Greetings
Welcome to the May/June issue of Gardening in the Panhandle, a cooperative extension newsletter dedicated to landscaping and gardening in northwest Florida. While May signals the beginning of the rainy season in Florida, June ushers in the hot summer months and the beginning of the Atlantic hurricane season.

The major themes in this issue include turf, landscaping and vegetable gardening. We begin by expanding on an article from our last newsletter on irrigation systems and water conservation via smart irrigation controllers. You’ll also learn about plants that will be able to tolerate the heat and humidity of the summer, how well placed trees in the landscape can reduce home energy, a featured pest, and tips for protecting vegetable transplants.

To help you prepare for the 2011 hurricane season, please visit the UF/IFAS Solutions for Your Life-Hurricane Preparedness and Recovery and the Urban Forest Hurricane Recovery Websites.

Soil Moisture Sensors
In the last issue of Gardening in the Panhandle, I discussed several tips for checking irrigation systems for efficiency and run time, and introduced several types of “smart irrigation” systems. According to research conducted by Dr. Michael Dukes, a specialist with the University of Florida, soil moisture sensors are one of the most effective new technologies for irrigating lawns and landscape beds.

Soil moisture sensors (SMS) use electrodes buried within the root zone of turf, which are calibrated to a certain level of moisture in the soil. This calibration is based on the soil’s ability to hold an electrical charge, which is higher with increased water content and lower when spaces between soil particles are filled only with air (i.e. dry). The systems run only when water levels drop below a preset threshold.

A single SMS can be used for multiple zones, although there are several important steps to consider before final placement in the lawn. These include making sure the soil where the sensor is buried is representative of the entire lawn, having sensors buried at the same level of the plant’s root zone (about 3 inches for turf),
and being in good contact with the soil. Dryer, full-sun areas of a lawn are the proverbial “canaries in the coal mine” as far as determining when a landscape will need water, so a sensor controlling an entire lawn should be located in that area. Finally, sensors should be at least 5 feet away from irrigation heads, sidewalks, home foundations, and planted beds, and away from high-traffic areas so that the soil above them will not be excessively compacted.

Some of the current SMS controllers on the market include: the Acclima Digital TDT® RS500, AquaBlu®, Lawn Logic® LL1004, Moisture Clik™ IL200-MC, and the WaterTec™ S100. Prices for individual sensors start at around $150 and go up depending on brand, and may include installation fees if an irrigation contractor is hired.

When installing or revamping an irrigation system, keep in mind that water conservation is an important issue in Florida due to increased demands from a growing population and cyclic droughts. Residential outdoor water use is a perfect target for reduction, as it currently accounts for up to half of municipal drinking water in Florida.

This article was adapted from the publication, “Smart Irrigation Controllers: How Do Soil Moisture Sensor (SMS) Irrigation Controllers Work?” by Michael D. Dukes, Mary Shedd, and Bernard Cardenas-Lailhacar. For more information on soil moisture sensors and calibration, please visit the original article at http://edis.ifas.ufl.edu/pdffiles/AE/AE43700.pdf.

Hidden Problems of Turf

Lawns are enjoying longer days and warmer weather. Key factors in keeping your lawn healthy and beautiful all season long are proper fertilization, mowing, irrigation and pest management.

Sometimes, however, it seems that you can do everything right and you still get a dead spot or have problems maintaining a nice lawn. Your lawn may be suffering from a hidden problem known as compaction.

Soil compaction is a serious consequence of urban development. In urban soils, compaction can lead to soil drainage, aeration, nutrient cycling, and plant growth problems. Compaction is a physical process that slowly reduces the pore space between soil particles, thus making it extremely difficult for oxygen, water, and nutrients to move into the soil where turf roots can utilize them.

Roots respond to compacted soil with less growth and development, creating a thin and shallow root system. We generally say, “as is the root, so is the shoot.” Stands of turf on compacted soils are generally thin, exhibit stress symptoms more readily and have poor regrowth and recovery from wear.

Without enough sizable pores, plant roots find it difficult or impossible to grow and penetrate into new soil. Air, water, fertilizers and pesticides fail to infiltrate through surface crusts or plowpan layers in compacted soils, robbing the roots of essential nutrients, water and oxygen. Plants are starved because roots are not able to function to capacity. Drought symptoms may appear, even with plenty of rain, watering, or standing water on the soil surface because water cannot get through the soil to the roots. Compacted soils are also harder to work, taking much more power to plow.

Soil compaction occurs below the surface, so it’s hard to spot. The best way to test for compaction is to probe the soil with a compaction tester to a depth of eight to ten inches.
The testing rod, which may be a coat hanger that has been straightened, should move down through the soil with steady, even pressure. Hard, compacted soils resist penetration with the rod. Often penetration abruptly stops at a fairly uniform depth across a field or landscape area. This is referred to as “plowpan.”

Since compaction is created by a physical process, we can reduce it by performing another physical process called aerification. This process is simply described as making small openings into the soil at depths of 2-10 inches depending on the equipment used.

For most practical purposes, homeowners can rent small lawn aerifying equipment from rental equipment businesses. These power aerifiers will have several hollow tubes or tines that make approximately 3/4-inch openings into the soil to a depth of 2-3 inches that allow oxygen, water and nutrients to move easily into the soil. As the roots push the soil particles around compaction is reduced.

The frequency a lawn will need to be aerified will depend mainly on soil type and the amount of traffic the lawn receives, as traffic is the major culprit for compaction whether it is from recreational play, pets or mowing equipment. Wise traffic management can help reduce the frequency of compaction. Avoid heavy play or equipment use when the soil is wet. Changing travel patterns on successive mowing prevent the wheels of the mower tracking the same paths all the time.

For more information on how to minimize traffic damage to your turf, read the UF/IFAS online publication at http://edis.ifas.ufl.edu/pdffiles/EP/EP07100.pdf.

Weeds are Only Trying to Regain Their Own Turf

Many of our lawn weeds are reported as being native to Florida. Some of our weeds even carry our State’s name. Some examples are Florida bellflower, Florida betony (rattlesnake weed), Florida pellitory, Florida pusley and Florida yellow wood sorrel. Some neighboring states blame Florida for the introduction of Florida betony through nursery trade in the 1940s and 1950s.

Our lawn grasses are not native to our state. Bermudagrass is native to Africa. Bahiagrass is native to South America. Centipedegrass was introduced from southeastern Asia. Carpetgrass was brought to the United States from the West Indies. Zoysiagrass is native to Asia. St. Augustinegrass was discovered growing in South Carolina in 1788. Its origin is not known prior to this time; however, it is believed to be native to the West Indies. Seashore paspalum is believed to be indigenous to Asia, Africa and Europe. It was transported to other areas as bedding in slave ships.

Considering that a weed is a plant out-of-place, some people may argue that these lawn grasses are out-of-place in Florida. This is at least an interesting thought.
Many of the weeds that we battle are doing nothing more than trying to regain their own territory. They were here first. Their seeds continually blow in, are brought in by birds and other wildlife, come up from dormant tubers and roots under the turf, are brought in with topsoil and with plants that you bring into your landscape, etc.

I’m not saying that lawns are bad or that we should do away with lawns in Florida. I am saying that perhaps our expectations for our lawns are too high. Use lawn grass where it is needed, where it serves a purpose. A correctly maintained lawn can be a positive, functional and attractive part of a landscape. And even though we do have some tools to help battle the weeds, if you set out to have that “perfect” weed free lawn, be ready to do battle with nature, a continual and lifelong battle.

Seasonal Color in the Landscape
As spring winds down, temperatures will begin climbing. Before long, we will all be complaining about the heat. So as you plant for color now, use plants that will be able to tolerate the heat and humidity of the summer.

A great companion bedding plant for the trailing torenia is the narrow-leaf zinnia (Zinnia linearis or Zinnia angustifolia). As long as it receives plenty of sun and has well-drained soil, this little zinnia blooms continuously from spring through fall. It comes in yellow and orange and is not only a good complimentary planting for blue flowers.
such as the trailing torenias but also for orange colors such as with croton, coleus, and crossandra.

Adding plants with colorful foliage is a quick way to add lots of color to the landscape. Crotons won’t overwinter outdoors in north Florida, but they will provide color from spring through late fall. I like them because practically every inch of the plant is colorful, so I feel like I get a lot of bang for the buck when I buy crotons. Plant them in full sun to light shade.

Another plant with colorful foliage is coleus. Whereas years ago coleus used to be a plant just for the shade, today there are coleuses that will tolerate full sun as well as shade. Some of my favorites are the ones with lighter colored foliage such as the one in the photograph with rustic orange foliage, or chartreuse ones, or the one called ‘Alabama Sunset’, which has almost a rose-colored foliage.

Acalypha

Acalypha is a genus with many species, many of which have colorful foliage. Acalypha sometimes goes by the common name of Joseph’s coat, but because there are so many types of Acalypha, the common name can be confusing. Most of the Acalyphas with colorful foliage prefer full sun and can be a good choice to provide quick color in a sunny spot in the garden.

Yet another plant with colorful foliage is variegated shell ginger (Alpinia zerumbet ‘Variegata’). Adaptable from partial shade to full sun, variegated shell ginger can grow to 3 feet or so tall with an equal spread. Even if it gets killed back to the ground in winter, it usually returns the following spring.

What can you plant for color in a spot that never receives irrigation? African bulbine is the answer. Yes, you’ll have to give it a little water to get it established. But once
established it is very drought tolerant. Its yellow or orange flowers will go from spring through fall, and it overwinters fine here.

Summertime is Time for Camellia Cloning

Camellias have long been a late winter floral delight in north Florida, as many homes throughout the panhandle are graced with large, old plants. Hence, there are many beautiful cultivars that are not available commercially. In these circumstances, the only way to obtain a desired camellia is to asexually propagate, or clone, the plant. Oftentimes, beautiful Camellias are noticed while traveling. One cannot take home an air layer right away and most gardeners do not know how to graft Camellias. Therefore, cuttage, or the rooting of cuttings, is the quickest and most accessible method of Camellia propagation.

Due to the fact that the new growth occurs in the spring after the plants bloom, consideration must be made regarding the optimum time for taking cuttings. The best time to root Camellias, in northern Florida, is late spring or early summer from new, but partially hardened, growth. At this time the current years’ new growth will be at the correct physiological stage, somewhat mature, with the stem turning from bright green to light brown and leaves turning from light green to slightly darker green. Partially mature wood usually works better when rooting Camellias because younger tissue absorbs rooting hormone better.

To successfully remove cuttings, cut directly below a node on the stem. The three to four inch tip cuttings should have 4-5 nodes not including the terminal bud at the tip of the cutting. If the cuttings cannot be stuck immediately, submerge the base in water or wrap in wet paper towels. When it is time to stick the cuttings, remove the bottom leaves while leaving the top two or three and the terminal bud. When the leaves are removed, be sure to preserve the bud in the leaf axle.

Prepare a rooting medium containing 2/3 sand and 1/3 peat moss. Pre-moisten the media and place it in a one gallon pot the night before so it is moderately moist. Make a hole in the media with a nail or pencil at any location where the cutting is to be stuck. Next, insert the bottom half of the cutting into a rooting hormone preparation containing idolebutyric acid (IBA). IBA is found in almost all rooting hormone preparations and is available at many garden supply stores.

After the cutting has been dipped into sufficient rooting hormone, place the cutting in the pre-made holes and firm the soil around it. Three cuttings may be placed in each pot if desired. After the cuttings have been stuck, cover them with a clear plastic cup or a 2 liter coke bottle with the bottom removed. Keep them moist, not wet, in filtered shade. Successful rooting should occur at between one and four months. However, this process is cultivar dependent as some can take up to ten months to root. Hopefully all readers will turn this into a successful garden project!
Shade Trees Help Beat the Heat

At this intensely hot time of year, I like to remind people how important shade trees are in our landscapes. Even more, the hot summer months are the best time to determine where additional shade is needed.

Most of us know energy bills soar right along with the temperatures. But shade trees in the landscape can help us keep cooler while lowering utility bills. And the shade provided by trees often is the only thing that makes it possible to sit on a patio or deck during the day.

Shade trees play an important part in the concept of sustainable landscaping. Trees that shade the house during the summer can lower air-conditioning bills by blocking the sun from the windows, exterior walls and roof. Air conditioners cooling a fully shaded house have been shown to work only half as much as those in a house that has its walls and roof exposed to the sun. Other research reports show shade trees will reduce heat gains by 40 to 80 percent, depending upon their placement and density. That means even a sparse shade tree may be a better energy saver than an interior curtain.

- Deciduous trees, those that drop their leaves during the winter, generally are the best choices. These trees let the sun shine on the house during the winter when the sun’s added warmth is welcome. Then they provide shade during the summer when it is needed.

- Evergreen trees, which retain their foliage through the year, provide constant shade – which generally is not desirable when it is cold. Evergreen trees do, however, provide good windbreaks for winter winds when they are planted to the north of the house.

The location of your shade trees is very important in how well they will help reduce energy consumption. Trees should be planted on the southwestern and western sides of the house to be most effective. Trees in those locations will shade the house from the most intense sun during the hottest part of the day. Planting trees to the south and east also will help shade the house. Of course, this doesn’t mean you should completely surround your home in a forest of trees. People frequently plant too many trees on their property – not realizing how large they will become later on.

Trees also need to be planted the proper distance from the house, and away from concrete surfaced areas. Although
house slabs generally are not affected, thinner concrete surfaces, such as patios, sidewalks and driveways, can be damaged by roots from trees planted too close. The recommended distances generally are related to the mature size of the tree. Larger trees, such as oaks, should be planted farther away from sidewalks, driveways and the house (at least 15 feet) than smaller trees like crape myrtles or yaupon hollies.

In addition to shading your home, decide on other areas where shade is necessary or desirable. Outdoor living areas are virtually unusable in northern Florida during the summer without some sort of shade. Properly planted trees can provide that shade. Choose small-growing trees for planting close to patios, since they are more in scale with the location and are less likely to damage surfacing materials.

When landscaping for energy conservation, deciding on the right placement, number and type of trees requires careful planning, but you have plenty of time to think about it. Although now is the time to make decisions on where shade is needed and where to plant the trees, don’t forget the ideal tree planting season in northern Florida is from November through February.

More information about using your landscape to reduce heat can be found in a University of Florida publication located at: edis.ifas.ufl.edu/eh143.

Tomato Visitors

As tomato plants mature and fruit begins setting, homeowners should stay alert for one of the large caterpillars that enjoy tomato plants as much as you. The hornworms are the large green caterpillars that appear to devour tomato leaves overnight. Homeowners usually notice the caterpillars when they are fully grown and ready to pupate into adult moths.

The most common hornworm found in residential gardens is the tobacco hornworm. It has a red ‘horn’ of the posterior of the body that is harmless. There are also seven white diagonal stripes on the side of the green caterpillar. The adult, which is called a hawk or sphinx moth, has mottled gray wings and six large yellow spots on the side of the abdomen. The moths are most active at night and lay eggs singly on the underside of leaves. The caterpillar stage lasts for about 3 weeks and most of the feeding is done in the last stage of caterpillar development. If you have several caterpillars on one plant, there can be significant amount of foliage eaten that could stress your plant.

The easiest way to manage hornworms is to frequently check plants and remove caterpillars. One least toxic pesticide is the Bacillus thuringiensis, which homeowners apply to plants for caterpillars to ingest. There are also natural enemies of hornworms including many wasps and birds. If you choose to apply a synthetic pesticide for management make certain that it is labeled for vegetables and apply to the young caterpillars for best control.
Fusarium Wilt Can Still be a Problem in Home Gardens

Home gardens are increasing each year, due not only to the economy but because people like the taste and health benefits of home grown vegetables. Tomatoes are probably the most popular of the home garden vegetables. They can be grown in containers as well as traditional ways. Unfortunately, pests such as weeds and certain insects sometimes attack tomatoes. They are generally easy to identify as causing damage and can be controlled.

Fungi can be a problem when growing tomatoes. Fusarium wilt is a fungus disease that was once one of the most destructive plant diseases in Florida. The development of resistant cultivars has reduced the problem. But some varieties are not.

Infected plants are stunted, older leaves droop and curve downward, and the plants frequently wilt and die. Older plants generally become apparent from blossom to fruit set. Look for the bright yellowing of older, lower leaves, often on only one side of the plant, and the leaflets on one side of the petiole frequently turn yellow before those on the other side. The yellowing continues as more of the foliage turns yellow and the plant wilts during the hottest part of the day, because the plant can’t get enough water. This browning of the vascular tissue is characteristic of the disease and can be used for its tentative identification. Fruit infection occasionally occurs and can be detected by the vascular tissue discoloration within the fruit.

Temperatures between 82-86°F favor development of this disease. The disease is prevalent in acid and sandy soils. It is soilborne and remains in soils for several years. It is important to rotate your tomatoes from 5 to 7 years. It
Protecting Vegetable Transplants

Protecting new vegetable transplants in the garden can be very challenging for most gardeners. There are techniques that can reduce damage from pests. For example, a collar can be made from a bottomless plastic cup or a waxed cardboard carton to protect transplants from cutworms. The collar should extend one inch above and below the surface of the ground. Row covers are another technique that can be used at planting to keep insects out. Remember to leave plenty of excess material for growing your vegetables. Remove the row cover when plants that need bees for pollination begin to flower.

Healthy plants will be more likely to survive a pest infestation that one that is struggling. Always supply appropriate amounts of water and fertilizer to keep plants growing well. Plants that receive too much fertilizer or water may be more susceptible to pests such as aphids or whiteflies. Scouting the garden twice a week can help you identify pest problems before they reach damaging levels. Make sure to inspect both the upper and lower foliage as well as plant stems down to the soil level.

It is best to keep a record book on pest problems along with the performance of different varieties that you are growing in your garden. You could include photographs of insects, diseases and beneficial insects that you find. Be sure to always correctly identify insects you find because less than one percent of all insects are considered harmful. Many beneficial insects such as assassin bugs, lady beetles, and wasps are commonly found in gardens and can provide an additional pest management protection. If you are unsure of the pest, contact your local University of Florida IFAS Extension Service for accurate pest identification.

When insects or diseased leaves are found, choose the least toxic method for control. Large caterpillars can be removed by hand and destroyed. Some disease issues may be reduced by removing leaves with symptoms. This may prevent future spread of the disease. Most plants that produce fruits, pods, or ears can stand up to 20 percent loss of leaves without loss of potential yields. If this is the case in your garden, please do not panic and start spraying at the first sign pest damage. Call or visit your local county extension service for pest management recommendations.

Make sure that the plants stay in a continuous growing state and good health by supplying appropriate amounts of water and fertilizer. A healthy plant is more than likely going to survive a pest problem than a weak or unhealthy plant. However, too much fertilizer can cause plants to be more inviting to insect pest.
You can also plant flowers in the vegetable garden that provides nectar and pollen which will attract beneficial insects. Most large insects, like caterpillars, can be removed by hand and destroyed. Watch for disease symptoms early and remove any diseased leaves or plants to prevent problem from spreading.

Eddie Powell
Courtesy Horticulture Agent
Walton County
pep5@ufl.edu

Upcoming Events
Santa Rosa County

Gardening 101: Herbs. Santa Rosa County Extension Agents Ginny Hinton and Theresa Friday will present a three hour workshop on how to grow, cook and preserve fresh herbs. The program is scheduled for May 7th from 9am to noon at the Milton Extension Office, 6263 Dogwood Drive. Pre-registration is required. For more information go to http://santarosa.ifas.ufl.edu/documents/herbs.pdf.

Panhandle Butterfly House: Looking for somewhere to take the kids this summer? The Panhandle Butterfly House, located in Navarre Park, is open to the public Thursday through Saturday from 10am to 3pm. For more information visit the website at www.panhandlebutterflyhouse.org.

Plant Clinic: Theresa Friday and the Santa Rosa County Master Gardeners can help you identify plant, weeds or insects and talk to you about your landscape problems. The clinic is open every Tuesday from 9am to 1pm at the South Santa Rosa Service Center. Go to http://santarosa.ifas.ufl.edu/lawn_garden_diagnostic.shtml for more information.

Bay County

Growing and Using Herbs. Learn how to grow and use herbs both for everyday use and cooking. Taste breads, salad dressings, and other items made from herbs. Master Gardeners Kat Benford and Judy Stevens, County FCS Faculty DR. Marjorie Moore, and County Horticulture Faculty Ken Rudisill will present an educational program on May 14th from 8:30 am to noon at the Bay County Extension Office, 2728 East 14th St. Pre-registration is required. There is a $5.00 Cost. For more info go ot http://bay.ifas.ufl.edu, or call 784-6105.

Growing Olives in North Florida. Learn how to grow the best olives for North Florida. The program will be on May 21st from 9:00 am to 10:30 am at the Bay County Extension office, 2728 East 14th St. Pre-registration is required. For more info go ot http://bay.ifas.ufl.edu, or call 850-784-6105.

Alternative Vegetable Growing. Learn how to grow vegetables with non traditional methods. The program will be on May 21st from 10:30 am to 11:30 am at the Bay County Extension office, 2728 East 14th St. Pre-registration is required. For more info go to http://bay.ifas.ufl.edu, or call 850-784-6105.

Escambia County

Spring Garden Festival and Plant Sale. Join Escambia County Extension on Saturday, May 7 from 8:00 - Noon for gardening information and plant recommendations. Master Gardeners will have over 5,000 plants for sale, featuring favorite perennials, annuals, shrubs, and a few trees. Learn more at http://escambia.ifas.ufl.edu/hort/SpringGardenFestival2011.pdf

Pensacola In Bloom Gardening Series. Escambia County Master Gardeners will present gardening topics for the public each Monday night, April 25 - May 16. Programs begin at 6:00 p.m. at the Pensacola Library at 200 West Gregory Street and are free. Learn about topics: http://escambia.ifas.ufl.edu/hort/PensacolaInBloomAtTheLibrary2011.pdf

Leon County

Garden Open House. Saturday, May 21, 9:00-noon. Join the Leon County Master Gardeners for tours of our demonstration gardens (where many of the Seasonal Color in the Landscape photos in each issue of this newsletter are taken). The garden features landscape plants such as flowers, groundcovers, ornamental grasses, shrubs, and trees but also includes vegetable and herb gardens and wildlife habitat (martin gourds, bat house, owl house, bluebird houses, etc.). This year the new rooftop rainwater harvesting system (four 10,000 gallon recycled gas tanks) should be in operation. Please join us at the Extension Center, 615 Paul Russell Road in Tallahassee, across the street from Jack McLean Park. http://leon.ifas.ufl.edu/
SolutionsForYourLife.com

Northwest District Extension Offices

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