Beginning this year, much of our surroundings are well in the grip of Old Man Winter. These cold temperatures have deciduous trees and shrubs dropping their leaves, our normally green lawns going dormant and turning brown, and fluctuating temperatures causing confused plants (and people) to think it is spring one week and most definitely winter the next which makes them extremely susceptible to cold damage.

In this issue, you will learn how a well tended lawn will gather no moss, what soil temperatures are needed for vegetable seed germination, how camellias are off and running this year and so much more.

We hope you enjoy this issue and invite you to visit the subscription management system, http://subscribe.ifas.ufl.edu, where you will find a wealth of other newsletters that you might find of interest and as always don’t hesitate to pass this issue along to friends.

Happy Gardening,

Rob Trawick
Mosses can and do survive in distinctly different conditions than grasses. Mosses grow best in shady and wet conditions. Lawns need well-drained soil and good light. Therefore, the obvious place to begin with a moss management program is to make sure that the lawn has the best possible conditions for growth.

Although moss will invade well-maintained lawns, it usually occurs extensively in neglected lawns where poor cultural conditions enable it to out-compete turf. Moss encroachment generally is associated with thin turf, low fertility, highly acidic soils, shade, wet soils, and turf injury from insects, diseases, chemicals, or cultural practices.

Proper care of turf

Often turf is thin because it lacks fertilizer. Properly timed fertilizer applications will increase turf density, vigor, and competitiveness. However, overfertilization or improper fertilization can cause some grass species to decline.

Grasses grow poorly in dense shade because of low light; therefore, shady lawns usually have more moss than lawns in full sun. Thinning out trees by selective pruning or removing trees completely may reduce moss encroachment. In some cases, it’s easier to redesign the area and eliminate grass than it is to improve lighting. When planting new lawns in shady sites, be careful to select shade-tolerant species.

Wet soils caused by compaction, poor drainage or excessive irrigation provide a perfect environment for germination and growth of moss. Poor drainage sometimes can be improved by promoting water infiltration by aeration or thatch removal. Wet soils often are due to overwatering.

Control of algae and moss

Short-term control can be achieved by removing the algae or moss by hand. Copper sulfate, ferrous sulfate, and ammonium sulfate and other chemicals may be helpful for temporary control of mosses. Copper sulfate is active on algae. Excessive use of chemicals, however, may become toxic to the turf. However, to permanently be rid of a chronic moss problem, it is important to change the conditions that favor the moss.

Adding limestone is a common “remedy” mentioned for moss control, but is not suggested unless a soil test has shown the pH needs to be raised. Acidic soils are not the only reason for moss in lawns. Adding limestone without a soil test may add to the lawn problem.

Soil Temperatures for Vegetable Seed Germination

Most Florida homeowners every fall/winter enjoy growing their own vegetable plants, not to mention it is cheaper to buy vegetable seeds than transplants. However, seeds respond best under high soil temperatures. When planting your vegetable seeds, remember that cool season crops, such as cabbage, turnips, and cauliflower will perform best under cooler soil conditions than warm season crops such as snap beans, muskmelon, and squash. The key to getting the highest seed germination rate is the soil temperature. Please contact your local University of Florida Extension Office for more information on seed germination.

Below is a chart of the soil temperatures needed for vegetable seed germination.

**MINIMUM Soil Temperature for Germination**

**Degrees**

32 - Endive, Lettuce, Onion, Parsnip, and Spinach
Panhandle Outdoors LIVE Premiers in 2012

Have you lived in northwest Florida all your life but never made it over to see the Florida Caverns in Marianna? Or perhaps you're new to the area and would like to visit some of our outstanding state parks? We know that the desire to explore and discover doesn't disappear when you reach adulthood, so the Natural Resources agents in the Panhandle have teamed up to offer a series of educational field trips just for those age 18 and up.

Starting January 18, the series of ten guided excursions will begin in the eastern portion of the Panhandle with a hike through Leon Sinks and a boat tour of Wakulla Springs. All of the trips promise to get you out into what The Nature Conservancy has called, “one of the top six biodiversity hotspots in the country” by hiking the woods, canoeing the rivers, or snorkeling local bays and marshes.

The 2012 schedule is as follows:

January 18: Leon Sinks & Wakulla Springs
February 16: Florida Caverns & Falling Waters
March 15: Eglin AFB Seepage Slopes & Fire Ecology
April 4: Bear Creek Educational Forest & Garden of Eden Trail
May 11: Perdido River Canoe Trip
June 6: Navarre Beach Tour & Kayak Trip
August 22: Ochlockonee River Canoe Trip
September 20: St. Andrews State Park, Snorkeling
October 11: Hiking at Tate’s Hell
November 14: Hiking at Torreya State Park
Each trip will be led by an Extension Agent from the local county with expertise in the particular habitat of interest. The day-long trips will cost $30/person, which includes lunch, park entry fees, and equipment rentals. Transportation will include carpooling, although contact your local county agent to find out if they can provide transit to the site. To find out more details or register for any (or all!) of the trips, visit http://Panhandleoutdoorslive2012.eventbrite.com or call the agent listed as a point of contact.

Camellias Showing in Full Force

Since I am new to Florida, I have never experienced the magnificent display that Camellias present during the months of October, November and December. I was well aware of the many January-February blooming cultivars of *Camellia japonica*, but unaware of the earlier blooming forms of *Camellia sasanqua*.

While *Camellia japonica* usually produces large flowers, often very elaborate in form, *Camellia sasanqua* produces smaller flowers only 2-3 inches in size. They can be single or double and quite intricate in form, and more numerous. Typically *Camellia sasanqua* cultivars flower in late October, November and December, thus they have earned the nickname “Christmas Camellia”. Typically, *Camellia sasanqua* cultivars have flowers that are white, ivory white and various shades of pink. Since they are evergreen and drought tolerant, Camellias are ideal easy-care landscape plants for Northwest Florida, especially where the soils are acidic and high in organic matter.

Regardless of the species, Camellias are available in a variety of shapes and sizes so choose the cultivar that will best fit your landscaping situation. When mature, full size cultivars can be as tall as 14 feet and as wide as 7 feet, but
miniature shrub cultivars will remain at about 3 feet tall and wide. Several miniature types are able to be grown in containers as well. Camellias do not need annual pruning, since they have an attractive natural shape, but benefit from light shaping and removal of dead wood. Choosing the proper size cultivar with respect to location will minimize the need to heavily prune your camellias to keep them in bounds.

Enjoy the Camellia blooms across Northwest Florida while they last!

**Generalized Nitrogen Cycle**

Soil, whether it is in your landscape or anywhere in the world, is the base upon which terrestrial and freshwater aquatic life depends on. The weathering of rock material and the accumulation, decomposition and mineralization...
of organic material has resulted in soils of today. Most soils are not uniform and may consist of a mixture of rocks, minerals, and organic matter (dead and decaying plants and animals residue).

Growth and development of organisms, including plants, depends on the availability of mineral nutrients that are composed of chemical elements. Nitrogen is one of those chemical elements that are important in plant development. It is an essential element of proteins, nucleic acids, and other cellular functions associated with living tissue. Nitrogen makes up approximately 78% of the Earth's atmosphere as nitrogen gas, \( N_2 \). Nitrogen gas in the atmosphere is not available for use by most organisms because it is tightly bonded. However, small amounts of nitrogen may be fixed as nitrate, ammonium, and other nitrogen species by lighting in the atmosphere. Nitrogen is available to most plant for uptake or assimilation only in a fixed form, such as ammonium, nitrate, and urea.

In the soil, microorganisms (bacteria and fungi) play a major role in the availability of fixed nitrogen. For example, some bacterial can convert nitrogen gas into ammonia via nitrogen fixation and in transformation process of ammonia to nitrate as well as from nitrate to nitrogen gas. These and other important biological processes are often illustrated in textbooks as a cycling of the elemental form of nitrogen, commonly referred to as the Nitrogen Cycle.

The nitrogen cycle can be thought of as inputs and outputs derived from components of the atmosphere and the soil environment (lithosphere) by which transformation processes and the fixation of nitrogen to plant useable forms are created or released to the environment. Inputs are additive sources of nitrogen such as, fertilizer, animal waste (a source of urea), fixation by leguminous plants, and decomposition of plant residue. Outputs are releases of nitrogen species as a result of microbial processes in the soil, plant root uptake, and volatilization (conversion to nitrogen gas) into the atmosphere. Outputs can also include movement of nitrogen species, mostly in the form of nitrates, in surface runoff or by leaching into groundwater.

The cycling of nutrients in any landscape is a dynamic process that, in the case of nitrogen, is constantly changing and is dependent upon the type of nitrogen input, soil type and soil pH. It is always advisable to test your soil to determine its nutrient content and to prevent the over application of chemical nutrients to the environment.

Reference: Nitrogen in the Home Landscape.

Have You Thanked a Tree Lately?

In Florida we celebrate Arbor Day each year on the third Friday in January. This date is set aside as a time to celebrate trees by planting them.

I think it’s also appropriate to appreciate the trees we already have and all that they provide for us in both urban and rural settings.

You might not consider trees that important for those who live in cities. Who needs to rake up all of those leaves anyway? But trees are especially important in urban areas for a variety of reasons.

Most of us would agree Florida summers are too hot to begin with, but urban areas in particular are heat traps. The buildings, streets and parking lots absorb and hold heat from the sun – causing urban areas to be several degrees warmer than the surrounding countryside.
Trees moderate this problem by absorbing the sunlight’s energy and using it to create their food. Trees also provide a comfortable oasis by lowering air temperatures under their canopies by 6-10 degrees. And all of this helps to moderate temperatures in urban areas.

On a more personal level, properly placed trees, which shade your house, can cut your air-conditioning bill anywhere from 10 percent to 50 percent during the summer. For those benefits, trees planted to the south or southwest of your home will provide the most benefit.

To obtain benefits on the heating and cooling of your home, choose deciduous shade trees – those that drop their leaves during the winter. That way you will have the shade you need in the summer to reduce cooling costs, and, when the tree is leafless in winter, it will allow the sun to shine on the house and help to reduce heating bills.

**Even More Benefits**

Air pollution in urban areas is a real concern, and trees help out with that, too. The leaf surfaces of trees trap and filter out ash, dust, pollen and other particles in the air (although, admittedly, many trees also contribute to the pollen count when they bloom). Trees also help supply the oxygen we need to breathe, as well as use up the carbon dioxide that car engines emit.

Among their many additional benefits, trees stabilize the soil and prevent erosion. The extensive feeder roots that occur in the upper foot of soil and spread out well beyond the branches of a tree do an excellent job of holding the soil in place.

Trees also cut down on noise pollution by acting as barriers to sound. Almost any one who lives in a city comments on how quiet it is in the country, while noise seems to be constantly in the background in an urban area.

When creating a quiet retreat, trees play a vital role. Small growing evergreen trees, such as cherry laurel, “Little Gem” magnolia and spruce pine, can be very effective in muffling or moderating noise. And when you want to create privacy in the landscape, trees can be used to screen an outdoor living area from view. Trees, especially evergreen types, also can be used to effectively hide unattractive views.

Urban wildlife also benefit from the shelter provided by trees. Squirrels, birds and other wildlife make their homes in trees. In addition, the seeds of many tree species are valuable sources of food for these animals.

Not to be overlooked is the profound psychological effect trees have on us. Neighborhoods with large trees along the street and in yards are attractive to almost everyone. And flowering trees, such as crape myrtles, dogwoods, sweet olive and vitex, provide color and fragrance to the landscape.

Trees contribute greatly to beautification, increase property values and shade our outdoor living areas in the summer. Fruit and nut trees in the landscape even provide us with something good to eat.

So take a moment to appreciate our trees. Our cities would be different and much less agreeable places without them. And don’t forget to celebrate Arbor Day and plant suitable trees wherever and whenever an appropriate situation exists.

**Arbor Day History**

The idea for Arbor Day originally came from Nebraska, a state which was once largely a treeless plain.

Among the pioneers moving into the Nebraska Territory in 1854 was J. Sterling Morton from Detroit. He and his wife loved nature and gardening, and the home they established in Nebraska was quickly planted with trees, shrubs and flowers. Their fellow pioneers also missed having trees around, and, even more important, trees were needed as windbreaks to keep soil from blowing and for fuel and building materials, as well as shade.

Morton, a journalist and editor of Nebraska’s first newspaper, not only advocated tree planting by individuals in his articles and editorials but also encouraged civic organizations and groups of every kind to join in. Later, his prominence in the area increased, and he became Secretary of the Nebraska Territory, which provided him another opportunity to stress the value of trees.

On Jan. 4, 1872, Morton first proposed a tree planting holiday to be called “Arbor Day” at a meeting of the State Board of Agriculture. The date was set for April 10, 1872. Prizes were offered to counties and individuals for properly planting the largest number of trees on that day. It was estimated that more than one million trees were planted in Nebraska on the first Arbor Day.

After that, the concept of Arbor Day gained favor around the country, and the tradition has spread steadily ever since. Most states now have passed laws or resolutions providing for the observance of Arbor Day.
Florida also has legally designated Arbor Day to observe and celebrate the wonderful benefits and pleasures that trees provide to humanity – and our legislators voted in 1968 to set it as the third Friday in January.

The date Arbor Day is observed varies from state to state because climates are different around the country. Because winters here are relatively mild, the ideal tree-planting season in Florida is from November through February. So, the third Friday in January is very appropriate for us.

Silverfish

During the winter season, we mostly enjoy a break from many insect pests. There is one household insect, however, that may be more common due to our routine winter activities. We often first see the primitive silverfish when we flip on a light in the laundry room or bathroom. They are elongated, somewhat flattened insects with three ‘tails’ at the end of the abdomen. Their bodies are covered in silvery scales that rub off if you handle one. The scales prevent water loss but also serve as a way to slip away from predators. They will scurry under appliances, up walls, or in boxes when uncovered. They prefer areas that are moist and cool.

Silverfish are unique in the insect world in that they are one of the few insects that can digest cellulose without the aid of bacteria in their gut. They will feed on the starch in many of your favorite items such as books, labels, clothing, curtains, paper, linens, and some wallpaper paste. Other items that are high in proteins and sugars.

Where there is one silverfish, there are often several. Another unique characteristic of silverfish is the method of external fertilization. The male will deposit a sperm packet during a courtship dance and then guide the female over it to fertilize her eggs. Eggs are deposited in small batches over several weeks.

We may commonly see a few more silverfish at this time of year as we move boxes in and out of storage, change around appliances, or welcome visiting friends from other areas.

Upcoming Events

Gadsden

Grapes and Fruit Trees Pruning Workshop. Learn about proper pruning techniques for muscadines, peaches, plum, nectarines, apples, pears and others. Please visit http://gadsden.ifas.ufl.edu/ag_horticulture.shtml, for program details. This workshop will be held at the Florida A&M University/Center for Viticultural Sciences and Small Fruit Resarch on February 9, 2012 from 1:00 - 4:30 PM.

Escambia

Arbor Day Tree Seedling Giveaways: Thursday, January 19 from 10 am-1 pm at the Century Agricultural Building (6001-A Industrial Boulevard, off CR 4) and Friday, January 20 from 10 am-1 pm at the Jones Swamp Trail (198 Patton Drive). 1,650 seedlings available, choose from Shumard Oak, Bald Cypress, River Birch, Mayhaw, Chickasaw Plum, and Wax Myrtle. For more information, contact Jimmie Jarratt at 850-595-3535. Sponsored by Escambia County, UF IFAS Extension, the Environmental Education Coordination Team, and the Florida Forest Service.
Garden Talks: Pruning Lessons for Backyard Plants.
Escambia County Master Gardeners will demonstrate pruning techniques for roses, grapes, crape myrtles, and other common landscape plants. Learn how to save some branches for air layering to have new starts of your favorite plants. Programs will be held in the Escambia County Demonstration Garden from 9:30 - 10:30 on Friday, February 17 and Saturday, February 18, 2012. Bring a lawn chair and dress for outdoor weather. Pre-registration is required by contacting Beth Bolles at bbolles@ufl.edu or 850-475-5230. Program is free.
## Northwest District Extension Offices

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<tr>
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<th>Okaloosa County</th>
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<td>201 N Oklahoma Street</td>
<td>5479 Old Bethel Road</td>
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<tr>
<td>Panama City, FL 32401</td>
<td>Bonifay, FL 32425-2295</td>
<td>Crestview, FL 32536-5512</td>
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<td>(850) 784-6105</td>
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<td>20816 Central Avenue East, Suite 1</td>
<td>2741 Pennsylvania Avenue, Suite 3</td>
<td>84 Cedar Avenue</td>
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<tr>
<td>Blountstown, FL 32424-2276</td>
<td>Marianna, FL 32448-4022</td>
<td>Crawfordville, FL 32327-2063</td>
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<tr>
<td>(850) 674-8323</td>
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<td>3740 Stefani Road</td>
<td>275 North Mulberry Street</td>
<td>732 N 9 Street Ste B</td>
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<td>Cantonment, FL 32533-7792</td>
<td>Monticello, FL 32344-2249</td>
<td>DeFuniak Springs, FL 32433-3804</td>
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<td>(850) 475-5230</td>
<td>(850) 342-0187</td>
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<td>1424 Jackson Avenue Ste A</td>
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<td>Tallahassee, FL 32301-7060</td>
<td>Chipley, FL 32428-1602</td>
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<td>Quincy, FL 32351-1905</td>
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