moles and Gophers; Steve Aitken – Simple Strategies for Charming Combinations; and David Redhage – Common and Unusual Fruits for Oklahoma.

A preconference "Taste of Italy" social is scheduled for Thursday evening at Chadick Park from 6 to 8 p.m. The park has some wonderful plantings and collection of dogwoods; tours of the gardens will be provided. The Pittsburg County Master Gardeners invite you to come join them for an enjoyable evening with great Italian food and great Eastern Oklahoma hospitality. Hope to see you all there! Program and registration information will be sent out in just a couple weeks. You may also view information about the conference by going to the conference web site - <http://www.okstate.edu/ag/asnr/hortla/mgardener/mgconference.htm>. For more information contact David Hillock, Master Gardener Coordinator, Oklahoma State University, Department of Horticulture and Landscape Architecture, 360 Ag Hall, Stillwater, OK 74078. E-mail: hillock@okstate.edu; phone: 405-744-5158.

Upcoming Horticulture Events

Turf and Nursery Field Day

May 17, 2006, OSU Botanical Garden, Stillwater

State Master Gardener Continued Training Conference

May 19, 2006, McAlester, Oklahoma

Landscape IPM Workshop

May 31, 2006, OSU, Stillwater Campus

Workshop Topic - *Quality of Mulch Makes a Difference* - Landscapers should be wary of sour smelling mulch that can result in phytotoxicity to plants. Research has shown that by-products such as formaldehyde, methanol and acetic acid can be generated in stagnant mulch piles (not properly aerated). For more information on the workshop, contact Mike Schnelle at 405-744-7361 or mike.schnelle@okstate.edu.

Oklahoma Gardening Summer Gardenfest

June 10, 2006, OSU Botanical Garden, Stillwater

Greenhouse Production Short Course

June 28-29, 2006, OSU-Oklahoma City

Contact Mike Schnelle at 405-744-7361 or mike.schnelle@okstate.edu

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