Horticulture Tips
May 2008

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

GARDEN TIPS FOR MAY!

David Hillock

Trees and Shrubs

- Prune and feed azaleas immediately after blooming.
- Insect Alert: (F-7306)
- Bagworms on juniper and arborvitae. (Late May)
  - Elm leaf beetles and larvae on elms. (Late May)
  - Mimosa webworms on mimosa and honey locust.
  - Lace bugs on sycamore, pyrancantha and azalea.
- Soak new transplants and newly planted trees unless rainfall is abundant.
- Pine needle disease treatments are needed in mid-May. (F-7618)

Turfgrass

- Cool-season lawns can be fertilized again. If you did not fertilize cool-season grasses in March and April, do so now.
- Warm-season lawns may be fertilized again in May. (F-6420)
- Seeding of warm-season grasses such as bermudagrass, buffalograss, zoysiagrass and centipedegrass is best performed in mid-May through the end of June. The soil temperatures are warm enough for germination and adequate growing season is present to promote winter hardiness.
- Dollar spot disease of lawns can first become visible in mid-May. Make certain fertilizer applications have been adequate before ever applying a fungicide. (F-7658)
- Nutsedge plants become visible during this month. Post-emergent treatments are best applied for the first time this month (F-6421). Make certain warm-season grasses have completed green-up.
- The second application of pre-emergent annual grass herbicides can be applied in late-May or early June, depending upon timing of first application (F-6421). Check label for details.
- Vegetative establishment of warm-season grasses can continue. (F-6419)

Flowers

- Annual bedding plants can be set out for summer color.
- Plant summer bulbs such as cannas, dahlias, elephant ear, caladiums and gladiolus.
- Shake a leaf over white paper to look for spider mites. If the tiny specks begin to crawl, mites are present.

Water Gardens

- Clean out water garden and prepare for season. Divide and repot water garden plants.
- Begin feeding fish when water temperatures are over 50°F.

Fruits and Vegetables

- Plant watermelon, cantaloupe, cucumber, eggplant, okra, sweet potatoes, etc.
- Fruit spray programs should be faithfully continued during the next several weeks. (F-7319).
- Late May is the best time to control borers in the orchard. Check for label recommendations and controls.

Container Planting Tips

Kimberly Rebek

The success of a container is rooted, quite literally, in a healthy soil. And perhaps the most important thing to consider with soil is not the composition itself, which is certainly important, but drainage. Good drainage is absolutely necessary to growing healthy plants in containers. The first step in providing appropriate drainage is in selecting the container itself. Containers need drainage holes at the bottom to allow excess water to flow out of the pot. If water is trapped and allowed to stand inside the pot, the roots can suffocate and disease is likely to occur. One way to encourage container drainage is to elevate containers by placing them on a brick or block.

Inside the pot, we can further help improve drainage by placing a variety of materials in the bottom of the container. Gravel is commonly used, as are broken pieces of clay pots and small plastic nursery pots. Sometimes, we use large containers for their visual impact, but do not require such a large soil volume for the plants we put in the container. One thing you can do is fill the bottom third of the planter with empty milk jugs or other materials to act as spacers. You will use less soil, which will save money, and the planter will be much lighter and easier to move. A number of products are available for purchase at garden supply stores that can be used to improve drainage and reduce soil volume. These include Better Than Rocks® and Ups-a-Daisy® planter inserts, among others.

Now that we have taken care of drainage, let's add our soil. You will find an endless variety of soil mixes at the garden center, so what do you use? We want to consider drainage, but we also do not want our soil to dry out quickly. Compost makes an excellent media for containers – it is loose, rich, and has high organic matter content good for water retention. You can purchase pre-mixed potting soil, or mix your own with equal parts of sand, a loamy garden soil, and peat moss or perlite. Do not use soil from the garden, it tends to be too heavy for containers and does not drain well. Mixing a slow release fertilizer into the upper layers of soil in the container will allow for easy season-long fertilization.

As for plant material, you can grow just about any type of plant in a container, from annual flowers, to fruits and vegetables, to small trees and shrubs. Mix it up a little, experiment with a variety of combinations. Be sure to consider the conditions in the location you will place the container – is it sunny or shaded? Is there a lot of wind? Such factors can influence plant

selection. If you will be planting tender perennials or tropicals, you will also have to decide what you will do with the container during the winter. Some plants can withstand a dormant period in a sheltered location, such as a garage. Other plants need to be brought inside over the winter. make sure you know what a plant needs before making a purchase.

When selecting plants, consider color combinations, plant textures and form. A good way to plant containers is to fill them on three layers: fill the vertical space above the planter with upright plants, the surface layer of the container can be filled with low growing herbs, and fill the lower portion of the container with weeping or cascading plants. Sometimes, one plant can fill the bottom two layers, and another the vertical space.

Once you have your container in place, don't forget to water. Because the container has such good drainage, it will be very difficult to over-water it – but the plants will certainly suffer it they do not receive enough water. Water needs will increase as plants grow larger and as the temperature rises.

Collecting Soil Samples for Analysis

Kimberly Rebek

Soil tests should be a regular part of landscape planning and maintenance. When designing plantings, it is much easier to work with the existing soil conditions than to try to alter them. Knowing the pH and nutrient content of the soil will help in selecting the most appropriate plants for an area. Soil testing is also the only way that we can know exactly what type and how much fertilizer a planting requires. It is a good idea to have soils tested every two to three years.

Areas with different vegetation types need to be tested separately, because the vegetable garden and the lawn, for example, have different nutrition needs and pH requirements. Areas with drastically different soil conditions should also be tested separately.

To get started you will need a tool for collecting small samples. A soil probe is a great tool for sampling, if you have one. You can also use a shovel or even a small bulb planter. You will also need a bucket for sampling. The goal is to obtain a representative sample for each area being tested. To do this, you need to collect a number of samples from across the entire area being sampled and combine them into a single, representative sample. In a lawn, we may take as many as 15 to 20 cores.

Using a soil probe or shovel, collect a number of individual samples and mix them in a bucket. Make sure to use a clean bucket that does not have any cleansers in it. Many cleansers contain chemicals that could alter your soil test results. Collect samples to a depth of six inches. Mix these samples together and then fill a sample bag for analysis. Do **not** place the soil in a plastic bag before placing in the sample bag. Soil samples are dried in an oven, and plastic bags will melt and destroy the sample.

Sample bags are available at your county extension office, where soil samples may also be submitted. The samples are sent to the OSU Soil, Water, and Forage Analytical Laboratory for

testing. Tests cost $10 each, and evaluate soil pH, nitrate nitrogen, phosphorous, and potassium contents. You can also request micronutrient tests as well as organic matter content and other specific tests if you have a special concern or need. Test results include fertilizer recommendations specific to the type of vegetation growing on the site (lawn or garden). Be sure to mark the proper space on the sample label indicating the type of area sampled, such as turf or garden.

Rain Sodden Soil can Kill Peach Trees

Eric T. Stafne

Last year was an incredible year in terms of rainfall. Records were broken throughout the state for yearly rainfall. Rain fell every day for weeks causing major flooding. This led to situations on heavy soils where some fruit trees failed to make it through the summer. A prime example is peaches. Peaches, and other species in the Prunus genus, are extremely susceptible to soil flooding. Although a lot of variation exists depending on species and rootstock, in most cases 2-5 days of soil saturation is enough to kill a peach tree and in some instances as little as 1 day. This is not only attributed to lack of oxygen (hypoxia), but the anaerobic conditions create a hydrolysis of cyanogenic glycosides in the roots that leads to the production of cyanide and thus a toxic environment in the rhizosphere. I witnessed several trees that died due to the saturated soil conditions and heard anecdotal evidence of others. So, for peach trees, what is the best way to prevent another similar occurrence?

True, 2008 was likely an anomaly for rainfall; if not yearly amount, the 4 weeks of continuous rain last June seems highly unlikely to occur again anytime soon. But, for the sake of argument, what if it happens again this year or in the near future what does one do? If trees are already in the ground there is precious little one could do, but if someone is considering planting a peach tree a couple options are available: plant on well-drained soil or plant on a berm.

Site selection is critical, although many homeowners don't have much of a choice. If they want a peach tree they plant it on the land they have available to them. They can however create a berm (essentially a raised bed) to plant the tree on. This will improve drainage, but will also dry out faster, so irrigation is a must during the dry times. Peach trees are not very hardy plants. They can suffer mightily from drought and flooding, they are susceptible to many diseases and insects, as well as frosts. Growing peaches is not for the faint of heart and when they aren't planted in the right place, they might just expose themselves to enough cyanide to commit suicide.

Needle Blight of Pine

David Hillock

Dothistroma Needle Blight can cause the premature loss of needles of several varieties of pine. In Oklahoma, Dothistroma Needle Blight has been recorded from Austrian, Ponderosa and Mugho pines. This disease, if uncontrolled for several years, can severely weaken and eventually kill these trees.

Symptoms
Symptoms develop in the fall of the year in which the infection was initiated. Early symptoms consist of yellow and tan spots, and water-soaked bands on the needles. The bands and spots may turn brown to reddish brown and may be surrounded by yellow bands. The tips of the needles will die, with the base of the needles remaining green. The dead portion of the needle may break off leaving a blunted tip. Extensive damage may occur on the needles within two to three weeks of the initial appearance of symptoms. Infected needles will be shed or cast from the tree prematurely. Under Oklahoma conditions, needle fall is extensive following hot, dry summers.

Disease Cycle
The nonsexual stage of the fungus Dothistroma pini is the only stage found in Oklahoma. Conidia (spores) of the fungus are produced in stromata (a mass of fungal mycelium in or on which spores are formed) in the spots and bands on the needles. The stromata begin to form in the fall of the year, but most mature to produce conidia during the following spring. Conidia are spread by rainsplash throughout the growing season (May - October). Infection occurs throughout the growing season, but symptoms do not develop until late summer or early fall. Two seasons are required for completion of the disease cycle.

Control
Copper fungicides (Bordeaux Mixture or Copper Fungicide) effectively control Dothistroma Needle Blight. Two applications are recommended, the first in mid-May to protect the previous-season needles and the second in mid-June to July to protect the current-year needles. In addition, homeowners can help control this disease by collecting the infected needles and destroying them.

Annual Field Day – Saturday, June 21, 2008
Jim Shrefler

The 2008 Annual Public Field Day is scheduled for Saturday, June 21. The event will feature presentations of ongoing research and demonstration projects on horticultural crops and production systems including watermelon, specialty melons, tomatoes, onions, herbs, summer squash corn and southern peas. Part of the farm is certified for Organic production and we plan to have vegetables, herbs and oil crops growing in organic plantings. Among the research topics that field day guests will be able to learn about are watermelon disease studies, onion weed control and variety studies, vegetable production in hoop houses, non-chemical methods for weed control, genetic improvement of cucurbit vegetables, soil fertility improvement using organic methods, and bite-sized tomato variety trials.

Wagon tours of the farm and research projects will be available throughout the day. Indoor displays of Center projects and sponsor exhibits will also be of interest to visitors.

This year's field day will offer something for the entire family. There will be FREE food and refreshments including ice-cold watermelon. Youngsters of all ages are sure to enjoy the games and entertainment that is planned.

For more details, check our website at www.lane-ag.org. You may also call 580-889-7343 for more information. The Lane Agriculture Center is located on State Highway 3, 10 miles east of Atoka, Oklahoma.

Organic Workshop and Field Day – July 10, 2008

Jim Shrefler

An educational session on Organic farming will be held July 10 in the afternoon and evening. The event is open to anyone interested in learning about sustainable and organic gardening and farming practices. The event will provide attendees the opportunity to learn about experience gained over the past 5 years with organic vegetable production at the Center. Certified Organic land at the Center has been used for vegetable production since 2003. The activities will begin with an afternoon field workshop in which soil management issues will be discussed. The workshop will address soil fertility management and practices and measures taken to prevent soil erosion.

The afternoon workshop will be followed by a meal and presentations on the production practices that have been used for organic vegetable production at Lane. We will view planted crops and discuss current and past experience with the organic certification process, soil fertility management, cultural practices, insect pests, diseases, weeds, and vertebrate pests.

For further details call 580-889-7343. The Lane Agriculture Center is located on State Highway 3, 10 miles east of Atoka, Oklahoma.

2008 Southern Region Master Gardener Conference – June 18-21, 2008

David Hillock

This year the Oklahoma County Master Gardeners are hosting the Southern Region Master Gardener Conference, which will take the place of our state conference this year. The theme for the conference is *Gardening in Native America*. The conference will be held at the Clarion Meridian Hotel and Convention Center in Oklahoma City. The conference will include pre- and post-conference tours, breakout sessions, a banquet at the National Cowboy and Western Heritage Museum, trade show and other events.

Keynote speakers – Dr. William Welch, Dr. Carl Whitcomb, Steve Owens, Steve Dobbs and Dr. Mike Schnelle – as well as many breakout session speakers and topics will be offered. To see breakout topics and speakers visit our website www.mastergardener2008.com/.

Registration is now officially open! To register and view more information about the conference, go to our conference web site at www.mastergardener2008.com/.

Hope to see you all there! For more information contact David Hillock, Master Gardener Coordinator, Oklahoma State University, Department of Horticulture & Landscape Architecture, 358 Ag Hall, Stillwater, OK 74078; Email: david.hillock@okstate.edu; phone: 405-744-5158.

Upcoming Horticulture Events

Landscape Plant In-Service Extension Educator Training
May 20, 2008, Sunshine Nursery, Clinton, OK

For more information, please contact Mike Schnelle at 405-744-7361 or mike.schnelle@okstate.edu.

Landscape IPM Conference
May 28, 2008, OSU Botanical Garden, Stillwater, OK

For more information about the conference, please visit the following website *IPM for the Landscape Professional Workshop* - ***May 28***

Bixby Field Day
June 26, 2008, Oklahoma Vegetable Research Station, Bixby, OK

For more information, please contact Lynn Brandenberger at 405-744-5408/ lynn.brandenberger@okstate.edu or the Research Station at 918-369-2441.

Turf and Landscape Field Day
September 17, 2008, OSU Botanical Garden, Stillwater, OK

Greenhouse IPM Conference
November 5, 2008, OSU, Stillwater, OK

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