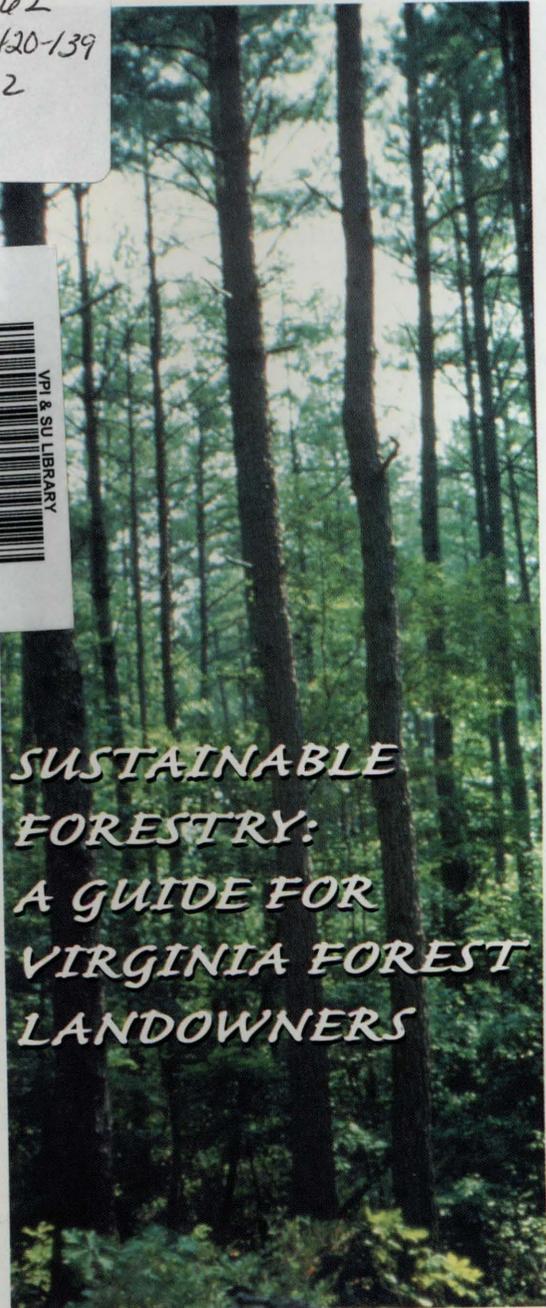


Cooperative Extension

LD  
5655  
A762  
no. 420-139  
c. 2



*SUSTAINABLE  
FORESTRY:  
A GUIDE FOR  
VIRGINIA FOREST  
LANDOWNERS*

Publication 420-139  
Revised 2002  
(originally published 1999)

Virginia Cooperative Extension programs and employment are open to all, regardless of race, color, religion, sex, age, veteran status, national origin, disability, or political affiliation. An equal opportunity/affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating J. David Barrett, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; Lorenza W. Lyons, Administrator, 1890 Extension Program, Virginia State, Petersburg.

VT/008/0402/4M/223202/420139

VIRGINIA POLYTECHNIC INSTITUTE  
AND STATE UNIVERSITY LIBRARIES

Virginia  
Tech

VIRGINIA POLYTECHNIC INSTITUTE  
AND STATE UNIVERSITY

SFI

ASSOCIATION



VIRGINIA STATE UNIVERSITY

## CONTENTS

<i>What is Sustainable Forestry?</i> .....	1
<i>Pine or Hardwood?</i> .....	2
<i>Forest Health</i> .....	5
<i>Planning Your Timber Harvest</i> .....	7
<i>Best Management Practices</i> .....	12
<i>Economics of Reforestation</i> .....	14
<i>Wildlife and Other Special Resources</i> ...	15
<i>Environmental Regulations</i> .....	17
<i>Tax Considerations</i> .....	20
<i>Financial Assistance</i> .....	22
<i>Management Assistance</i> .....	24
<i>Education Opportunities</i> .....	27

### Authors

Dylan H. Jenkins  
James E. Johnson  
*Virginia Tech Department of Forestry*

### Review Committee

Laurie A. Chandler  
*Smurfit-Stone Corporation*

David Coffman  
*Virginia Department of Forestry*

John M. Hancock  
*Mead-Westvaco Corporation*

James B. Kuykendall  
*Virginia Forestry Association*

Thomas N. Reeder  
*The Glatfelter Pulp Wood Company*

Robert M Shaffer  
*Virginia Tech Department of Forestry*

Jeff L. Zimmer  
*International Paper Company*

### Acknowledgements

The authors thank the North Carolina Forestry Association for permission to use excerpts from their publication, *Landowner Guide to Forestry in North Carolina*.

This publication is supported by matching grant funds from the Virginia Forest Stewardship Program administered by the Virginia Department of Forestry in cooperation with the USDA Forest Service.

### Sponsors

Virginia Sustainable Forestry Initiative<sup>SM</sup>  
State Implementation Committee  
Virginia Tech Department of Forestry  
Virginia Cooperative Extension  
Virginia Forestry Association  
Virginia Department of Forestry

## *Dear Forest Landowner,*

As a private forest landowner, you are a vital link in the sustainability of Virginia's forest resources. Your land provides many benefits to all Virginians including wood products, wildlife habitat, clean air and water, and recreation opportunities. Because forest landowners like you own and control three-quarters of the state's forest land, the decisions you make regarding your forest today will impact the quality of Virginia's forests for many years.

The purpose of this publication is to provide you with some basic information on forest management and specifics on how timber harvesting should be conducted to ensure the sustainability of your forest resources. This guide is designed to help you make informed, knowledgeable decisions about managing your forests and will also help you understand the importance of timber harvest planning and how to work with professional foresters and natural resource management agencies.

The information contained in this publication regarding taxation and environmental regulations is accurate but should not be construed to be official government interpretation. Regulations and laws are constantly evolving, so you are encouraged to always obtain professional forestry assistance before making your final management decisions.

We wish you success in reaching your goals for owning and managing your forest. Additional information on many of the topics presented is available from a variety of sources. We encourage you to contact any of the agencies listed at the back of this brochure for further assistance.

For a complete listing of natural resource agencies for your county, please visit the *Virginia Forest Landowner Update* website at: [www.cnr.vt.edu/forestupdate](http://www.cnr.vt.edu/forestupdate).

## **WHAT IS SUSTAINABLE FORESTRY?**

Virginia's forests make a vital contribution to our state and beyond by providing economic, consumer, environmental and aesthetic benefits essential to our quality of life. Because the majority of Virginia's forests are owned by private forest landowners, the collective decisions of forest owners like you will determine the ability of future generations to enjoy these same benefits.

While sustainability is a dynamic concept, some basic principles are clear: sustainable forestry consists of those forest practices that meet present needs without compromising the ability of future generations to meet their own needs. Specifically, sustainable forestry integrates the regeneration, growing, nurturing, and harvesting of trees for useful products while conserving soil, air, and water quality, wildlife and fish habitat, and landscape aesthetic quality.

### *Examples of sustainable forestry practices include:*

- minimizing the impact of forest management activities on water quality
- tree planting or natural regeneration immediately following a timber harvest
- ensuring a non-declining forest land base
- maintaining important habitat elements for wildlife species
- reducing invasive exotic plant species and pests
- protecting special areas and rare habitats

While your objectives for owning forest land may vary over time, sooner or later most landowners decide to harvest timber. Timber harvesting is a powerful forest management tool, but must be used thoughtfully to ensure the sustainability of all your forest resources. It is important that you understand how forest management activities impact the sustainability

of your forest and what steps you can take to ensure your goals are met within the context of good forest stewardship.

Recognizing the importance of proper management on all forest lands, member companies of the American Forest & Paper Association (AF&PA), who are responsible for 84 percent of paper production, 50 percent of wood production, and own 90 percent of America's industrial forest land, are committed to demonstrating high standards of forest management through AF&PA's Sustainable Forestry Initiative<sup>SM</sup> Program. The SFI<sup>SM</sup> Program is a comprehensive system of principles, objectives and performance measures that integrates the perpetual growing and harvesting of trees with the protection of wildlife, plants, soil and water quality. Virginia's wood products industry purchases nearly three-quarters of the wood necessary for their manufacturing processes from private forest lands like yours. With the cooperation of many state, federal, and private natural resource agencies, Virginia's forest industry encourages you to consider the information in this brochure and to adopt sustainable practices in the management of your forest lands.

## **PINE OR HARDWOOD?**

Your forest is composed of evergreen trees (often pines), deciduous trees (sometimes called hardwoods), or a mix of both. The factors that determine the tree species that grow on a specific site include climate, land-use history, soil quality and structure, water availability, and the direction the site faces, or site aspect. The limits imposed by these conditions in combination

with your management objectives will determine what types of trees are best suited for your forest. When choosing to manage for pines or hardwoods, you should consider a few basic forest ecology principles and their implications for your decisions:

- *Match your goals with your resources.* Forests are managed in units called stands. A stand is a group of trees sufficiently uniform in species composition, age, and condition to be distinguished from surrounding groups of trees. Most forest ownerships are made up of several different stands. Stand boundaries are identified by changes in tree species and are influenced by differences in soils, slope, climate, and other physical characteristics of the land. Examples of the stand/site relationship include yellow poplar, white oak, and eastern hemlock that are best suited to cool, wet, north facing hollows with deep fertile soils. Other species such as Virginia pine and chestnut oak frequently occur on hotter, dryer slopes with shallow soils. In the management planning process, your

goals will be matched with the different sites that occur in your forest and that are best suited to help you reach your goals.

- *Pine and hardwood forests are established differently.* Generally, a new forest of pine trees is established by planting nursery grown pine seedlings. While hardwood trees may also be planted, new hardwood forests are usually established naturally, through seed germination and stump sprouting. Most of Virginia's pine and hardwood species that have commercial and wildlife value require full sunlight to regenerate into a healthy forest.



*Loblolly  
pine stand,  
Virginia  
Piedmont*

- *Active forest management gives you choices and usually results in a more productive forest.* In turn, productive forests contribute to the sustainability of the forest resource. Forests change over time. If left alone, a forest will progress through a series of changes or successional stages. Disturbance is the beginning of this process. Disturbances may be natural (e.g., fires, hurricanes, insects and disease) or manmade (e.g., timber harvesting and abandoning agricultural lands). Forest management mimics natural disturbances through activities such as harvesting, planting, and thinning. Because requirements for sunlight, water, and nutrients differ significantly among tree species, your management strategy will be tailored to the needs of the trees you desire. While not all management activities are appropriate for every stand, the right mix of activities will allow you to control forest succession by manipulating tree spacing, stocking, genetics, health, and overall productivity.

4

*Mixed hardwood stand,  
Virginia Mountains*



Whatever your goals, active forest management allows you to influence how your forest changes and the type and quality of trees in your forest. The key to you reaching your goals, however, is careful planning before your management activities begin.

## ***FOREST HEALTH***

When maintaining the health of your forest, preventive action is the best medicine. Like all living things, forests are susceptible to a host of potential health threats including fire, insect attack, diseases, and natural disasters. While your control over these threats is limited, certain management actions will protect your investment by minimizing your forest's risk to damage.

### ***Some actions you can take include:***

- *Plant trees on the site best suited for that species.* Trees planted outside their natural range or on unsuitable sites are generally weak

5

and unhealthy. Unhealthy trees are more susceptible to insect attack and disease, and expose the healthy trees in your forest to damage as well.

- *When insect and disease outbreaks occur, respond quickly.* Insects and disease destroy more timber in the United States than any other factor. If an insect outbreak such as southern pine beetle occurs, the infected trees should be cut down and removed immediately.
- *Thin overcrowded stands.* Thinning focuses sunlight, water, and nutrients on fewer trees, resulting in a healthier, more vigorous forest. The trees you leave will grow in diameter more quickly than had the stand not been thinned. Tree diameter is a key factor in the value you receive for your trees at final harvest.
- *Consider prescribed burning.* In Coastal Plain and Piedmont pine stands, potential damage from wildfire may be reduced through the periodic use of prescribed burning. Burning every 3-5 years reduces fuel loads, controls rust diseases, and encourages shrub and forage growth for wildlife food and cover.
- *Use the appropriate harvesting method.* In Virginia's Mountain and Piedmont hardwood stands, years of poor harvesting practices have resulted in forests of weak, poorly formed trees. High grading or diameter limit cutting has removed the best formed, most vigorous trees from the forest, leaving predominantly weak and unhealthy trees to grow and regenerate. In some cases, the best long term prescription for a future healthy hardwood forest is to remove all trees within the stand, starting over with a new vigorous forest.
- *Eliminate exotic species.* The introduction and spread of exotic plants, insects, and diseases has had a severe impact on our native forests. Exotic species usually outcompete and displace native trees and often have little wildlife value. In addition, exotic species such as ailanthus (tree-of-heaven) and autumn olive

are very difficult to remove from the landscape once established. When thinking about the introduction of a non-native species on your property, please consider its potential negative impact on native vegetation and the larger landscape.

- *Monitor the health of your forest.* Periodically walk through your forest, especially after severe weather such as ice storms, hurricanes, and tornadoes. While leaving some level of damage is natural and acceptable, you may want to conduct a salvage cut to remove severely damaged trees before further damage from insects and disease occurs.

## **PLANNING YOUR TIMBER HARVEST**

Landowners harvest timber for a variety of reasons, one of the most common being timber sale income. However, timber harvesting is an important management tool that provides many important benefits such as:

- establishing new forests



*Flowering dogwood:  
Virginia's state tree*

- improving overall forest health and vigor
- creating wildlife habitat and recreation access
- controlling forest density
- releasing desirable tree species from competing trees
- controlling forest insects and disease
- creating diversity

While harvesting is an effective management tool, your satisfaction after the harvest depends on your knowledge of the sale process before cutting begins. A common but often costly mistake is a lack of sufficient planning. Management planning helps you to consider your objectives for owning forest land, to assess the current condition of your forest resources, and to determine the best strategy to reach your goals. A professional forester from a forest products company, a consulting forester, or a state agency can help you with the planning process.

***Important steps to consider when planning a timber sale include:***

***1. Mark your boundaries:***

Identifying and marking your boundaries are the critical first steps in a successful timber sale. Poorly marked boundary lines can lead to timber trespass, that is, the harvesting of a neighbor's timber. Intentional or not, the penalty for timber trespass in Virginia is at least two times the value of the timber taken plus the expenses of a timber appraisal. Well-marked boundaries will minimize the possibility of trespass. Property deeds, topographic maps, and aerial photographs will greatly aid in helping you establish your boundaries; however, you may need to hire a professional surveyor.



*Feller buncher harvesting trees*

***2. Know what you have to sell:***

To determine what your timber is worth, a complete inventory, or cruise, of your forest resources should be conducted. During the timber cruise, tree species, merchantable volumes, and potential products will be tallied. Note that wood products markets are very localized and the price

you receive for your timber will depend on many factors including tree quality, size, and species, site access, soil conditions, and market cycles. During the products inventory other important non-timber resources, such as wildlife habitats and sensitive biological, historical, and aesthetic areas should be identified.

***3. Have a management plan:***

The management plan is your road map, telling you when to conduct specific activities such as harvesting, planting, thinning, and fertilizing. Your management plan should contain basic boundary and inventory information, and an activity schedule addressing how you will manage specific areas or stands within your forest. An important part of the management plan is how you plan to reforest harvested sites. This should be determined long before your forest is harvested. Like the forest you own, management plans will change over time, and must be reviewed periodically to account for changes in your objectives, market conditions, environmental regulations, and other factors.

***4. Work with a quality logger:***

The forester you work with can provide a list of potential loggers. To choose a quality logger, take into account requirements such as:

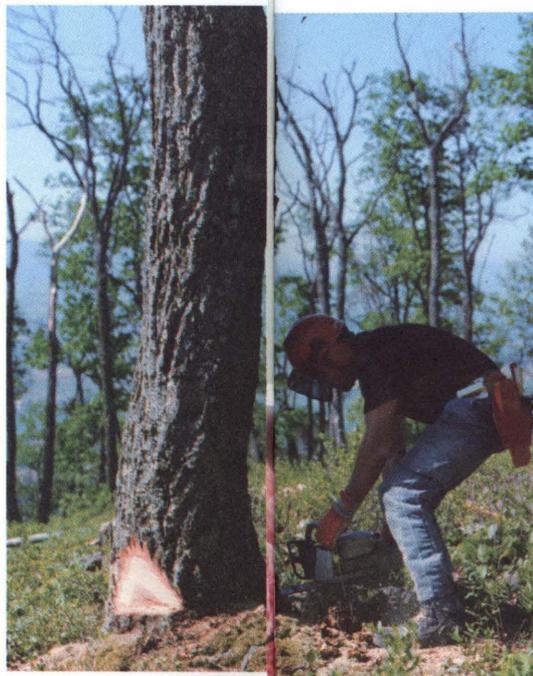
- proof of adequate worker's compensation and liability insurance coverage
- completion of logger training/continuing education programs such as Virginia's Sustainable Harvesting and Resource Professional (SHARP) Logger Program
- knowledge and use of forestry Best Management Practices (see next section)
- adequate equipment to do the job
- a list of references from previous harvesting jobs

You may also want to visit a current or recently completed harvesting operation of your logger. During the on-site visit look at the condition of logging equipment and haul trucks, whether woods workers wear protective equipment, how trees excluded from the timber sale are protected, and the appearance of skid trails, landings, and haul roads.

### **5. Secure a written sale agreement:**

Your forest is a valuable resource, economically and ecologically. When you decide to sell timber, it is important that your short term and long term interests are protected. The best way to protect your interests during a timber sale is through a written timber sale agreement. As a minimum, a good timber sale contract will include:

- description of land with boundary lines and guarantee of title
- specification of payment terms
- description of timber, method of designating trees to be cut, and harvesting method



- specification of time period covered by the contract
- prohibition of excessive damage to unmarked trees, buildings, fences, and roads
- specification of penalties for damage or removal of unmarked trees
- assignment of liability for losses caused by the timber buyer or his agents
- requirement of the use of Best Management Practices and adherence to all local, state, and federal laws

### **6. Supervise the harvest:**

Before the harvest begins, review the timber sale agreement and walk the site with the logger. This will give you an opportunity to get to know the logger and will also give you a chance to explain your objectives for harvesting timber. A logger that is personally familiar with you and aware of your objectives will likely do a better job on the site. Once harvesting begins either you or your representative should periodically inspect the harvest site. Visits will ensure that logging is being conducted in compliance with the terms of the sale agreement and will identify any potential prob-

lems early, when they are most easily fixed. When the harvest is complete, conduct a final inspection to be certain that the job is in compliance with Virginia's forestry Best Management Practices.

If you are uncertain about what you have to sell or have other questions about the timber sale process, don't guess - contact one of the sources of assistance listed at the end of this brochure.

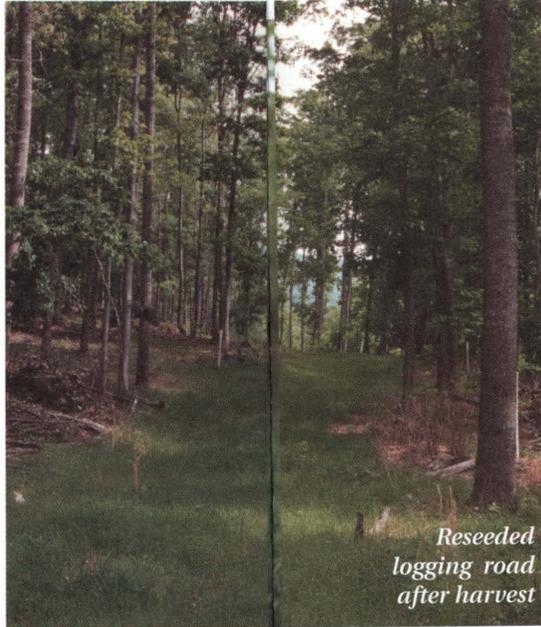
## BEST MANAGEMENT PRACTICES

Best Management Practices or BMPs are forest management practices designed to reduce erosion and prevent or control water pollution resulting from forestry operations. The potential for water contamination occurs when runoff from rain or snow moves over a harvesting site. Without the proper use of BMPs, this runoff can pick up and carry away soil and other pollutants, depositing them as sediment into waterways, wetlands, and ground water.

Forestry activities that have the greatest potential of causing water pollution include forest road construction including stream crossings; forest harvesting activities including skidding, and loading trees; site preparation (getting the harvest site ready for reforestation); and chemical applications like pesticides and fertilizers. Of these activities, road construction has the greatest potential to degrade water quality. Consequently, most forestry BMPs focus on proper road construction to minimize soil erosion.

Pre-harvest planning before the timber harvest is essential in minimizing the potential impact to soil and water quality. In your overall forest management plan, special and sensitive sites will be identified. These sites include streams, areas with unique plant or animal species, and areas with steep slopes and highly erodible soils. This information will be used in the more comprehensive pre-harvest plan that is prepared specifically for the portion of your forest to be harvested. In this plan, specific BMPs recommendations will include:

- Identification of streamside management zones (SMZs) or buffers adjacent to perennial and intermittent streams. SMZs are designed to stop runoff from reaching waterways and to keep stream temperatures cool; harvesting within SMZs is limited to minimize disturbance of the forest floor and canopy
- Properly designed and constructed truck haul roads to minimize soil erosion; roads should follow the land's contour and use methods that remove water from roads while slowing the flow of runoff toward waterways (these include broad based dips, turnouts, and culverts)



*Reseeded logging road after harvest*

- Minimizing stream crossings by haul roads and skid trails
- Keeping logging debris out of stream channels
- Minimize soil compaction and ground disturbance by restricting use of heavy equipment during wet periods
- Prompt seeding and fertilizing of bare soil areas including logging roads, trails, and loading decks to prevent soil erosion
- Prompt reforestation of harvested sites

**Note:** If timber harvesting or other management activities are negatively affecting water quality, the logger or timber buyer *and* landowner are liable and each may be required to rectify water quality problems. The Virginia Department of Forestry (DOF) has the responsibility to inspect all timber harvesting sites for water quality degradation. The DOF maintains a state handbook for forestry BMPs that is available upon request. State law requires that loggers notify the DOF within three days before or after beginning

a timber harvest. Be sure that your logger meets this requirement.

## ***ECONOMICS OF REFORESTATION***

Reforestation is one of the best long-term investment opportunities available to forest landowners. This conclusion is based on the appreciation of timber products in the southeastern United States over the past 50 years. Current trends lead analysts to believe that:

- Prices paid to private landowners for softwood sawtimber and quality hardwood sawtimber will rise at a rate at least equal to inflation.
- Prices paid for standing timber in the Southeast may rise more rapidly than in other regions because of increased demand and competition.

The returns from an investment in reforestation should be calculated like any other long-term investment. To analyze the potential economic return of reforestation on your land, you will need the following information:

- The site quality or productive capability of your land
- The costs of site preparation and reforestation (this can range from zero to more than \$200/acre)
- The amount and frequency of management activities required to maintain and protect a vigorous stand (e.g., prescribed burning, boundary line maintenance, fire/insect/disease protection, etc. These seldom exceed \$5/acre/year)
- An estimate of the future value of harvested timber products
- The length of time from planting to final harvest
- Other costs and revenues (e.g., hunt club lease income, real estate taxes, etc.)

Studies show that sites of average quality in Virginia's Piedmont and Coastal Plain that are reforested with improved loblolly pine seedlings yield returns on investment between 9 and 14 percent. As rule of thumb, investment returns for pine management assume establishment costs of \$175 per acre, annual costs of \$2 per acre for property tax and \$5 per acre for management expenses, and price increases for timber products slightly greater than inflation. Returns on investment increase when landowners utilize all available cost-share programs and tax incentives. While risk factors such as damage by ice storms, hurricanes, insects, and disease may reduce the expected return on investment, proper management greatly reduces the occurrence of these threats.

Hardwood reforestation is typically done by natural regeneration. This reduces the up-front investment. When regenerating most Virginia hardwood species, a heavy cut allows sunlight to hit the forest floor, prompting seedlings to germinate and stump sprouts to grow. Trees left uncut should be only those of good species and quality, and should be undamaged by the logging operation. Later in the life of the stand, some type of timber stand improvement work is generally needed to produce quality hardwood sawtimber. Also, the holding period (rotation age) is longer for hardwoods, often running 60-80 years or more. Intermediate cash flows are often possible with commercial thinnings or partial cuts. Rates of return on investment are competitive with many other long-term investments.

Whether you manage your forests for pines, hardwoods, or both, plan to set aside a portion of the income you receive from your timber harvest to use toward regenerating a healthy new forest.

## ***WILDLIFE AND OTHER SPECIAL RESOURCES***

Managed forests provide an abundance of resources other than timber including wildlife habitat, recreational opportunities, alternative

income opportunities, and sites with special biologic and historical significance. While some areas of your forest may need to be set aside as special "hands-off" areas, careful planning and active management will allow you to combine many of your goals within the same forest stands.

Some management options and activities for you to consider:

- *The borders or edges of harvest sites create unique wildlife management opportunities.* Edges are transition zones between two adjoining forest or land use types. Edges may be "softened" by planting shrubs and fruit trees along harvest and field/forest borders. "Cutting-in" to forest edges will also create an irregular, scalloped edge and reduce the visual impact of timber harvesting. Timber harvests should also be designed to protect streams and provide corridors for wildlife to move into and through the area.
- *Provide a variety of food, cover, and habitat for wildlife by managing some of your forest stands for a mixture of pines and hardwoods.* Your forest will attract many wildlife species if you provide a diversity of habitats across your tract, such as different aged forest stands, forest openings, abandoned agricultural fields, overgrown fence lines, and streams and ponds with clean water.
- *Your forest may provide you with alternative income opportunities.* In many areas of the state, private forests are leased to hunt clubs. Hunt club leasing is compatible with many other management objectives. Lease fees

usually cover or exceed land tax rates and also provide a presence on your property against poaching and trespassing. Hunting fees continue to rise as quality hunting experiences become more scarce and average about \$5 per acre in Virginia's Coastal Plain and Piedmont regions. Other alternative income sources include fee fishing, and collection of special forest products such as decorative materials (e.g. pine tips and grape vines), edibles (e.g. mushrooms and berries), and medicinals (e.g. ginseng and black cohosh).

- *A thorough assessment of your forest resources prior to management activities may reveal sites with special biologic, aesthetic, or historical significance.* Examples include caves, Civil War and Native American sites, cemeteries, and sensitive plant and animal habitats. Because of their significance and sensitivity, these areas are often set aside and managed solely for their unique features. You may be able to reduce your tax burden through charitable contributions such as land donations or easements of special areas. Be sure you understand your rights, obligations, and the implications for future forest management activities before entering into a conservation easement agreement.



## ENVIRONMENTAL REGULATIONS

Forestry activities must comply with state and federal regulations. Because you are liable for activities occurring on your land, you need to be aware of how environmental laws impact your forest management activities and are encouraged to obtain professional advice prior to conducting

any forest operation such as a timber sale. Some frequently applicable environmental regulations are outlined below.

### ***Water Quality:***

Excessive sediment and chemicals entering waterways resulting from forestry activities are subject to Virginia's Silvicultural Water Quality Law that is administered by the Virginia Department of Forestry (DOF). If serious water quality degradation is found, the DOF may stop the harvesting job, require corrective action, and institute civil penalties. In addition, Virginia's Debris in Stream Law requires that debris from harvesting activities such as tree tops, logs, felled timber, and trash be removed from waterways to allow boats and fish unobstructed use of the water. Compliance with Virginia's forest practice guidelines for water quality is generally considered adequate to meet requirements under the Federal Clean Water Act that also requires proper steps be taken to prevent water pollution. Overall, the best prevention for pollution resulting from forestry activities is management planning and the proper installation and maintenance of forestry BMPs.

### ***Burning:***

The leading cause of forest fires in Virginia is the burning of debris. Because woody debris in the forest cures during winter months, fire danger is especially high during early spring. To prevent forest fires during this period, Virginia's 4:00 PM Burning Law states that between February 15 through April 30 of each year it is unlawful to burn any flammable material capable of spreading fire, except between the hours of 4:00 PM to 12:00

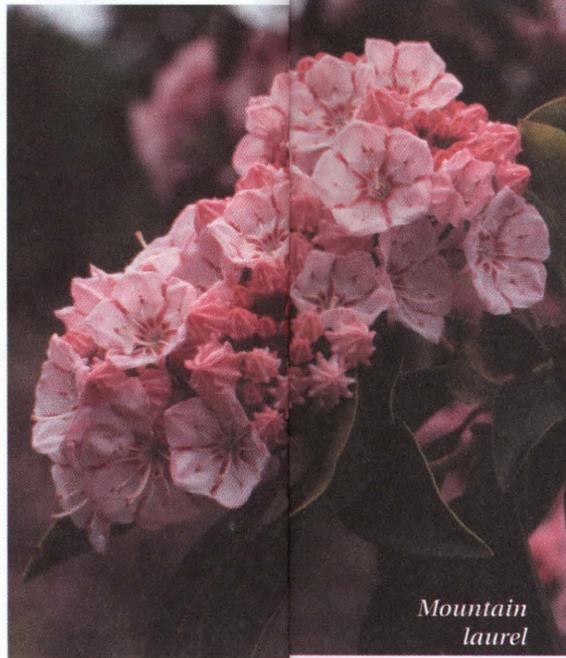
midnight. In addition, other burning bans may be invoked during periods of extreme fire danger.

### ***Reforestation:***

The purpose of Virginia's Seed Tree Law is to ensure proper pine forest regeneration following a timber harvest. The seed tree law applies to any area of 10 or more acres on which loblolly or white pine constitute 25% or more of the live trees on each acre. Eight cone-bearing pine trees 14 inches or larger in diameter on each acre must be left uncut and uninjured for three years following harvest. This law permits a person not to leave seed trees provided the approval of an effective reforestation plan has been secured from the State Forester. For example, in lieu of leaving seed trees, the harvested site may be planted with genetically-improved nursery grown seedlings. This allows better control of spacing and stocking and usually provides a more healthy and productive forest stand.

### ***Endangered Species:***

The federal government maintains the Endangered Species List of plants and animals that are rare, threatened, and endangered. Section 9 of the Endangered Species Act (ESA) specifies that no person shall "take" animals listed as threatened or endangered. "Take" is defined as "harass, harm, persecute, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." Forest activities such as timber harvesting that disturb or modify a listed species' habitat may subject you to this law. While endangered plants are not protected under ESA, they also deserve



*Mountain laurel*

careful consideration when planning your management activities. If you believe that an endangered plant or animal inhabits your forest, you are encouraged to contact the U.S. Fish & Wildlife Service, Virginia Department of Game & Inland Fisheries, or the Virginia Department of Conservation and Recreation.

## **TAX CONSIDERATIONS**

Annual surveys consistently reveal that timber and estate taxation are the leading management concerns among private forest landowners. Careful planning and accounting practices will likely save you thousands of tax dollars and help preserve your estate for future generations. Tax laws pertaining to forest management are subject to interpretation and frequent change. The information provided below should not be considered an official interpretation of the federal and Virginia income tax codes and you are strongly encouraged to seek the advice of a tax advisor on the applicability of the current tax law to your particular situation. In addition, consult with your forester and accountant to determine the best strategy to protect your assets.

### ***Some basic points to keep in mind:***

#### ***Keep good records.***

Recordkeeping is perhaps the easiest but most neglected task of the forest landowner. At a minimum you should keep a journal of all expenses and income along with evidence of transactions such as invoices, receipts, canceled checks, contracts, meeting agendas, mileage records, workshops attended, and maps that pertain to your land and forestry practices.

#### ***Determine your basis.***

The basis of your forest land is the original amount you invested to purchase your property. This amount is the cost of land including roads

and buildings, timber, fees for surveyors, realtors, foresters, attorneys, and other costs associated with the acquisition. As with purchases of land, the value of property acquired by gift or inheritance is allocated proportionally among the categories listed above. Basis is used to determine gain or loss on sales and exchanges, and for calculating amortization, cost recovery, depletion, and casualty loss deductions.

Major tax advantages are available for forest landowners who harvest timber and reforest harvested land or previously non-forested land and include:

- Treatment of timber sale income as a long-term capital gain.



*Louisa County  
Administration  
Building*

- Deduction of forest management expenses. Note that the recovery (deduction) of capital expenditures as depletion depends on how long the investment has been held.
- Amortization of 95 percent of reforestation costs up to \$10,000 per year over the eight tax years following planting or seeding.

Reforestation costs include site preparation, seedlings, weed control after planting, paid labor, and equipment rental and operating costs.

- Claim of a 10 percent investment tax credit on the first \$10,000 of reforestation costs in the year those expenses are incurred with the remaining costs amortized equally over seven years.

An excellent reference for timber income tax questions is the US Forest Services Handbook No. 718, *Forest Owner's Guide to the Federal Income Tax*, available from the Government Printing Office, phone: 202/512-1800.

### ***Investigate your land use tax assessment.***

Almost three-fourths of Virginia's localities allow land to be assessed according to its land use rather than its fair market value. The intent is to preserve "open space" in rural areas by helping landowners keep their land in forest or farm use. Land use value assessments are usually much lower than the rates associated with fair market value for real estate development.

## ***FINANCIAL ASSISTANCE***

Financial or "cost share" assistance is available to private forest landowners for many management activities including reforestation, timber stand improvement, stream bank and forest road stabilization and wildlife habitat improvement. Cost share assistance can greatly offset your out-of-pocket expenses for forest and wildlife management activities. Most cost share programs are administered by state and federal agencies and all programs have specific requirements such as mini-

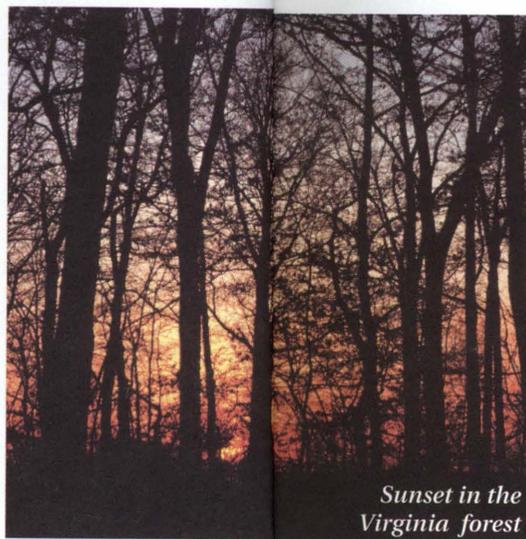
mum acreage, areas of application, water quality protection, and length of time that the cost shared practice must be maintained.

State programs are administered by the Virginia Department of Forestry (DOF) and include the Forestry Incentive Program (FIP) and Reforestation of Timberlands (RT). The primary goal of both programs is the reforestation of harvested lands. These programs generally cost share 40 percent or more of site preparation, tree planting, and stand improvement costs.

Most federal programs are administered by the Natural Resources Conservation Service (NRCS), Farm Services Agency (FSA), and Soil & Water Conservation Districts (SWCDs). Major programs include the Conservation Reserve Program (CRP) and the Conservation Reserve Enhancement Program (CREP). The primary goal of these programs is to preserve wetlands and water quality, prevent soil erosion, and improve wildlife habitat through the adoption of Best Management Practices and conversion of sensitive agricultural lands to streamside or riparian buffers. Some of these programs provide costs share funds for approved practices and rental moneys for converted agricultural lands. An approved conservation plan is required to qualify for any federal cost share program and practices must be maintained for 10 to 15 years.

In addition, some forest industry companies offer financial assistance through landowner assistance programs. Depending on the company, a variety of services may be offered at cost or free of charge including management planning, site preparation, and reforestation.

Funding and requirements for most cost share programs change annually. Contact



*Sunset in the Virginia forest*

one of the management assistance agencies listed at the back of this brochure for specific details.

## MANAGEMENT ASSISTANCE

Natural resources management assistance and information are available from the following sources:



### Virginia Department of Forestry

P.O. Box 3758  
Charlottesville, VA  
434/977-6555  
[www.dof.state.va.us](http://www.dof.state.va.us)

State agency that provides basic forest management planning and forestry information; seedlings and seed mixes for reforestation and wildlife; BMP guidance; water quality, seed tree, and burning law enforcement; cost share programs; and lists of private forestry consultants, contractors and timber buyers by county. Cooperates closely with other state and private resource agencies and companies in conducting education programs for loggers and landowners. Most counties have local offices; see the blue pages in your phone book under State Government.



VIRGINIA POLYTECHNIC INSTITUTE  
AND STATE UNIVERSITY



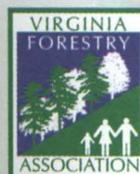
VIRGINIA STATE UNIVERSITY

### Virginia Cooperative Extension & Virginia Tech Department of Forestry

324 Cheatham Hall (0324)  
Blacksburg, VA 24061  
540/231-5481  
[www.cnr.vt.edu/forestupdate](http://www.cnr.vt.edu/forestupdate)

State agency that coordinates the *Virginia Forest Landowner Education Program* and provides basic forestry, wildlife, and natural resource management information to forest landowners, farmers, and the general public. Forest resource extension personnel conduct educational tours,

meetings, and short courses on a variety of forestry and wildlife topics. Cooperates with other state and private resource agencies and forest industry companies in conducting education programs for loggers and landowners. Publishes numerous natural resource extension bulletins including the *Virginia Forest Landowner Update*, a news/information quarterly. All Virginia counties have local Cooperative Extension offices; see the blue pages in your phone book under State Government.



### Virginia Forestry Association

8810-B Patterson Ave.  
Richmond, VA 23229-6322  
804/741-0836  
[www.virginiastfi.com](http://www.virginiastfi.com)

Private non-profit membership organization representing Virginia's broad forestry community. Active in legislative and regulatory issues affecting forestry and forest management; works with the media on forestry issues; sponsors forestry and environmental camps for school-aged youth. Provides general forestry and forest industry information. Publishes *Virginia Forests*, a quarterly magazine on forest management and issues; assists member landowners and others in interpreting regulatory requirements relative to forestry.

### Sustainable Forestry Initiative<sup>SM</sup> Program

American Forest & Paper Association  
1111 19<sup>th</sup> St., NW, Suite 800  
Washington, D.C. 20036  
[www.afandpa.org](http://www.afandpa.org)



Many American Forest & Paper Association member companies that purchase wood from private lands offer forest landowner assistance programs. Through these programs, industry foresters assist with management planning, conduct periodic forest inspections, and assist

landowners in obtaining cost share assistance. In addition, some companies offer high quality pine seedlings for reforestation at no cost. AF&PA member companies work closely with state and private natural resource agencies to provide quality logger and landowner education programs.

### **Consultant Foresters**

Consultant foresters offer a full range of services to private landowners including management planning, timber appraisals, timber sale preparation and administration, site preparation and reforestation. Fees are generally based on hourly or daily rates, forest acreage, or may be a percentage of the sale price from a timber sale. Lists of consultant foresters are available from your local Virginia Department of Forestry office. Virginia has neither certification, licensing, nor registration for professional foresters, so landowners are advised to check references and professional affiliations before choosing the consultant forester that's right for you. These references include membership in organizations such as the Association of Consulting Foresters (ACF), the Society of American Foresters (SAF), and minimum education of a four-year degree from a SAF-accredited forestry school.

### **Virginia Department of Game and Inland Fisheries**

4010 W. Broad St.  
P.O. Box 11104  
Richmond, VA 23230-1104  
804/367-9369  
[www.dgif.state.va.us](http://www.dgif.state.va.us)

State agency that provides information, education, and technical assistance to forest landowners on wildlife management. Monitors wildlife populations and enforces hunting and fishing regulations. Provides technical assistance to federal agencies on cost share programs for wildlife management practices on private lands.

## **EDUCATION OPPORTUNITIES**

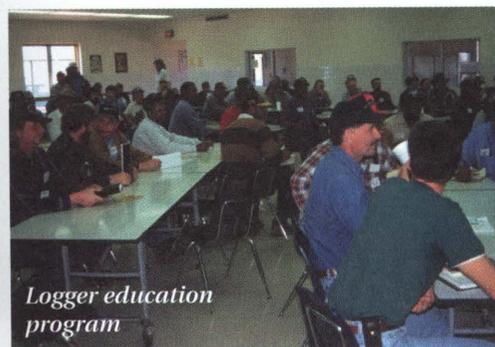
The following statewide programs are offered to loggers, landowners, and other interested parties to promote the sustainable management of the Commonwealth's forest resources.

### **Logger Education:**

Loggers are a critical link in the sustainability of our forest resources. An important component of promoting sustainable forestry practices is enhancing professionalism among timber harvesters, foresters, and others in the forestry community. Virginia's *Sustainable Harvesting & Resource Professional (SHARP) Logger Program* focuses on the training and continuing education of these professionals in using Best Management Practices (BMPs) during timber harvesting; compliance with environmental laws and regulations; forest regeneration and resource conservation; awareness of the Endangered Species Act and other wildlife considerations; logging truck and equipment safety; and business management. For more information on the SHARP Logger Program, contact the Virginia Forestry Association or Virginia Tech Department of Forestry, or visit the VFA website at: [www.virginiasfi.org](http://www.virginiasfi.org).

### **Landowner Education:**

The other "front-line" link to implementing sustainable forestry practices is the 400,000 Virginians who own nearly 80 percent of the Commonwealth's forests. The *Virginia Forest*



*Logger education  
program*



