

FLORIDA LAND STEWARD



A Quarterly Newsletter for Florida Landowners and Resource Professionals

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IN THIS ISSUE

Protection of the State's Water Quality during Forestry Operations Remains a High Priority	2
Lyme Disease: Florida's Silent New Epidemic	3
Plants Behaving Badly: Cogongrass	4
USDA and US Fish and Wildlife Service Announce Working Lands for Wildlife Cost-share Program	5
Timber Price Update	6
Certified Forest Stewards and Tree Farmers	7

AgroClimate: A Decision Support System for Agriculture, Forestry, and Water Management for the Southeast

By Drs. Norman Breuer and Clyde Fraisse, University of Florida IFAS

Seasonal climate variability plays an important role in the production risks faced by producers. The majority of crop failures, including forest plantations in the USA, are associated with either a lack or excess of rainfall, especially drought. Climate forecasts can be used to reduce risks faced by an agricultural enterprise, but simply providing better climate forecasts to potential users is not enough. Climate information only has value when there is a clearly defined

adaptive response and a benefit once the content of the information is considered in the decision making process.

AgroClimate is a response to the need for information and tools on proactive adaptations to seasonal and interannual (3 to 6 months) climate variability forecasts in the southeastern USA. Extension agents,

Continued on page 2



Funding for Florida's Forest Stewardship Program is provided by the USDA Forest Service through the Florida Department of Agriculture and Consumer Services Division of Forestry and a grant from the Sustainable Forestry Initiative.

An Equal Opportunity Institution. Information about alternate formats is available from IFAS Information and Communication Services, University of Florida, PO Box 110810, Gainesville, FL 32611-0810.

Visit the AgroClimate web page at <http://www.agroclimate.org/>

agricultural producers, forest managers, crop consultants, and policy makers may use this decision support system to aid in decision making concerning management adjustments in light of climate forecasts. Adaptations include those that might mitigate potential losses as well as those with the potential to produce optimal yields.

AgroClimate is a web-based climate forecast and information system that was designed and implemented in partnership with the Cooperative State Extension Service. It has two main components: the front-end interface and a set of dynamic tools. The main navigation menu includes the AgroClimate tools, climate forecasts, and management options for crops, forestry, pasture, and livestock. It also includes a climate and El Nino section with background information. The tools section contains several applications that allow a user to

examine the climate forecast for individual counties based on the ENSO phase and to evaluate yield potentials for certain crops.

Applied outlooks for individual agricultural and natural resource management sectors are also provided on a quarterly basis. AgroClimate is operational under the Southeast Climate Consortium and is continually introducing upgrades. New tools, whose need often originates during interaction with rural stakeholders, are under development and consideration. Of special interest to the forestry community are the El Nino watch, Chill Units tool, and the three drought monitor tools. The KBDI forecast is especially relevant for those who deal with wildfire. It is interesting to note that managers from different sectors have found ways to use tools originally designed for other sectors. For example, the Chill Units tool, originally conceived

for blueberry and other temperate fruit growers was found to be useful by one forest plantation manager for estimating how much time bare root seedlings might need in a cooling trailer. Tools specific to water management are under development and will become operational in the future on a sister site SEwaterClimate.org.

For further information contact:

Dr. Clyde Fraisse, UF-IFAS Department of Agriculture and Biological Engineering (ABE), cfraisse@ifas.ufl.edu or Dr. Norm Breuer, ABE, nbreuer@ifas.ufl.edu

AgroClimate is available at <http://www.agroclimate.org>

UF-IFAS Extension Publications on climate and agriculture topics: http://edis.ifas.ufl.edu/topic_climate-based_management

Protection of the State's Water Quality during Forestry Operations Remains a High Priority

By Roy Lima, Watershed Specialist, Florida Forest Service

Florida's Silviculture Best Management Practices (BMPs) are an established set of practices designed to meet the necessary minimum standards for protecting and maintaining the state's water quality along with certain wildlife habitat during silviculture (forestry) activities. When used as prescribed they provide a balance between the use of forest resources and natural resource protection. Additionally, silviculture BMPs apply only to bona fide silviculture activities.

Protecting water quality during forestry operations remains a high priority for foresters, land managers, loggers, and silviculture contractors according to the 2011 statewide survey of forestry BMP implementation in Florida. The survey showed a 98.7% implementation rate.

Florida's silviculture BMP Program is directed primarily at preventing non-point source pollution associated with forestry operations. The program was initiated with the development of the state's first silviculture BMP Manual in 1979. The Florida Forest Service (FFS) is the agency responsible for development, implementation, and monitoring of silviculture BMPs throughout the state. Since 1981, the FFS has monitored forestry operations for BMP implementation statewide, by conducting biennial implementation surveys. Implementation levels over the years illustrate a strong commitment on the part of Florida's forestry community to protect the state's water resources.

Implementation of silviculture BMPs in Florida is primarily done under an educational format, designed to transfer BMP technology to forest practitioners through workshops and field demonstrations. The Implementation program is ongoing, with workshops routinely provided upon request, or as deemed necessary based on survey results. Currently, FFS personnel conduct 20 to 25 workshops/demonstrations annually, involving approximately 700 participants per year. In addition, the FFS provides BMP training directly to loggers through the Florida Forestry Association's Master Logger Program. To date, approximately 496 loggers have become Master Loggers, of which 43 have obtained Master Logger +Plus status. A total of 60 Master Loggers

have completed an additional six-hour BMP Continuing Education Course.

The 2011 BMP Implementation Survey evaluated 3,486 practices on 190 individual forestry operations (sites). This cooperative effort involved 85 individual public and private landowners and covered 30,253 acres in 47 Florida counties. Seventy-four sites were on private non-industrial forestland, 85 on industrial forestland, and 31 on public forestlands. The highest overall implementation level among land ownerships was on industry lands. For the 2011 survey, no site scored below 75% in overall BMP implementation. Eighty-eight percent of the sites scored 100% implementation for applicable BMPs, an increase of nine percentage points since 2009. The range of compliance scores was 75% to 100%, and the average for overall BMP compliance was 98.7%, a slight increase from 98.1% in

2009. The average compliance for the 30 year period since 1981 is 94%, and a total of 3,392 individual forestry operations have been surveyed during the period of record.

The 2011 survey showed a continuing high implementation rate with silviculture BMPs in Florida. This is attributed to the distribution of over 52,000 Silviculture BMP Manuals since 1993, the cooperative educational outreach to the forestry community through FFS workshops and demonstrations, and the commitment of forest landowners, loggers, and professional

foresters that make up the state's forestry community.

For more information about this survey contact Roy Lima at (850) 414-9934 or Roy.Lima@freshfromflorida.com



Photo Credit: Lesia Andrews

Lyme Disease: Florida's Silent New Epidemic

By Alicia Campanella

Every year in Florida, thousands of residents and visitors walk through our vast forests and wild lands. Armed with binoculars and inadequate concentrations of insect repellent and sunscreen, tick bites are perhaps the furthest thing from our minds. Until recently, Lyme disease carrying ticks were not thought to be endemic to Florida. However, within the last fifteen years, tick species have moved across state borders and Lyme disease is becoming increasingly common. This trend is complicated by a largely unaware, unfamiliar, and often hesitant medical community.

In May of 2010, I was camping at a Florida State Park and discovered 6 deer ticks burrowed into my skin. I removed them; passively assuming I would be fine. After all, we don't really *have* Lyme disease in Florida. It's a northern phenomenon. Working as a park ranger at the time, I

was full of energy, good health, and strength. Neither the tell-tale "bulls-eye rash" nor the "swollen knee" ever appeared. Within a few months however, I became ill with neurological Lyme disease. The world became a very different place. Seven "western blot" tests for the *Borrelia burgdorferi* bacteria (the bacteria responsible for Lyme disease) came back negative. I had an unknown condition that my doctors could neither diagnose nor treat. Finally, after test number eight I was diagnosed. Scores of Lyme victims that I advocate for today, tell a similar story.

Tests sensitive enough to detect all cases of Lyme disease simply do not exist in Florida. The western blot test mentioned above is not a "positive vs. negative" test. It's a complex test that determines the likelihood of having been exposed to the bacteria. The test shows markers, or "bands",

that must be interpreted. Unfortunately and erroneously, the Centers for Disease Control (CDC) currently mandate that, in order for a test to be rated "positive," several markers must be present, instead of the most indicative ones. Patients often present with specific markers, but are diagnosed "negative" because they don't show ALL of the markers during the same test. The Lyme disease debate is further complicated by the fact that one single treatment protocol does not exist. Experts with the Lyme and Associated Diseases Society (ILADS) have shown that if the disease isn't diagnosed and treated early, it enters a chronic stage. The bacteria invade the immune and nervous systems of the body, change in to different morphological forms, burrow *within* the cells, and proliferate "under the radar," resulting in the body being unable to detect them.

Continued on page 4

This has left thousands chronically ill, misdiagnosed with fibromyalgia, chronic fatigue syndrome, neuropathy, psychiatric disorders, autoimmune disorders, and arthritis, just to name a few. With cases of Lyme disease not being diagnosed, they also aren't being reported to the CDC or the Florida Department of Health, and the public remains precariously unaware of the extent of the problem.

Treatment is long and expensive, and can last for months or even years in late stage cases. The ticks which carry Lyme disease rarely transmit just Lyme alone. Pathogens such as *babesia*, *bartonella*, *brucella*, *mycoplasma*, *ehrlichia*, Rocky Mountain spotted fever, and a whole host of parasites, bacteria, protozoans and viruses are commonly found. The immune system becomes overwhelmed, treatment becomes complicated, and many doctors are unable, or in some cases, unwilling to take on these complex patients. Since many doctors disagree so vehemently on the subject, most patients see ten or more

physicians and undergo incorrect/inadequate treatment before they are finally forced to leave the state to seek out Lyme literate doctors (LLMDs).

Prevention is the key. Many ticks are smaller than a sesame seed and aren't easily visible to the naked eye and the symptomatic rash only occurs in about half the cases of Lyme disease cases. So knowing how to avoid being bitten is imperative. When spending time in wooded areas, use tick repellent containing DEET. Even in the summer heat, it is better to wear long sleeves, long pants and a hat to avoid exposure, and it is wise to check yourself, your friends, and loved ones for ticks after you come in. Walk in the center of trails, as ticks cling to the top of blades of tall grass and branches and simply "hitch a ride" as the unsuspected hiker walks by. Check your pets often. If you do suspect that you've been bitten, seek medical attention. Depending upon the doctor's level of awareness about Lyme

disease, you may need to request antibiotics as a prophylactic measure. If your doctor is dismissive or hesitant to talk to you about Lyme disease, and won't prescribe an antibiotic, seek an LLMD.

In my case, several months of IV treatment is still running its course, and recovery is slow. A few weeks of early-administered doxycycline could have spared me a great deal of unneeded suffering.

For further information about Lyme disease and other tick related illnesses, please visit:

www.ilads.org
www.Floridalymedisease.com
www.underourskin.com

About the author: Alicia Campanella, formerly a ranger with Florida Park Service, is a regular contributor to the Florida Land Steward Newsletter. She can be reached by email at aligatorali76@gmail.com

Plants Behaving Badly: Cogongrass

By Alicia Campanella and Chris Demers

Cogongrass (*Imperata cylindrica*) is a species of grass native to Southeast Asia. Because of Florida's warm, moist climate, it has found a comfortable home here, and has quickly destroyed vast acres of our states wild lands. Cogongrass was accidentally introduced to the US around 1911, but was later used, in the 1930's, as a cattle forage and soil stabilizer. It was later determined to be of little value to cattle, and its invasive behavior was recognized soon after. In fact, this plant has earned a place on the top ten United States Federal Noxious Weed List, as well as the reputation of being one of the most problematic invasive plants in the world.

Seemingly harmless at first glance, cogongrass is a narrow, yellow-green colony grass that forms very dense, circular patches and can thrive in almost any habitat. It grows up to 6 feet in height, and is easily recognizable because of its color and its silky, white, cylindrical seed heads, which range between 2 and 8 inches in height. A tenacious invader, it rapidly becomes a thick monoculture and prevents all other species of plant seedlings from being established. This limits forage for wildlife and negatively impacts property in many ways. It is also a major fire hazard due to its extreme flammability. With fire tolerant roots, it can persist



Photo Credit: Ann Murray

and continue its spread after being burned.

Early detection and treatment of cogongrass is the key to preventing a large infestation. As with most exotic invasive plants, more established infestations are much harder to eliminate. The application of herbicides containing imazapyr and glyphosate (either alone or together) are the most effective method. Add about 2% methylated seed oil, (MSO), or other surfactant, to help the chemicals penetrate the cuticle of the grass, and wet the plant thoroughly. Treatment in September and October is recommended for a first time treatment, with a suggested retreatment before the plant flowers in April or May. If an area of cogon grass is burned, it is essential that you apply herbicide immediately after burning. Detailed and helpful information about the management of cogon grass can be

found in Drs. Pat Minogue and Rick Willams' publication, *Biology and Management of Cogongrass*, online at <http://edis.ifas.ufl.edu/fr252>. Always use proper personal protective equipment when using herbicides and follow instructions on product labels.

If your property is in north Florida there may be an opportunity to get cost-share assistance to treat cogongrass. The Florida Forest Service (FFS) administers the Cogongrass Treatment Cost-Share Program. Applicants in the many eligible counties who are willing to retreat infested areas for at least two years may qualify for a grant providing 75% reimbursement of the treatment cost. Applications are encouraged. Contact your county forester or Jeff Eickwort, FFS Forest Biologist, at (352) 372-3505 ext 491. For a complete list of eligible counties and a copy of the



Photo Credit: Ann Murray

application and instructions, please visit:

http://www.floridaforestservice.com/forest_management/fh_invasives_cogon_treatment_program.html

USDA and US Fish and Wildlife Service Announce Working Lands for Wildlife Cost-share Program

Private landowners are eligible to receive funds specifically for managing gopher tortoise habitat. Of the \$33 million mentioned in the press release below, approx. \$6 million is reserved for improving gopher tortoise habitat throughout its range.

The goal of this new funding initiative is to help reverse the decline of 7 critical species. The deadline for landowners to submit applications is May 30, 2012. Information on how to apply is included on the US Fish and Wildlife Service website at

<http://www.fws.gov/workingland-sforwildlife.html>. Landowners can contact their local NRCS office for more information. Find your local contact here: <http://offices.sc.egov.usda.gov/locator/app>

Get Email Updates!

Don't miss out on upcoming events and news! Send an email to cdemers@ufl.edu to be added to the Stewardship listserv. Updates are sent weekly and include a link to the current and back issues of the Florida Land Steward.

TIMBER PRICE UPDATE

The timber pricing information below is useful for observing trends over time, but does not necessarily reflect current conditions at a particular location. Landowners considering a timber sale are advised to solicit the services of a consulting forester to obtain current local market conditions.

Florida stumpage price ranges reported in the **1st Quarter 2012** Timber Mart-South (TMS) report were:

Florida Stumpage Prices

Pine pulpwood: \$18 – \$35/cord (\$7 – \$13/ton), same as 4th Qtr 2011

Pine C-N-S: \$32 – \$51/cord (\$12 – \$19/ton), ↑

Pine sawtimber: \$51 – \$72/cord (\$19 – \$27/ton), ↓

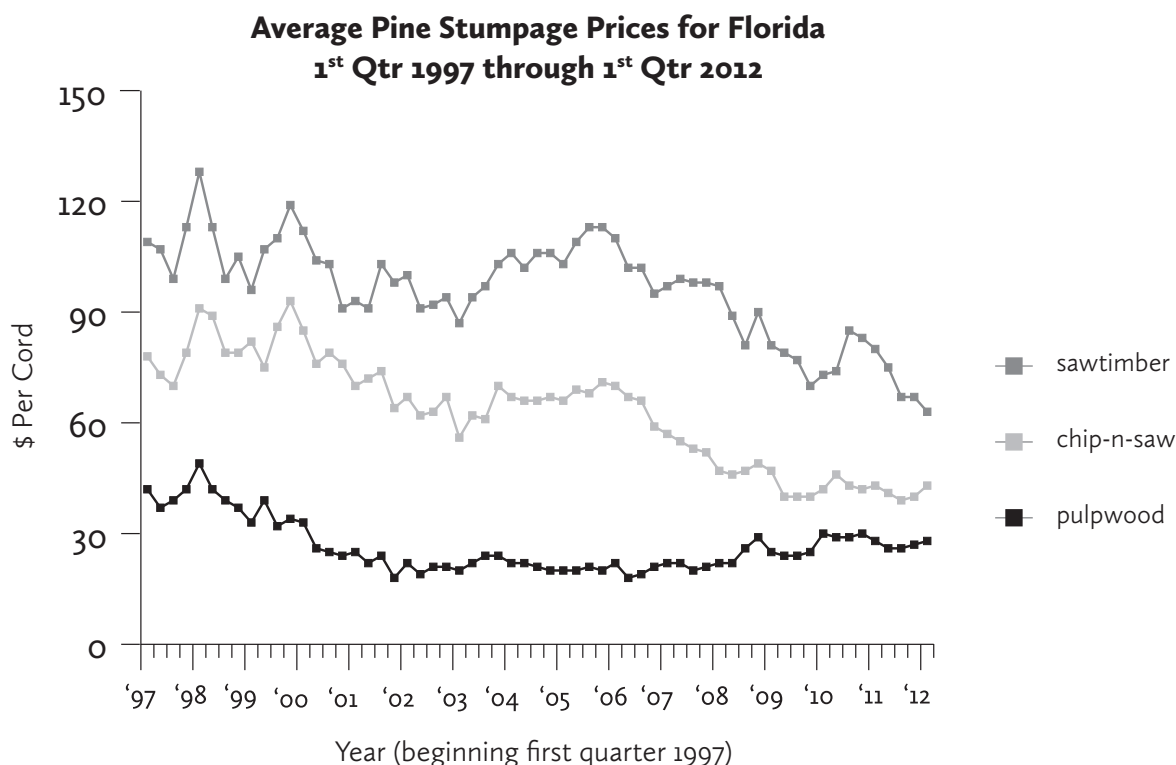
Pine plylogs: \$64 – \$96/cord (\$24 – \$36/ton), ↑

Pine power poles: \$138 – \$167/cord (\$51 – \$62/ton), ↑

Hardwood pulpwood: \$11 – \$24/cord (\$4 – \$8/ton), ↓

Trend Report

Price trends were mixed this quarter for Florida but changes were relatively slight for all products, with an average change of a dollar or less per ton from 4th quarter 2011. Market indicators in the larger economy are mixed. Interest rates are low but fuel prices are peaking out again at over 4\$/gallon for diesel. Housing starts and remodeling expenditures both showed some increase this quarter, while paper manufacturing decreased.



CONGRATULATIONS

CERTIFIED FOREST STEWARDS AND TREE FARMERS

For more information about becoming a Certified Forest Steward or Tree Farmer, call your County Forester or learn about it at:

http://www.fl-dof.com/forest_management/cfa_steward_index.html

or

http://www.floridaforest.org/tree_farm.php

These landowners have a current Forest Stewardship and/or Tree Farm management plan for their property and have demonstrated excellent stewardship of their land resources.



David and Eleanor King, Hamilton County



Vincenzo "Vinnie" Robinson (R) with Brian Cobble, Florida Forest Service, Suwannee County



Bob and Frances McGranahan with Chris Demers, Suwannee County



Charles Ozaki and his children and grandchildren (Ozaki, Mullens & Patterson families) with consultant Ralph Jowett (L), Columbia County

Upcoming Stewardship, Small Farm and Other Events

Date	Event, Location, Contact
May 10	Planning for the Future of Your Family Lands , 10 am - 3 pm, UF-IFAS Lake County Extension Office, 1951 Woodlea Rd, Tavares, FL 32778-4204. <i>Details and registration at: http://www.eventbrite.com/event/2977019345</i>
May 17	Planning for the Future of Your Family Lands , 10 am - 3 pm, UF-IFAS Sumter County Extension Office, 7620 State Road 471, Suite 2, Bushnell, FL 33513-8716. <i>Details and registration at: http://www.eventbrite.com/event/2998000099</i>
May 17	FL-GA Eastern Wild Turkey Extravaganza: Field Day, Trade Show and Banquet , 8:00 am - 7:00 pm, Osceola Plantation, Thomas County, GA. \$75 for all events, \$30 Field Day and Trade Show, \$55 Trade Show and Banquet. <i>Pre-registration required: http://flgaext-gamemgmt2012.eventbrite.com/</i>
May 23	Silviculture Best Management Practices Workshop , 9:00 am - 2:30 pm, UF-IFAS Putnam County Extension Office, Palatka, FL. Free, approved for 4 hours of SAF CAT-1 CFE's. <i>Register by May 14 by contacting Robin Holland, (352) 732-1273, Robin.Holland@freshfromflorida.com</i>
May 24	Planning for the Future of Your Family Lands , 10 am - 3 pm, UF-IFAS Marion County Extension Office, 2232 NE Jacksonville Rd, Ocala, FL 34470-3615. <i>Details and registration at: http://www.eventbrite.com/event/3000930865</i>
June 12	Climate and Forests, What's Changing? 1:30 to 4:30 pm ET, UF-IFAS Leon County Extension Office, 615 Paul Russell Road, Tallahassee, FL 32301. Landowners and professionals will learn about management practices that can help their forest management program adapt to a changing climate. <i>Contact the Leon County Extension office at (850) 606-5202 to sign up.</i>
June 14-16	2012 National Tree Farmer Convention , Hyatt Regency Jacksonville Riverfront Hotel. The convention will include a family and youth program for our next generation of Tree Farmers. <i>Details at: http://www.treefarmssystem.org/tree-farmer-conventions.</i>
June 19	Forest Stewardship Workshop: Grow Timber Revenue , 9 am - 3 pm CT, UF-IFAS Jackson County Extension Office, 2741 Pennsylvania Ave, Marianna, FL 32448. <i>Details and registration at http://fsp-workshop061912.eventbrite.com/ or call (850) 482-9620 to register.</i>
June 28	Forest Stewardship Workshop: Grow Timber Revenue , 9 am - 3 pm ET, UF-IFAS Nassau County Extension Office, 543350 US Hwy 1, Callahan, FL 32011. <i>Details and registration at http://fsp-workshop062812.eventbrite.com/ or call (904) 879-1019 to register.</i>

For many more events and information see: flsteward.org

The Florida Land Steward Newsletter is a University of Florida Cooperative Extension Service, Florida Forest Service, Florida Fish & Wildlife Conservation Commission, USDA Natural Resources Conservation Service and Florida Tree Farm joint project:

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