
The Florida Forest Steward



A Quarterly Newsletter for Florida Landowners and Resource Professionals

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2009 Forest Stewardship Landowner of the Year: Mike Adams – Big Stewardship Vision for a Small Tract

By Greg Dunn and Tony Grossman, Florida Division of Forestry

Mike Adams purchased 94 acres from Rayonier Timberlands in southwest St. Johns County in 1989. Land management practices started that year with removal and control of encroaching hardwood trees and establishment of perimeter fire lines that also served as access trails. Mr. Adams, a wildlife biologist and committed conservationist, enlisted the assistance of several natural resources professionals to prepare a land management plan in the winter of 1994. He joined Florida's Forest Stewardship Program in April of 1995 and continued to implement multiple use management activities on the property. Shortly afterwards, he was recognized by the St. Johns County Timber Growers' Association as "1995 Tree Farmer of the Year."

He continued his management by forming associations with other conservation organizations including the National Wild Turkey Federation,



Congratulations Mike Adams: 2009 Forest Stewardship Landowner of the Year

Photos by Greg Dunn, Florida Division of Forestry





U.S. Fish & Wildlife Service, and the American Tree Farm System. Through the technical assistance and educational programs provided through the Stewardship Program, he has productively managed the property for timber, wildlife, recreation and aesthetics. Having made great progress in a relatively short time, he was certified as a Forest Steward in August of 2001. Since then, his Saturiwa Conservation Area has become one of the finest examples of sustainable, multiple-use forest management in Florida, earning Mr. Adams the title of Florida's Forest Stewardship Landowner of the Year.

Saturiwa Conservation Area was named after a Timucuan Indian chief who reigned over much of area along the St. Johns River in northeast Florida some 400 years ago. It is a unique mix of natural flatwoods and planted pines, cypress ponds, bay ecotone, riverine hardwood swamp and about one-half mile of high-quality St. Johns River shoreline. Adding to the habitat diversity are wildlife openings, a trail system and a recreational fish pond. Mr. Adams' multiple-use management objectives for the property incorporate timber, wildlife habitat, soil and water conservation, recreation, education and aesthetics. Timber management on the property is based on sound forest management principles and practices, and provides a sustainable income from the sale of timber products.

Wildlife management is targeted for both game and non-game species such as quail, turkey, waterfowl, whitetail deer, bobcat, fox, black bear, reptiles, amphibians, song birds, and protected species such as gopher tortoise, eastern indigo snake, bald eagle and other birds of prey. Manatee and otter in the St. Johns River also benefit from wildlife, timber and water quality management activities on these lands. Dense pine plantations, once overcrowded with trees and excessive wildfire fuels, are now open forests with an increasingly diverse understory.

Restoration of the long leaf pine ecosystem, once common to the Southeast, is a long term goal. He continues to use selection harvesting, prescribed fire, wildlife management and other techniques to restore his forest land to a more natural condition not seen in this part of Florida for over half a century.

Mr. Adams and his family are an outstanding example of the potential of small forest ownerships. In spite of the increasing pressure of development from nearby St. Augustine, he defends and promotes fundamental land conservation goals. Saturiwa is also a



rehabilitated wildlife release site and a water quality monitoring station as part of the Watershed Action Volunteer program with the St. Johns River Water Management District.

Mr. Adams shares his love of this land not only with his family, but also with the community by inviting local school classes, government agencies and environmental interest groups to visit the property and learn about the region's natural and cultural resources. He plans on managing these land and water resources for many years, providing clean abundant water, wildlife habitat, clean air, timber products, carbon sequestration and educational opportunities. The Adams' legacy will surely benefit both current and future generations.

Join us for a tour of the property on February 25, 2010. Details are in this newsletter. Register early!

***Eucalyptus*: Promising Short-rotation Energy Crop or Invasion Invitation?**

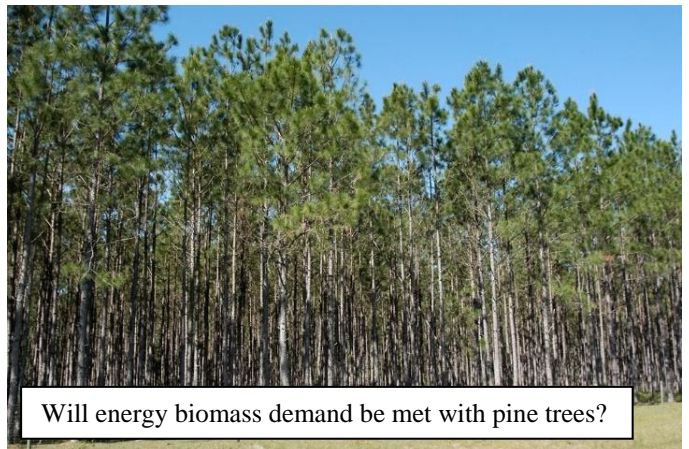
By Chris Demers, UF-IFAS School of Forest Resources and Conservation (SFRC), Doria Gordon, The Nature Conservancy, and D. L. Rockwood, SFRC

As Walton County Extension Agent Mike Goodchild says on his voicemail, "Woody biomass is where it's at." It wasn't long ago that we were writing about the wood-to-energy issue as something that might come about in the future, at least on the public utility scale. Pulp mills have been producing their own energy from tree bark, sawdust and process by-products for many years. However, as we prepare this edition of the Newsletter, at least two 100-megawatt wood-fueled municipal energy plants are planned in Florida and are likely to be in commercial operation within the

next three to five years. The big question many of us have about these developments is will there be enough wood to supply these and future energy plants in the long term and where will the wood come from? According to recent data, by 2020 we may need up to two million green tons of additional small-tree wood and up to four million green tons of chips to meet the demand for the announced energy-wood projects in Florida, including the two energy plants mentioned above (Nowak, 2009).

This demand will be met by some combination of residues from timber harvests or other forest stand treatments, urban waste wood and small-tree harvests. More details on the projected mix are forthcoming. A report by a Woody Biomass Economic Study Team is due to the Florida Legislature in March, 2010, and that will be summarized in a future issue of this Newsletter.

So what does *Eucalyptus* have to do with this? Won't we be able to meet biomass demand with native pines and hardwoods? That's the big question. If future long-term demand for energy wood exceeds what is available from the native mix, we may need dedicated feed stocks of faster-growing species to close the gap.



Fast growing hardwoods

Biomass research has been conducted at the University of Florida since the late 1970's and much of that has focused on *Eucalyptus* species, particularly the species *E. grandis* and *E. amplifolia* (Stricker et al. 2000). These species are hardy, fast-growing trees that can reach a height of 90 feet and deliver a high volume feedstock for many applications including windbreaks, land reclamation, mulch and various forms of energy production (Andreu et al. 2009). Other species such as cottonwood are also being investigated for these uses. The big advantage of using *Eucalyptus* for these purposes is their fast growth and ability to regenerate from the cut stump.

Cold-tolerant *Eucalyptus* varieties

The *Eucalyptus* species tested in Florida have historically had limited ranges due to low cold tolerance. While *E. grandis* is grown commercially on some 50 million acres in 90 countries, it is relatively intolerant of cold and has historically been limited to central and south Florida, where it has been grown as a commercial crop on some 15,000 acres since the 1960s. Through selection and testing, however, the UF-IFAS School of Forest Resources and Conservation has developed and released four new cultivars of *E. grandis* that are approved for commercial use when following specified guidelines (see <http://ffsp.net/resources/itn09-01-04.pdf> for details). Three of these clones have grown in Gainesville since 1995, and they could be deployed in north Florida.

E. amplifolia is more cold tolerant and has been grown successfully in northern Florida, including an 80 acre plantation near Old Town, and southern Georgia. Commercial production of seedlings of *E.*



amplifolia started in 1997 and could be expanded in northern Florida and the lower Southeast. In 2010, SFRC will be establishing several field trials in Florida, Louisiana, Texas, Georgia, and Mississippi.

ArborGen, a global planting stock supplier, is developing technologies to increase the productivity of fast-growing trees, including *Eucalyptus*, to potentially be included in a renewable feedstock portfolio for bioenergy and other products. Part of their effort is focused on genetically enhancing *E. grandis* x *E. europphylla* hybrids to express cold tolerance genes from another species. This process of producing a desired trait in an organism using genes from another species is termed *transgenics*. Observations of the transgenic plants under field conditions has confirmed that the improved trees are exhibiting minimal or no cold damage compared to non-transgenic controls (Hinchee 2009).

Invasion invitation?

Eucalyptus has been in Florida for over 100 years but it is native to Australia. ArborGen's transgenic varieties now in planting trials are new to this region, and there is some concern that these plants may have the potential to become invasive.

We don't know much yet about the potential of the transgenic varieties to become invasive. We know they are now in controlled trial plantings and, according to ArborGen, the new varieties have very low reproductive potential (Hinchee 2009). However, we do have some data on the potential for *E. grandis* and *E. amplifolia* to become invasive.

According to the UF-IFAS Assessment of Non-native Plants in Natural Areas (<http://plants.ifas.ufl.edu/assessment/>), *E. grandis* is listed in the category, "Invasive – Not Recommended by IFAS" as of July 2009, with the caveat, "recommend only under specific management practices that have been approved by the IFAS Invasive Plants Working Group (IPWG)". The four cold-tolerant cultivars of *E. grandis* discussed above have specified and limited uses approved by the IPWG. Modeled after the national standards in place for managing about 600,000 acres of *E. grandis* in South Africa, the improved practices include harvest prior to setting seed, cultivation in monoculture, control of seedlings, and specified management of buffer areas (see http://plants.ifas.ufl.edu/assessment/spread_sheets/specified_and_limited_uses.xls). *E. amplifolia* is listed in the "CAUTION" category as of July 2009. Species with this designation should be managed to prevent escape, but may be recommended by IFAS faculty.

These IFAS recommendations are the result of evaluation of both *E. grandis* and *E. amplifolia* using the Predictive Tool in the UF-IFAS Assessment. The Tool has been adapted for use in Florida from the Australian Weed Risk Assessment system (WRA).

The WRA consists of 49 questions about the history of use and weediness, distribution, climate requirements, biology, and ecology of the plant species. This Predictive Tool is used if species have not escaped into Florida's natural areas but are either recent arrivals to the state or are known to naturalize in areas with similar habitats and climate to Florida, or there is a proposed or new use for a species that would result in higher propagule pressure in Florida. In the IFAS Assessment higher propagule pressure means: cultivation of at least two contiguous acres of a species for bioenergy, or commercial cultivation of a species present in Florida for a new use, or a significant increase in the acreage cultivated. *Eucalyptus grandis* has a history of cultivation in Florida, is not currently found in natural areas, but has been identified as an invader in some areas of the world. As such, this species had been identified for assessment through the predictive tool even without the potential increase in propagule pressure associated with cultivation for biofuel use (Gordon et al 2009).

The long and short of all this is we don't really know if the new hybrid transgenic *Eucalyptus* is an invasion invitation. We can only guess based on the behavior of the closest relative, *E. grandis*, which so far has been collected outside of its cultivated area in at least four locations in Florida (see

<http://www.florida.plantatlas.usf.edu/SpecimenDetails.aspx?PlantID=39>), and is reported to be invasive in South Africa and New Zealand (Henderson 2001, New Zealand Plant Conservation Network 2005, Forsyth et al. 2004).

Even if the genetically modified *E. grandis* cultivars have low reproductive potential, interbreeding with genotypes already in Florida that are showing some signs of naturalization may transfer greater cold tolerance to plants with higher reproduction. That could lead to an even greater risk of invasion from this plant than is currently predicted. However, careful management can mitigate some of this risk.

Conclusion

This article skims the surface of this issue and we will continue to report on relevant information about bioenergy over the next few years. There are other exotic plant species, some controversial, that researchers and practitioners are investigating as potential fuel sources for energy production. Each is being or will be closely examined for its efficiency as a biomass crop as well as its potential to become invasive. No single species will be the silver bullet and we must proceed with caution and due diligence to prevent any exotic species established for this purpose from becoming a threat to native plant communities.

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Longleaf Pine Ecosystem Restoration Private Landowner Incentive Program

Florida Division of Forestry

The primary objective of the Longleaf Ecosystem Restoration Incentives Program is to increase the acreage of healthy longleaf pine ecosystems in Florida by helping non-industrial private forest (NIPF) landowners to make the long term investment required to establish and maintain this valuable ecosystem. Toward this end, the program offers NIPF landowners incentive payments for conducting certain approved forest management practices that help establish or improve longleaf pine stands. This program is administered by the Florida Division of Forestry (DOF) and is funded through a grant from the USDA Forest Service and the American Recovery and Reinvestment Act.

The program offers incentive payments for: longleaf pine seedling establishment, timber stand improvement, prescribed burning, native plant understory establishment, mechanical underbrush treatments and invasive exotic plant treatment.

For more information or to apply for the Program,

contact your
DOF County Forester.

More details about the program are on the Web at:

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

Operation Oak 2009-2010: A National Wild Turkey Federation Regional Program

By Brian M. Zielinski, National Wild Turkey Federation

The NWTF's Operation Oak program is dedicated to restoring and creating oak habitat throughout the southeast. Last year alone, this program provided over 14,000 oak trees for planting on private lands throughout Florida. The NWTF has once again shown its commitment to this program in Florida and will have 14,100 trees available to private landowners, including white oak, live oak, swamp chestnut oak, and cherry bark oak. All trees will be shipped to pre-determined, centralized locations within the panhandle and peninsular Florida for pick up in February 2010. A minimum request of 100 trees will be required per species, and landowners interested in participating in this FREE program must be or become a member of the National Wild Turkey Federation. The NWTF will send a letter to all interested landowners along with an application for completion, and completed applications must be received no later than December 1, 2009 to be considered for the program. If you are interested in participating in this program for 2009-10, please contact Mr. Brian M. Zielinski, NWTF Regional Biologist, at (386) 804-6691 or via email: bzielinski@nwtf.net to receive the Operation Oak program materials. Thank You !

Congratulations Certified Forest Stewards and Tree Farmers!



Lake Como Co-op: Mike Chauncey and Lee St. Mary with Arthur Clothier (center), Pasco County



Wayne and Robin Crotty with Greg Staten, Hamilton County



Richard Fish, Forest Steward, Baker County (correction from last issue)



Raymond Fletcher, Suwannee County



Troy Register (R), Brian Cobble, Suwannee County



David Hamrick, Leon County



John Keteltas, Suwannee County



Harold Kosola (R), Brian Cobble, Suwannee County



John Mcleod, Suwannee County



David Poole, Suwannee County



Mr. and Mrs. Malcolm Jones, Jr., Suwannee County



Joe Boyles, Suwannee County

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

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



Property Tour

Saturiwa Conservation Area

Property of Mike Adams

2009 Forest Stewardship Landowner of the Year

St. Johns County, FL

Date: *Thursday, February 25, 2010;
meet and greet at 9:00 AM ET.
Program begins promptly at 9:30.*

Tour: Mike Adams purchased 94 acres from Rayonier Timberlands in southwest St. Johns County in 1989, joined Florida's Forest Stewardship Program in April of 1995 and immediately implemented prescribed management activities on the property. Shortly after management began, he was recognized by the St. Johns County Timber Growers' Association as "1995 Tree Farmer of the Year." To further improve his skills, he formed associations with other conservation organizations including the National Wild Turkey Federation, US Fish & Wildlife Service, and the American Tree Farm System. Through these associations and the technical assistance and educational programs provided through the Forest Stewardship Program, he has productively managed the property for timber, wildlife, recreation and aesthetics. Having made great progress in a relatively short time, he was certified as a Forest Steward in August of 2001. Since then, his Saturiwa Conservation Area has become one of the finest examples of sustainable, multiple-use forest management in Florida, earning Mr. Adams the title of Florida's Forest Stewardship Landowner of the Year. *This will be a walking tour, rain or shine, so please wear comfortable clothing and be prepared.*



Register: A sponsored lunch will be served on-site after the tour, sponsors TBA. This program is free but you must preregister. **Call the St. Johns Office at (904) 209-0430 to register. Attendance will be limited so please register soon!** Directions are on the back of this announcement. Please share with others who may be interested. Contact Chris Demers, (352) 846-2375, cdemers@ufl.edu, with questions about this or other Forest Stewardship Program events.



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.

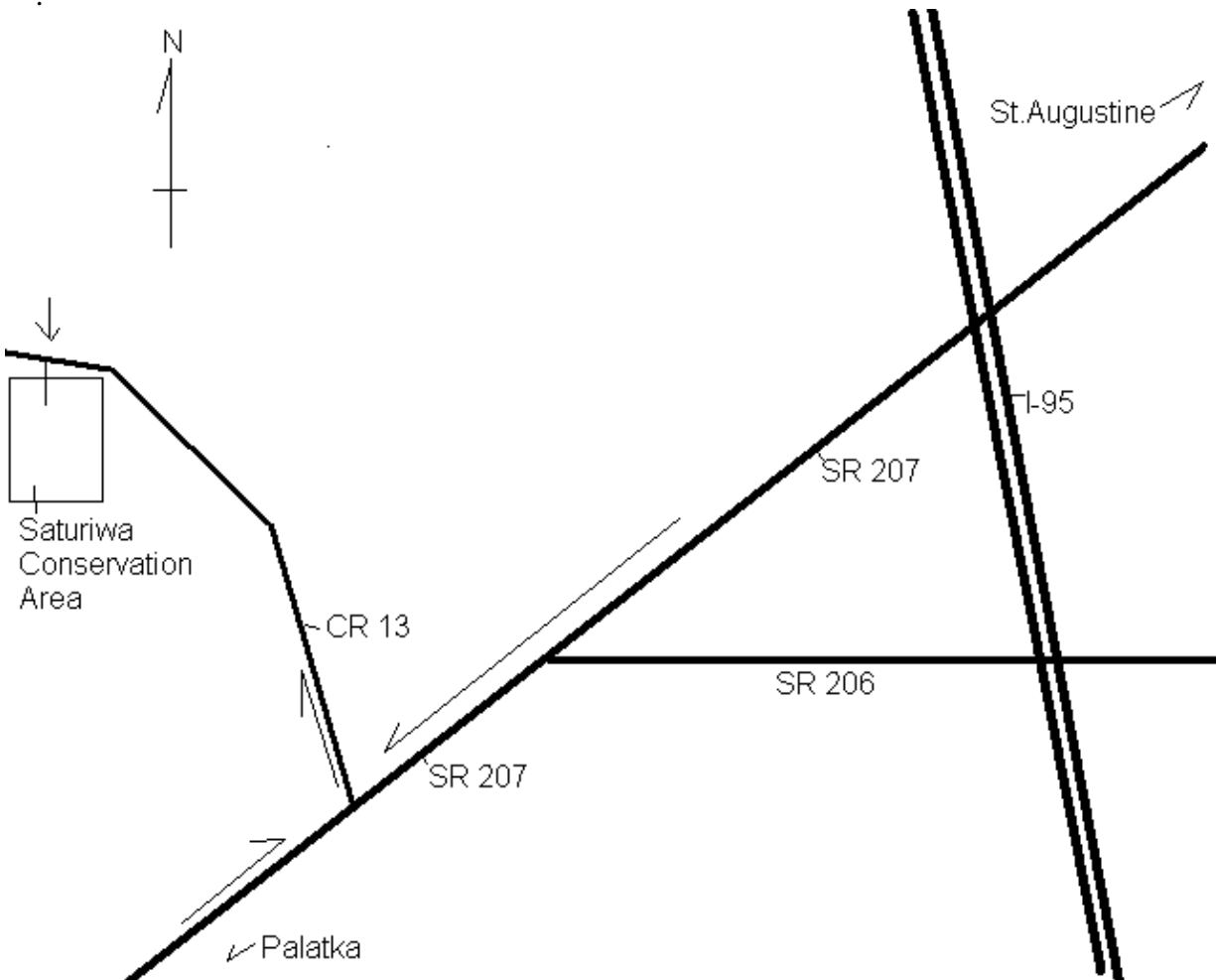
Directions to Saturiwa Conservation Area
2425 CR 13 S, Elkton, FL 32033

From I-95:

- Take State Road 207 west 8.5 miles to County Road 13
- Turn right on CR 13 and go 5.0 miles to the property entrance on the left. Look for “Forest Stewardship Tour” signs.

From Palatka:

- Take State Road 207 east to the town of Hastings and go 3.0 miles to County Road 13
- Turn left on CR 13 and go 5.0 miles to the property entrance on the left. Look for “Forest Stewardship Tour” signs.



Timber Price Update

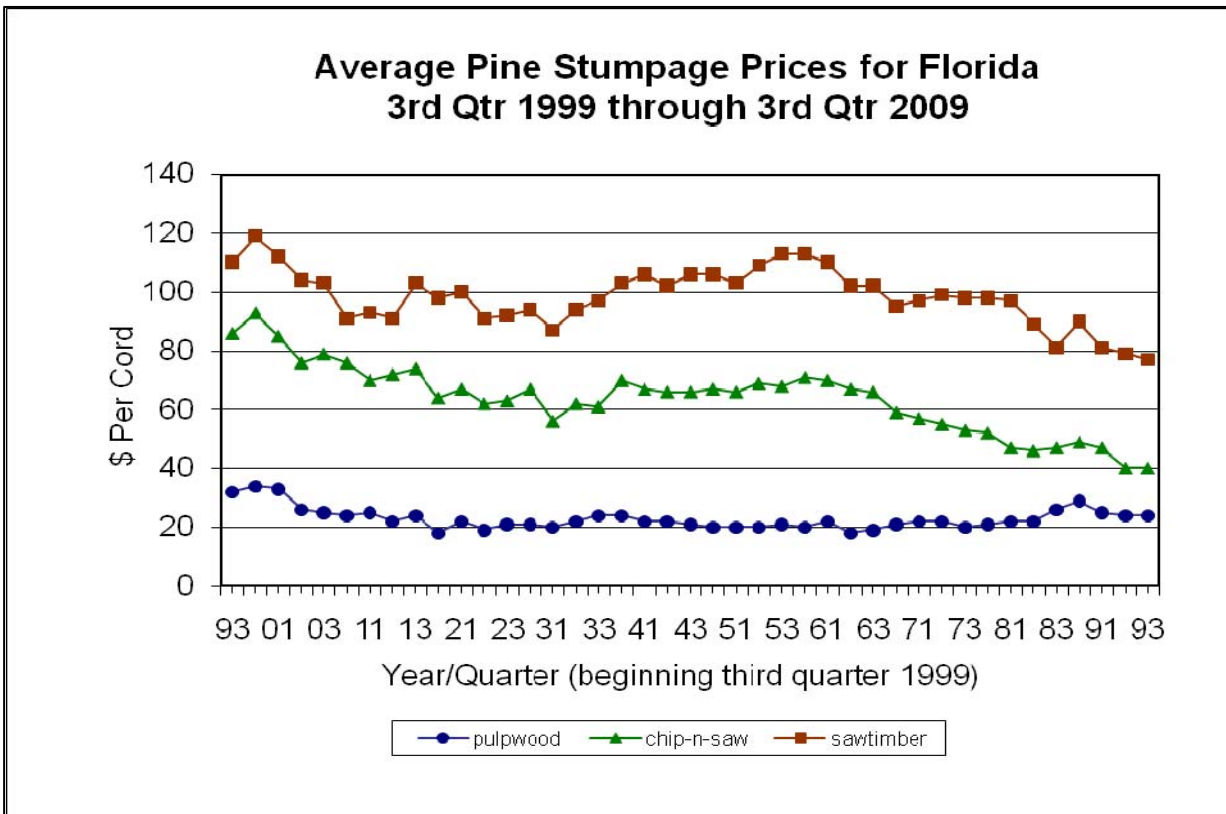
The timber pricing information below is useful for observing trends over time, but does not necessarily reflect current conditions at a particular location. Landowners considering a timber sale are advised to solicit the services of a consulting forester to obtain current local market conditions. Note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

Stumpage price ranges reported across Florida in the 3rd Quarter 2009 Timber Mart-South (TMS) report were:

- Pine pulpwood: \$19 - \$28/cord (\$7 - \$11/ton), ↓ (from average 2nd Quarter 2009 prices)
- Pine C-N-S: \$33 - \$46/cord (\$12 - \$17/ton), ↓
- Pine sawtimber: \$63 - \$94/cord (\$23 - \$35/ton), ↓
- Pine plylogs: \$67 - \$93/cord (\$27 - \$35/ton), ↑
- Pine power poles: \$125 - \$164/cord (\$47 - \$61/ton), ↑
- Hardwood pulpwood: \$10 - \$23/cord (\$3 - \$9/ton), ↑

Trend Report

Despite some wet weather in many areas of Florida, average stumpage prices for the big three timber products were down or the same for the third straight quarter. Price reporters in the Southeast region indicate that the market for both sawtimber and chip-n-saw are stagnant. The trend line for pine pulpwood remains flat. On the bright side, average prices for the higher value products like plylogs and poles seem to be on the rebound, and prices for hardwood products in Florida were all up this quarter.



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UPCOMING EVENTS

Date	Event, Location, Contacts
November 19	<i>Forest Stewardship / Tree Farm Tour, Florida Sheriffs Youth Ranch, 9 am ET, Suwannee County.</i> Contact the UF-IFAS Suwannee County Extension Office at (386) 362-2771 to register.
December 10	<i>Forest Stewardship Videoconference: Find Technical and Financial Assistance for Small Farm, Forest and Wildlife Management, 1 - 5 PM ET (12 - 4 PM CT) broadcast live via Polycom from the University of Florida Campus to Extension facilities in Clay, Hillsborough, Jackson, Lee, Madison, Miami-Dade, Nassau, Osceola, Santa Rosa, Walton and Washington Counties.</i> Contact Chris Demers at cdemers@ufl.edu or (352) 846-2375 for information.
December 12-13	<i>Introduction to the Natural Uplands of Duette, 8:30 am Saturday - 3:00 pm Sunday (EST), Manatee County.</i> Hosted by the Manatee-Sarasota Fish & Game Association, Inc.. Contact Chick and Merrie Lynn Parker at (941) 792-8314 or e-mail ml.chickp@verizon.net .
January – March 2010	<i>Annie's Project.</i> This 6-week course is designed for farm/ranch women to help them become active and involved farm partners. Cost is \$25. Locations include Columbia, Lake, Hernando, Marion, Sarasota, Sumter and Suwannee Counties. Call Nola Wilson at (352) 671-8400 for more details, dates and locations.
January 21	<i>Forest Stewardship Property Tour at Promise Ranch, Property of Robert Panuska, Lake County.</i> Call Maggie Jarrell at the Lake County Extension Office at (352) 742-3999 x.2730 to register.
February 25	<i>Forest Stewardship Property Tour at Saturiwa Conservation Area, St. Johns County.</i> Call the St. Johns County Extension Office at (904) 209-0430 to register. Full announcement in this issue.

For more information and events about Florida's Forest Stewardship Program and forest management visit:
www.sfrc.ufl.edu/Extension/florida_forestry_information/index.html

The Florida Forest Steward is a University of Florida Cooperative Extension Service, Florida Division of Forestry and Florida Tree Farm joint project:

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