



Inside this newsletter...

- Forest Development Program Review
- Natural Hardwood Regeneration
- Native Plants & Critters
- Tree Farm Info

Cost-Sharing Program Funding Under Review

A Little History for You

In 1977, North Carolina's General Assembly passed the Forest Development Act (NCGS 113A-176) because it was "in the public interest...to encourage the development of the State's forest resources and the protection and improvement of the forest environment." This Act directed establishment of a voluntary cost-sharing program to "provide financial assistance to eligible landowners to increase the productivity of the privately owned forests of the State through the application of forest renewal practices and other practices that improve tree growth and overall forest health." This is how the Forest Development Program (FDP) was born.

How FDP is Funded

Cost-sharing funds come from two main sources: 1) Assessments on primary forest products collected from industry (e.g. sawmills) and 2) the State's General Fund (i.e. taxpayers). In recent years, budget constraints have cut the State's portion while the assessment rate per unit of raw material from forest industry has not increased since the program's inception in spite of the economic benefits derived from FDP's creation of an abundant wood source.

Forest Practices FDP Covers

Under FDP, landowners are partially reimbursed for the costs of site prepara-

tion, tree planting, seedling "release," or any other silvicultural practice needed to establish a new forest. Certain cultural practices like crop tree release or non-commercial thinning are also eligible for partial reimbursement.

To qualify for FDP cost-sharing, a landowner must have an approved forest management plan written by the landowner, a registered forester (including consulting foresters), or the NC Division of Forest Resources (NCDFR).

FDP Review Process

In 2007, the General Assembly initiated a "Continuation Review" process which is intended to improve governmental accountability. Simply put, a continuation review evaluates a state government program's effectiveness and advises whether or not to continue, scale back, or discontinue the program. This year, FDP was one of seven programs selected for review and NCDFR has been tasked with developing a response.

At the NCDFR's request, *NCWoodlands* is providing input for this review response. *NCWoodlands* believes continuation of FDP incentives is justified as long as adequate markets to make all types of forest management economically feasible are lacking. Given this is the case, *NCWoodlands* supports increased funding for FDP from both the general fund and the forest industry assessment that reflects economic realities and current needs.

How You Can Help

If you have participated in FDP, and you are willing to provide a "testimonial" on your experience, please contact *NCWoodlands* at (919) 787-1220 or ncwoodlands@bellsouth.net. We'll pass your comments on to NCDFR. ■

Upland Hardwoods Naturally!

By C. E. McGee, D. E. Beck, and D. H. Sims

Getting a cutover hardwood forest in the South to regenerate itself is easy. Making sure you have desirable species and that they are free to grow is not quite

so easy. This article tells how to achieve good natural regeneration by following a few simple procedures for cutting the mature stand and for controlling competing vegetation.



How Stands Regenerate

Southern hardwood forests regenerate quickly because many sources of reproduction are ready to take over the stand when the mature canopy is removed.

Seed

Seeds of several species such as yellow-poplar, ash, and sycamore remain viable on the forest floor for several years, so when overstory trees and shrubs are cut, the seeds germinate and grow. Also, birds, animals, and wind transport seeds from adjacent stands. Light-seeded species may be blown into the regeneration area from several hundred feet away.

Advance Regeneration

Some seeds germinate under the forest canopy. Many seedlings die quickly, others die back and resprout, but some endure under closed canopies for a long time and are called advance regeneration. Their top growth may be very slow, but roots continue to develop. Most hardwood stands contain some desirable advance regeneration. Advance regeneration is particularly important for oaks because new seedlings are produced sporadically and grow slowly. Older oak stems, an inch or more in diameter, with well-developed root systems are necessary for advance regeneration to grow satisfactorily after release. Logging usually does not harm advance regeneration since sprouts from the root collar will grow vigorously.

Stump and Root Sprouts

Young hardwood stands almost always contain some stump sprouts and occasionally entire stands can develop from stump sprouts. Because of their vigorous early growth, stump sprouts often dominate other forms of reproduction. The quality and longevity of stems resulting from stump sprouts are sometimes questioned, but stems that start from

Continued on page two



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Continued from page one

small stumps below or near groundline usually are good risks. Stump sprouts from yellow-poplar often produce the best stems in the stand. Most hardwood species also produce root sprouts. Black locust and sassafras produce them prolifically and may regenerate almost entirely from root sprouts.

Cutting for Natural Regeneration

Total Canopy Removal—Clearcutting

A most effective and efficient method for naturally regenerating a hardwood stand is clearcutting, the total removal of the canopy in one cut. Clearcutting provides the best conditions for fast-growing, desirable timber species that can use full sunlight to develop rapidly. Some shade tolerant species also do well under these conditions.

The best way to remove the canopy is through commercial timber harvests. Have the logger cut and use as much of the stand as practicable. The cleaner the logging job the better.

But the logger may not be able to use culls, low-quality trees, and some small trees. Most of these leftover trees should be cut or killed or they will impede regeneration.

There are several good ways to control the unmerchantable material. Several months before, you can inject herbicide into trees the logger can't use. Or, you can follow the logging with a combination felling and injection. Trees that produce desirable sprouts could be felled; undesirable trees could be injected. How the material is controlled is not important, but most of it must be treated, especially stems larger than 4 inches.

The size of the clearcut depends on overall management objectives. Stands as small as one-half acre can be used, but development of such small areas will be impeded by side competition and over-browsing by deer. Also, small stands are inefficient to manage. Clearcuts several acres or larger in size are usually more economically desirable, but maximum size for a regeneration area depends upon other management needs.

Clearcutting produces an even-aged stand that favors shade intolerant species, but species composition seems to be controlled mainly by the quality of the site. On good sites seedlings of fast-growing species such as yellow-poplar, ash, black locust, black cherry, and birch along with sprouts from the oaks, red maple, and others usually predominate. On average sites oaks will predominate with occasional yellow-poplar, pine, hickory, red maple, and others mixed in.

In certain locales, however, desirable light-seeded species may not be present so desirable species, primarily oaks, must come from advance regeneration and stump sprouts.

Shelterwood

Hardwood regeneration begins to develop when only a portion of the mature stand is removed. The continued growth and development of the regeneration depends upon how much was cut and how soon the rest of the mature stand is removed. Development of regeneration also depends upon how much of the smaller understory material is removed. Simply cutting part of the overstory will not work. Good hardwood regeneration has developed from a series of treatments involving (1) a partial cutting that left the larger, better-formed trees uncut; (2) deadening the unmerchantable understory stems by cutting or injecting with herbicides at the time of the first cut; and (3) removal of the remaining overstory as soon as adequate regeneration was present.

This harvesting technique, often called a *shelterwood*, produces an even-aged stand. The sources of regeneration can be the same as in a clearcut but with somewhat less dependence on seed and seedlings already in place before any cutting is done.

In most cases, leaving a shelterwood has few biological advantages. When light-seeded species are not present and advance regeneration is absent, a shelterwood can help develop the desired advance regeneration. Regeneration develops more slowly under a partial cut or shelterwood than it would if the entire canopy were removed.

The shelterwood method of regeneration cutting should not be confused with the occasional removal of the biggest and best timber trees—or high grading. In making partial cuts to regenerate a stand, definite provisions must be made to treat unmerchantable understory stems and to remove the remaining overstory shortly. High-grading does neither of these things and seriously detracts from long-range growth potential.

Selection

Removal of single-trees has generally not proved to be an effective way to regenerate upland hardwoods in the South. Most desirable hardwoods are relatively intolerant of shaded conditions. They will begin development under partial shade, but they must be released from overhead competition fairly early in life. The biggest draw-backs to single-tree

Continued on page three

selection are that the system fails to provide for quick and orderly removal of overhead competition and it promotes the development of shade tolerant species, many of which are not desirable.

Summary

Upland hardwood forests have a strong regenerative capacity and obtaining desirable regeneration is usually not complicated or difficult. Much of the regenerative effort should consist of creating proper conditions for growth of seedlings or sprouts by orderly removal of the mature stand. Stand removal may be accomplished by one harvest or by a series of cuts. Likewise, the size of stand created may vary widely. The essential point is to create conditions where regeneration can grow free from overhead competition of older and larger trees.

Extra efforts, such as scarification, are usually not needed. The key operation that will require expenditure of effort and money is the control of unmerchantable material. In most of the South's upland hardwood stands that have been protected from fire and grazing, there will be a relatively dense understory of shade tolerant trees. These are usually trees with little or no commercial potential. The control of these smaller trees, along with the control of culls in the overstory is an essential part of a properly done regeneration cut.

These rather simple practices will produce diverse young stands that will ordinarily contain many thousands of seedlings and sprouts of trees of desirable and undesirable species along with numerous briars, shrubs, and weeds. Do not be overly concerned at the brushy appearance for the first few years. Because of their more rapid height growth, desirable species will almost always become dominant as the stand develops.

NOTE: *This article reports research involving herbicides. If herbicides are handled, applied, or disposed of improperly, they may be injurious to humans, domestic animals, desirable plants, and pollinating insects, fish, or other wildlife, and may contaminate water supplies. Use herbicides only when needed and handle them with care. Follow the directions and heed all precautions on the container label.*

Some States have restrictions on the use of certain herbicides. Check your State and local regulations. Also, because registrations of herbicides are under constant review by the EPA, consult your county agricultural agent or State extension specialist to be sure intended use is still registered.]

SOURCE: Southern Forest Experiment Station, Forest Service, US Department of Agriculture 1979

Go Native, Baby!

Hey ya'll, if you're "web savvy," check out www.ncsu.edu/goingnative to find out how to "go native" by landscaping for wildlife with native plants! You'll see why native plants are better for wildlife and for the environment while learning about the problems caused by invasive, exotic plants that you probably have in your backyard! Find out which native plants you can use as alternatives to exotic plants and where you can buy them! Learn how to create your own native plant landscape that's attractive to wildlife and people with a step-by-step guide that helps you choose the right plants for your landscape.

So why should you favor native plants? Here are just a few reasons...

- **More Wildlife** - Native animals are best adapted to native plants for food and cover, so a well-planned landscape of native plants can help you attract more wildlife to your property.
- **Low Maintenance** - Plants native to an area are well suited to the local soils and climate, and require relatively little upkeep once established on an appropriate site.



NC native *Viburnum* sp. benefits wildlife
Photo courtesy of NC Cooperative Extension Service

• **Avoid Invasive Exotics** - The spread of invasive, exotic plants poses a threat to native plants and animals around the world. You can do your part to slow down these threats in your area.

• **Balance Habitat Loss** - With current human population growth, we are losing wildlife habitat at an alarming rate. You can help balance this loss by creating new habitat with native plants.

• **Avoid Common Mistakes** - Many common landscaping practices, like planting only one species across a large area, are actually **bad** for wildlife. By creating an integrated native plant landscape you can avoid having a property that provides little or no habitat for wildlife.

So, if you want a happy and healthy wildlife population, go NATIVE!

SOURCE: NC Cooperative Extension Service



Tree Farm Info

Big News from Forsyth County!

The American Tree Farm System (ATFS) has named **NCWoodlands** charter members Bob and Jean Cooper as its **2008 National Outstanding Tree Farmers of the Year**. This annual award recognizes outstanding sustainable forest management on family owned forestland. The Coopers own Meadowbrook Farm in Forsyth County.

The Coopers purchased their 118-acre tract 34 years ago. At the time, the property was rundown and in severe disrepair. But over the years and with "sweat and money earned through timber harvests," the Coopers restored the property and its home to a manageable state and made it their residence in 1985. In 2001, the Coopers intensified their participation in ATFS and have been the backbone of the rebirth of the North Carolina Tree Farm Program. Dr. Cooper has served as chairman of the program from 2003 through 2006, and North Carolina now has more than 800 certified Tree Farmers and 100 certified Tree Farm Inspectors.

"Landowners like the Coopers are priceless," said Ron Meyers, a forester with the NC Division of Forest Resources. "They are willing to experiment—eager to learn more about their forests and forestry. It really gives foresters like myself the ability to improve forest practices in our state. I cannot think of anyone more deserving than the Coopers of this recognition."

"You have to have a passion for the land. If you don't, you are not going to get very far. You need to sell people on the concept that not only are you growing trees for lumber, for fiber, for the many products, but probably equally important, maybe more important, is the water quality, the wildlife, and the recreation," remarked Dr. Cooper.

"We at the American Forest Foundation are committed to the recognition of family forest owners like the Coopers each year," said Bob Simpson, Senior Vice President-Forestry. "This recognition honors the hard work and dedication of these true champions of sustainable forestry and their tireless efforts to provide significant support to help ATFS accomplish its mission of getting more good forestry on more acres."

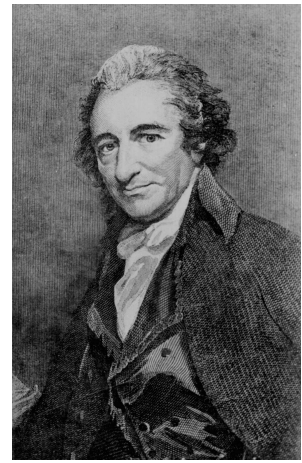
SOURCE: Press Release 10/21/08 - ATFS



HAPPY HOLIDAYS!

"These are the times that try men's souls. The summer soldier and the sunshine patriot will, in this crisis, shrink from the service of their country; but he that stands it now, deserves the love and thanks of man and woman. Tyranny, like hell, is not easily conquered; yet we have this consolation with us, that the harder the conflict, the more glorious the triumph."

—Thomas Paine
The Crisis, 1776




Thomas Paine
Photo courtesy of the National Archives

RESISTANCE IS FUTILE... To join *NCWoodlands*, call, write, or email with complete address info to:



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Mission Statement of NCWoodlands:
To promote responsible stewardship of North Carolina's woodlands through sound and sustainable forest management.