

Horticulture Tips

April 2005

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.

Landscape - General

- Hummingbirds arrive in Oklahoma in early April. Get your 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.

Looking for Grape Information?

Becky Carroll

The Grape Home Page (<http://www.okstate.edu/ag/asnr/hortla/ftpens/grapes.htm>) has been recently updated to include more frequently requested items. This is the web page that growers, extension personnel and others can check for grape information. Harvest Data from 2003 and 2004 research plots at Perkins have been summarized and posted to this web site. An updated winery list and map has been added to the site as well as an updated nursery supply list.

The Oklahoma Vineyard Establishment and Management Handbook has been linked to this site. This 49 page document covers many items including planning a vineyard, rootstocks, irrigation, pest management, and economics.

Another interesting link is to the Evans Library of Fruit Science. This has many grape growing and winemaking publications attached to the site. Many online books, journals and magazines are available at this web page.

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.

Onion Care and Handling

Jim Shrefler

Whether in a home or market garden, onions are a favorite of many vegetable growers. If you planted onions from transplants this year they should begin vigorous growth soon, if they have not done so already. Do not overlook the need for nitrogen fertilizer for producing large onions. Unless you have a garden with very fertile soil, now is the time to apply nitrogen fertilizer to enable vigorous growth. Two possible sources are ammonium nitrate or urea. A rough estimate of how much of these fertilizers to use is $\frac{1}{4}$ of a pound for 20 feet of row. Scatter the fertilizer along the 20 feet distance so that it covers 1 $\frac{1}{2}$ feet on each side of the row. Do not put the fertilizer directly on the plants and do not concentrate it at the base of the plants. Doing so could cause injury to shallow plant roots. Fertilizer can be left on the surface or scratched lightly into the soil surface. Water gently following fertilizer application.

Primary pest problems observed in onions in southeast Oklahoma in recent years include thrips, purple blotch, and black mold. There are additional pests that affect onions one should also watch for. Thrips are tiny insects that feed on the leaf surface. Heavy infestation will result in leaves taking on a silvery appearance. Thrips are most easily observed when leaves are gently separated at the onion neck. The insect will appear as tiny yellow or dark colored specks that move when disturbed. Although tiny, thrips can be very damaging to onions. Two species are commonly present; onion thrips and western flower thrips. The two species are not readily distinguished by an untrained observer. Insecticide treatment for thrips will depend on the particular producer's situation. Inspect onions frequently to determine if the plants have an

infestation. Contact your County Extension Office for information on insecticides to use for thrips.

Fungal diseases are another concern in onions. Healthy leaves are needed to produce an onion bulb. Diseases of the foliage can quickly destroy healthy plants. Purple blotch is one of these and it is first observed as tiny water-soaked lesions on the leaves. If conditions are suitable the lesions can enlarge and destroy the leaf. The way to control purple blotch is to use preventive fungicide applications. This means the fungicide needs to be applied before the disease is observed. The threat of this disease is greatest under rainy, wet and humid conditions. When conditions such as these are forecast, the use of fungicide in advance of the wet weather is highly recommended. Your County Extension Office can provide information on suggested fungicides for purple blotch and other vegetable diseases.

Finally, black mold is a disease that was observed in onions harvested last summer during a rainy period. The onion bulbs appeared normal at harvest but began to develop a black powdery material under the dry outer scales. This was a mold that infected onions due to extremely wet conditions at harvest. Suggested control measures are to store onions at temperatures below 60. Note that storage at temperatures cooler than provides additional benefits. Avoid bruising onions during harvesting and handling.

Controlling Insects in the Landscape and Garden

David Hillock

I noticed this weekend that aphids were already appearing on my daylily plants; I decided to ignore them. Most likely there will be some natural predators around, like lady beetles, and they will probably take care of my problem without me having to reach for the insecticides. Doing frequent scouting through the landscape and garden is a good practice to get into. Most insect and disease problems can be handled without pesticides if you catch them early enough. Insect control can often be done by cultural and mechanical methods such as crop rotation, handpicking, a hard stream of water or using barriers like row covers and collars to protect young stems of plants. Using resistant varieties whenever they are available is highly recommended. Insecticide products that are safer for the environment are also available for different situations; use these whenever possible.

Conifer Diseases

David Hillock

Cedar Apple Rust

This disease is very common on juniper or cedar trees in Oklahoma. The most striking feature of this disease is the gall that appears on the cedar in the spring. Long, orange, gelatinous tendrils or horns develop from these galls and homeowners can easily recognize these structures and know that this disease is active. These galls can be pruned by the homeowner before the horns are formed to achieve control of this disease. For more information concerning this disease refer to OSU Extension Facts F-7611, Cedar Apple Rust.

Phomopsis Blight of Junipers

This is the most common disease of cedar, juniper, and arborvitae in Oklahoma. Phomopsis Blight can be a severe problem in nursery plantings and can cause the death of many seedlings. Older trees are less affected by Phomopsis Blight and unless these trees are environmentally stressed or in poor health they are usually not affected enough to warrant chemical sprays.

Symptoms and Disease Cycle

Infected trees will exhibit browning of the foliage and dying of twigs and branches. Small black fruiting bodies of the fungus, *Phomopsis juniperovora*, are formed on this dead tissue. Conidia are produced in these structures and when moisture is present masses of conidia will ooze out to form tendrils or horns. The conidia are spread by rain and various other means such as mechanical disruption and insects. The fungus enters the plant through wounds as well as unbroken tissue. The browning of the needles and twigs begins at the tips and progresses downward toward the stem. Moisture is an important factor in disease spread and severity. Nurseries and Christmas tree plantations that utilize over head irrigation usually have more severe disease problems because wetting of the foliage results in earlier spread of the conidia.

Control

Good sanitation is important in reducing disease occurrence. Clean cultivation, good drainage and roguing (removing affected plants or plant parts) are important techniques that should be followed. Fungicides are usually applied as protectants and a regular schedule of fungicide sprays must be applied to prevent the penetration of the fungus into the plants. Homeowners are encouraged to use at least two sprays, once when the disease is first noticed and another 10 to 14 days later. For best control, infected twigs should be pruned prior to the application of the fungicide.

Diplodia Tip Blight

Symptoms

This fungal disease can seriously attack pine seedlings in nurseries, but also causes a dieback of the branches of older pine trees. Growth from these blighted terminals is usually stunted, the needles turn brown, and the terminal buds exude an excessive amount of resin. Diplodia can also infect the cones of these older pines and the minute black fruiting bodies can easily be seen on the scales of the cones.

Disease Cycle

Diplodia pinea infects the plants through the young needles. Infection takes place through small openings in the needles called stomates. Infection can also occur through wounds and cracks in the bark.

Control

Diplodia Tip Blight on older trees can be controlled by pruning and sanitation. As soon as blighted terminals and cones are noticed, the needles, twigs and cones should be pruned to healthy tissue and destroyed. Do not prune when the branches are wet because the conidia of the fungus can easily be spread when moisture is present. Where infection has been severe, the use of Bordeaux mixture or Copper Fungicide 4E will control this disease. It should be applied early in the spring, when the buds open, and twice more at weekly intervals until the needles break

through the needle sheaths. An application of fungicide in the fall may also aid in slowing the spread of the disease; however, fertilization and watering in the fall may be more beneficial. Homeowners who maintain vigorous trees through good tree health care will have fewer problems with Diplodia Tip Blight.

Fact Sheet Revised

David Hillock

This past winter we revised **F-6415 "Training Young Shade and Ornamental Trees."** The updated fact sheet includes new diagrams and images and the most current recommendations for training young trees. Topics covered include pruning, protecting the trunk, and staking. If you have recently planted a tree or have young trees on your property, this fact sheet will help you prepare them for the years ahead. A properly trained tree will ultimately result in a tree that is structurally stronger, longer-lived, and less costly to maintain.

Mexican Feather Grass

David Hillock

Mexican feather grass is definitely one of my favorite ornamental grasses and may actually be sitting at the top of my list right now. Mexican feather grass (*Stipa tenuissima*) has a very fine foliage texture that gives it a "wispy" appearance, easily swayed in even the gentlest breeze. Leaves are a beautiful bright green, almost iridescent, in summer, reaching to 1 ½ to 2 feet tall and just as wide. The flowers are silky green in June and become golden at maturity. The flowers are spectacular especially when backlit and are effective from June to late fall. Mexican feather grass is striking by itself or in masses or drifts. It also works well as an erosion control plant when planted on slopes. Mexican feather grass is quite drought tolerant once established. It prefers fertile, well-drained soil in full sun or part shade. However, it performs well in a wide range of conditions including clay or sand soils as long as it dries out in between waterings; it does not like wet feet. The only draw back I see is it does reseed itself and can become invasive. So far I haven't minded that little seedlings pop up in my garden, I welcome them and hope that they will fill in at least one corner of my garden.

Master Gardener Corner

David Hillock

Oklahoma Master Gardener Continued Training Summer Conference! June 10, 2005.

By now Master Gardeners should have received a postcard in the mail reminding them of the conference. "*Taking Gardening Into the Future*" is this year's State Master Gardener Conference theme. The conference will be held at the Frisco Conference Center in Clinton. Having the conference in western Oklahoma will allow us to experience some of the western garden flavor in the state. Speakers for the conference include keynote speaker David Salman, of High Country Gardens in New Mexico – "New and Underused Flowering Plants for Oklahoma

Landscapes"; John Fluitt, a landscape designer in central Oklahoma – "Sustainable Landscape Design in Oklahoma"; Dustin Snow, of Horn Canna Farm – "Growing Cannas in Oklahoma"; Mike Morgan, meteorologist for KFOR Channel 4 – "Trends in Weather"; and Pat Bolin and Sharon von Broembsen, from the department of Entomology & Plant Pathology – "Potential Exotic Pests and their Control". In addition to these fabulous speakers, we will have tours and mini workshops at Sunshine Nursery with Steve Bieberich and his staff.

A preconference ice cream social is scheduled for Thursday evening in Weatherford at the Blair Cabin from 6 to 8 p.m. The Blair Cabin is a historical cabin located in downtown Weatherford. The Custer County Master Gardeners took on the task of researching, planning and installing a heritage garden at the cabin site. Come see their handiwork and enjoy an evening of ice cream and great Western Oklahoma hospitality. Special door prizes from Satterlee, Wild Birds Unlimited, TLC, Atwoods and more will be given away to conference participants. **Hope to see you all there!**

Program and registration information will be sent out in May. 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, Dept. of Horticulture & Landscape Architecture, 360 Ag Hall, Stillwater, OK 74078. E-mail: hillock@okstate.edu; phone: 405-744-5158.

Lane Ag Center Field Day

Jim Shrefler

Mark your calendar for the Lane Agriculture Center Field Day that will be held Saturday, June 11, 2005. The event will offer something for everyone to enjoy including tours of research and demonstration projects, cold watermelon, antique tractor displays and competitions, and live entertainment.

Ongoing research and demonstration projects at the Center will be of particular interest. A featured project will be a large-scale demonstration of organic vegetable production. This project includes tomato, watermelon, sweet corn and southern peas. In the tomato portion of the project, different tomato varieties are being compared under organic production conditions. Information will be available on the practices used for soil fertility management and pest control in these vegetable crops.

Other research and demonstration projects include conventional and organic weed control in vegetables, pepper production, organic soil fertility practices, thrips control in onions. Additional projects on watermelon, cantaloupe, and turfgrasses will also be available to view.

In the area of forages, studies are currently underway with bermudagrass sprigging practices and dates and cool-season grass / legume forages.

Watch the Lane Ag Center website at www.lane-ag.org for future details.

Oklahoma Pecan Growers' Celebrate 75th Annual Conference

Becky Carroll

The OPGA will meet for their 75th Annual Conference in Stillwater on June 19-21, 2005. Registration materials and meeting agenda are available on the OPGA website at <http://www.hortla.okstate.edu/pecan/opga/index.html>. The Holiday Inn will be the meeting site with discounted rooms available for attendees.

Sunday, the group will meet at the Oklahoma Pecan & Fruit Research Station for a tour of the orchard and research plots. A dinner buffet will follow the tour.

Monday will be filled with educational meetings presented by many producers and specialists at the Holiday Inn. It is also a good time to visit with commercial exhibitors and view the 2004 State Pecan Show that will be displayed. A first for this year will be a silent auction featuring many handiworks of OPGA members. Some items to be auctioned are jams and jellies, quilts, wall hangings, and stained glass. Proceeds will benefit OSU pecan research activities. The Mount Family is once again sponsoring the Pecan Food Show. Attendees will want to enter their favorite pecan recipes to try to win one of the beautiful silver pieces awarded at the evening banquet. Other honors given at the banquet will be the Grower of the Year, the Herman Hinrichs Pecan Citation Award, and plaques for the winning pecan entries in the pecan show. Once again the winning food show entries will be auctioned to benefit pecan research.

The group will meet at Dick and Jean Hoffman's orchard and retail store east of Stillwater. Members will have the opportunity to tour the Hoffman's operation, listen to educational talks and view equipment demonstrations. The meeting will end with a lunch provided by Farm Credit Services.

Upcoming Horticulture Events

Spring Dead Spot of Bermudagrass Workshop

April 27, 2005, OSU Botanical Garden, Stillwater

This year the event is scheduled for 9 a.m. – 1 p.m. at the OSU Botanical Garden, 1 mile west of Stillwater. Lunch will be provided with registration. The workshop will be submitted for possible Pesticide Applicator Continuing Education Units (CEUs) and will have both indoor and outdoor presentations. A tour showing cultivar trials and variety response to the disease is planned. Spring dead spot is one of the most serious diseases of turf bermudagrass in the region. More information on the conference will be available shortly.

Turf Short Course In-Service for OSU Cooperative Extension Service Educators

May 11, 2005, OSU Botanical Garden Education Center, Stillwater

The training has been set for 9 a.m. – 4 p.m. on May 11 at the OSU Botanical Garden Education Center, 1 mile west of Stillwater. The event covers, in a 1 day compressed format, the fundamentals of turfgrass selection, establishment, pest management and general maintenance

pertinent to Oklahoma. Lunch and break refreshments will be provided. Instructors will be Nathan Walker (Turf IPM Scientist), Tom Royer (Extension Entomologist), Holly Compton (Turf Extension Assist) and Dennis Martin (Turfgrass Specialist). Attendees will gain insights and skills in assisting not only their consumer clientele but also information vital to working with professional lawn care applicators, sports field managers and golf course superintendents. Interested OCES extension educators can sign up for the in-service at the staff development site at <http://intranet.okstate.edu/OCES/index.htm>.

Integrated Pest Management for Landscape Professionals

May 25, 2005, OSU, Stillwater

A one-day landscape IPM workshop will be offered with the focus on outdoor stops covering typical scenarios that a landscaper would encounter at his/her workplace. This event will be team taught by horticulturists, plant pathologists and entomologists.

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

Oklahoma Gardening Summer Gardenfest

June 11, 2005, OSU Botanical Garden, Stillwater

Featured keynote speaker will be Felder Rushing.

Oklahoma Greenhouse Growers' Association Greenhouse Short Course

June 28-30, 2005, OSU-Oklahoma City

A greenhouse short course will be conducted with speakers addressing needs of both seasoned as well as new growers. For information contact Wendy Gerdes at 405-942-5276 or OklahomaONLAOGGA@aol.com

Grape Field Day

July 23, 2005, Oklahoma Fruit Research Station, Perkins and Woodland Park Vineyard, Stillwater

Nursery, Landscape and Greenhouse Trade Show and Convention

September 30-October 1, 2005, Tulsa Convention Center

Contact Wendy Gerdes – OklahomaONLAOGGA@aol.com

Greenhouse Growers' Fall Update

October 26, 2005, Holiday Inn, Stillwater

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

60th Annual Oklahoma Turfgrass Conference & Trade Show

November 16-18, 2005, Wes Watkins Center for International Trade Development, Stillwater

"Stillwater, Where Oklahoma and the Oklahoma Turfgrass Conference began." The conference and show will provide a broad array of educational presentations. Education is being planned for the sports turf, landscape, lawncare, sod production and golf course management industries.

Pesticide Applicator CEUs will also be available. Unlike previous years, participants will choose from one of several designated hotels. Early booking of rooms will be required of attendees since the various sporting events in Stillwater results in competition for lodging. More information on the conference will be available shortly.

6th Annual Oklahoma/Arkansas Turf Short Course

January 11-12, 2006, OSU Botanical Garden, Stillwater

The event is an introductory short course that targets those practitioners in the landscape and lawncare industries who have not had the opportunity to take an introductory turf course. However some attendees are those who are new to the AR/OK region or those simply wanting to brush up on regional turf recommendations. The course covers turf identification, selection, establishment and the maintenance practices common to the region. The focus of the short course is on the "why" behind the "how" turf is managed in the region. More information on the conference will be available in October.

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