

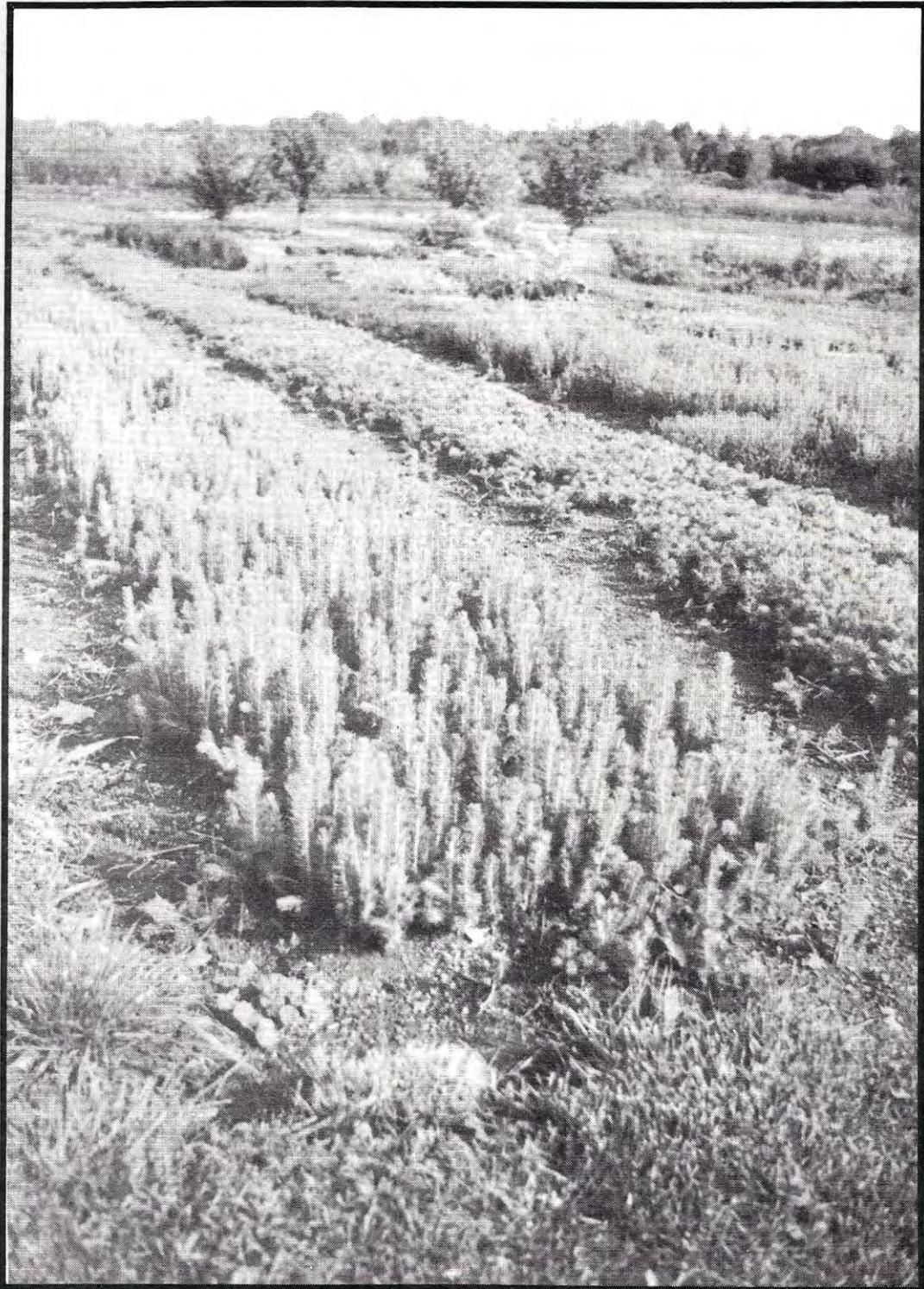
FOREST OWNER

A Publication of the New York Forest Owners Association

MARCH/APRIL 1991

People and Trees; Partners in Time

THE NEW YORK



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FRONT COVER:

Three-year beds of christmas tree and ornamental seedlings. Blue spruce, foreground; pine, cedar and juniper, background. Photo/Treehaven Evergreen Nursery, Elma, NY.

THE NEW YORK

FOREST OWNER

A publication of the New York Forest Owners Association
Karen Kellicutt, Editor

Materials submitted for publication should be addressed to: R. Fox, R.D. #3, Box 88, Moravia, New York 13118. Articles, artwork and photos are invited and are normally returned after use. The deadline for submission is 30 days prior to publication in May.

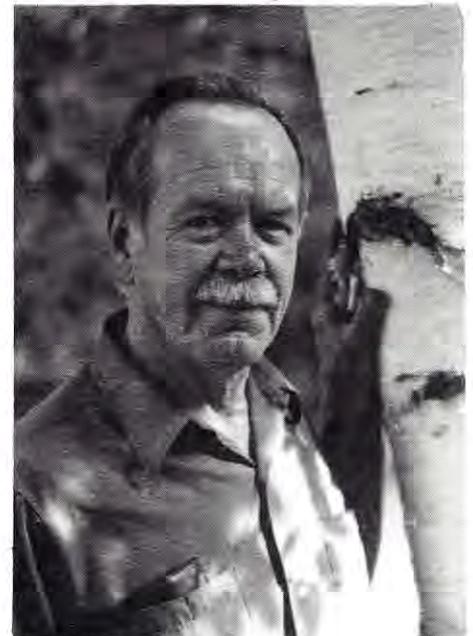
Please address all membership and change of address requests to Executive Director, P.O. Box 180, Fairport, N.Y. 14450.

President's Message

Our Board of Directors held a very productive meeting on February 9th. We voted two new chapters into existence, the Capitol District and Southeastern Adirondacks, and I would like to thank the organizing committees headed by Joe Messina and Ernie Spencer respectively and Board member Stu McCarty for all the effort required to get these chapters started. Current membership stands at 1533. And about 460 members joined us in 1990. We feel good about our progress and it looks as though the momentum can be maintained into the future.

Much of our success has been due to the diligence of Executive Director, John Marchant. He has devoted countless hours to the several projects that have gained state and national attention and increased our membership. These efforts are beginning to become burdensome to John and the Board must come up with a plan to relieve him of the routine secretarial duties.

Mark the date of April 27th on your calendar. That will be the day of our annual meeting to be held in Marshall Auditorium on the ESF College Campus at Syracuse. You will receive a separate mailing about the meeting, but I want to discuss the theme with you, Forest Practices Under the Stewardship Incentive Program. This is a brand new program with an opportunity for landowners to obtain financial assistance for instituting a wide range of forest practices on their lands. There have been other cost



Allen Horn

sharing programs in the past but their goal has been to increase commercial timber production. The Stewardship program recognizes the recreational, water, wildlife, esthetic interests of the private owner and offers to subsidize appropriate practices for this wider range of purposes. The meeting will be designed to explain the program to you and experts in their fields will describe different forest practices that might be valuable to meet various landowner objectives and site conditions. A substantial amount of monetary assistance is going to become available and if you have any interest in improving your forest property you should be sure to attend.

Big Trees, Big Money or Economic Concepts in Forestry

By MICHAEL C. GREASON,
Associate Forester
NYS Department of Environmental
Conservation

This author's wry, Yankee, forestry professor continually stated, "If you are gonna practice forestry, you gotta make it pay." And, except in a few rare cases where an owner's prime interest was to improve woodland for self-gratification without regard of economics, that statement has generally been borne out. A couple of axioms could be added to the professor's philosophy.

"Cut no tree before its time." The time frame varies with species, quality, size, desirability, and a hundred other variables. A weed tree competing with a good crop tree may be removed quite young and at a cost to the owner. A veneer tree may be encouraged to grow more than 100 years. Each has an opportune time for removal based on economic maturity, biological maturity, or management goals.

"If you don't like the timber market, wait five minutes." What may not be saleable today may sell tomorrow. I advertised one timber sale on state forest land and received no bids. Upon reducing the advertised minimum acceptable bid and sending notices to the same potential buyers within a two-week period, the sale sold for twice the original minimum price.

So many variables exist in forests and in economics of forestry, foresters continually differ in opinion on management schemes. For example, I remember following a stable market trend for red oak that continued twenty years. Overnight prices increased 60%. I was sure the

change would be short term; so I helped many owners sell their oak to this much improved market condition. I was right the market changed radically in another couple of years; only I misjudged direction, for it rose again almost five fold. Could I have predicted it? The year before, hard maple had risen sharply only to return to its former level. What I saw happen in my county was a statewide phenomenon when one looks at a graph of stumpage price reports from 1953 to present.

The forest owner has to make management decisions based on, first, personal needs and, secondly, on an understanding of forestry information. All too often a forest crop is sold without any consideration given to longterm impacts. Those sellers don't think through concepts of biological or economic maturity, future site productivity, or future investment opportunities. They simply react to an offer of money by a buyer who has his own interests in mind. To turn this around the owners need some basic forestry concepts.

Biological maturity is reached when individual tree growth equals decline. In regard to a forest, this can be when mortality and rot equal growth. In the case of an individual tree it is the time when the tree loses vigor, starts to die back in the crown, and/or rot exceeds growth. Biological maturity can occur at different ages depending on soil depth and type, species composition, insect and disease impacts, catastrophic events, and similar conditions.

Economic maturity is more complex for it is speculative and dependent on the investor's alternative investment opportunities. One has to estimate the resource as an appreciating asset under a variety of management alternatives. Consideration has to include consideration of the owner's commitment to retain the property and evaluation of other ownership goals. A property owner who plans to hold onto the land or whose primary interest is wildlife habitat or aesthetics has a different required real rate of return than someone who is only interested in maximizing financial returns. Because stumpage

prices are dependent on access, logging chance, species mix, timber quality, distance to market, purchasers' sense of competition, fluctuating markets, other variables, and — not least — whim of the buyer, assessing future stumpage prices can be very subjective. One can look at trends and probably be pleasantly surprised because most futuristic speculations tend to be conservative.

Figure 1 shows that tree value tends to make significant gains as the tree

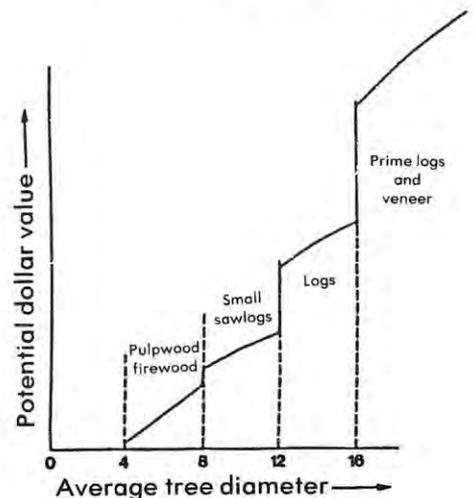


Figure 1. The sale value of a good quality tree increases dramatically with diameter especially as it grows into the next product class.

grows into higher product categories. From past experience as a logger, I can state that I was willing to pay more per unit volume for large trees (22" to 28" diameter, 400 board feet +) than I was for medium sized trees in the 16" to 20" range of the same grade. This is a more difficult value to estimate than a #3 sawlog 15" diameter tree growing into a #1 veneer tree at 16". In my case, I gained logging efficiency through handling fewer trees. Biologically maturity occurs for many species in most well managed forests on good sites when trees exceed 24" in diameter. As with most generalizations I bite hard committing myself to that statement. And I have argued tirelessly with peers over economic maturity. However, in those same

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Chain Saw Safety: Be Aware

The chain saw is a versatile and enormously useful power tool. You can fell, buck, and limb trees with one or trim lumber and cants with one. In fact, you can make a home with a chain saw and heat it too.

Anyone who uses a chain saw should always be aware that the saw isn't selective about what it cuts. In a typical chain saw, the chain is passing around the bar at around 60 miles/hour with 600 cutters per second passing over any point on the bar. Injuries can occur much faster than your brain can react — and too often with devastating consequences.

Chain saws kill about 100 people/year in the United States and injure 18,000. The average dollar cost for medical treatment from a chain saw accident was \$3,570 in Montana in 1987. The cost in time lost from work, lawsuits, and pain from those thousands of accidents is more than anyone can comprehend.

If you work in the forest products industry, you probably have heard of people who have had chain saw accidents, have known people who have been cut, or may have even been cut yourself. The rest of this article is devoted to reducing the health and safety hazards from chain saws; and I think you'll see ways that the accidents you are familiar with could have been prevented or made less severe.

Damaging to your hearing might not be as obvious an injury as a chain saw cut, but damage will occur if you don't use ear protection. Most people's ears will tolerate about 85 decibels of sound and chain saws produce over 100 decibels. If you don't use earmuffs or plugs, you are going to "wear out" your hearing missing the high pitched sounds first.

"White fingers" is another common health problem associated with operating chain saws and other equipment that give off strong vibrations. The blood vessels and nerves for the hand funnel through a portion of the wrist known as the carpal tunnel which is wrapped by the carpal ligament. Vibration causes the carpal ligament to swell which reduces the blood and feeling in the hands. The numbness in the hands can become a permanent condition which may be helped only by surgery to the encircling ligament. Anti-vibration

systems found on many saws have helped a great deal with this problem. Saw handles with heated handles also help promote good circulation in the hands in cold weather.

Your first line of defense from chain saw accidents should be your mind paying attention to what you are doing and keeping the saw pointed in a safe direction. If this first line of defense isn't working (which is a lot more likely to happen if you are tired, pushed, or angry), it's awfully nice to have a second line of defense in protective equipment. If you've ever watched a race car driver at work, you've seen a professional that appreciates protective equipment. The helmet, fireproof suit, and roll cage and harness have made racing a much safer occupation, and rules or no rules, the real pros wouldn't be without their protective gear.

Loggers are five times more likely to be hurt on the job as a race car driver. Take on a truly professional attitude and use a pro's safety equipment as a routine part of your job.

Steel toed boots with ballistic nylon inserts will be a big help as one quarter of chain saw injuries occur to the feet. The sturdiest safety pants of chain saw chaps should be worn as the most common chain saw accidents involves cutting the legs and feet. This may result from sloppy handling or falling with the chain still rotating around the bar.

Drop starting the saw is a common cause of leg injuries. Chain saw manuals suggest you start the saw on the ground, and although this is a safe method, it's not always practical in mud and snow. There is a compromise method of starting a saw that's almost as convenient as drop starting and much safer. The rear handle of the saw is held between knees with the saw level and the left elbow locked and the left hand in the usual position. You can start a saw of any displacement with this method.

The second most common area to be hit are the hands and arm, especially on the left side. Gloves can be helpful to dampen vibration and make it less likely for your hand to slip off the handle. Gloves with ballistic nylon/Terylene layers will resist a saw cut. Safety handles with brush guards that make it less likely for the

left hand and the moving chain to meet are also desirable.

Twenty-two percent of chain saw hits occur in the upper body and torso. Hard hats with face shields are extremely important in reducing the chance of injury from falling branches, spring poles, flying objects, and to keep wind blown sawdust from the eyes. Good headgear can help reduce injury from chain saw cuts as well but let's take a hard look at why the saw is hitting the upper body to begin with — namely kickback.

Kickback injuries 15,000 people/year in the United States and causes the greatest majority of chain saw deaths. Kickbacks result when the tooth is overloaded and can't cut through the wood so the chain stalls. The motor is still running and spins in the stalled loop of chain resulting in the saw kicking straight back (linear kickback) or if caught at the tip of the saw, a rotational kickback. A kickback occurs seven times faster

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FREE PARKING

Chain Saw Safety —

Continued from Page 4

than the human brain can react. Test equipment has measured the force of a kickback at 476 inch pounds. You are not fast enough or strong enough to stop a kickback by reacting with your muscles, but you can position yourself to reduce the chance of injury should a kickback occur, and you can use safety features on your saw and chain that will minimize the energy of the kickback.

You can cut the risk from kickback by keeping your left arm stiff (locked at the elbow) and your upper arm tight to your body. Always hook your thumb under the handle; it will give you a better chance of controlling a kickback and reduce the risk of your left hand slipping from the handle and being struck by the moving chain. In the felling position, brace your right elbow against your leg and run the throttle with your thumb.

If you are cutting vertically, use the top of the handle as holding the side will not allow you to control a kickback. Terrible accidents have resulted from the left hand not being able to prevent the saw from striking the face or throat. Avoid cutting above your waist.

Normally the rakers (also known as depth gauges) prevent too much wood from entering the gullet. When the cutter turns the corner to go around the tip of the bar, the depth gauges drop down and allow the tooth to snag enough wood to start a kickback. You must recognize that the tip of the saw is the most dangerous zone for kickbacks and prevent the tip from inadvertently coming in contact with anything.

Manufacturers of bars have taken a number of measures to reduce the size of the kickback zone, resulting in "banana bars" and other bars with smaller tips. One major manufacturer went so far as to place a guard over the tip which is totally effective as long as it's left in place. Tip guards might not limit the usefulness of the saw for trimming lumber but the guards prevent plunge cutting and are soon removed by woods crews.

Special safety chain has been designed that has been effective in reducing the energy of kickback. This chain has additional depth gauges between cutters to prevent the saw from being overfed.

Probably the most effective second line defense in chain saw design is the chain brake feature now common to most professional saws. Varying somewhat from manufacturer to manufacturer, chain brakes are designed to stop the clutch drum/sprocket from driving the chain. The device is activated by the left hand striking the brush guard as the kickback occurs. A spring loaded mechanism then grips the clutch drum stopping the rotary motion of the chain. Chain brakes are sometimes designed to become activated by an abrupt change in inertia such as might occur upon dropping the saw or the operator falling down.

In conclusion the chain saw is a very dangerous tool, regardless of the degree of skill and experience of the operator or the maximum use of safety equipment; the risk in using a chain saw requires an ever vigilant manner.

JIM PEEK,
NYS DEC Utilization and
Marketing Forester

Timber Sales Income And the IRS

By **DAVID W. TABER,**
Department of Natural Resources,
New York State College of Agriculture
and Life Sciences, Cornell

Income to a landowner from timber sales needs to be reported appropriately to the IRS when filing annual income tax reports. According to Stuart F. Smith of the Department of Agricultural Economics at Cornell University, "The Tax Reform Act of 1986 contains major changes in tax reporting and severely reduced tax management options starting in 1987."

For additional information, you can obtain a copy of the 96-page "Forest Owner's Guide to Timber Investments, the Federal Income Tax, and Tax Recordkeeping" (USDA Forest Service Agriculture Handbook No. 681; GPO Stock #001-000-04540-7). It may be purchased for \$5 from the Superintendent of Documents, US Government Printing Office, Washington, D.C. 20402.

Application for Membership in the New York Forest Owners Association.

I/We would like to support good forestry and stewardship of New York's forest lands.

I/We own _____ acres of woodland.

I/We do not own woodland but support the Association's objectives.

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County of residence _____
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Annual Dues (PLEASE CHECK ONE)

INDIVIDUAL	\$15
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CONTRIBUTING	\$25 - \$100
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MEMBERSHIP INCLUDES:
Six issues of **FOREST OWNER**, woodwalks - both statewide and local, chapter meetings and two meetings for all members.

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Chapter Reports

CAPITAL DISTRICT CHAPTER (CDC)

Thirty-five people met for a program by NYFOA's John Marchant and DEC's Mike Greason and Carl Wiedemann. Joe Messina is the chapter's first chairperson.

SOUTHEASTERN ADIRONDACK CHAPTER (SAC)

Forty forestry folk met at Queensbury Middle School in Glens Falls, N.Y., formed a chapter and decided their Chairperson in Ernst Spencer and Program Chairperson in Erwin Fullerton.

SOUTHERN TIER CHAPTER (SOT)

Patrick McGlew reports the meeting of January 19, 1991 featured Dean Frost, Chapter Founder and recently elected Chairperson of the State Forest Practice Board. Chairperson Frost discussed the relation between the Forest Practice Act of 1946, the State Board, and the 9 Regional boards. Dean has urged NYFOA and the chapters and affiliates to use the Forest Practice Boards as an official path for communication and cooperation with the Department of Environmental Conservation and the local governments. Dean is hopeful of using NYFOA as an important vehicle of education of the Non-Industrial Private Forest Owner. Pat reported that Chairman Dean seeks NYFOA support in this endeavor.

WESTERN FINGER LAKES

At the January 23 meeting, according to Ray Wager, an award was presented by Stu McCarty to noted outdoor writer Floyd King whose publicity has led to spectacular growth in WFL. DEC's Billy Morris also introduced a new Tree Farm member Warren Pressler. The main speaker of the evening was Bob Stegemann (past Executive VP of the Empire Forest Products Association) who described the general health and effectiveness of Forestry Today.

THRIFT

Don Wagner reported that the January 29 meeting — "Introducing Moose Into The Adirondacks" was

well attended and very interesting. According to HILLTALK, THRIFT'S Newsletter, Alan Hicks, Senior wildlife biologist from Albany discussed the pros and cons of bringing the big animal back to its native habitat. Alan Hicks is doing the feasibility study. Will this study address interests of the lonesome male moose and his demonstrated indifference to the New York professionals' opinions on habitat? What will be the effect on the dairy industry? Recent newspaper headlines proclaimed: Moose Shot In Glen Castle (Broome County); Moose Lovesick For Dairy Cow (Tughill).

NIAGARA FRONTIER (NFC)

Bob White described a successful meeting held January 19 as featuring a potluck dinner with a chain saw raffle for the 24 attendees.

BIG APPLISH

Bob Davis of Wappingers Falls has had good results from a survey of chapter interest in this lower Hudson River area.

THE NORTHEAST

Don Peterson of Wilmington is working the woods around the Lake Champlain area for members to form a chapter there.

THE RIGHT STUFF

AFC and NFC are off and running with a joint newsletter. Since NYFOA began the chapter development and the affiliation effort (1985), opportunities to see the forest and do the community thing, have been presented in fantastic variety. The joint newsletter (edited by AFC's Chairperson Betty Densmore) must be one of the particularly useful opportunities, grasped in this case with a vigor that augers well for the natural resources and its people. To the point: Tughill's HILLTALK reproduced the joint NYFOA NEWS article entitled, "Wetland Woes & Worries" by NFC's contributor Fred Thurnherr; add to that, WFL's March 27 program by DEC Reg. 8's Art Kirsch — "Wetland Regs. — What The Woodland Owner Should Know". And to the underlying question,

wetland woes and worries must become winning with wetlands, or shame on us all. Two articles already in the past works have been done by Wes Suhr for the New York Forest Owner (Jan/Feb 89 and Mar/Apr 89). Non-Industrial Private Forest Owners should put wetlands management at the top of the agenda and keep it there.

— R. Fox

THE WETLANDS OF ALBANY AND WASHINGTON

From Keith Argow's *Woodland Report*; "If we liked federal tax laws, we're going to love a new Federal manual devoted entirely to describing who has jurisdiction over the wetlands many of us own." The definition of wetlands is going to get everybody's attention. And from The Empire State Forest Products Association's, *The Empire Envoy*: Governor Cuomo indicated that a policy of no net loss of fresh water wetlands has been adopted and that he would propose legislation to implement many of the recommendations of the Freshwater Wetlands Advisory Committee. This could mean a reduction in the jurisdictional threshold for wetlands, and a change in identifying wetlands from vegetation to soil indicators.

FOR THE DURATION

Despite a good early response to Alan Knight's offer of a foreign woodwalk/tour Alan has postponed his deal due to the world situation.

THE CANADIAN CONNECTION

Ontario Ministry of Natural Resources-Forestry Management Forestry personnel have agreed to a one day meeting at the Iroquois National Wildlife Refuge near Batavia (April 3, 1991). NYFOA's John Marchant will describe NYFOA. Keith Argow, publisher of National Woodlands will join the group; as well as NY Chief Forester Dan Weller and others from the Department of Conservation. The main program will involve DEC staff and a tour of the wildlife refuge.

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Two Chapters Form

Friends Support Ward



HOWARD O. WARD, long-time Director of the New York Forest Owner's Association and founder of the Tioga Chapter has been stricken with a serious case of lung cancer. He is now resting at his Candor, N.Y., home and would greatly enjoy hearing from his friends in NYFOA. He can be reached at (607) 659-4520 and at 240 Owego Street, Candor, NY 13743. Howard is a past President of NYFOA and recipient of the NYFOA Award for service to the association.

— Alan Knight

Membership Report

The new brochures are available from John Marchant. Our membership grows at a healthy and encouraging pace, thanks to chapter development, the Stewardship Newsletter, and the networking with other organizations which share common goals. Since the response for pictures from our members has been minimal, the plans for a NYFOA calendar have been temporarily shelved.

— Mary McCarty,
Membership Committee Chairman

Congratulations to JOE MESSINA and JOHN HASTINGS. Their hard work to form chapters has born fruit.

Joe is responsible for organizing the Capitol District Chapter encompassing the counties of Albany, Columbia, Greene (part), Rensselaer, Saratoga (part), and Schenectady. Two informational meetings for woodlot owners in these counties were held in February.

The Southeastern Adirondacks Chapter is underway thanks to the efforts of John Hastings. This chapter covers the Counties of Saratoga (part), Warren, and Washington. SAC

held a successful informational meeting in December. These two new chapters will bring to a large number of forestowners in the Eastern part of the state NYFOA activities not available to them in the past. We are very grateful to Joe and John for the time and energy they have put into developing these chapters.

It is exciting to note that we have eight chapters and two affiliates covering 35 counties!

—Stuart McCarty,
Chapter Development Committee
Chairman

May 25th Woodswalk at FLTC

FLTC is the Finger Lakes Trail Conference. It is a volunteer organization responsible for the construction and maintenance of 775 miles of hiking trails between Niagara Falls and the Catskill Park. At present 19 individuals in 16 groups provide the sponsorship and backbones of trail construction and maintenance. FLTC has agreed to

provide tour leaders for the woodswalks so that we may learn about the organization and the work associated with the trails. Charles Mowatt asserts that these volunteers with their love of the out-of-doors and of woodlands could share that common bond with NYFOA folk, and that common bond nourishes both organizations.

NYFOA's First "Cast In Bronze"

The Cayuga Chapter celebrates its sixth year of existence at the same time it culminates a six-year effort that originated with a founding

member and a former resident-corpsman of this particular camp—Alfred Signor.



U.S. CIVILIAN CONSERVATION CORPS

We do hereby commemorate the site of
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and those CCC men who protected and enhanced the natural
resources of the NYS Hewitt - Cayuga Highland Management Unit
here at the headwaters of
Skaneateles, Owasco, and Cayuga Finger Lakes
Arbor Day, 1991
Cayuga Chapter New York Forest Owner's Association

Trees Dieback, Decline and Die

By DAVID W. TABER,

Department of Natural Resources,
New York State College of Agriculture
and Life Sciences, Cornell

Many people love trees, but often don't realize that trees will not live forever. Actually, most trees die long before they reach old age or the size typically attainable for mature trees of the species. This is a natural phenomenon and should be expected.

Many people never observe and recognize as significant the tremendous number of seedlings and saplings that die in the early stages of life. If trees did not die as seedlings and saplings, many forests and untended lands adjacent to roadsides would develop into and remain as thickets of brush without the beauty of large trees. For trees to grow large they must be spaced far enough apart to receive adequate sunlight for their crowns and space for roots to get soil nutrients and moisture.

Three pathological and physiological aspects of trees — death, dieback, and decline — will be addressed here. They are important concepts that relate to the growth and vitality of trees and forest stewardship for the trees in a forest or human community.

Loss of life for a tree has occurred when its physiological processes including photosynthesis and growth have permanently ceased. Tree death can be caused by 1. a single biological agent like a fungus, 2. an abiotic factor like snow, or 3. a combination of biotic and abiotic factors. Some of the many factors known to contribute to tree death are fungi, viruses, bark beetles, leaf-defoliating caterpillars, high soil temperatures, high atmospheric temperatures, unusually cold seasonal temperatures, drought conditions, compacted root-zone soil, excessively wet root-zone soil, and mechanical injury to roots, branches, and tree trunks by natural causes or humans.

Decline diseases and crown dieback may just damage the vitality and growth of trees; or if more severe, can precede and contribute to the death of trees.

Dieback refers to the dying of branches in the tops of trees, and it is a relatively common sight. When only smaller branches or a few branches

die in the upper portion of a tree's crown, they may not be readily noticeable. However, if a really large branch, a cluster of branches, or many branches scattered throughout the crown die, their presence becomes conspicuous. This condition of dead branches in the crown is referred to as dieback.

The cause of dieback, its severity, and the presence or absence of other physiological stresses on a tree may determine whether the tree dies. Casual agents include such things as defoliating insects, late frosts, and drought. They stress a tree's physiological system, and can thereby contribute to the death of tree top branches. However, one factor that may predispose or inherently protect a tree from dieback is its genetic predisposition.

Decline diseases of trees are complex and apparently the result of more than one causal agent, although more can still be learned about them. Paul D. Manion, professor of forest pathology at the SUNY College of Environmental Science and Forestry, discusses a rather comprehensive conceptual basis for forest decline diseases in his new book, *Tree Disease Concepts*, 2nd Edition, 1991, published by Prentice Hall. The decline diseases model is based on several components that include the interaction of "predisposing," "inciting," and "contributing" factors. Manion notes that these were first suggested over 25 years ago by Wayne A. Sinclair, professor of plant pathology at Cornell University.

Manion defines the decline syndrome model as follows: "Decline diseases are caused by the interaction of a number of interchangeable specifically ordered abiotic and biotic factors to produce gradual, general deterioration, often ending in the death of trees." The specifically ordered factors that must occur in sequence are "predisposing," "inciting," and "contributing." The predisposing (long-term) factors that precede inciting and contributing factors include such things as a tree's genetic potential, tree age, and viruses. They interact with other predisposing factors such as climate and soil.



The interface of modern society with a "community forest" of roadside trees can sometimes create economic losses caused by natural environmental and forest-ecosystem phenomena.

(RREP PHOTO BY TABER)

The inciting factors are considered to be short-term actions or events caused by such things as mechanical injury, frost, insect defoliation, and drought.

The contributing factors, which occur after the actions of inciting factors, are long-term sources of stress such as canker fungi, bark beetles, and root decay fungi.

Manion notes that "it is important to recognize that the interaction of age, genetic potential, and viruses with environmental and site variables may predispose or predetermine which trees are going to decline." From his explanation, decline diseases can be defined as those that cause a gradual reduction in the health of affected trees by the interaction of at least one factor from each of the groups of predisposing, inciting, and contributing factors.

As noted earlier it is useful to recognize that the death of many trees is a natural phenomenon. As Manion says, "Like other diseases, decline diseases are usually normal, appropriate factors contributing to the death of individuals is an ecosystem."

Continued on Page 9

Once we have more understanding about the natural life and death of trees, it is worthwhile considering our opportunities.

From a forest stewardship perspective, if people do not thin a forest stand by removing unwanted trees, improve the composition and structure of a woodland by tree cutting, and harvest at least some of the large trees when appropriate, "natural mortality" (based on existing environmental factors and forest ecosystems) will kill trees. The death of a single tree or many trees close to each other is often a gradual phenomenon, but it can occur quickly among the different size classes of trees. The result may be that seedlings, saplings, small sawtimber-size trees, and large trees will all die at different times and perhaps for different reasons in the process of natural forest growth and succession, if humans do not intervene with silvicultural practices.

If the natural mortality of a dynamic forest ecosystem is understood, expected, and determined appropriate for a tract of woods, then one could say that a landowner's and perhaps society's needs are being met by allowing trees to grow and die without cultivation by humans.

However, an alternative to letting trees become established, grow, and die without human intervention would seem to be worthwhile in many cases. This alternative relies on using silvicultural techniques for establishing, tending, and harvesting trees and forests for the enhanced

Stewardship Incentives Program



PEOPLE
AND
TREES
PARTNERS
IN
TIME

New York State's Chief Forester Dan Weller has forwarded a list of recommendations for cost sharing practices that engage the federally funded Stewardship Incentives Program (SIP). SIP consists of ten broad categories: 1. Reforestation; 2. Afforestation; 3. Forest Stand Improvement; 4. Windbreak and Shelterbelt Establishment; 5. Soil and Water Protection and Improvement; 6. Wetland Enhancement; 7. Fisheries Habitat Enhancement; 8. Wildlife Habitat Enhancement; 9. Rare, Threatened,

benefits provided by cultivated trees and forests.

A planned small community of trees in a city, village, or along rural roadsides or a larger size forest can be cultivated under the management principles of forest stewardship to bring economic and environmental benefits. A professional forester can help people and communities ensure cost-effective establishment, thinning, and harvesting of trees when and where appropriate.

and Endangered Species; 10. Forest Recreation; and, 40 subcategories.

\$800,000 has been granted to the New York State's programs. Dan Weller's Office at 50 Wolf Road, Albany, N.Y. 12233 or NYFOA's Executive Office at PO Box 180, Fairport, NY 14450, (716) 377-6060 would appreciate input or respond to inquiries with regard to potential programs. The State and Federal Agencies are currently working hard to frame efficient and worthwhile procedures for forest owners to use this money. John Marchant, NYFOA's Executive Director is the landowner representative to the New York State Stewardship Advisory Committee which consists of sixteen members and is chaired by Robert H. Bathrick, State Forester. The thrust of this program will greatly increase the intrinsic and marketable values of the natural resources held by the Non-Industrial Private Forest Owner.

Gurnee Woodswalk A Success

January 26, 41 people with and without skis traversed a winter wonderland called Gurnee Woods, owned by Vern & Marj Hudson and located in drumlin country at the western edge of Onondaga County. Coffee and cocoa, a GREAT company, five (5) foresters (counting Vern, 1989 NY Tree Farmer of the Year), a cucumber tree, a yoyo, and a model educational program complete with prizes were highlights of the day. Charlie Mowatt was helped in the technical and educational design by host Vern Hudson, Consulting Forester John Thorington, DEC's Sr. Forester Bill Burlingame, and Dick Garrett (our own gravely voiced past president of NYFOA). In addition to a special joint effort with Region 7 Forest Practice Board members (they were invited to join in the fun), this may have been NYFOA's first winter walk.

Tree Cutting Ordinances — A Readers Comment

To the Editor:

As a taxpaying resident of New York State, owning and managing land in Southern Cayuga County, I think the State should draft a set of rules which would govern erosion and water pollution; but would in no way deny the landowner the right to harvest the crops or sell the property at will. Many times sickness, death, or misfortune may make it necessary to acquire funds in a hurry, even for taxes. If towns or counties get involved, and some environmental "nuts" cause problems by

promoting a dozen different sets of rules, the whole timber industry would suffer. The preservationists will have succeeded in preventing commerce of the State's natural resources.

Alfred Signor, CCC Alumnus
Editor's Note: The article, New Hampshire's "Right to Harvest" Law appearing elsewhere in this issue, may provide a model for the preferred path. The May/June issue will provide a summary of the material presented to date in the NEW YORK FOREST OWNER.

Ask a Forester

Send Questions to:
Wes Suhr, R.R. 1, Box 59B
Oswegatchie, N.Y. 13670

Fern N' All

By WES SUHR

THE QUESTION

In the last issue (Jan-Feb), I answered part of Dick Fox's question dealing with only fern as the undesirable vegetation in the understory. This article will complete the answer to his question, "What can owners do about limiting ferns, striped maple, and other (undesirable) growths in the understory?"

In attempting to answer questions which affect so many forest owners, such as this one, other questions are often generated by the answer itself when the concerned reader tries to understand it, especially if he or she wants to apply the recommendation (the "answer"). For example, it was suggested in the last article that a dense carpet of fern in a specific stand at a specific time may provide a silvicultural advantage. How can this be — how can it be an advantage to have the competing fern eliminate all tree regeneration?

My "forest" is composed mostly of sugar maple with a much smaller amount of black cherry and white ash. Since the latter two species have a greater market demand and value, as compared to sugar maple, I would like to expand cherry/ash at the expense of maple in my stands. You have to be very patient and clever (and lucky) to do this, because cherry/ash are intolerant and sugar maple tolerant of overstory shade. Over much of my thinned maple stands (with scattered cherry/ash), there is heavy advance regeneration of maple with very little cherry/ash in the understory. If I do nothing with the understory, guess what the next landowner(s) will be managing and cutting? In fact, if we do not perpetuate the cherry/ash through silvicultural treatment of both understory and overstory (a two-pronged attack), my uplands will eventually be totally covered with the natural climax forest — sugar maple/beech.

So after that first thinning, you may have the case or condition where that dense problem fern envelopes the understory — which excludes all or

most tree regeneration. Where this occurs with a predominate maple overstory and a few scattered cherry/ash, it may be best to leave the fern until just before the second thinning or harvest of the overstory maple, retaining the scattered cherry/ash as residuals. The silvicultural scheme being suggested is this:

■ The stand is thinned which may regenerate fern; retain the fern to exclude undesirable tree reproduction (this could be beech, striped maple or, in this case, sugar maple).

■ Just before the second cut in this stand, spray the fern canopy to eliminate it. Spray with a combination of Roundup/Oust in the concentrations suggested in the first article. Spray BEFORE the cut to achieve a more uniform and complete (and easier) treatment when the ground is free of slash. Wait two years to determine the success of the herbicide treatment (consider 80% + kill as "successful"). If not successful, repeat the spraying and wait another two years.

■ Assuming the overstory is sawtimber (12" + dbh), and you're not planning a sugarbush, harvest the sugar maple and poor cherry/ash. Depending on the density of the cherry/ash remaining, this may be the first cut of the "shelterwood" method (where the overstory offers partial shading/air movement control for the regenerating understory), or it could be a "seed-tree" reproduction method (where the overstory is sparse and offers very little temperature/air control or "shelter" for the regenerating understory).

■ In either case, the object is to adequately regenerate cherry/ash with this "reproduction cut". What's adequate? David Marquis at the Northeastern Forest Experiment Station (see reference 4 at end of article), after much study with Allegheny hardwoods, feels that 25 black cherry or 100 mixed hardwood seedlings (2-6" tall) — as an average within 6-ft. radius plots — would be required for adequate regeneration when deer populations are high. To determine this average, he recommends a uniform distribution of

at least 20 of these 6-ft. radius circular plots in stands of 20 acres or less. If the seedlings are more than 6" tall, then 17 black cherry or 50 mixed hardwoods would be required as an average for the plots. Normally, this density should be achieved within 3-to-5 years after the reproduction cut.

■ Once you have adequate regeneration, then remove the overstory shelterwood or seed-trees. Now, you can really feel proud with this high-value cherry/ash stand of the future. And you would also be increasing biological diversity or increasing the "... variety and variability among living organisms and the ecological complexes in which they occur . . .", at least on my woodland — by increasing the cherry/ash component within the continuous stands of sugar maple/beech. (Definition from *Technologies to Maintain Biological Diversity*, Office of Technology Assessment, 1987). One other point — at any stage of cutting or harvesting, disturb as little soil as possible with the skidders/tractors.

As mentioned in the last article, the control discussion will consider two other problem cases — Case 2: striped maple and/or beech without fern, and Case 3: striped maple and/or beech with fern.

CASE 2: STRIPED MAPLE AND/OR BEECH UNDERSTORY

A) When understory is 1 to 10 feet high (see Photo):

■ Chemical — use Roundup (Monsanto)*

■ Concentration — 0.25 gal/ac or 1 lb ai/ac

■ Application — use backpack sprayer — See PROCEDURE below

■ Timing — before harvesting overstory, spray mid-July to mid-September (see CASE 1, Jan-Mar edition)

B) Understory over 10' or with many pole-size stems (4" +) — see Photo:

■ Use chainsaw to cut undesirables; harvest poles for firewood/pulpwood

■ After stems resprout (2-3 years), follow-up with (A) treatment above,

Continued on Page 11

Ask a Forester Fern N' All —

Continued from Page 10

assuming there are no or few desirable species in the understory by now.

*Oust Weed Killer (DuPont), used alone on some field trials, produced low kills on both striped maple and beech. Its main purpose for our conditions (cases) is to increase the soil activity of the chemical mix; for example, it is highly effective in killing isolated fern rhizomes. It may also be useful to combat beech when it is resprouting from the surface roots or horizontal stems in the soil that have been disturbed by skidding (in this case, use mixture as recommended under Case 1, Jan-Mar edition).

CASE 3: STRIPED MAPLE AND/OR BEECH WITH FERN

By now, you can guess the proper treatment for this condition: use a mixture of Roundup and Oust in concentrations recommended under Case 1. Follow other guides listed under Case 2 above.

PROCEDURE

I'd like to take you through a step-by-step procedure of how I intend to treat my problem understories because they relate directly to Case 1 and 2 conditions. This detail may help if you plan to do the work yourself:

■ Purchase Backpack Sprayer

Solo, Model 475, recommended for "groundspraying weedkiller", in Ben Meadows 1991 Catalog:

Model 475 (4 gal tank)	\$99.00
Spray Extension Tube, 4'3"	13.50*
Double Spray Nozzle	13.50*

*Recommended for spraying wider swath on ground and higher foliage levels.

■ Trial Spray

1) Stake out a 66' x 330' rectangle in area to be sprayed (½ acre); stake off the long side (330') into 66' segments. This rectangle now bounds 5, 66' squares, each square representing an area of 1/10 acre.

2) Fill tank with water (4 gal), set pressure control valve to #3 (45 psi), note time, and begin spraying the first square while moving at a convenient pace and drenching all foliage in understory; record time. I estimate it will take from 20 to 30 minutes to empty the 4-gal. tank, and close to that to complete the square. There are



Beech Understory, 1-10' High (foreground);

3 other pressure settings (15, 30 and 60 psi) which may give you better coverage of foliage for your understory conditions and your pace. Attempt to spray at setting and pace which will empty the tank within the 1/10 acre while achieving full drenching of foliage.

3) Record time for 4 more trials, spraying each 1/10 acre square with 4 gal.

4) Total the times for the 5 trials and divide by 5 which, of course, represents the average spraying time for 1/10 acre and 4 gallons. Multiplying this time by 10 should come close to the time to spray one acre, which should receive 40 gallons of spray (see **Mixing/Application Rates** below).

■ Protective Gear

Make sure you are totally protected before applying any chemical. I plan to wear a hat or hardhat, goggles, nose/mouth mask, long sleeves under long rubber gloves, long pants over long rubber boots (or field boots, carefully washed after spraying). Spray only on calm days without rain.

■ Purchase Chemicals

I believe that both chemicals (Roundup and Oust) are unrestricted and may be bought "over-the-counter". You do not have to be

certified as a pesticide applicator as long as you are not using restricted chemicals and are only spraying on your own property.

■ Mixing/Application Rates

The field trials of the research projects found that Roundup at 0.25 gal. or 1 qt./ac. (1 lb. ai/ac.), mixed with 59.5 gal./ac. of water, killed over 80% of striped maple or beech. Dr. Larry Abrahamson, the forestry-herbicide expert at Syracuse (Faculty of Environmental and Forest Biology, College of Environmental Science and Forestry), suggests using the same concentrations mixed with 20-to-40 gallons of water per acre for backpack spraying. Again, if fern is a problem, add 2 oz./ac. (0.09 lb ai/ac.) of Oust to the same mixture.

This can be mixed in a 50-55 gal. drum, using 40 gal. of water with the above chemical concentrations, the total volume necessary to cover one acre. The 4-gal. capacity of the backpack sprayer should cover 1/10 acre (see **Trial Spray** above).

SOURCES REVIEWED: 1) "Control of Grass and Sedge in Allegheny Hardwood Stands with Roundup-Residual Herbicide Tank Mixes" by Stephen B. Horsley, North. J. Appl.

Continued on Page 17

New Hampshire's "Right to Harvest" Law

New Hampshire's "Right to Harvest" law has been recognized as the outstanding new forestry legislation for 1990 by the National Woodland Owners Association (NWOA). The law amends the state's Planning and Zoning law by establishing the legislature's intent in the Declaration of Purpose. The new declaration reads:

Forestry, when practiced in accordance with accepted silvicultural principles, constitutes a beneficial and desirable use of New Hampshire's forestry resource . . . forests are an essential component of the landscape and add immeasurably to the quality of life for the state's citizens . . . forestry activities, including the harvest and transport of forest products, shall not be unreasonably limited by use of municipal planning and zoning powers or by the unreasonable interpretation of such powers.

The New Hampshire Timberland Owners Association, an independent state affiliate of NWOA, initiated the legislation in 1989 as a pro-active response to the growing problem of local harvesting and trucking regulations. In 1990, the Legislature amended the statute to strengthen the legislative intent and, in effect, mandate that communities not "unreasonably limit" forestry activities on private land through the use of planning and zoning powers.

In presenting the award to the state association, NWOA President Keith Argow commented that this law is "an excellent example of concerned landowners recognizing a problem and then constructively building a solution with the State Legislature. New Hampshire Timberland Owners can be proud of this achievement."

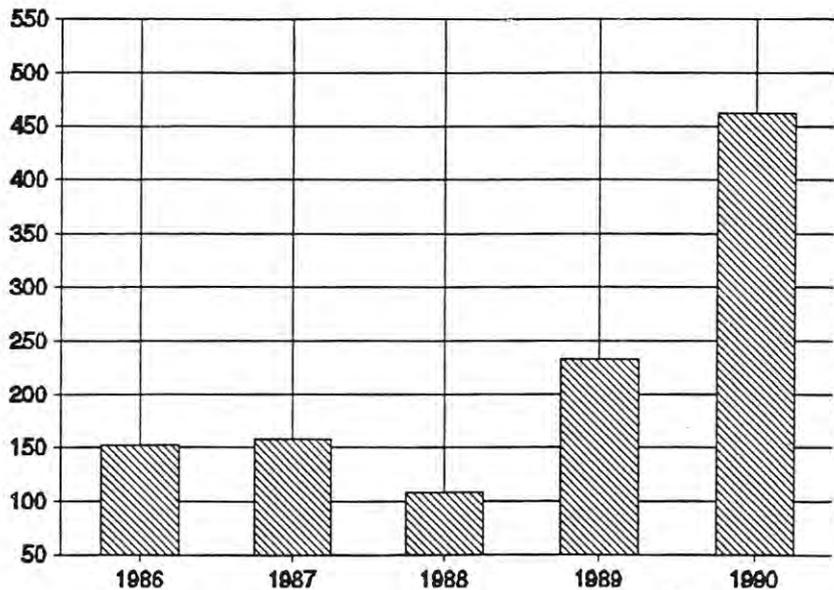
— Reprinted from January 1991 "National Woodlands"

The Numbers Game

John Marchant, NYFOA's Executive Director prepared the following graphic representations of NYFOA's members for the Director's Meeting of February 9, 1991. The are reproduced for your information.

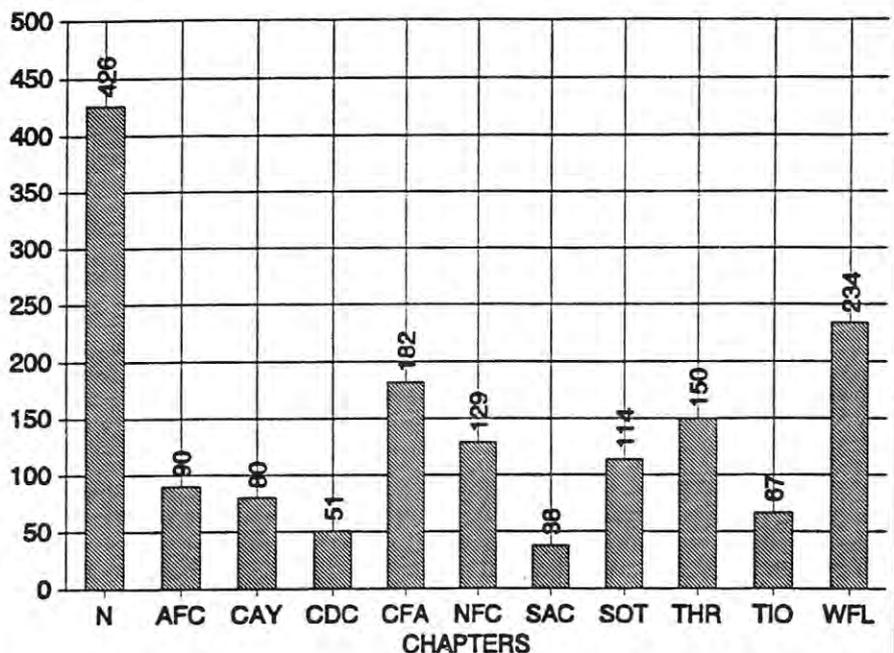
New Members Per Year

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NYFOA Chapters & Affiliates

OF MEMBERS



Succession

Arbor Day - April 26

Letter to the Editor —

Congratulations on the Nov/Dec issue focusing on People and Trees, Partners in Time, which I just finished reading.

I especially enjoyed the sketches and the article "Clearing the Land" by Dr. Charles Leahy, both of which I'm saving.

In my woods I found what at first looked like another stone wall, then I noticed it turned a corner and another corner; and had a higher part on one side, that upon examination turned out to not just be higher, but curved inward — a HEARTH. This was the remains of an abandoned cabin or home of long ago. Behind it is a "ledge" going up high, and a little further away in front of it is a stream. I imagine the people of long ago in this setting — woods now, but perhaps cleared then, with the ledge providing some wind shelter and protection, and water provided by the stream. So, I especially enjoyed reading the article about "these people".

Sincerely,
Betty Suter

Editorial Note — Chief Forester Dan Weller informed the *New York Forest Owner* the phrase, People and Trees, Partners in Time, originated with The National Associations of State Foresters and was adopted for New York's Stewardship Program. On that more to follow. Dr. Charles Leahy's article first appeared, appropriately so, in the *Broome County Historical Society Newsletter* and makes the important point that in addition to the succession associated with the ecological forests, there has been an accompanying succession in the culture of people for a very, very, very long time. Finally, the Cayuga Chapter NYFOA through the determined efforts of a standing joint committee with the Cayuga-Owasco Lakes Historical Society, will endeavor to delineate all land relics to be found on the over ten thousand acres of state land and community forests in the immediate vicinity.

Foresters and Arbor Day go together — Everyday is Earth Day for a Forester. Being a forester, we like to assume that Arbor Day is a national holiday, unfortunately I never get the day off. Have I convinced you that Arbor Day is important to my profession? Its importance has far more appeal than to just foresters. Forest landowners and the general public utilizes this day to think about our wonderful forest resource, 18½ million acres of forestland in New York and millions of trees shading our streets, yards, and homes.

The National Arbor Day Foundation is located in Nebraska City where J. Sterling Morton founded Arbor Day in 1872. New York State, the birthplace of Morton, first celebrated Arbor Day when Governor Hill signed legislation in 1888. Arbor Day was mandated in public schools with tree plantings and special programs. This tradition continues today, with a renewed interest, as school children learn about trees and how they interact with our environment. For nearly 70 schools, Arbor Day observance includes a Tree City, USA celebration.

Tree City, USA is sponsored by the National Arbor Day Foundation. This program recognizes communities that have a strong commitment to their tree resource. Any community can qualify, from the small village of Ellicottville, Griffis Air Force Base and the Town of Glen Cove, to the City of New York. Does your community fly the official Tree City, USA flag?

There are four standards a community must meet to be certified a Tree City. They must have a Tree Board or Department, an ordinance, a financial obligation, and an Arbor Day observance and proclamation.

In smaller communities a volunteer tree board is often established to

provide assistance to the local officials in street tree management. Larger cities usually have a forestry department as part of their parks or street department. Whatever the organization, they must insure year-to-year continuity and be legally established by an ordinance. The ordinance should also set public tree care policies for planting, maintenance, and removals.

Standard three involves the financial commitment to the tree resource. A community must "spend" at least two dollars per capita on forestry expenditures. Forestry expenditures would include any funds for direct tree planting and maintenance costs, including personnel costs, along with the value of volunteer time. Up to 25% of a community "expenditure" can be from volunteers working on tree planting, inventories or other activities.

An Arbor Day observance and proclamation is the final standard that a community must meet. Most of New York's 79 Tree Cities conduct their celebration in conjunction with a local school. A tree planting ceremony, a Mayor's proclamation, and a school play or song helps convey the importance of our trees to the children and the community.

Trees are no longer just aesthetic afterthoughts, but are essential to the well being of our local environment. Start your community on the path to Tree City status. Contact the mayor and get a ceremony this Arbor Day, April 26, 1991. Additional information on Tree City is also available at your local DEC forestry office.

Peter C. Innes
NYS DEC
Associate Forester

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FURNACES AND BOILERS

The Northeastern Forest Alliance: Promoting Regional Forest Resources

In August 1986, State Natural Resources Commissioners from New York, Vermont, New Hampshire and Maine signed a Charter creating the Northeastern Forest Alliance (NEFA). The four-state Alliance was formed to promote the states' forests and forest-related products on a regional basis.

There are over 44 million acres of forestland in the Alliance region, with roughly 18.5 million in New York. These forests contribute significantly to the economic stability of the area, as well as the environment, aesthetics, wildlife habitat and overall quality of life. One goal of NEFA is to further promote these forests resources and help expand the full range of benefits and values they provide.

With so much forested land in common, the 4 northeastern states also share many of the same problems, challenges and opportunities related to the management, protection and use of those forests. Through NEFA, the four state forestry agencies also hope to share information and technical expertise, and focus attention on natural resource issues and opportunities within and across the states. Other efforts, such as the Northern Forest Lands Study, have recognized these same common issues and pointed to the need for a regional approach to addressing them.

Many of NEFA's efforts to date have been directed at raising public awareness about northeastern forests and forestry issues, and at promoting northeastern forest products and helping expand their markets and demand. Our work with forest industries, landowners and managers shows that opportunities abound to expand existing wood-using industries and markets, and open doors to new economic development. A Marketing Plan was developed which includes the following:

- * an **Outreach Campaign** aimed at a diverse audience
 - "NEFA NEWS" quarterly newsletter
 - "NEFA Alert" bulletins
 - press releases, etc.
- * **Local Economic Development Forums**, a targeted effort to spark interest and present opportunities

at the local level, in conjunction with other groups such as Resource Conservation and Development Councils.

* **Various activities in Wood Market and Product Development**

- sponsoring market, product product and technical research
- involvement with the American Hardwood Export Council (AHEC)
- development of a "Regional Showcase" marketing brochure
- trade show participation (Japan, Korea, Germany)

* **A Regional Economic Development Campaign** to build better bridges between forest resource and economic development agencies.

This Marketing Plan is well underway, and activities are continuing at this time. In addition, NEFA will be pursuing additional initiatives in 1991 which will expand its focus to address some of the social and political challenges facing forest resources, owners and managers. New Projects will reach out to community leaders to assist them with forest and resource planning issues, address concerns over the future labor pool for forest and wood products industries, explore ways that forest resources can contribute to

sustained economic development, and provide networking and communications skills training to resource professionals in the region.

The Northeastern Forest Alliance offers New York forest owners a "window on the world" by promoting our resources and products to regional national and international audiences. Increased markets translate into increased demands for timber which can translate into greater returns from wisely managed forests. NEFA's educational efforts at the local, state, regional and national levels, are intended to encourage and promote good stewardship and sound forest management. Informed officials are more likely to make better decisions when it comes to protecting forest resources and preserving open space and productive, working landscapes. The future looks bright for northeastern forests, and the Northeastern Forest Alliance can help ensure our forests continue to provide their full-range of benefits for generations to come.

*The NEFA NEWS is available free of charge. To get on the mailing list, send your name and address to: Bruce Williamson, NYSDEC, 50 Wolf Rd., Rm. 404, Albany, N.Y. 12233-4252.

Article provided by: Bruce Williamson, Associate Forester, NYSDEC

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- ★ "Basics of Growing Christmas Trees"
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Logging for Forest Crops: What You Need to Know

By **DAVID W. TABER**,
Department of Natural Resources,
New York State College of Agriculture
and Life Sciences, Cornell

Logging, timber harvesting, and the practice of silviculture relate to a landowner's control of his or her woods. What happens during and after a landowner authorizes the cutting of trees depends on the logging contract to sell timber (stumpage); how the logging is conducted, based on the skills, logging equipment, and actions of the logger; and how well the logging is supervised.

Because the landowner has the greatest long-term commitment to the forest, she or he benefits the most by ensuring that appropriate forest management practices are applied during logging. However, most landowners are not involved in commercial forestry operations on a daily basis and they do not have the interest and time to learn about 1. selling stumpage, 2. all the important aspects of growing a healthy forest, 3. "logging," and 4. the value of trees by grade, size, and species.

Therefore, if a landowner has logging information from years back or gets new knowledge about logging procedures, forest management, provisions of timber sale contracts, and selling prices for standing timber (stumpage), he or she should ensure that it is correct and comprehensive.

A few key items to investigate and understand follow:

- * highgrading that reduces future value of the forest

- * logging road construction and use that can contribute to soil erosion and ruts

- * "selection method" of maintaining an even-aged stand of trees with big trees always growing in the forest

- * need for having Workers Compensation Insurance, performance bond, and liability insurance during logging

- * acceptable and unacceptable logging damage

- * current stumpage values

- * volume and grade of timber per acre by species to be cut, because they significantly affect value of a timber sale

* estimate of what to expect for appearance of forest, its future, and level of personal satisfaction at conclusion of logging

A landowner needs to use good business practices when selling stumpage. The landowner gains satisfaction when a quality logging job has been completed, the forest looks good, silvicultural practices have been applied to produce or maintain healthy forests, and full-value income has been received.

Sources of information and service to help forest owners include the following: NYS DEC Service Foresters, private consulting foresters, Soil and Water

Conservation District technicians for the county, and from Cornell Cooperative Extension, the 14-page Conservation Circular, "Woodland Owner's Guide to Selling Timber and Timber Sale contracts (code no. 147V32#5. Price \$2.15).

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The aftermath of a logging job included "logging slash" left in the watercourse of an intermittent spring-runoff stream. A visitor to the site, Ralph D. Nyland, professor of silviculture at the SUNY College of Environmental Science and Forestry, reviews the situation. He helped develop "Timber Harvesting Guidelines for New York" (available free), which lists things to look for and recommends logging techniques for the prevention of problems from logging. (RREP PHOTO BY TABER)



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Big Trees, Big Money —

Continued from Page 3

well managed stands, I feel it occurs somewhere between 18" and 26". My bias is towards the larger diameters; though extremely large trees begin to lose unit value if they become too hard to handle for the equipment most harvesters use in a region.

To drive the points home I will cite a few examples. A friend's father was selling timber in western New York. My friend looked at the proposed sale. In his professional opinion, too many small trees were marked. At his urging his father retained half of the marked trees. The result was the price offered was lowered from \$14,000 to \$11,000 and the forest is left well stocked and is visually appealing.

Another case involved one of my clients. He had purchased a property with a seventeen acre stand of large timber. A logger approached him with an offer of \$7600 for all of the standing timber. When he said he would like an opinion of a forester, the logger stated I would spoil the sale thus lowering the sale price. I was called in and, with discussion with the owner, set upon a harvest plan calling for marking 40% of the timber and advertising for solicited bids. The first logger returned, complained about all the good, unmarked trees, and reduced his bid to \$7000. Many bids came in with the highest bid of \$17,635 offered by an established firm with a good reputation. The sale was conducted in a professional manner and my client was left with a fine residual stand that is presently ready for its next harvest.

Another forester friend purchased an eighty acre woodlot. An intensive inventory appraised the timber value at \$8000. He entered a plan of

harvesting \$1250 worth of firewood and low grade timber through stumpage sales. After six growing seasons he has reinventoried. Without assessing grade increases and using the average reported stumpage values, he estimates present timber value at \$12,500.

This discussion should not lead the reader to a decision of not harvesting any trees until they are large. I tend my woodlot by continually harvesting small trees for firewood. I cut trees of poor: species, form, vigor, and quality to favor crop trees. I time my cutting to maintain a desired stocking; and thereby maximize productivity while preserving quality of my selected crop trees. Part of the decision making process is complicated by a conscious effort to maintain some den trees and mast producers for wildlife and to save those trees that appeal to my wife's artistic eye. My final crop will be large timber and my heirs will have a well stocked stand for their future.

For other owners, the considerations are many. One must decide even-aged versus uneven-aged management, cutting cycles and rotation length, and intensity of management and for what products. It sounds complicated, and it is; but professional help is available. A good first step is to contact the regional state forestry office serving the county where the property is located.

Marketing Christmas Trees Requires Effort

Marketing Christmas trees for 1991 began in December 1990 or before for some growers and retailers. Like any business operation, Christmas tree growers need to be entrepreneurs or business executives who invest time and effort in initiating and executing marketing strategies to meet their needs.

Preliminary reports indicate that a large supply of Christmas trees exists in North America and some, if not many, retailers have reduced sales because of competition. For instance, according to the Christmas Tree Summary report of the New York State Department of Agriculture and Markets, a year ago in the Capital District, "Most retailers purchased less or the same number of trees . . . and dumpage was light." However, "prices were close to last year." The same report notes that on Long Island, "approximately 10 percent to 25 percent of the trees were not sold." This year's report for the 1990 Christmas season should be available in February.

Christmas tree growers need to provide services and sell products at a profit, and meet the needs of retailers and/or consumers. This surely will involve challenges in the years to come.

Income Tax Management for Christmas Tree Growers

"Christmas tree growers should report and manage income taxes similarly to the way farm taxpayers do," says Stuart F. Smith of the Department of Agricultural Economics, Cornell University.

According to his Cornell Agricultural Economics Staff Paper entitled "Income Tax Management and Reporting for Christmas Tree Growers," October, 1989, "Costs associated with establishing, growing, harvesting, and selling trees are classified as 'basis,' depreciation, depletion, and annual deductible expenses to determine when they are or development costs, and tax reporting, contact your Cornell Cooperative Extension county office. recovered."

For a copy of Smith's paper which discusses capital expenditures, operating expenses, carrying charges

Ask a Forester Fern N' All —

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For. v. 7, #: 124-128, Sept. 90; 2) "Tank Mixing Roundup with Adjuvants and Other Herbicides for Striped Maple Control" by Stephen B. Horsley, *North. J. Appl. For.* v.7, #1:19-22, Mar. 90; 3) "Unwanted Vegetation and Its Effects on Regeneration Success" by Richard W. Sage, Jr., *Managing Northern Hardwoods, Proceedings of a Silvicultural Symposium*, Ralph D. Nyland, Editor (SUNY CESF), June, 86; 4) "Assessing the Adequacy of Regeneration and Understanding Early Development Patterns" by David A. Marquis, *op. cit.*

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ROCKY GROUND

By **TIM WILLIAMS**
NYFOA Director

A Skidder is a powerful machine, with all its power applied to massive movement, and none to speed. It moves logs, and has no other function; it hauls them only in the woods, along skid paths and haul roads: as soon as it meets a good gravel road it turns the job over to a log truck. A specialist. It was intended to improve on the ox and the horse, and if quantity is your object, it does — but a horse will be kinder to your woodlot, and leave you with less smashed brush and fewer barked trees when the job is done. (I just mention the horse for an example of something not always done best with an internal combustion engine. Oxen and mules may be just as good as the horse, but I take absolutely no position in that argument. Too much cross fire.)

Tony brought his skidder over to the Cabin Fever Festival Sunday, and parked it there next to a truckful of split firewood. The machine stood there silently, chewing its cud, I imagine: the biggest thing in sight except maybe that yoke of oxen, great white and black animals standing nearby, honoring their reputation for patience. Some mighty horses stomped around the parking lot too, one of them hauling a small log through a slalom course of orange flags. I suppose the horse was trying to show the skidder's limits by demonstrating agility, but the machine didn't let on that it noticed. No signs of professional jealousy anywhere.

The New York Forest Owners brought you the Cabin Fever festivities. It was a cheerful gathering, and entertained a couple thousand people over the weekend. Everyone likes horses and oxen and big machines, as well as hot dogs and fried chicken and a mix of small

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The Moravia Republican Register, Feb. 12, 1991

children to freshen the perspective. It was not an afternoon for critics.

So I went home in a good humor to commune with the Sunday papers, and in a casual frame of mind browsed into an article in the Times headed *Deciphering Victorian Underwear*. You can understand why, and I don't defend myself. Lfie, a local poet, says there's nothing wrong with Raunchy. After all, he adds, it's part of life, just like everything else.

Well, this time I was wrong. The Times had nothing to say about ancestral panties — the whole thing was about a meeting out in Chicago of the Modern Language Association, and it was pretty dry. But I'm a reader, and get sucked into any print I happen to pick up, right down to the copyright number on the cereal box. So I finished reading about the M.L.A. convention.

That gathering, it seems, was not uniformly cheerful, and was surely larded with professional jealousies, and fear and trembling. The Modern Linguists are people who claim an interest in literature. Some of them teach it, mostly in colleges and universities, and most of the rest of them study it, mostly in colleges and universities: graduate students. Let's be clear that almost none of them write literature. They just write about it; the M.L.A. is not a home for poets and novelists. (The Forest Owners are different: most of them either grow wood, or harvest it, and they keep their hands on solid objects.)

The literary academics play with ideas, and seldom encounter a solid object. It could be a fun life. You read something, and then you can write chemist, say, has a harder time: his writing refers to an experiment, and the next chemist who reads it should be able to repeat the experiment, and verify it. Chemists explore a smaller fragment of the universe, perhaps, than literary folk, but they do it, at any given point in time, with a vocabulary they understand in pretty much the same way. Historians, sociologists and psychologists probably spend more time than chemists in argument about grammar and vocabulary, but their feet

generally touch the ground, at least between jumps.

The literary academic has it easier than the rest. He can make words mean anything he chooses, and can even, as many do today, choose to have words mean nothing at all. He's free to draw the grandest conclusions from the most obscure information, and does: the literature department is the ultimate haven for the axe-grinder, and so the home of assorted ideologies and social causes. Literature is a good field for people who like to think, but not too hard.

So what does this have to do with the Cabin Fever Festival? Nothing at all — and that's the point. Maybe two thousand people came to the Park last Sunday, and most of them will remember it, as a small happy afternoon, for some time. I don't know how many people heard, or will ever read, the 2,400 papers presented in Chicago, but I believe most that was said will die in memory faster than Tony's skidder. Trouble is, most of us see reality as real: a ton of oak hung on a skidder chain. Too many in the literature business have forgotten that, and become irrelevant.

Not that there's anything specially wrong with their ideas. Just that they're not talking to anyone.

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Tree Planting Tips Promote Promote Successful New Forests

By DAVID W. TABER,

Department of Natural Resources,
New York State College of Agriculture
and Life Sciences, Cornell

Tree plantations may produce fast-growing hardwoods, Christmas trees, nut crops from chestnut trees, high-value timber like black walnut, or conifers, most likely spruces and pines.

Successful plantations depend on the following factors, some of which you can control and some of which only Mother Nature controls, and others over which you may have partial control. All these "management factors" give you opportunities to exert your influence.

MANAGEMENT FACTORS

- genetic attributes, within a species, of planting stock
- tree species' attributes relative to ecological factors
- size (including crown-to-root ratio) of planting stock
- spacing of trees at planting
- condition of planting stock when received
- condition of planting stock when planted
- time (soil and weather conditions) of planting
- weather (hard frost, drought, or hot weather after planting)
- wildfire (probably started by human actions) in plantation
- wildlife feeding on bark, buds, and foliage
- insect damage to foliage
- disease damage to roots, stem, or foliage
- mortality of newly planted trees within first three years
- site attributes (depth, fertility, and pH) of planting site
- water table (distance to standing water in soil) all year long
- aspect (direction that sloping land faces, providing exposure)
- weed control requirements
- winter's prevailing weather conditions: ice, snow, wind
- proper planting (re: root collar, air pockets, and roots in soil)
- "plantation management plan" for appropriate growth over the years

All the management factors are important. To enhance your odds of successfully establishing and growing trees in a plantation, establish a plan

of operation based on evaluation of these variables.

Before we further analyze the biological and ecological management factors of establishing a plantation, we need to recognize certain economic considerations: income taxes, capital gains, and ordinary income reporting requirements; and plantation management and use/harvest requirements, such as the size and types of machinery and equipment needed and the desired roadways.

You need to determine your tree planting policies and procedures after evaluating your short-term objectives, long-term goals, and situation. Your "situation" relates to all the factors (variables) that exist for you, thereby restricting or broadening your choices.

Roadways for access to the plantation, and spacing of trees to accommodate machinery and equipment, should be evaluated and incorporated in the management plan.

And now here is more advice, some functional/operational and other biological or ecological. These points are noted because they answer questions often asked or are procedures often neglected or misunderstood.

1. Trees per acre to plant can be calculated by dividing the square footage in an acre (43,560) by the square footage occupied by a tree (calculated by multiplying the distance between trees in rows by the distance between rows). For example, with 6 ft. by 7 ft. tree spacing, there would be 1,037 trees/acre (assuming no land was reserved for roads).

2. The root collar on tree planting stock is distinguished by a slight change in appearance of the stem and its bark where the tree stem, as it grew in the nursery, entered the ground to form roots. The root collar should be at ground level when the tree is planted.

3. Planting stock's tree roots, including the fine "hair roots" which absorb moisture from the soil, should always be kept moist.

4. Weed control of grasses, sedges, and woody shrubs is mandatory until newly planted trees outgrow them, so

that planting stock can survive and grow in height and foliage volume at an appropriate rate.

5. Planting stock may be seedlings, which were grown relatively close together in a seedling bed, or transplants, which were transplanted from a seedling bed to another nursery bed at a wider spacing between trees to promote growth of roots, tree height, and amount of foliage. Usually transplants will survive and grow faster than seedlings when outplanted in a field or cut-over forest because they have a better root system and more foliage. Age of seedlings and transplants are designated in the format of two numbers separated by a hyphen (i.e. 1-0 = 1-yr. old seedlings; 3-0 = 3-yr. seedling; and 2-3 = transplant that was raised for 2 years in seedling bed followed by 3 years in transplant bed).

6. Genetic quality of planting stock determines such things as rate of growth, form of tree, and color of foliage, as well as other biological and ecological attributes that can be maintained in progeny through plant breeding (or careful selection of tree seeds from wild — apparently genetically superior — trees with the right attributes).

7. Hundreds of sources exist for tree seedlings and transplants. Landowners are commonly advised to plant stock from trees acclimated to the environment in which the seedlings/transplants will be grown.

8. Sources of trees for planting can be obtained from organizations such as the NYS Department of Environmental Conservation (DEC) forestry offices, New York Forest Owners Association, New York Christmas Tree Growers' Association, and Cornell Cooperative Extension county offices.

9. The state Saratoga Tree Nursery of the NYS DEC, Division of Lands and Forests, distributes planting stock of forest tree species, and shrubs for wildlife, to landowners who have purchased them during the sign-up period of early January to early March. Sales are based on a "first come - first served" basis while supplies last. For additional

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Tree Planting Tips —

Continued from Page 19

information, contact one of the NYS DEC forestry offices.

10. Soil and Water Conservation Districts, one in every county in New York, commonly sell tree planting stock. Other local organizations may also have seedlings, transplants, and cuttings of fast-growing hardwoods (poplars and other species) available.

You have just read about some of the factors to consider before planting trees. Many other considerations (such as what kinds of tools or equipment exist to plant trees, exactly when trees should be put in the ground, and how much care is required annually or periodically to cultivate a plantation) were not covered. But you may have learned some terminology that will help you communicate better about tree planting; and perhaps you have been introduced to some concepts that will help you make decisions about planting trees.

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