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No. 4

New York

**Forest Owner**

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AND FORESTRY

July—August 1978

# THE NEW YORK FOREST OWNERS ASSOCIATION

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Odessa, NY 14869

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\* \*  
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### DIRECTORS MEET

The 106th meeting of the Board of Directors of the New York Forest Owner Association was held in Marshall Hall at SUNY college of ESF in Syracuse on June 3, 1978 with 14 Directors present. Robert Sand, President presided.

The treasurer's report showed a balance at the present of \$5,267.79.

Membership chairman, Kenneth Eberley, said that he would like to again have a display at the Woodsmen's Field Day in Boonville on August 19, 20, and 21. It was voted to do so.

We will also have a display at the Empire Farm Days in Pompey, New York on August 8, 9, and 10. We will not have a display at the State Fair this year.

The FALL MEETING is to be held in Cortland on September 30. We will meet at the DEC building in the morning and have a WOODS WALK on Al Roberts Farm in the afternoon.

The ANNUAL MEETING will be held in Syracuse in April 1979.

The next Board Meeting will be held at the College of ESF in Syracuse July 15.

J. Lewis DuMond  
Secretary

\* \* \*

### New Members in June

Mr. and Mrs. Robert H. Enderle, RD#2 Caton Road  
Corning, New York.

Mr. Charles Kaskey  
3543 Columbia Dr.  
Endwell, New York

Rev. Dr. Roger Reger  
98 Wesley Avenue  
Buffalo, New York.

\* \* \*

### THE LEGISLATURE 1978

The legislators once again are trying to see who can submit the most bills. At the end of May the Assembly had introduced 13,000 bills and the Senate's record is 10,000 bills in a two year period.

Know your issues, and where you stand.  
PROPOSED LICENSING OF FORESTERS

S. 5333 B.C. Smith  
Requires all practicing Foresters to be licensed.

## PRESIDENT'S MESSAGE

First, let me report that N.Y.F.O.A. continues to attract and gain added members with each passing month. A trend that I hope will continue far into the future. With each new member, our common bond to foster good forestry has added impetus. No single group in New York State has more potential to shape the future of our valuable forest resource than a strong membership. Each of us should actively promote increased membership by seeking out and personally encouraging all likely candidates in our daily contacts.

Our membership committee chairman is Ken Eberley. An able, affable and dedicated director, and a charter member who has served our Association with boundless energy for many years. He is the one who single handedly has advanced this organization by coming up with good promotional ideas; he is the one who made our four foot N.Y.F.O.A. logo in three colors, red and green on white-now displayed at all our meetings.

Ken is the self-appointed trustee who carts and transports this labor of love to all points where its exhibit adds meaningful credibility to any assembly of Forest Owners.

Two other Eberley ideas have become reality. The N.Y.F.O.A. membership sign he sells at about cost to anyone in the Association at either of our two annual meetings. And the adhesive backed logo decal given out with new memberships. Our accolades are genuine for Ken, his wife who is frequently in his company and all of his committee members. Because of them, this organization is moving forward.

At our annual meeting in Morrisville, a special GIFT MEMBERSHIP was approved. This is only \$5.00 and must be sponsored and paid for by a regular member. Since then Helen Varian, our Membership Secretary reports that a number of these gifts have been presented. This is an example of concerned leadership by Howard O. Ward who first envisioned and advocated the special N.Y.F.O.A. Gift Membership idea.

I continue to find this opportunity to serve N.Y.F.O.A. as your President a privilege. The people involved with me are a concerned group, willing and able to provide direction and give their personal energy to make the Forest Owners a viable organization in 1978 and beyond.



## CURRENT TREE PROBLEMS

**According to Dr. Howard Miller,** State Entomologist people are concerned about their maple trees because they look as tho they are about to die. The leaves on many are not growing. This, he assures us, is due to the unusually heavy seed growth.

Under normal conditions if the trees have been healthy they will put out a second crop of leaves as soon as the seeds fall off.

This is also true where tent caterpillars have defoliated the trees. He expects that there will continue to be an epidemic of tent caterpillars for the next two or three years as they move about the state from Canada to Pennsylvania.

The anticipated cankerworm epidemic collapsed probably due to parasites and predators.

### FIVE WOODS WALKS PLANNED FOR 1978

Here is your opportunity to enjoy a Woods Walk in your area or make an excursion of it and visit another part of the State to see how forest management is different yet the same. Come and enjoy. For all trips, please bring your own lunch; beverages will be provided.

#### I. Saturday, July 22nd-Harvard, Black Rock Forest-Cornwall-On-Hudson

This 3600 acre forest, operated by Harvard University is in the scenic Hudson Highlands adjacent to West Point. In an area of intense use it has a multitude of uses and pressures.

Jack Karnig Forest Manager is our Host for the day and has asked that we gather at the Cornwall Town Hall parking lot at 10:00 a.m. for the trip, which should last until mid-afternoon.

Jack asks that if you plan to attend send a stamped self-addressed envelope to Mr. Jack Karnig Harvard Black Rock Forest, P.O. Box 483 Cornwall, New York 12528.

Please write WOODS WALK on the lower left corner of the envelope.

#### II. Saturday August 12 - Ward Tree Farm, Candor, New York

The Ward Certified Tree Farm emphasizes quality Christmas trees. Howard Ward, the owner, and our Host for the day has arranged for the Walk on his tree farm and a State Forest, which is next door.

The details of this walk are else where in this issue.

If you plan to attend send a note to Mr. Howard O. Ward, 240 Owego St. R.D.#2, Candor New York 13743

#### III. Saturday, September 16-Chatauqua County - Cherry Creek New York

A 200 acre woodlot under management for more than 20 years containing a wide variety of forest conditions.

There are stands of excellent hardwoods in this work-forest in a range of sizes under unevenaged management with cyclic cutting.

There is a Christmas tree operation, conifer plantations, some fine pole hardwoods, water and open areas and good records on all of it.

The woodlot is due west of Cherry Creek, New York on Boutwell Hill, and Curtis Bauer the Forester Owner and our Host for the day will meet us at the woodlot at 10:00 a.m.

Curt asks that you send him a stamped self-addressed envelope if you plan to attend and he will send a map of the planned day.

His address is Curtis Bauer, Forecon, Inc. Crown Building, 100 East Second Street, Jamesville, New York 14701, and print WOODS WALK in the lower left corner of the envelope.

IV. Saturday, September 30 -

Al Roberts Woodlot - Cortland

A 60 acre woodlot under intensive management for fun and profit. Al Roberts, the owner and a retired forester, claims personal acquaintanceship with each tree. He practices hardwood timber management with a business of firewood from thinnings and has a Christmas tree operation. In addition he has some interesting experimental areas established. The Fall coloration should be underway at this time .

This woodwalk will be held in conjunction with the Annual Fall Meeting. The members will meet at the Regional office of the New York State Department of Environmental Conservation for the morning session and will go from there to Al Roberts farm in the afternoon.

Al Roberts would like a note from you if you plan to attend. His address is R.F.D. #3, Cortland, New York. 13045

The D.E.C. office is on Fisher Avenue in Cortland, New York.

V. Saturday, October 14 -

Hardy Shirley-Elizabethtown

This is a chance to visit or revisit (a Woods Walk two years ago) a lovely Adirondack estate under management for 23 years. Hardy and Mary Shirley will be our Hosts for the Walk.

They plan to feature two lots which have been cut over heavily in the past, one on good soil and one on poor soil to show the difficulties of tree marking in reconditioning such stands.

The Fall coloration should be at its height at this time of year to dispute the Adirondack saying that for nine months snow flies and for three months black flies.

As the road entrance is poorly marked Dr. Shirley wants us to meet in the village.

He would appreciate it if you would tell him if you are coming so that he can send you a map of the details.

His address is Hardy L. Shirley, Star Route, Elizabethtown, New York, 13207

RICHARD V. LEA  
WOODS WALK CHAIRMAN

P.S. please send a stamped self addressed envelope.

FIREWOOD FROM STATE FORESTS

Hardwood for fireplaces and wood burning stoves can now be cut on state owned forest lands outside of the Forest Preserve.

Surplus trees may be purchased as they stand in the forest. The buyer must agree to cut at least one standard cord at \$1.50 a cord. Individuals or wood dealers may contact the D.E.C. regional forester's office.

The wood should be allowed to season for a year -- it will be lighter, have more heat value, and be less likely to form creosote. Stack firewood in loose piles that are raised off the ground.

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Vacation Reminders

Sign posted outside a Red Cross building: "Before going on vacation donate blood. Mosquitoes don't give coffee and donuts - we do!" Reader's Digest

## WOODS WALK

What is a "Woods Walk"? It is a conducted walking tour through private and State forest lands.

Why? To observe timber production on local lands and to learn the why's of various forest practices.

When will it be? Saturday, August 12, 1978 at 10:00 A.M.  
Assemble between 9:15 and 9:30 A.M.

Where will it be? Assemble along the highways at the junction of Routes 96 and 96B and Honeyopot Road in Candor. There is an Arco Station on the corner. From there, Mr. Howard Ward will conduct the assembled group in their cars to his tree farm on Newman Road, Lower Fairfield, Town of Candor. The walk will also cover a portion of State Forest adjoining his property.

Who is invited?

Who will be explaining what's being done?

Invitation is extended to everyone (male and female) who owns a woodlot, who would like to own a woodlot, who owns bare land that they would like to turn into a woodlot, or anyone who just likes to walk in the woods.

Resource persons who will attend are:

Howard O. Ward of Candor, the Owner,  
Carl Haischer, the State Forester covering this area,  
Stanley Winnick of Owego Contracting of Candor who is  
a professional timber buyer and harvester,  
John Lacey, Executive Director of the Tioga County Soil  
& Water Conservation District,  
John Lounsberry, Director of the Tioga County office of  
the Agricultural Stabilization and Conservation  
Service through whose office is administered the  
Timber Stand Improvement and reforestation programs  
of the Federal Government.

How do we provide for lunch? Bring your own bag lunch and beer, if you like. Other drinks will be provided. It's "out in the boondocks" so catering service is not available.

How do we dress? In whatever is comfortable and durable and with good walking shoes. In the event of inclement weather, rain gear is advised unless you don't mind getting wet. The walk will be held regardless of weather conditions. A coating of insect repellent on bare skin is also advised.

COME, ENJOY, & LEARN

(An activity of Education by the New York Forest Owners Ass'n)



## W I D O W   M A K E R

By DAVE TABER  
Cooperative Extension Specialist

"WIDOW MAKERS" are dangerous.  
Whenever felling trees for firewood  
always evaluate the tree first by looking  
at the crown and branches of adjacent trees.

Look for old dead branches which may be loose in the tree tops or dead branches which may break when they fall.

Loose branches hanging in the tree-tops are called "widow-makers" because so often they have killed the chain saw operator who is harvesting them. When "widow-makers" become dislodged during the felling of a tree and hit a person below, the force can be tremendously devastating from even a small branch.

Therefore when about to harvest a tree one must first evaluate it. Consider all trees which will be affected by the felling of a particular tree. Look for branches which may become dislodged or break during the felling process.

Be alert to danger and be prepared to escape if necessary. These are important techniques for the "professional firewood" gatherer.

When the tree has actually been cut from the stump along a predetermined "escape route" which is at an angle to the direction of the fall rather than directly behind it so that if the tree jumps backward as the crown bounces off adjacent tree tops the harvester will not be hit by the tree bole.

As the tree is falling one must continually glance upward to see if any "widow-makers" or dead branches have become flying missiles.

Not until all possible branches of the tree come to rest on the ground can vigilance be relaxed.

\* \* \*

ESTATE MANAGEMENT, by Elwyn Voss 8p.

Available upon request from the  
AMERICAN AGRICULTURIST  
P.O. Box 370  
Ithaca, New York 14850

## F I R E W O O D

Sell it by the ton

Robert M. Sand, president of the New York Forest Owners Association, is also supervisor of logging and forestland management for Cotton-Hanlon, Inc. at Odessa, New York. He reports a brisk business in selling firewood by the ton. Timber stand improvement (TSI) activities require removal of crooked, defective trees that are not salable as timber, but yet make good firewood, or raw material for flakeboard.

Sand reports selling more than 10,000 tons of cull trees from C-H land in 1977... with about half of that now going to Masonite and the other half for firewood.

"We've even diverted some logs from sales to Masonite for firewood delivery," he says. "Trucking at about \$1.25 per mile is expensive, and firewood sales often mean shorter hauls."

Cull hardwood logs are delivered to homeowners in random lengths from 6 to 20 feet, averaging 13 to 14 feet. Diameters range from 4 to 24 inches, average 10 to 12 inches.

A hydraulic boom loader on the truck can set logs down with a velvet touch, and truckers pile 'em so they are not dangerous to the family. The purchaser cuts up and splits his own firewood after delivery of the logs.

The minimum load is 15 tons, and loads range upward from that figure. C-H has a platform scale so load weights can be accurately determined.

The price depends on distance hauled, but varies from \$16 to \$18

per ton, averaging \$16.50 per ton. They'll haul within a radius of 50 miles of the TSI site.

"There are about 2.5 tons in a standard cord... 4 x 4 x 8 feet... which would make three face cords of wood with sticks 16 inches long," Sand says. "That figures out to \$41.25 for three 16-inch cords.

"It takes about five full cords... 15 face cords of 16-inch sticks... to heat the average house for a year, assuming a really efficient stove. Six full cords is an average Cotton-Hanlon cord. One full cord of air-dried wood (beech, birch or maple) is equivalent in heating value to 200 gallons of fuel oil.

"One pound of dry wood has the same BTU heating value as any other pound of dry wood. That's the beauty of selling firewood by weight... the customer gets his money's worth whether the species vary, or even if there are some hollow logs...he doesn't pay for any air!

Sand reports that 60% of the firewood he sells is beech. "Within five years," he says, "I'll bet there won't be a beech sawlog in the entire state of New York...except for isolated pockets here and there. The beech-bark disease is wiping beech out very rapidly... a scale insect often injures the bark, and a deadly fungus invades those wounds. The tree deteriorates rapidly after getting the disease ... anyone owning some beech woodland should sell it as quickly as possible."

Cotton-Hanlon started small in the firewood business back in 1975, selling a couple of thousand dollars worth of it that year. The next year, the figure jumped ten times...doubled again the next year, and the target for 1978 is for even greater growth. There is a burning interest in wood, no doubt.



## CLINTON COUNTY TREE FARMER HONORED

Michael J. Sullivan, RD#2, Peru, New York, was honored Thursday, May 25, in Albany as Tree Farmer of the Year by the New York Tree Farm Committee of the Empire State Forest Products Association.

As one of over 30,000 certified tree farmers in the United States, Sullivan has practiced multiple-use forestry on his 1,095 acre woodland in Peru since a written forest management plan was prepared in 1957. Conservation, recreation and timber are the multiple-use concepts incorporated by Sullivan and his Tree Farm during 22 years of woodland ownership.

Mike Sullivan's land has never been posted against trespassing; and except for periods of high fire danger his woods have always been open for public hunting, fishing, hiking and snowmobiling as recreational activities in a working forest.

Conservation practices implemented by Sullivan include Timber Stand Improvement (TSI) on 105 acres to benefit the woods by eliminating inferior quality trees which compete with crop trees; hand planting 50 acres with 50,000 pine trees; and commercially harvesting nearly two million board feet of timber, mostly white pine, used for consumer products.

In addition his property was improved by adding an intricate system of woods roads which are continually maintained for multiple purposes as fire breaks, access avenues for recreation, and logging roads for timber harvesting.

Disease control practices are an active part of Sullivan's management techniques for growing healthy trees. So whenever an area is commercially harvested or the inferior trees are removed during non-profit Timber Stand Improvement (TSI) practices, the gooseberry and current bushes which are known

as Ribes plants are destroyed. Ribes are an alternate host, necessary to complete the life cycle of the white pine blister rust disease. This fungus disease deforms and kills pine trees by girdling them with a canker.

For 22 years Mike Sullivan, a recently semi-retired sawmill operator and timber harvester, has been a Cooperator under the State Forest Practice Act Program, administered to promote professional forest management practices by the New York State Department of Environmental Conservation (DEC), Division of Land Resources and Forest Resources subdivision.



State Senator Ronald B. Stafford, in his May 10 letter of testimony concerning Michael J. Sullivan, stated that "He is one of the finest citizens in the North Country and his commitment to and continued interest in the forestry program is an inspiration to all." And Stafford elaborated by explaining that Sullivan "is dedicated to forestry management and is a conservationist in the true sense of the word." "He has woven the ideals of forestry management into his everyday life and occupation." Stafford said.

Regarding tree farming and the American Tree Farm System, Michael J. Sullivan emphasizes a unique conservation philosophy which is very important. He says, "I like to leave the woodland in a better condition than

(continued on page 12)

## TOWARDS A BETTER UNDERSTANDING

### OF FOREST SOILS

By Gregory Baker

with help from James Lassoie

The importance of forest soils is not widely recognized by woodlot owners. Soil and its various biological and physical properties need to be understood if woodlots are to be managed effectively. Forest soils are not simply dirt.

The interactions of climate, geology, organisms, relief and time provide for a complex of activity. More productive tree growth, a common objective of woodlot owners, and a knowledge of forest soils should be sought simultaneously.

This paper will initially present background information regarding soils. Secondly, the paper examines the need to gather soil information for proper site evaluation and determination of the soil's potentiality for growth. Thirdly aspects of the tree and soil relationship will be discussed. Tree harvesting and its effects are then explained. Lastly, recent information and knowledge about fertilization will be mentioned.

In order to use soil information effectively, one must know something about the distribution of soils in New York State (or wherever you happen to live). Basically, soil is composed of air, water, inorganic and organic matter.

Origin and age of a soil help determine the combinations of elements contained in the soil. New York, for instance, contains young soils of glacial origin. The highland region of the Adirondacks contains very sandy soils which are low in fertility.

The organic matter represents the accumulation of partially decayed and partially resynthesized plant and animal residue. It is the source of nitrogen, phosphorous, and potassium. Organic matter is the main source of energy of microorganisms which help facilitate the transport and breakdown of nutrients.

The concern is not with the amount of nutrients but with the ease with which transfer is made to simpler forms. It is these simpler forms that are more available to plants. The transfer of nutrients to plants can also be slowed when the soil is excessively cold or wet.

About 45% of the soil is inorganic matter. Sandy soils are usually lower in pH. Pines, oaks and red maple are usually better adapted to such soils. (This does not mean these species would not grow better on heavier soils. The competition on better soils would simply be greater.)

#### SITE EVALUATION

Proper site evaluation will help the landowner understand the respective area's capacity to grow trees. Such an evaluation helps one predict future growth of an area, as well as providing information helping to explain the stand's present makeup.

Let me begin by emphasizing that many different characteristics go into identifying a soil type. Among these factors are the soil texture, pH, soil drainage,

and moisture holding capacity. Variations within each soil type and the overlapping of different soils make the identification of explicit soil boundaries impossible.

Soil type is named by the series name (the area in which it is found) plus the particular soil texture class. Soil texture is determined by the proportion of sand, silt, and clay present. Texture is important because of its effects on water holding capacity, nutrient supply and aeration of the soil profile. Medium textured soils have fewer biological limitations than coarser or finer soils.

High soil acidity is one of the most important problems of crop production in New York State. Soil pH may influence nutrient absorption and plant growth in two ways: 1) The direct effect of hydrogen ions, 2) through its influence on nutrient availability and the presence of toxic ions.<sup>1</sup> For example, acid soils make phosphorous unavailable; in addition, these soils contain high levels of soluble iron and aluminum which are toxic to many trees.

Soil drainage is measured in a range from well drained to very poorly drained. Soils on hilltops are usually well drained and soils found on shallow depressions are usually poorly drained. The color of the plow layer and the presence of mottling are used as measurers of drainage. Drainage can effect tree rooting and aeration of the soil. Insufficient rooting and a lack of air will surely effect tree growth. In addition, greater equipment restrictions while logging will occur on poorly drained soils.

A soils ability to hold water until it is needed is called its moisture holding capacity. The soil acts as a reserve mechanism. During drier periods, the stored water must supplement

the limited rainfall to insure continuous plant activity. Moisture holding capacity is largely a function of texture and depth of rooting.

I. Kits to determine pH can be obtained by writing directly to: The Department of Agronomy, Bradford Hall  
Cornell University, Ithaca, NY 14850  
(a small fee may be required)

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#### WANT NEW YORK STATE FORESTRY INFORMATION?

To receive briefs of research reports done by the Applied Forestry Research Institute (AFRI) you must be on their mailing list. There is no charge for this service. You only need to drop a post card to AFRI with your name and address asking to be on their mailing list.

#### AFRI REPORTS you may be interested in:

Tree-Length Volume Tables for Hardwood in New York State;

Logging damage to Partially cut Hardwood Stands in New York State;

A Time Study of Felling Cull Trees in the Southeastern Adirondacks;

Forest Resources and Wood-Using Industries of the Catskill Region;

Hardwood Lumber Recovery and Sawmill Efficiency in New York.

To get on the mailing list, to obtain a list of AFRI publications, or to get the above mentioned reports, write:  
AFRI, SUNY College of Environmental Science and Forestry, Syracuse, New York, 13210.

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## TREES AND THE SOIL

All the site factors above help explain the response of different tree species to different soil types. The common understanding is that soil places limitations on tree growth. For instance certain species prefer certain soils, the regenerative ability differs on each soil, and some soils encourage more competition from weeds and weed trees.

A less understood process is how certain trees influence the soil. Black locust (Robinia pseudoacacia) and pin cherry (Prunus pennsylvanica) are two species having unique characteristics resulting in soil improvement. These successional species affect the soil beyond the normal activity of returning nutrients to the soil through death and decay. For example, black locust is a nitrogen fixer, a root characteristic, which will improve soil fertility. The high nitrogen content of the litter oftentimes enhances tree growth. A net gain of 45 kg./ha./yr. of fixed nitrogen was reported in a stand containing black locust. With time, the improved soil conditions will make growth of more valuable hardwoods favorable to these sites.

The process through which trees actually improve the soil should be of concern to woodlot owners. Much of the abandoned agricultural land now wooded was originally left due to the poor soil conditions. Many of these soils are compacted and deteriorated. Recovery of soil productivity includes cessation of erosion, development of litter cover (organic matter), improved soil porosity and increased infiltration.

The tree soil relationship must include a discussion of the roots function. Tree growth is largely determined by the ease with which the transport of water and nutrients via the roots take place. A knowledge of the root soil relationship will help to better understand tree growth

This soil root relationship is not passive. Roots give off large amounts of carbon dioxide and other acid forming substances which help speed up the uptake of nutrients from the soil into the tree. In addition, organic excretions from the plant roots provide food and energy for microorganisms which effect soil fertility.

## NUTRIENT CYCLING AND CUTTING PRACTICES

The soil does not have a finite amount of nutrients. The availability is changing and always being replenished. It has been found that monthly variations in the release patterns of nutrients occur in soils. The greatest release of nitrogen has been found during the fall and early winter. Rather than steady state, unsteady state is the rule.

As well as microorganisms mentioned above, tree removal alters nutrient cycling within the forest. Let us first first consider the nutrient content of a stand. Actually, the nutrient content of the tree material is a relatively small portion of the total nutrient supply within the soil. Nutrient deficiency as a result of harvesting on a 50-100 year rotation is unlikely. Basically, stand age, species composition and stage of succession influence the stands nutrient content.

Shorter rotations and a move towards whole tree cutting in the northeast make the danger of nutrient losses more likely. Shorter rotations bring about increased disturbance of the soil as well as greater nutrient losses due to leaching.

Whole tree cutting means the utilization of branchwood, thinnings and cull which are normally left in the woods. The U.S. Forest Service indicates that one-third of the tree's nutrients are in the harvested stemwood and two-thirds is contained in branches, leaves, and roots.

branches, roots and leaves. Clearly then, whole tree removal may pose a problem of harmful nutrient losses.

Of all forest practices, clear-cutting affects the forest the most. When practiced properly, clearcutting may be an ecologically acceptable practice in the northeast. Several suggestions are that a clearcut should 1) be on a good site, 2) be small in area, 3) minimize harm to the forest floor (impact of equipment and location of roads can be more harmful than the cutting itself), 4) allow for sufficient rotation time.

### FERTILIZATION

Fertilizers provide a possible means by which to meet the problem of nutrient losses due to harvesting. Economic feasibility, environmental interactions and impacts have limited forest fertilization in the past. The initial investment for fertilizer must be compared to the marginal revenue resulting from its application. Poorer sites respond quite differently to fertilizers than better sites. One also needs to know the different species nutrient demands in order to predict fertilization impact.

The long term effects of fertilization are not yet clear. What are the adverse effects such as increased leaching losses and animal uptake? Fertilization can also alter the soil pH. Will this change be temporary or permanent?

Our understanding of fertilization and its feasibility are far from complete. Fertilization is not widely practiced in the northeast. As we move towards the possibility of whole tree cutting in the future, fertilization may find greater attention.

### CONCLUSION

A knowledge of tree growth must be combined with an understanding of

forest soils. Soil origin and soil type help, to a large extent in determining species present and various other stand characteristics. The nutrient cycling within the stand is ever changing. These changes occur naturally and through the efforts of man from cutting. Our job should be to monitor these changes in order to keep a check on detrimental impacts that might result, whether they be short or long-term.

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### Clinton County Tree Farmer Honored...

(Continued from page 8)

when I received it." And he stresses the fact that poor forestry practices in the past, namely high grading or cutting the best and leaving the worst, result in a woods of poor quality trees and a big job to rectify.

Mr. Sullivan is also a member of the New York Forest Owner Association

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### WOOD CHIPS MAKE ELECTRICITY CHEAP

The cost of producing electricity with a mixture of 75 percent wood chips and 25 percent oil in Vermont was a remarkably low rate of 2.1 cents per kilowatt hour. In contrast, the cost of electricity with coal and fuel oil was 3 cents per kilowatt hour according to Robert Young, General Manager of Burlington Electric Department in Vermont.

The cost of conversion of the 10-megawatt boiler to wood chip burning capability was \$25,000. Wood chips are purchased for \$12 per ton from an experimental harvesting project. The electric generation plant burns nearly 1000 tons of wood chips per week during the winter, according to Robert Young.

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The NEW YORK FOREST OWNERS ASSOCIATION, INC.

Invites YOU

To join with us in a program of rebuilding the forest wealth of the Empire State.

YOUR MEMBERSHIP

Can bring you returns in the satisfaction of growing quality timber, stabilizing forest industries and markets, providing permanent jobs, increasing the value of your woods, enlarging areas of natural beauty across the State, and leaving behind a monument in living trees to bless the tomorrows for the boys and girls today.

THE NEW YORK FOREST OWNERS ASSOCIATION  
is dedicated to serving forest owners

TO MEET ITS OBJECTIVES  
THE ASSOCIATION:

OUR OBJECTIVES ARE:

1. To represent the 255,000 forest owners in New York State in forestry programs, planning and policy.
2. To unite the forest owners of New York in a common cause of improving their forest resources and forest opportunities.
3. To join with and support private, state and federal programs that strengthen forestry, such as the New York Forest Practice Act and Tree Farm Program.
4. To help make ownership of forestland more attractive as an investment.
5. To work toward an economic climate favorable to permanent forest industry.
6. To maintain a balance between timber growth and cut to assure raw materials for industry and steady employment in forest communities and rural areas.
7. To encourage education and research in forest management, marketing and use of forest products and services.
8. To manage forest land to enhance its natural beauty for the benefit of the owner, motorist, tourist and recreation.

Publishes six issues of the Forest Owner each year, providing free and friendly exchange of experience, outlook and opinion among our members.

Holds Annual and Fall meetings, tours and field trips to inform and inspire.

Mails members helpful and instructive materials furnished by the NYFOA, state and federal agencies, and individuals.

Promotes standards for timber harvesters that protect forest owners in the sale of timber and during logging operations.

Fosters the training of skilled timber harvesters and forest workers.

Works for the classification of forest lands into: timber growing, recreation, watershed, wildlife, summer home sites.

Works for a forest land tax adaptable to conditions of timber harvesting.

Recognizes and acclaims meritorious effort in the field of forestry, conservation and outdoor recreation.

Conducts "Woods Walks" to stimulate enthusiasm for: growing timber, enjoyment of outdoor living and getting acquainted with NYFOA members.

LOGGER, FOREST OWNER, MILL  
SCALER

Log Scaling and Log Grading  
Workshop

Your participation in a forthcoming Log Scaling, and Log Grading Workshop is earnestly solicited:

WHEN: Saturday, August 26  
9 a.m. - 3:30 p.m.

WHERE: BEFT Timber Products  
Route 104, Sodus, N.Y.

W H Y P A R T I C I P A T E

To gain additional understanding of --

The role of harvesting in the management of the hardwood forest.

the fundamentals and techniques of log scaling and grading and actual practice in

Log scales being used and variations in log volume as dependent upon scaled used.

the effects of log grades on quality of lumber output.

live sawing demonstration

C O S T: \$10 (fee includes box lunch) per participant

Cooperators: Applied Forestry Research Institute & the School of Continuing Education

State University of New York College of Environmental

Science and Forestry, Syracuse New York

New York Timber Producers Assoc.

New York Forest Owners Assoc.

Make \$10 registration check payable to the Research Foundation of SUNY. (If you have a log scale stick, please bring it.

\* \* \*

THE FRONT COVER

This is a picture taken in the Black Forest near Innsbruck.

The Black Forest extends from Switzerland down through Germany and Austria and is a vital part of the life in those countries.

The trees are so dense that they seem black from a distance.

This forest has been under management for several hundred years. (to be a forester is to be highly trained and have considerable status), and the trees are so tall and straight.

Beautiful!

\* \* \*

A DIAMOND is a chunk of coal that has been under severe pressure.

\* \* \*

Next time there will be an Editorial. In the mean time if you have anything interesting for the Forest Owner send it to

Evelyn Stock, Ike Dixon Rd.  
Camillus, New York 13031



Evelyn A. Stock  
Editor  
5756 Ike Dixon Rd.  
Camillus, N.Y. 13031

Non profit org.  
bulk rate  
U.S. POSTAGE  
PAID  
Nedrow, N.Y.  
13120  
Permit No. 37

# Bring a Friend!

There are 255,000 other forest owners in New York.  
Why not invite them to join NYFOA today?

## APPLICATION FOR MEMBERSHIP IN THE NEW YORK FOREST OWNERS ASSOCIATION, INC.

(Please send to:)

Mrs. Helen Varian, Membership Secretary  
204 Varian Rd., Peekskill, N.Y. 10566

I would like to help advance forestry in New York State.  
I enclose my check payable to the New York Forest Owners Association, Inc.

( ) I own \_\_\_\_\_ acres forest land in \_\_\_\_\_  
County, N.Y.

( ) I do not own forest land but I support Association's objectives.

Name \_\_\_\_\_

Address \_\_\_\_\_

Zip Code \_\_\_\_\_

## ANNUAL DUES

(Please underline choice)

Junior Member (Under 21) .....\$1  
Regular Member .....\$7  
Family Membership.....\$12  
(husband, wife)  
Contributing Member ..... \$12 – \$29  
Sustaining Member ..... \$30 – \$99  
Supporting Member..... \$100 – \$499  
Sponsoring Member.....\$500 and up