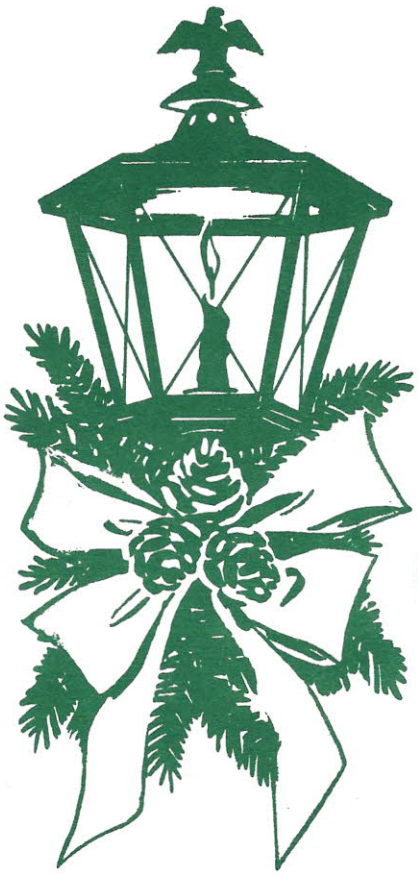
New York
Forest Owner



Season's Greetings

January-February 1981

VOL. 19, No. 1

THE NEW YORK FOREST OWNERS ASSOCIATION

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FRONT COVER

Courtesy of Director Bob Edmonds and the Gutchess Lumber Company.

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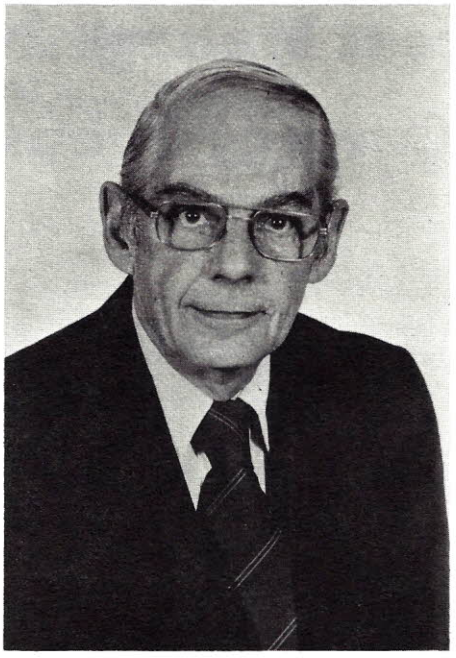
A TREE

Upon whose bosom snow has lain,
Who intimately lives with rain.
But poems are made by fools like me,
And only God can make a tree.



The View From the President's Chair

AN APOLOGY FOR A WHISTLE

To those of you who attended the Luncheon at Greek Peak during our annual fall meeting on October 11, 1980, I apologize for your painful eardrums. Without apology I state that my thumb-finger whistle is the sheerest, most immediate conversation stopper I know of.

The history of that whistle may be of interest to you. When I was 12 years old, my best friend was the son of the local Baptist church minister. Rev. Blackmer had arranged to take several of us 12 year olds to a camp at Eaton Reservoir for a summer week and I was included. It was a wonderful experience for me and I remember with vivid detail many of the things I did and learned.

The "Whistle" I learned afterward because of an occurrence on leaving camp. We were behind a very slow moving car which Reverend Blackmer wanted to pass. However, his car horn didn't work. He told us boys to cover our ears and then he blasted his two finger whistle. We passed the car. I was so impressed that I determined to learn to do it and practiced until I could.

Again, I apologize for any "shattered" eardrums, but I gloat in that whistle's power to bring almost immediate silence on any crowd.

HOW DO YOU VOTE?

This statement will appear after the November 1980 elections, but it is an expression of policy which may be called into effect in future political elections.

On the way home from the annual fall meeting of the NYFOA in Cortland on October 11, 1980 I had as a passenger, Mrs. Margaret Rumsey, a soon to be member of the Association. She asked me what political party I belonged to and why.

My response was that I had been Republican for years because of heritage and upbringing, **but,** in recent years I had realized the importance of the Free Enterprise system and the erosion of that system by the Democratic Party by their Socialistic laws and regulations. Consequently, I intended to vote for the Republican Party as confirmation of my belief in the innate abilities of the private citizen to choose the right course for both private action and the government of this country of ours.

Howard O. Ward
President, NYFOA

URBAN FORESTRY

Public Tree Programs in the United States: The number of street trees has been estimated at 57 million. About 900,000 are planted every year in cities across the country. Many forest owners in the New York Forest Owners Association live in towns and cities and would be excellent choices as members of citizens councils on street tree planning. With this in mind you will find an article on urban forestry in this issue.

If you would be interested in having an article on urban forestry in each issue please let me know. I have excellent sources and a great deal of information on the subject. *—The Editor*

Forest Management Current Events

By Robert Demaree

Tree Planting

This is an appropriate time to discuss tree planting. Literally millions and millions of trees have been planted in New York State over the years, beginning in the late 1920's with peaks that came during the CCC years, post-World War II, and the Soil Bank years. Many species have been tried in New York, and trees have been planted for many different reasons. At present the trees available for planting from most sources are reasonably suited to our New York sites, and the objectives for tree planting have been clarified.

While originally tree planting was probably done as a reclamation project for the prevention of erosion and restoration of soil, most tree planting is now done for the following reasons:

Timber Production — Many people still plant trees with a long-term view of lumber production even though they know it may be as much as fifty years before any timber products are truly available.

Christmas Trees — Considerable amounts of trees are planted today for the Christmas tree market; however, how many of these are actually sold as Christmas trees remains highly speculative.

Wildlife — Many landowners plant small groups of trees to enhance wildlife habitat on their properties.

Aesthetics — More than a few landowners plant trees, particularly evergreens, just to look at, for their beauty alone.

Windbreaks — Some trees are planted near houses or other buildings to shelter these buildings from the wind. Interest in this practice has renewed as energy prices have skyrocketed.

For many, many years, as a professional forester, I counseled people that it is probably better to take care of trees they already had rather than plant a lot more. This was in the pre-firewood days and cut nowhere equaled the growth. It is now becoming readily apparent that owners of hardwood stands may be able to profitably culture their smaller diameter hardwood stands through harvest use and sale of firewood. Indeed, the fuelwood market is so strong that there may already be overcutting, and very soon softwood (conifers) will be harvested for fuel.

For whatever the reasons, the increase and demands for fuelwood and also for lumber have somehow stimulated tree planting activities. Whether landowners believe that plantation growth will be in demand for fuelwood or other uses in the reasonably short-term future (10-25 years) or just their interest in trees is leading them to plant is hard to say, but sales of tree seedlings are up, the demand is strong and seems to be getting stronger.

If you as a forest landowner plan to do some planting, I would caution you to avoid the mistakes that are common. These are unclear objectives and the wrong trees on the wrong site. First, pick your objective. Will you plant trees for long-term timber production, Christmas tree production, or any of these listed above? These practices can be mixed; i.e., some Christmas trees can be harvested as an early thinning from a stand destined for timber production, or possibly trees can be planted close to buildings and serve as windbreaks throughout their long life or they may be constantly harvested. If you have land on which you want to plant trees, formulate your objectives prior to ordering the trees.

Secondly, know your planting site. Please note that I did not say soil, as soil type is only one of the qualities of the planting site. A forest site is made up of many factors: soil type, aspect (which direction the land slopes), rainfall, average temperature, soil depth, etc. It is important to know one's site prior to selecting tree species. Let me point out that identical soil types with different aspects may not be suitable to the same tree species because of large moisture differences. Available moisture is probably the most important factor in selecting tree species. A general rule of thumb is wet for spruce, dry for pines, and larches and firs somewhere in the middle. If all this sounds complicated, it is. Remember you are planning a venture which may occupy a given land area for a century or more. Some careful consideration should be given to planting. In fact, if any substantial amount of trees are to be planted, I recommend strongly that advice from a professional forester be sought.

As most of you know, trees are available from the New York State Nursery at Saratoga. Order blanks and information sheets may be obtained from Regional Forester Offices, Soil Conservation Service Offices, Agricultural Stabilization and Conservation Service Offices, and Extension Offices in most counties. Along with trees, the State is also offering a certain amount of wildlife shrubs.

There are some 7 million trees available from the Saratoga Nursery this year. However, demand is strong and by the time you read this the most popular species, Douglas and Balsam Fir, may be sold out. In recent years our Nursery has been completely sold out by planting time.

Trees are also available from many commercial nurseries in New York and surrounding states. Commercial nurseries also offer tree species not available from the State. The most common of these species are Frasier Fir and Blue Spruce which are highly prized as ornamental and Christmas tree species. However, the prices of trees from commercial nurseries are substantially higher than trees at the State Nursery. There are no restrictions on seedlings purchased from commercial nurseries whereas New Yrok State requires the landowner to sign an agreement that the trees not be dug and removed with the roots on for the purpose of selling them for landscape use.

Cont'd. on Page 10

The Urban Foresters' Notebook

Knowledge about urban forestry — the management of forests and related vegetation in and adjacent to cities and towns — is growing continually. Researchers are learning more and more about the bio-physical and human ecology of cities, while practicing city arborists and foresters are accumulating knowledge through their daily experience. This increase in urban forestry information is expanding the range of possibilities for urban planners and managers to improve the quality of life in our cities, towns and villages.

To help keep information moving to those who need it, in 1978 the USDA Forest Service, Northeastern Forest Experiment Station, produced and distributed the **Urban Foresters' Notebook,** an effort to coordinate and summarize current urban forestry information. The Notebook was conceived of as an information channel — not merely one more publication. Because the Notebook is to be an information channel, rather than a completed publication, it is published in a loose-leaf binder to which supplements can be added easily. Four content areas guide the organization of supplemental information:

Benefits Provided by Urban Trees and Stands

Culture and Protection of the Urban Forest

Management of the Urban Forest System

Interface with Landuse Planning.

The Forest Service, in cooperation with the School of Forestry of the State University of New York College of Environmental Science and Forestry, will select, package and distribute information coming out of urban forestry research and practice that seems to fill the most serious needs of the field.

The Notebook's coordinating editor (located at the College) will work to ensure that outgoing information matches needs. Scientists and practitioners will be asked for summaries of research and field findings. Practitioners and urban planners will be asked to evaluate the usefulness of Notebook information and to make suggestions about further research.

To receive a free copy of the original Notebook binder and all future supplements, write to the following address:

Ms. George Hopkins Stauffer
SUNY-CESF
School of Forestry
Syracuse, NY 13210

To All! I Wish a Happy New Year

By Dan Hudon

Another year has passed us by and our Logging and Lumbering has suffered more rules and regulations. People are worried about clear cutting the Adirondacks, Townships around the state are trying to curb wood cutting. Someone, somewhere is always trying to regulate. What we should have is everyone, everywhere doing what they can to educate proper forest land Management!! Our forests are one of our greatest assets, and despite what anyone can come up with, Nature will prevail. Land that was considered over cut has come back better than ever. Man, however, can help by promoting better ideas. All woodcutters could do their part. Deformed, weed and wolf trees give just as much heat as the nice clean trees that should be left for greater growth and profit later.

Trees are wonderful, however, they are like any other crop, they should be Harvested! Common Sense and Conservative Logging could benefit the lifestyle of all New Yorkers.

Educate your friends and neighbors . . . . . Someday they may have to Vote on it.

Publications You Should Know About

The following resources are available from Cooperative Extension, Dept. of Natural Resources, Cornell Univ., Ithaca, NY 14853.

Economics of Timber Production — New York. R. R. Morrow. Mimeo. 1965. 7 pp. Discussion of the investment of time and money in timber management and likely returns. Mentions wood product trends and small woodlot management. Figures a bit outdated but ideas still valid.

"European Forestry — Lessons for America?" R. R. Morrow. ***Conservation Circular 9(2).*** Spring 1971. 10 pp. Discusses forestry practices in Denmark, Germany, Norway, Sweden, and central Europe.

"Forest Planning in New York — Should We Be Involved?" F. E. Winch, Jr. ***Conservation Circular 9(1).*** Winter 1970-71. 5 pp. Discusses development of standards for productive forested lands in New York and the need for planning to keep forest lands productive to provide the needed supply of wood.

"Forest Management by Compartments." R. R. Morrow. ***Conservation Circular 14(3 & 4).*** Spring/Summer 1976. 3 pp. Proposes dividing a forest into units of similar characteristics to help organize plans and priorities, for ease of management, for more diversity, and for efficient production of forest products.

Forestry, Economics, Society. R. R. Morrow. Mimeo. 1970. 13 pp. Gives general overview of forestry with a brief description of forest history and situation in the U.S., value of forest products, outdoor recreation, aesthetic logging, and environmental forestry. Concludes with a discussion of agency aid for private citizens.

"Some Forestry Priorities — New York State." R. R. Morrow. ***Conservation Circular 7(4).*** Fall 1969. 4 pp. Brief description of poor condition of forests in New York, alternative forestry methods such as thinning and planting for improvement, and owner objectives for woodlots.

"Wood and a Quality Environment." F. E. Winch, Jr. ***Conservation Circular 9(2).*** Spring 1971. 3 pp. Discusses preservationist attitudes to lock up for parks land that is suitable for commercial timber production; also the legitimate use of wood as a renewable resource.

Additions and Corrections to the November-December Directory Issue Membership List

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HAND TOOLS: THE AXE

From
"Handbook for Eastern Timber Harvesting"
USDA Forest Service, Broomall, Pa.

Many felling and bucking crews now go into the woods without that once all-important tool of the woodcutter: the axe. Its absence is a testimonial to the utility and the versatility of the modern power chainsaw, used not only for straight felling and bucking cuts, but also for limbing and topping, for making the slanting part of the undercut, and even for cutting the bigger brush and saplings which impede the progress and endanger the safety of the woodcutter.

Nevertheless a light single bit axe is still a highly useful tool for felling and bucking. Such an axe, with a 2½ to 3 pound head and a 24-inch handle can be readily carried in a sheath at the back of the chainsaw operator's belt. If the blade is kept sharp, the axe is a useful tool in cutting small brush and limbs that interfere with the job. It is safer to use an axe rather than a saw to clear such obstacles, and is certainly safer than neglecting this job altogether. The poll of the axe can be used to drive plastic, alloy, or wooden wedges to keep the saw from being pinched in the cut, and to start the tree falling in the desired direction. The blade can chop out a saw that gets stuck in the cut.

Many old time axe patterns and weights are still available, while others have become obsolete to be seen only in museums. Several standard patterns, popular in different areas, are shown in Figure II-1. The Hudson Bay type, (Fig. II-1) a favorite of sportsmen, may be more widely available but is less sturdy and useful. The double bit axes, once

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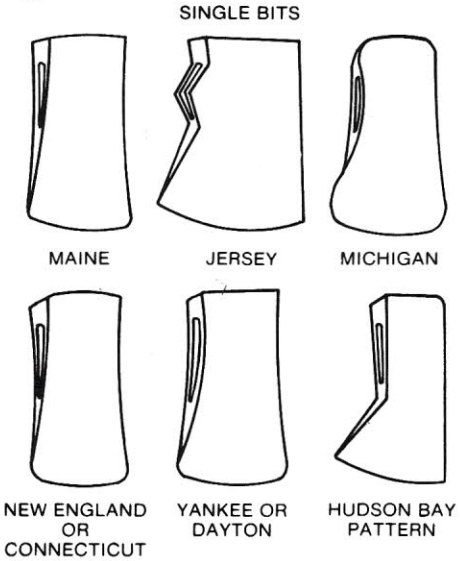
Figure II-1. Patterns of single-bit axe heads.



STATE UNIVERSITY COLLEGE OF ENVIRONMENTAL SCIENCE AND FORESTRY
Syracuse, New York 13210

SHORTCOURSES AND CONFERENCES

January — June 1981

Jan. 9, 10 **SUNY-ESF**	**NYS CHRISTMAS TREE GROWERS ASSOCIATION WINTER MEETING** Coordinator: Howard Miller
Feb. 2-4 **Arcade, NY**	**SHORTCOURSE IN LUMBER PRE-DRYING** Coordinator: Harry Burry
March 11-13 **Hotel Syracuse**	**NEW YORK SECTION, SOCIETY OF AMERICAN FORESTERS WINTER MEETING** Coordinator: Ralph Nyland
March-May **SUNY-ESF**	**NEW DIMENSIONS IN ENVIRONMENTAL LAW** Coordinator: Sidney Manes
March-April **TBA**	**STREAM CROSSINGS AND LOGGING ROADS WORKSHOP** Coordinator: Jean Fisher
April **Metropolitan NY**	**METROPOLITAN NEW YORK WOODWORKERS SEMINAR** Coordinator: Harry Burry
April-May **TBA**	**LOG SCALING AND GRADING WORKSHOP** Coordinator: Harry Burry
April **TBA**	**ENVIRONMENTAL EDUCATION WORKSHOP** Coordinator: Alan Hankin
April 24-26 **May 1-3** **Provincetown, Mass.**	**WHALE WATCHING AND ECOLOGY FIELD STUDY SHORTCOURSE** Coordinator: Alan Hankin
April-May **SUNY-ESF**	**IDENTIFICATION OF SPRING WILDFLOWERS** Coordinator: Josiah Lowe
May 18-25 **Puerto Morellos, Mexico**	**YUCATAN FIELD STUDY SHORTCOURSE** Coordinator: Alan Hankin
Date-TBA **TBA**	**FOREST RESOURCES OF NEW YORK STATE AS AN INDUSTRIAL RAW RESOURCE** Coordinator: Jean Fisher
June 3-5 **Hotel Syracuse**	**38th ANNUAL SNOW CONFERENCE** Coordinator: Art Eschner

Mail to: Dean, School of Continuing Education
SUNY-ESF
Syracuse, N.Y. 13210
Phone (315) 473-8755 (after Jan. 9, 1981, 470-6891)

U.S. Wood Resources

Study Evaluates U.S. Wood Resources

The potential for using wood as an alternative fuel source is higher in the Eastern and Southern United States than anywhere else in the nation.

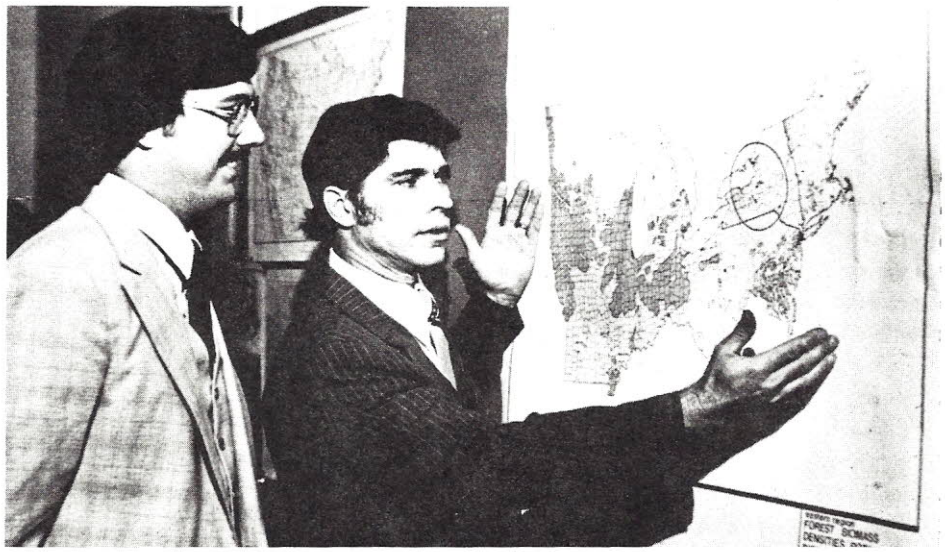
That conclusion is one of several products of a three-month study recently completed by researchers at ESF for the Solar Energy Research Institute. The three components of the research project are aimed at evaluating existing information on wood availability in order to determine its possible use as a boiler fuel for industrial plants in the U.S.

The final component of the study, a Wood-For-Energy Feasibility Study Guidebook, eventually will be used to aid the Economic Regulatory Administration (part of the Department of Energy's Federal Energy Regulatory Commission) in its review of requests for exemptions to a 1978 law requiring major fuel-burning installations such as power plants to consider alternatives to petroleum-based fuels and natural gas for firing boilers.

"The study exactly fulfills ERA's needs," commented **Robert Farley**, senior biomass specialist for the Solar Energy Research Institute. "Given a specific location for an industrial plant, it allows you to calculate whether wood is available in sufficient quantity to fuel a boiler."

ESF's Institute of Environmental Program Affairs assembled a multi-disciplinary team of researchers from three of the College's Schools to participate in the data collection and evaluation tasks. "The importance of the wood energy field has grown significantly within the past five years," commented IEPA Executive Director **James W. Geis.** "Although a lot of work has been done in the field, there have not been any good state-of-the-art summaries or syntheses of the implications of the work. These are two important needs that the study completed by our researchers addresses."

School of Landscape Architecture staffers **Richard C. Smardon**, research associate, and **Richard Hawks**, assistant professor, along with graduate student **Virginia Bouchard** completed the first phase of the research study. The task included a literature search to identify all areas of forest biomass in the U.S. and a survey of agencies and industries to further identify ownership patterns of the forest land in an effort to determine where current ownership may preclude or significantly diminish further expansion of the use of wood as an energy source.



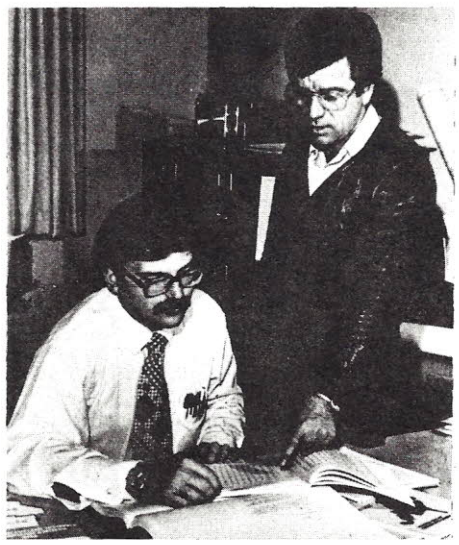
ESF RESEARCHERS Paul Hopkins, left, and Richard McClimans, who coordinated the project and completed the Feasibility Study Guidebook, discuss the study's findings for the Eastern U.S. region.

The researchers then translated all of that data to 21 maps. The maps divide the country into five regions roughly paralleling U.S. Forest Service regional boundaries: Eastern, Southern, Northern and Rocky Mountain, Intermountain and Southwestern, and Pacific North- and Southwest. For each region a series of overlays are provided delineating areas of forest biomass (regardless of type), and ownership (including private land holdings, federal ownership, state parks, and wilderness areas). Additionally, for the Eastern and Southern regions, the researchers provided information on forest densities by county.

"These maps," explained Smardon, "are meant as a broad-brush tool. If you know the location of the proposed plant, you can check the map and be able to tell very quickly if a fuel supply is potentially available. If wood appears to be available, the maps will also tell you whether the forest land is held in restricted ownership."

The second phase of the research project was to identify, collect and organize existing publications providing information on the nature and types of forest biomass or waste wood for major forested regions of the U.S. This task of the study project was completed by **Brian L. Fisher** and **John E. Michelakakis**, graduate students, and **Douglas B. Monteith**, senior research associate in the School of Forestry.

Included in the bibliography are documents from the U.S. Forest Service, USDA extension agents, state departments of forestry, state energy of-



THE AIM of Brian Fisher, seated, and John Michelakakis, along with Douglas Monteith was to structure as good an information network as possible on wood-for-energy within the time constraints of the study.

fices, research organizations of the forest industry, and technical research reports from colleges and universities across the country. "It was ludicrous to assume we could come up with everything that's been publicized on wood availability within given time constraints," commented Fisher. "So we did a quick-cut search on a national level for the best sources of information in order to structure a good information network on waste wood and forest biomass."

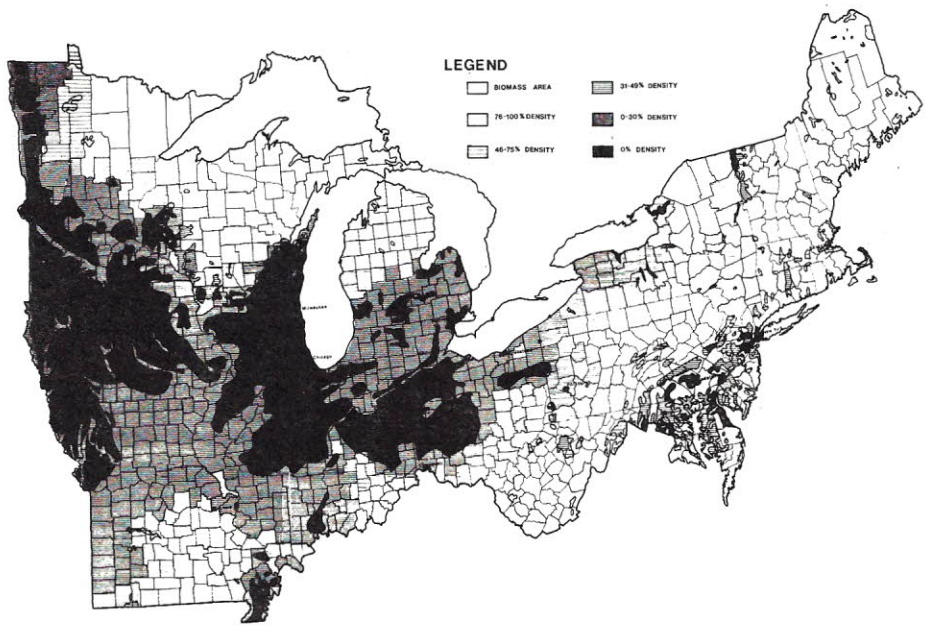
The researchers computerized the information for the roughly 500 publications in the bibliography and analyzed each for the degree and kind of information presented on biomass availability. The computerized system allows for instantaneous retrieval of stored information, and as new information becomes available, the system can be easily updated.

The published information is classified in terms of geographic distribution and according to the type of waste wood or forest biomass availability estimate each provides (direct, indirect or tertiary). These latter three categories are further subdivided according to whether the publication gives information on the total, the used, or the unused portion of the resource. Finally, the reports are classified by the source of waste wood or forest biomass each addresses.

Richard McClimans, co-project director and a senior research associate, and **Paul F. Hopkins**, assistant professor in the School of Environmental and Resource Engineering, completed the third and final task in the study. The Wood-For-Energy Feasibility Study Guidebook outlines a step-by-step procedure to be followed in order to evaluate the available wood biomass supply as compared to boiler demand.

The procedure, explained McClimans, defines several basic steps in the evaluation process and three levels at which a final determination may be made as to whether wood is a feasible alternative energy source. Users of the guidebook are required to perform several relatively simple calculations to determine the amount of wood needed to fire the boiler and the maximum distance the wood can be transported in order to keep costs for the wood at least equal to the cost of fueling the boiler with natural gas or oil.

These and further calculations performed using information from the



minimizes conflicts with other wood-using industries. "All of us involved in the study were, in the beginning, not great advocates of burning wood for energy," commented McClimans. "Through the course of the study, most maps and bibliographic documents will give guidebook users a figure indicating the availability of wood on the basis of a supply-to-demand ratio. "For the Eastern and Southern regions," said McClimans, "the ratio is usually quite favorable for using wood, while in other regions like the Intermountain and Southwest, existing demand frequently exceeds supply. On the West Coast, for example, the figures show the net annual utilization far exceeds the net annual biomass growth. There the forests appear overutilized. In the South and East, the forest growth is generally more than current utilization."

The researchers, McClimans said, never recommend the use of wood as an alternative fuel unless supply exceeds demand by more than a four-to-one ratio. This ratio insures an adequate supply of wood fuel through the life of the boiler and, more importantly, of us have become more confident about wood's potential contributions. However, we all began with and continue to hold to the strong belief that the best use of wood should be to produce products of highest value to society."

This means, he explained, the first use of wood should be to support thriving wood-using industries such as construction, furniture and other wood products, and paper industries. The wood for energy they stress throughout the study would come from the unutilized portion of the net annual growth of commercial growing stock, logging or sawmill residues, or forest cull trees and the like.

"The utility of this study will become more apparent in time as others begin looking at the issues it addresses," said Farley. "With some modification, this study has the potential to provide guidelines to people in the planning professions. These are the people who will worry about questions of supply and demand — for example, if a lot of industries in the area begin converting to wood energy, will overutilization problems develop? Or, which areas can support additional wood energy users?"

Possibility Thinker

Lord, as I am facing my mountain
never let me be a quitter
Give me strength to keep on striving
until I climb over or find a pass
through or tunnel underneath
And if everything else fails
give me the patience to simply stay
and give me the power and perception
to see the possibilities
of turning my mountain into a Gold mine

TAX CREDIT

Dr. Gene Gray
National Extension Forester
SEA - Extension, Room 5925
U.S.D.A., South Building
Washington, D.C. 20250

Dear Gene:

I have checked into the question of the qualification of Christmas trees for the **amortization and tax credit provisions of Sections 194 and 48 of the Internal Revenue Code (Packwood Bill).** Although the language of these Sections doesn't specifically exclude Christmas trees, the hearings records clearly indicate that Congress did not intend to include ornamental trees.

Christmas trees qualify as timber under Sections 631 (a) and (b) for capital gains purposes, and under Section 611 for purposes of determining the allowance for depletion. However, the definition states that "the term 'timber' includes evergreen trees which are more than 6 years old at the time severed from the roots and are sold for ornamental purposes."

Therefore, to qualify as timber the Christmas trees must be grown to be sold for ornamental purposes, one of the exclusions specifically mentioned in the hearings. Based on these factors I conclude that Christmas trees do not qualify for the amortization and investment tax credit available for timber.

If you have further questions on this matter or other timber tax questions please feel free to call on me.

Yours truly,

William L. Hoover, Ph.D.
Assoc. Prof. Forest Econ. & Fin.
Enrolled to practice before the Internal Revenue Service

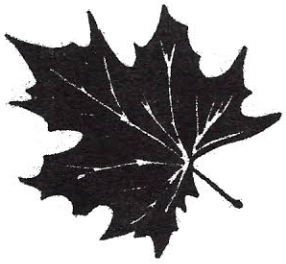
Deer Repellent Available

A Weyerhaeuser Company researcher developed a **deer repellent** that is used on the tender seedlings of their Ponderosa pine, hemlock, and other plantings around the country. A derivative of rotten eggs, it is available to the home forester as MGK Big Game Repellent. It is said to protect woody plants 1-4 months. **For information, write McLaughlin Gormley King Co., 8810 Tenth Ave. N., Minneapolis, Minn. 55427.**

IRS WILL ALLOW TAX CREDIT AND AMORTIZATION OF REFORESTATION

Landmark tax incentive provisions for reforestation were signed into law October 14, 1980. HR 4310-7 provides a 10 percent investment tax credit plus seven year amortization of up to $10,000 of capitalized reforestation expenditure incurred each year. Qualifying expenditures include costs of site preparation, seed or seedlings and labor and equipment used in planting incurred after December 31, 1979. To qualify, a property must be held for the production of commercial timber products and be one acre or more in size. The tax incentive provided by this law excludes capitalized reforestation expenditures which are reimbursed under state or federal cost-share programs. Shelter belts and ornamental trees are not included. As with any new legislation, interpretations and examples must be developed. As we receive and/or develop additional information we will inform you. Check with competent tax authorities if you had reforestation costs during 1980. Consider the tax benefits before you turn down an opportunity to reforest in 1981.

SOURCE: William T. Huxter, Jr., **Forest Resources Letter,** Nov. 1980, Vol. 4, No. 6, Raleigh, North Carolina 27607.



Nature's Prayer

"Our Heavenly Father, Creator of all that is nature, we humbly come to You in the midst of Nature's splendor, to thank You that as Americans we are free to worship as we please, work as we please, and move about as we please to enjoy all that is Nature — its Mountains, its Hills, its Valleys, its Lakes, its Streams, and the living things that dwell therein; we pray unto You that someday the World may be at Peace and all men be free to enjoy Nature's abundance."

"We ask that we be guided to protect this priceless heritage which we, in America, are privileged to enjoy. Amen."

TREE PLANTING

Cont'd. from Page 4

Another common mistake made by tree planters is not spacing their trees properly. The traditional tree planting spacing was the familiar 6' x 6' which requires 1200 trees per acre. While this spacing may be all right for Christmas trees and very tolerant trees such as spruces, it causes early crown closure and greatly reduced diameter growth in fast growing species such as pine or larch. An 8' x 8' spacing or even wider may be appropriate for these species. Remember that early thinnings in plantations are almost always noncommercial. The trees that have to be cut have no market and such thinnings are a cost to the owner. It is desirable to delay such thinnings as much as possible. This may change in the future by greatly strengthened fuel markets which may be expanded to include softwoods, but this is pure speculation at this time.

Another problem encountered by tree planters is hardwood brush. Most planted conifer species will not compete with already established volunteer hardwoods. Planting sites should be relatively clear from brush. If the contemplated planting site is already brushy, it has probably already been planted by Mother Nature and may or may not be worth the effort to clear it for planting conifers. Professional advice should be sought. For the most part planting conifers in New York State is a conversion process, converting old agricultural fields to forests. The conifers themselves serve merely as a nurse crop. The eventual occupants of the site will probably be the common long-life hardwood species. There are exceptions to this and sites can mechanically be kept in conifers, but for the most part the nurse crop theory holds true.

Further sources of information for tree planting are available. The bulletins, **"Planting Forest Trees in Rural New York," "Judging Land for Forest Plantations in New York,"** and **"Christmas Trees and Marketing,"** are available from the **Extension Service** for a small charge and the **Department of Environmental Conservation** has a tree planting bulletin available at their offices. I hope this information proves useful and **good planting.** (See November-December issue of **Forest Owner** for addresses).

Robert L. Demeree
4 Northway Drive
Cortland, NY 13045

SEASONING FIREWOOD

By Edward E. Lang

To obtain maximum heat value from your firewood, proper seasoning is required. During the combustion process, water present in the wood will absorb heat as it is converted to steam and, in the case of green wood, up to 50% of the fuel value may be lost during this process.

Moisture value of wood varies considerably among species and ranges from 45% in ash, based on weight, to 95% in elm. This makes ash the most preferred species if you must burn green wood. For a more complete listing see Table 1.

Many factors affect the seasoning process and the rate at which moisture is lost. You may decrease drying time by removing the bark, splitting and cutting wood into shorter lengths, and storing the seasoned wood under cover. When you fell trees that are in leaf, letting them lie for two weeks before cutting up will allow the transpiration process to remove up to 50% of the moisture. Seasoning time may be accelerated by stacking wood in a sunny location, and covering it with clear polyethylene plastic. This results in a greenhouse effect, allowing moisture to escape around the plastic and holding the heat in.

The question often arises, "How long should firewood be seasoned?" Assuming that your wood is under cover, wood seasoned 12 months will dry to 15-20% moisture content. The same wood dried in a heated house will dry to 5-10% moisture in 12 months. To obtain 0% moisture, wood must be oven-dried, which is not very practical.

If we assume a 50% fuel value in green wood, then wood seasoned for three months under cover will have 85% fuel value; for 6 months, a 90% fuel value; for 9 months, a 95% fuel value; and for 12 months, 100% of *obtainable* fuel value. Notice that after 9 months of seasoning, the law of diminishing returns comes into play. With a solar dryer and three months seasoning, you will obtain close to maximum heat value from your firewood. Also remember that exposed wood will decay and thus lose fuel value. Covered wood will last many years.

To check moisture content, weigh your wood on a bathroom scale and record the weight. Just spray paint the chosen pieces, and select them every month for reweighing. When they stop losing weight, they are seasoned.

Publications available at the Tioga County Cooperative Extension office:

Wood As A Fuel 25¢
Tioga County Extension, 56 Main St., Owego, N.Y. 13827

Improve Your Woodlot By Cutting Firewood Free
USDA Forest Service, Broomall, Pa.

Burning Wood $1.00
NE 191, Cornell Distribution Center, 7 Research Park, Ithaca, N.Y. 14850

The Warmth of Wood Fires $1.25
IB 150, Cornell Distribution Center, 7 Research Park, Ithaca, N.Y. 14850

TABLE 1

Moisture content of heartwood based on weight of wood oven dry.

Apple	81%
Ash	45%
Aspen	95%
Basswood	81%
Beech	55%
Elm	95%
Maple (Sugar)	65%
Oak (Red)	80%
Oak (White)	64%
Spruce	34%
Tamarack	49%

U.S.D.A. Forest Service

HAND TOOLS Cont'd.

the overwhelming favorite of woodcutters in the North cannot be recommended for the type of use discussed here. Attempting to drive even a plastic wedge with the flat face of such an axe is unsatisfactory and does the tool no good. The double bit axe is less safe to carry around or to park at the cutting site. Even if one blade is driven into a stump or exposed root, the other is exposed and ready to cut anyone who stumbles on it or even brushes against it.

The axe blade should be kept sharp and properly tapered both for efficiency and for safety. A dull axe is an unsafe tool because it requires harder blows than a sharper one, and it is more apt to glance off the material being cut (Fig. II-2). The axe blade should preferably be sharpened on a wet, slowly moving grindstone, moving it backward and forward as it grinds to give it a proper shape and taper. The shape of a properly ground edge can be determined with a gage (Fig. II-3).

Figure II-2.—A dull axe is more dangerous than a sharp one.

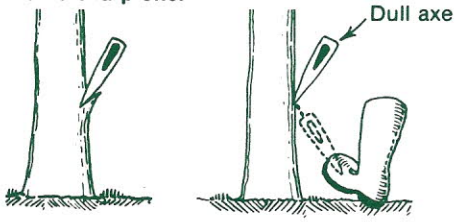
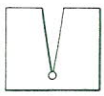


Figure II-3.—Gage for checking taper of axe blade.



An emery wheel should never be used to grind an axe blade since it is too apt to heat and draw the temper from the edge. It is far better, when a grindstone is not available, to sharpen with a flat file, although this is a slow and somewhat tedious job.

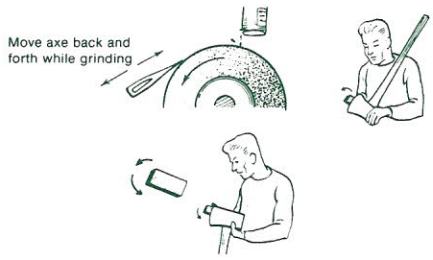
After grinding and frequently during use the axe edge should be honed with a whetstone to remove any burrs, and to keep it razor sharp (Fig. II-4).

The poll end of the single-bit axe should never be used to drive a steel wedge. It is tempered too hard for such use. Steel splinters can break off and be projected back toward the user with considerable force, easily putting out an eye.

Wedges

Steel wedges should never be used in a chainsaw cut. Even slight contact with the running chain at the back of the bar will ruin the chain and possibly the bar also. Consequently only plastic, wood, or soft metal wedges should be used. Such a wedge should have a blunt leading edge at least ¼ inch thick. A wedge so designed will instantly engage the faces of the cut and thus keep the blade of the saw from being pinched or open the cut to start the tree tipping in the desired direction. Plastic wedges are now on the market with one face grooved crosswise and the other grooved lengthwise (Fig. II-5). This grooving aids in their insertion and, at the same time, guards against their popping out of the cut.

Figure II-4.—Honing axe blades.



NEW YORK FOREST OWNERS ASSOCIATION
GROWING TOMORROW'S TREES TODAY

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ASK A FORESTER

By Al Roberts

Question: A logger has offered me $200 per thousand board feet for some cherry trees in my woods. Do you feel this is a fair price?

Answer: On the surface this sounds like a very good offer. Incidently, cherry and oak are the only two species whose price has been holding up in a generally poor timber market. However, let me answer the question further by telling of an experience I recently had. I was asked by an owner to assess the value of some timber which had been cut over the line on his property by a logger cutting on the adjoining property. Fortunately most of the trees that had been cut were still lying where they had fallen, and most of them were cherry. The logger and both owners were there, so I asked the logger how much he was paying the other owner for the timber. He said he was paying $200 per thousand for the cherry. I said this seemed fair, and that we would charge that for the cherry trees cut over the line.

I proceeded to measure the length and diameter of the fallen trees in order to get their volume and value. We finished up, and all walked back to the road. As we did, the logger got me aside and said that he really didn't think he could afford to pay $200 per thousand for the trees as I had measured them. Thereby hangs the tale, and the moral of the story.

You see, I was measuring the entire length of the tree, as long as it was reasonably straight, up to a 10' top. But the logger was only taking out the prime logs and paying on their scale, leaving the lower grade logs in the woods.

He could outbid other loggers because he was only taking the cream. A lower per thousand bidder might end up paying the owner more total dollars because he took the entire tree and thus paid for a larger volume of logs.

The best way to sell timber is on a lump-sum bid basis for all the marked trees.

JOKE

The lion was stalking through the jungle looking for trouble. He grabbed a passing tiger and asked, "Who is the king of the jungle?"

"You are, O mighty lion," answered the tiger.

The lion then grabbed a bear and asked, "Who is boss of the jungle?"

"You, O mighty lion," answered the bear.

Next the lion met an elephant and asked, "Who is boss of the jungle?" The elephant grabbed him with his trunk, whirled him around and threw him up against a tree, leaving him bleeding and broken. The lion got up feebly and said, "Just because you don't know the answer is no reason for you to get so rough."

Board of Directors Meet

Chairman Howard Ward has called a meeting of the Board of Directors scheduled for 10:00 a.m. on January 10, 1981, at the Cortland Department of Environmental Conservation Office located on Fisher Avenue.

Looking forward to seeing you.

Sincerely,
Robert L. Demeree