

New York

Forest Owner

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January-February 1984

Vol. 22, No. 1

THE NEW YORK FOREST OWNERS ASSOCIATION

Editor
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FRONT COVER

Four year old Hybrid Poplar Plantation at Frey & Sons Nursery, Ephrata, PA 17522.

Welcome Our New Members

Mr. & Mrs. Kenneth L. Baker
6711 Southpoint Dr.
Dallas, TX 75248

Robert Bly
Morgan Hollow Rd.
Hinsdale, NY 14743

George Broseman
129 Excell Rd.
RD #1
Earlville, NY 13332

Rick Coughlan
Forest Consultant
Buttermilk Falls
RFD #1
Argylle, NY 12809

Wayne Cox
6370 Bunting Rd.
Orchard Park, NY 14127

Jay M. Eckel
230 Weiss St.
Buffalo, NY 14206

New Members

Richard J. Fox
RD #3
Moravia, NY 13118

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546 Goundry St.
N. Tonawanda, NY 14120

Irene Jessen/Steven Levi
RD #3 Dandelion Hill
Newfield, NY 14867

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118 W. Main St.
Hancock, NY 13783

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Published by the
NEW YORK FOREST OWNERS
NYFOA Directors
As of November 1, 1983
(By date their terms expire)

1984

- *Robert L. Demeree
- *David H. Hanaburg
- *James P. Lassoie
- Harold Petrie
- Norman Richards
- *Robert M. Sand
- Lloyd G. Strombeck

*Will complete 6 years as Director.

1985

Ken Eberley
Richard E. Garrett
J. Claude LeCours
Mary S. McCarty
Douglas B. Monteith
Earl Pfarnar
Paul Steinfeld

1986

Nancy F. Finegan
John W. Kelley
Alan R. Knight
Bill Lynch
George F. Mitchell
Al Roberts
Linda Thorington

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Dolores Siwula
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Buffalo, NY 14216

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Brooklyn, NY 11202

Ms. Jane Alden Stevens
2623 Eden Ave.
Cincinnati, OH 45219

Mr. & Mrs. Robert C. Stevens
1 Green Ridge Rd.
Pittsford, NY 14534



The President's Message

As our Long-Range Planning Committee grapples with the serious, philosophical problems of NYFOA's existence, deliberating about our true mission and whether our goals are realistic — some basic issues are confronted. For example, do we really expect to improve quality and best use of New York's forest land in private ownership — including that major segment owned in parcels of fewer than 50 acres? Is it realistic to expect that NYFOA could reach a significant number of some 500,000 private landowners and influence their attitudes and practices?

When we consider informed estimates that demand for hardwoods will increase by 200% by 2030; that wood fuel will become 8% of the world's energy supply; that the United States has the potential of becoming the "OPEC" of wood in the world market — we perceive the real need to achieve the goals indicated above. But how practical is it for NYFOA to chart such goals?

I must admit to being a sucker for idealistic goals, especially when they serve the nation's interests, and con-

tribute to the quality of people's lives. Allowing for my bias, I still think that NYFOA, which now has some 700 members, could become much larger and could help develop a new feeling among large numbers of New York's small forest owners. It would have to be a feeling that land is a precious or even holy heritage; that it is wrong, or sinful, or wasteful, or unpatriotic for people blessed with land to fail to perceive that they are stewards. Large numbers of landowners could be persuaded that their lives would be enriched if they better understood their small segment of this earth, its capacity to be productive and beautiful, and its capacity to enrich their lives and the lives of their children and children's children.

NYFOA could not accomplish such a transformation in people's hearts alone. We need to develop alliances with others. These allies need not be only among forestry professionals and government and voluntary agencies related to forestry, but should include potential support from the media, schools, and churches. "It is not your duty to complete the work, but neither are you free to desist from it." Paul Steinfeld

To the New York Forest Owners Association Members

Like a tree in the right soil, the New York Forest Owners Association is ready to burst with new growth. One more vital natural substance is needed — and that's you. Your ongoing membership indicates that you believe in what NYFOA is doing and now the NYFOA needs your assistance in passing the word along to your neighbors who are not yet members.

Are your neighbors who own woodlots in our November-December 1982 Directory? Are your friends? If not, please send their name and address to our membership secretary and be a good neighbor. Thanks for your help.

George Mitchell
Membership Secretary
P.O. Box 69
Old Forge, NY 13420

Individual Memberships \$10.00
Family Memberships 15.00
1 Year Gift Memberships 7.50

JANUARY

*"Then came old January, wrapped well
In many weeds to keep the cold away
Yet did he quake and quiver like to quell
And blew his nayles to warm them
if he may;
For they were numbed with holding
all the day,
An hatchet keene, with which he
felled wood
And from the trees did lop the
needlese spray"*

—Faerie Queene, Spencer

Tit for Tat

A native of Ireland applied for a job in a powder plant. "What can you do?" asked the foreman.

"Anything, sar, just anything," replied the hopeful man.

"Well," drawled the foreman, thinking to have some fun with the newcomer, "you seem to be all right, could you wheel out a barrel of smoke?"

"Shure!" exclaimed the man. "Just fill it up for me!"

The Saratoga Nursery

By Norman L. VanValkenburgh
Director of Lands & Forests

Before the turn of the century, in 1896, the need for reforesting cut-over lands, abandoned farm lands and other idle lands was recognized by officials within the predecessor of the present Department of Environmental Conservation which was known then as the Forest, Fish and Game Commission. Within two years, the State College of Forestry was established at Cornell University and two small forest tree nurseries were begun in Axton and Wawbeck. These nurseries did not last due to lack of appropriations and were deeded to the state in 1903. However, the state had also begun a nursery at Brown's Station in the Catskills. The seedlings and transplants from these nurseries were planted on the Forest Preserve lands.

From this modest beginning, the nursery program expanded with additional nurseries opening in Saranac Inn (1904), Salamanca (1908), Saratoga Springs (1911), Great Meadows Prison in Comstock (1912), Central Islip State Hospital on Long Island (1915), Lowville (1922), Horseheads (1928), Painted Post (1929), Tully (1932), and Oak Orchard (1958). The Saranac Inn nursery was combined with a nursery site in Lake Clear in 1922.

One by one, these nurseries were closed for various reasons including poor sites, fiscal problems and lack of orders for stock. By 1971, all nursery operations had been consolidated at the Saratoga Springs Nursery.

As mentioned, the Saratoga Nursery was established in 1911, on four acres provided by the Saratoga Springs Park Commission. The four acres proved to be too swampy for efficient nursery operations, so the nursery was relocated in 1919 and additional acreage was acquired. The nursery today comprises 250 acres separated by the Saratoga Spa Reservation into two parcels.

Saratoga has produced nearly 2.5 billion seedlings in its seventy-two years of operation. While species such as Red Cedar and Eastern Hemlock were produced at one time, the nursery now produces White, Red, Scotch, Austrian, and Japanese Black Pine; Norway and White Spruce; Larch, either Japanese

or European; Balsam and Douglas Fir; and Black Locust. Since 1971 and the closing of the nursery in Painted Post, Saratoga has also produced the wildlife shrub seedlings for use in habitat or food source improvement. Cranberrybush, Tatarian Honeysuckle, "Cardinal" Autumn Olive, Silky Dogwood, "Streamco" Purple Osier Willow, Bittersweet Rugosa Rose, "Arnot" Bristly Locust, and White Cedar are produced for use to improve environmental conditions for wildlife. These species are combined with each other and also with tree seedlings to form packets for mixed plantings and windbreak and soil erosion control. Annual production for tree seedlings is targeted at 10 million, and for wildlife shrub seedlings, 300,000.

Prior to 1972, the nursery relied on an extensive field crew of nearly 300 young adults, retirees, and housewives to harvest the seedling crop. An additional inside crew of 30 was used to package and ship the seedlings. In that year, several innovations took place that not only changed the harvesting and packaging system, but also changed the way seeds were removed from cones and were sown into seedbeds.

The innovation was the purchase and refinement of a seedling harvester. Developed by the Grayco firm of Canada, the prototype was brought to New York for further evaluation. Upon completion of testing and modification, the nursery purchased this model, the first of its kind in the Northeast. This eliminated the arduous work and the numerous employees from the field. The machine is operated by six persons and can operate in most any weather, which was not the case with the large field crew.

That same year, the nursery's packaging system changed from the use of rolled packaging to bagging the seedlings. The counting system was modernized using conveyor belts to move the seedlings past the counters and then to the baggers. The new packaging does provide a better system and more protection to the seedlings, providing the bags are treated with care.

The third event was the opening of the new seed extractory. The \$500,000 facility is modeled after the U.S. Forest Service one in Idaho. Capable of extracting, cleaning, drying and bottling seed for storage, the building can process 200 bushels a day. The modern cold storage room in the extractory

holds three quarters of a million dollars worth of seed. Once extracted and properly cleaned and prepared, the seed of some species may stay in storage four decades and still be usable.

The nursery buys seed from commercial dealers, but a large percentage comes from state-owned forest and from seed orchards established by the Tree Improvement Program. The collected seed is then used on demand to produce the seedlings available to public and private interests.

Christmas tree growers, timber producers, pulp and paper industries, town and county governments, and members of the public are all recipients of seedling stock grown at the nursery. Reasonably priced, the seedlings are sold through the use of a telephone system. Instituted in 1981, the ordering system has proven to greatly increase the efficiency of the operation. A call can be placed, order given and confirmed, and the customer assured of receiving his stock all within the time of three minutes. This is clearly much quicker than the old mail order process.

The nursery is now exploring other opportunities to help the public in tree planting. Using containers or mini-pots, the seedlings can be grown to plantable size inside the greenhouse in less than a year. Planting time is extended and the seedlings are of high quality providing the grower with savings in time to crop maturity.

While the operation of the nursery costs nearly \$100,000, it annually returns that cost to the state's general fund. In addition, the product it produces yields income to the grower and to the state through taxation. Products grown from Saratoga nursery stock are in today's lumber market, today's paper goods, and today's forests for people and wildlife to enjoy and use. With the demand for wood products always increasing, and with the need for the public to have a place to relax and enjoy, Saratoga nursery will be there to supply tomorrow's early requirements as well.

*"I long for wildness . . .
Woods where the woodthrush forever sings,
Where the hours are early morning ones,
And there is dew on the grass,
And the day is forever unproven . . .
A [woodland] everlasting and unfallen."*

—Thoreau

Property #2 — Sandlot

By Al Roberts



Your Editor has finally asked me to write another article about woodlots we have bought. I wrote about our first acquisition in the March-April 1983 issue of "Forest Owner." In that article was a clue to why we bought the second lot. It was because the horrendous snows on Tug Hill broke down our Scotch Pine Christmas trees.

On the sandy outwash plains East of Lowville and the Black River in Lewis County there is still lots of snow, but nothing like Tug Hill. I remember one Spring day the Conservation Department crew was doing timber stand improvement back of Highmarket on Tug Hill, working on snowshoes. The next day they moved to a state area East of the Black River, twenty miles away, and planted trees. So I scouted around in this area looking for a suitable lot to buy. I found a sixty acre parcel, looked up the owner, and he agreed to sell. The price was what the state was paying for land at that time, which was four dollars per acre. Once again I had no money so I borrowed \$240 on my G.I. life insurance at three percent interest. It turned out to be a good investment, but not in just the way I had figured it.

The property was 35 acres open and 25 acres heavily cut over woods. The open land had a few scraggly, naturally seeded Scotch Pine trees which we got a big thrill out of cutting for our family Christmas tree. The really valuable part of the property, though unrecognized at the time, was 700 feet of frontage on a beautiful section of the Independence River, a fairly sizeable river flowing out of the foothills of the Adirondack Mountains.

The man we bought the land from said his father grew potatoes on it, and he could remember horses and wagons hauling the potatoes down to the boats on the Black River Canal, where they were taken down to Rome. However, after not too many years all the humus was farmed out of the sandy soil, leaving almost pure sand. In fact, in small spots on our property there was open "blow sand." On an adjoining property there was a large acreage of drifting blow sand. When we camped on our property our five kids loved to play in the sand. They called it the Sahara Desert. There were also scattered big grey "glacial erratic" boulders which the kids climbed on and called elephants.

Another attraction was Spike, an Indian who with his wife Dody lived in a completely charming little house they built out of native materials on a bluff overlooking the river. They made a living making deerskin moccasins and black ash pack baskets. We all found Spike very interesting to talk with, and he used to let our kids "help" him by pounding out black ash splits he used to make his baskets with. I met him the first time I looked over our lot. I was on snowshoes, flying down a steep hundred foot bank in a cloud of snow to a



swampy spot where he was cutting black ash trees which the previous owner had let him have. We continued the arrangement as I had no use for the ash.

The year was 1956, and as soon as the snow was gone we started planting Scotch Pine, and over the next several years we planted 19,000 of them and also 3,000 white pine and 1,000 red pine. I particularly remember 1,000 Scotch pine that Moira and I planted in three hours — I on the mattock and Moira handing me the trees.

The taxes on the property the first year were \$8.39.

Three years after we bought the property I was transferred to Cortland, and that was the year shearing was started. So for several years, we spent the week which included July 4th camping on the lot and shearing Scotch pine. As soon



as each of our kids reached five years of age he or she became a shearer. Since we had a beautiful camping spot we usually had friends or relatives with us who also became shearers. Maybe that's why we had so few really good trees. But despite the mosquitoes and deer flies and heat, we all had a good time, and in retrospect we enjoy it even more.

Our first harvest consisted of 140 trees which we hauled to Cortland on a rented truck. We sold them in our front yard for a net profit of \$300 **not** counting production costs. Those costs we wrote off as fun. We sold 200 to 300 trees a year for several years until the trees suddenly turned from Christmas trees into pulpwood.

The kids grew up too, and we didn't camp on the lot anymore, so in 1974 I jokingly said to a friend of ours who was in Lowville real estate, "Hey Dick, do you think you could get us \$25,000 for our Independence River lot?" Apparently someone liked our river frontage as about a month later it was sold, for \$25,000. Who says woodlots don't pay?

*Meeting
Board of Directors
March 10, 1984
10:30 A.M.
D.E.C. Office
in
Binghamton*

Selling Some Oak Sawtimber: An Economic Evaluation

N.A. Richards

In 1964 I added a 49-acre tract of woodland to my tree farm in Delaware County at a reasonable price. It was old pastureland, abandoned about 1880, regrown to mixed hardwoods and white pine, and logged over for its few saleable trees about 1950. I bought it primarily to fill in an important corner of my property, and because it included a brook and spring I liked; but also expecting that it would eventually produce some merchantable timber.

Over the first decade of my ownership, local land prices increased many-fold; so the land itself was a good investment. My casual management of the tract consisted of a day spent poisoning large cull trees to release better quality growth, occasional inspection walks — enjoying the woods disguised as “work,” and, of course, paying taxes. With taxes under \$2 per acre, I could write off this expense to my enjoyment of the tract; and actually paid the bill by growing Christmas trees elsewhere on my farm. But in 1975, re-evaluation of all real estate in the town to “full value” changed the previously low valuation of land relative to buildings. This, along with inflation, has hiked my annual tax bill to about \$8 per acre. So, I began to look more carefully at the timber on the tract for its potential to pay the increased bill.

A few years ago, the firewood boom made it practical for me to begin firewood stumpage sales through marked improvement cuts and thinnings in the tract (see *Forest Owner*, September '83). In the course of firewood marking last summer, I began to see dollar signs on some good-quality red oaks scattered through part of the tract, in light of the recent boom in oak timber prices — although sawtimber prices in Delaware County generally are not as good as farther west in the state. So I marked 25 oaks for a small sale of sawtimber using two criteria: I marked only good trees over 20 inches diameter, breast high (DBH), with the assumption that good smaller trees would continue growth to more valuable logs, and also because the Doyle log rule used locally greatly underestimates the volume of smaller trees. I left all large, low-quality oaks on the premise that cutting them would not



return enough to offset their felling damage to smaller trees, and that they were more valuable remaining for the turkeys and gray squirrels we enjoy watching. I also marked 10 merchantable oaks, regardless of size or quality, along the public road-edge of the tract to permit road improvement.

The 35 marked oaks were sold standing to a local sawmill owner, attracted to the sale by the generally good quality and access of the trees. He figured stumpage prices at his log prices delivered to his mill, minus \$100 per 1000 board feet (MBF) for cutting and hauling. This yielded stumpage prices of \$400 per MBF for prime logs, \$200 for #1 logs, and \$20 for #2 logs. The 14.4 MBF cut from the 35 trees yielded 24% prime logs, 54% #1, and 22% #2 logs;

averaging slightly over \$200 per MBF stumpage. This small sale paid back with 10% interest all the “excessive” tax — that over \$2 per acre — I have paid on the 49 acres since full-value assessment began in 1975. The prime logs made the sale profitable; whereas the #2 logs would have returned me as much sold as firewood.

Previous to this oak sale, I had become discouraged about the economic prospects of growing timber on my tree farm after the large rise in taxes; feeling that timber growing could not possibly pay its tax bill here anymore. My land assessment (\$155 per acre) is as fair as possible within my town, and on the whole, I feel I would not benefit by putting my forest land under the Forest Tax Law, 480-A. The problem is the more

basic one of land taxes for raising public funds; Delaware County, now 72% forested with little industry, is forced to tax forest land heavily to meet funding needs.

I am therefore encouraged to learn from my oak sale that timber growing can pay the high land taxes in my town if there are at least a few high-quality trees per acre, and if I cash in the high-quality trees at their optimum value when the market is favorable. Conversely, it is evident that growth of poor-quality trees cannot repay taxes, and even the growth of good trees cannot repay high taxes unless I also take advantage of good market opportunities.

Growth of individual trees, rather than growth per acre, has been most important in this tract of generally low-value timber. So, more detailed economic analysis of individual trees is warranted here. I did this on my prize tree: 27 inches DBH with 36 feet of prime logs; yielding a stumpage value of \$227. The 95-year-old tree had grown 8 inches in diameter in the 19 years I had owned it; increasing its board foot volume by 2.6 times. This good volume gain sounds impressive until one calculates its annual compound interest rate as only 5%. However, the stumpage value of red oak was low 19 years ago, so the tree was worth no more than about \$6 then. Its value gain has therefore been about 38-fold, for an annual compound interest rate of 21%. Oh for a forest of such trees!

Examining the prize tree is fun, but it is more useful to consider an average tree cut here, having the same diameter

but 32 feet of #1 logs. This made the same 5% annual volume growth over the 19 years; its value gain of 12% was lower but still very good. The value gain on only about 75 such trees in the 49 acre tract would have repaid with 10% interest all the taxes on the tract during my ownership.

Individual tree analysis also permits examining questions about the market criteria I used in this sale.

1. Should I have cut these trees now? To predict the returns I could have gotten by holding these marked trees another 5 years, we will make two assumptions: That the trees would continue their present diameter growth rate, aided by the firewood thinning done around them, and that red oak log prices will hold the same. The average 27 inch tree with #1 logs would grow 2 inches in the next 5 years, for an annual volume gain of only 4%, and a similar value gain because it is unlikely to further improve log grade during this period. Given the various natural hazards of keeping valuable trees in the woods, and the uncertainty of markets, I was probably wise to cash these trees into a bank savings account now.

2. Should I have cut smaller oaks also? I have left at least 50 good-quality oaks 16 to 20 inches DBH, and probably about 80 years old. The average 18 inch, 2 log tree here should grow to about 24 inches in the next 15 years, aided by my firewood thinning; gaining volume at 5% annually, and up to 10% annual gain in value depending on the amount of change in log grade resulting from this growth. It would have been

wise for me to cut these smaller trees also if I needed the money, but I chose a conservative diameter limit because I enjoy seeing good trees growing, and am optimistic about their future.

3. Cutting only the most valuable trees in a woodlot, as I did, is termed "high-grading," and is a major cause of woodland degradation in New York. **Was my high-grading good silvicultural practice?** Silvicultural practices should try to serve both the relatively short-term interests of the forest owner and the longer-term interests of forest resources for society. This oak cutting served my landowner interest well, but whether it is good forest conservation depends on the quality of the growing stand I have left. The cut demonstrated that this woods site can grow high quality red oak at a faster volume rate than that of maple and other hardwoods in the stand. Therefore, in addition to favoring good younger oaks in my improvement thinning for firewood, I have marked firewood patch clearcuts about 100 feet wide in the vicinity of the harvested oaks, in hopes of stimulating growth of oak seedlings surviving in these areas. Studies elsewhere show that it is not easy to re-establish red oak after cutting in mixed northern hardwood stands. So, I may have to spend some of my harvest income on cleanings during the next few years to help oak seedlings get ahead of competing vegetation; in order to achieve my goal of five good oak saplings for each tree that was harvested. If this is successful, my high-grading cut could lead to a more productive forest stand in the longer run.



How to blaze boundaries

By David E. Belford
and Melvin E. Jenkins

Blazes should be made at breast height with a shallow axe cut. They are generally elliptical (5-6 inches long and 3-4 inches wide). Painting the blazes with a bright, durable paint, such as a marine enamel or a polyurethane-based paint, will make the blazes stand out, although the scar from the blaze will last longer than the paint (up to 100 years if properly done). Blazes should be spaced close enough so that a blazed tree can be seen in either direction from any other blazed tree. Keep in mind that if trees are blazed in the fall or winter, visibility may be reduced when the foliage returns in the spring.

A knowledgeable surveyor or landowner uses several types of blazes to indicate the precise location of boundary lines. For example, blazes made at a right angle to the boundary line are called *fair spots* and indicate that the property line goes through the center of the tree (see illustration).

Two blazes forming a 45-degree angle mean that the line is just to the right or left of the blazes (depending on which direction they face). These are known as *quarter spots*.

A *face spot*, or blaze made parallel to the line, indicates that the line is approximately an axe handle's length from that blaze. Ideally, this is the maximum distance a blazed tree should be from the line.

In many instances, only two types of blazes are used: the fair spot to indicate a tree on line, and either the quarter spot or the face spot to indicate the line is just to the right or left of the blazed tree. A quarter spot is favored in this case, since the blaze can be seen more easily from either direction than the face spot.²

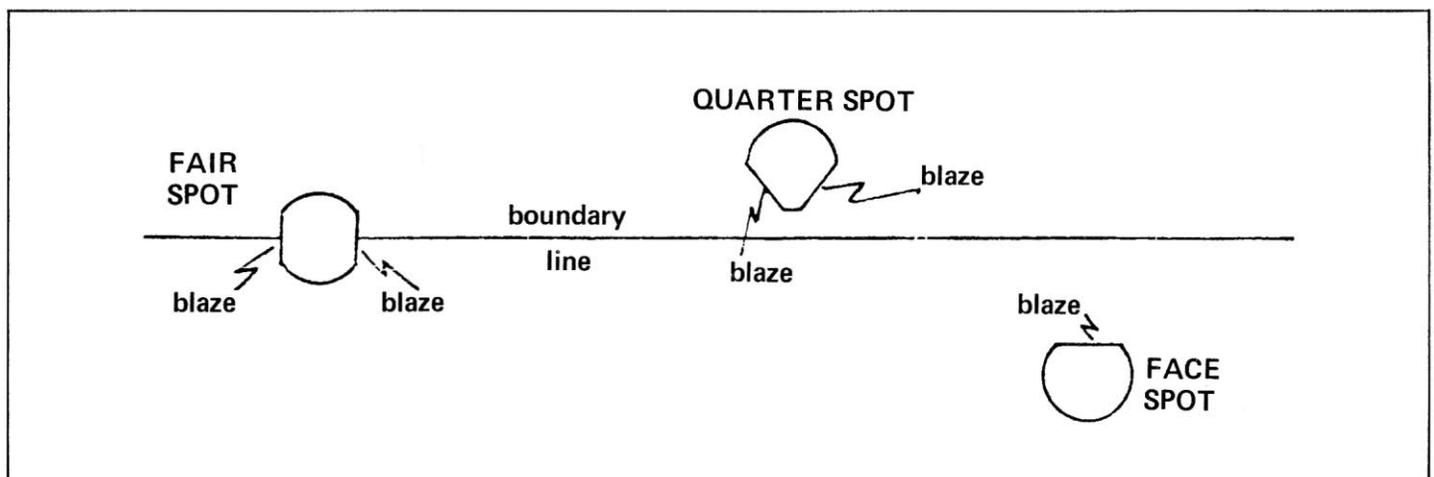
The approximate locations of corner monuments (iron pipes, stakes and stones, granite blocks, etc.) can be determined from witness trees. These are usually a group of three trees with blazes (face spots) all facing the corner monument. If the corner monument is ever obliterated, the witness trees will at least give the general location of the corner in question. If the line was surveyed, the witness trees may be described in the surveyor's field notes with their respective bearings and distances to the corner.

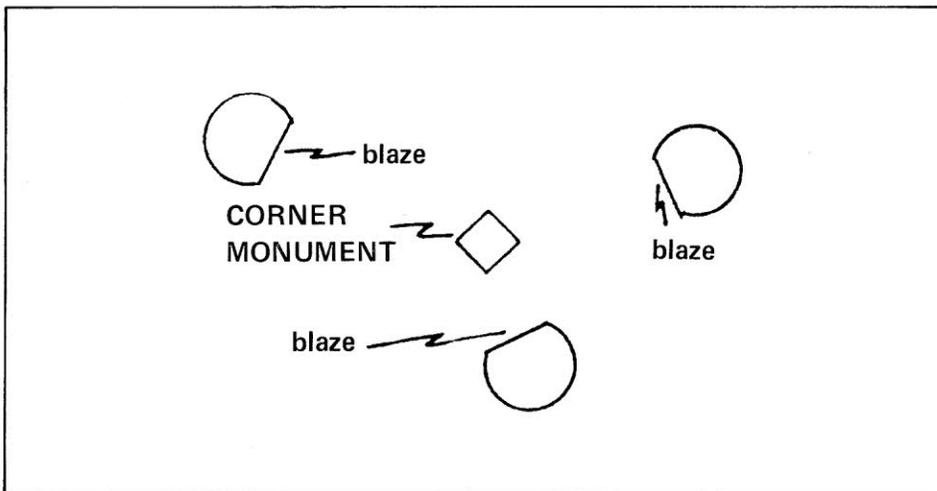
Witness trees can be differentiated from boundary line trees (with face spots on them) by putting three face spots in a vertical row on each witness tree. This is the method used to mark witness trees in New Hampshire on state forestlands.

If no trace of the corner monument can be found (lost corner), the landowner should not attempt to put in a new one. A licensed land surveyor should be contacted to reset the corner at its proper location.

Although it's preferable to blaze and paint trees, occasionally one encounters a valuable commercial tree such as a red oak. In this instance, it would be better just to paint the tree to avoid damaging it with a blaze. Paint will be visible up to three years, and traces of paint discernible for up to six years.

Once the boundary lines are known and clearly established, they should be inspected and maintained every 3 to 5 years. Existing blazes should not be recut and any painting of existing blazes should be limited to the outer edge of the old blaze. If new wood has grown over and obscured the old blaze, only





one edge of the old blaze should be recut at that time. In this way, prior evidence of the line will not be destroyed and the callus tissue formation will serve to protect part of the original blaze.

A landowner should exercise caution whenever blazing and painting boundary trees. No line should be marked unless its exact location is known. In addition, abutters should be notified prior to blazing and painting. This will help avoid future boundary problems and conflicts.

There are many good reasons why landowners should know where their boundaries are and have them well marked: to prevent timber trespass, for transfer of land and in general to avoid boundary problems.¹

It is especially important for forest landowners to know where their boundaries are. The first step in managing a forest should be to walk known boundaries. Timber sales administration and any inventory require that the exact location of boundaries be known. Walking the line will avoid cutting on an abutter's property, and knowing the exact location of boundaries is important because volume estimates are first made on a per acre basis, and later expanded by the total acreage of the tract (to determine total acreage accurately, the location of boundary lines must be known).

Property lines extending through woods where there are no physical monuments such as stone walls, fences and streams are commonly delineated on the ground by blazing and/or painting trees along or near the line.

Forest landowners can blaze and paint their own boundaries but should be cautious in doing so. It is relatively

easy, for example, to mark trees along deteriorating known property lines indicated by a barbed wire fence. Where nothing delineates a line on the ground, however, it is nearly impossible for the novice to run a straight line for any distance. In this situation, professional surveying advice should be sought to blaze and paint trees on the boundary line, or at least to flag trees or put in stakes on the line.

A layman's understanding of property surveying and its problems is available in a low-cost paperback manual: *Surveys, Deeds, and Title Searches* by Charles E. Lawson (Stephen Greene Press).

References

1. Don Wilson, "Boundary Problems and the Landowner," *Forest Notes* 142, Fall 1980, pp. 8-9.
2. Maine Dept. of Conservation, Bureau of Forestry, Forest Management Division, "Boundary Information Sheet," October 1979.

David Belford is a consulting forester in Madbury. Melvin E. Jenkins is a licensed land surveyor and Professor of Forest Technology at the University of New Hampshire.

—Forest Notes, Fall 1983



**NYFOA cosponsors the
Tree Farm Program**

**TREE FARM SAFETY:
Chain Saws**

Most chain saw safety rules are brief enough to fit in fortune cookies: **Don't fell trees on windy days; read your manual; start the saw only on the ground; keep clear of the cutting bar.** Even so, chain saws are involved in 30% of all woods accidents.

Some chain saw injuries happen in a fraction of a second. Others result from years of doing things the wrong way. All but a few are preventable by absorbing such common sense rules as those listed above and using protective devices that will cramp neither your style nor your wallet.

It's largely a question of having the big picture. Most saw users are aware of chain saw "kickback." Here the saw turns on the cutter after having encountered a knot, the ground or other obstacle. This is certainly a very obvious and dramatic safety problem, as well as being the focus of most articles like this one. But kickback accidents only account for 30% of saw related injuries.

Dangers just as great are present in run-away saws, improper sawing postures, stumbling while carrying a running saw, burns from fuel, even the tree itself. One way we can be aware of and deal with these hazards is to divide them into "danger zones," listing the particular pitfalls of each.

When NOT To Use A Chain Saw

Often we try to remedy a partially felled tree that is hung up on the top of another with a chain saw. A *canthook* can help to move the hung tree so that it will fall cleanly. Sometimes even shaking the tree will do the trick. Even these methods can be dangerous. Best solution is a "come-along" or small winch to help you make the tree go where and when you want it to.

When felling trees with a chain saw, you should always keep one or more plastic or aluminum *felling wedges* with you, and when teamed with the chain saw make the greatest tool combination.

Trying to prune a tree with a chain saw can damage the wood and you — kickback injuries involving the head are common results of this malpractice. Always use a *curved pruning saw* or *bow saw*.

There is a big temptation to use what's in your hands — put it down and think again. —*American Tree Farmer*

Observations on Forestry In Japan

by

Howard & Richard Ward

My wife and I spent three weeks visiting our son, Major Richard K. Ward, USMC, and his family at the Marine Corps Air Station at Iwakuni, Japan. Iwakuni is about 30 miles south-southwest of Hiroshima.

On Saturday, Nov. 7, 1981 we (my son Dick, his wife Nancy, and their two children, and my wife Margie and I) were met by Dr. Nibu, an orthopedic surgeon friend of Dick's. He had borrowed an 8 passenger Toyota van. We loaded our lunch, cameras and coats in the rear and climbed in for a delightful all day trip with the doctor doing all the driving.



Throughout our trip, I was fascinated with the forests. The total land area of Japan is just slightly less than that of the state of California. What is most surprising is that about 80% of the land area is made up of steep mountains which grow nothing but trees. Unfortunately, most of the natural growth is scrub which is worthless except as fuel wood.

The native forests are a mixture of hardwoods, not familiar to me, with some pine. I understand that these mountain forests are all privately owned. It was somewhat surprising, therefore, to see many, many small areas (maybe 20 acres each) of these steep mountainsides clear cut, with horizontal "windrows" of branches 30 to 50 feet apart vertically. After such an area was clear cut it was replanted on an approximate 6' x 6' spacing with Japanese Cedar. This tree has the appearance in both needle and branch formation of our Sequoia.

On our many trips other than the one above, all in Southwest Japan, we saw the same thing — many areas of reforested mountainside. Behind the Kintai castle on a mountaintop near Iwakuni (we got almost there by aerial tramway)

I saw an older replanting. The trees were approximately 8" dbh and a good 40 ft. (ten meters) to the first branch. This stand had been thinned but should have had a further thinning about then.

Another thing I noticed about these Japanese cedar plantings was that when the trees reached 6 to 8 feet in height, in many cases the lower branches had been manually lopped from the trunk up to about half the tree height. Mind you, these plantations are on land that slopes at 60° from the horizontal. I wondered how the workers managed to keep from sliding down the hillside.

We saw several truck loads of logs on our various excursions. Some of the logs were 12" to 14" in diameter but most were 6" to 10". In some of the small sawmills I saw logs 30" to 36" in diameter but these were the exception. In fact, in some cases it appeared, from the weathered appearance of the logs, that they had been in the yard for some time. I suspect that the large logs came from a small area of virgin forest somewhere.

In this regard, on Nov. 19, 1981, we took the train from Iwakuni to Miyajima Guchi and a ferry from there to the Island of Miyajima, all on Japanese National Railway tickets. I'm sure most of you have seen pictures of the "beam on posts in the water" which is the "Tori" in front of a shrine temple built on stilts over the water. At low tide both Tori and shrine are on "dry" land.

Just beyond the ferry landing are hundreds of souvenir shops, hotels and restaurants. The small Japanese deer roam freely over the island but are concentrated in this area because they are fed a "junk food" diet by the tourists.

After a delightful lunch at a small restaurant off the beaten path (tatami mats and low tables and a formal garden with fish pond almost within arms length), we walked beyond this area into the edge of the forest. We discovered that we had blundered into an active logging operation.

We didn't risk walking out to the tree felling area, but did see the marshalling area and a truck load of logs leaving the area. Some of the logs were a good 20" dbh. There were several trees in the area that were 30-36" dbh. One tree had recently been cut in the park area. It was about 42" dbh and Dick counted rings until he got to the point where he knew it was more than 200 years old. These were Japanese cedar. Many of the trees, including the 200 year old

monster, had grown with a spiral twist in the trunk. What surprised me about the logging operation was that the logs were all debarked before being brought to the marshalling area. I don't know how it was done.

The lumber cut from most of these trees is straight grained and easy to work. One afternoon about a week before this trip Dick and I had visited a fabrication shop where all the structural members for a house were being fabricated. We were shown blueprints of the house.

A ridge beam about 4"x12" to 14" was notched to receive rafters. Tenons were formed on the ends of the rafters to fit into the notches of the ridge beam. One interesting machine was a planer which shoved a 4 x 6 through against a stationary blade. It took off one continuous piece approximately 1/32" thick and left a very smooth finish without the typical waviness caused by some of our rotary knife planers.

All the workmanship was very precise and well done so that when the pieces were shipped to the building site (with each piece bearing identifying markings) the whole post and beam frame fits together like an erector set with a minimum of bolts and very few nails.

Even though none of the workmen at this shop spoke English and Dick and I spoke no Japanese, we were able to communicate. The workmen were pleased at our interest in their work and proceeded to show us the capability of their machines, such as the planer, even though they didn't need to use them in their current job. This was one of the things I most noticed about the Japanese people. They are proud of their work and want to show the Gaijins (American foreigners) what they can do.

Back to the logging operation on Miyajima, they were using a track type skidder to bring the logs to the staging area. The logs were loaded on a small (by our standards) truck by a forklift on tracks. I suspect that the loader was also the skidder.

The skid trail had to cross a small ravine and stream. Several logs were dumped in the ravine parallel with the stream flow and then covered with earth. (I've had the same thing done on my place). As I stated earlier, we did not go out to the site on the logging operation but we could hear the sound of chainsaws just as you would here. The debarking is what I wished I could have seen.

More in next issue . . .

FOREST Bookshelf

A guide to Federal Income for timber owners. U.S.D.A., Agriculture Handbook No. 596. Fee: \$4.75.

Farmer's Tax Guide, publication No. 225, update annually. Fee: Free.

The Timber Owner and His Federal Income Tax, U.S.D.A., Agriculture Handbook No. 274. Fee: \$1.40.

Information about timber taxes is available from: The Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

From the first settlers' gaze over miles of untouched woodlands to today's most important environmental issues, the past, present, and future of this great green land comes alive in "The Encyclopedia of American Forest and Conservation History." Oct. Price: \$120.00, MacMillan Publishing Co., Inc., 866 Third Avenue, New York, NY 10022.

NYFOA to Visit U.K. Forest Owners August 12 - 26

Come with us for an exciting two week visit to the forests and forest owners of Great Britain. As always the emphasis is on people, on visiting folks like ourselves as they go about the business of being forest owners and Christmas tree growers.

It's always fascinating... as previous tour participants can tell you... to get an inside look at someone else's tree farm and even into a few hours of their lives.

This August we plan to visit Scotland, northern England, and Wales. If enough are interested, we can add an optional five days in Ireland.

Contact has already been established with English Christmas tree growers and landowner associations, but it won't be all work and no play. There will be plenty of time for an afternoon hike in the hills, maybe a bit of golf at a famous Scots course, or some sightseeing.

Mark your calendar now. Save your pennies. And look for details in coming issues of *The Forest Owner*. Contact Alan Knight, 257 Owego St., Candor, NY 13743 (607-659-5275) for further information.

Letters to the Editor

Evelyn Stock
5756 Ike Dixon Road
Camillus, New York 13031

The November-December issue will be **Letters to the Editor** issue.

Please share your forestry ideas with us, as well as consider the following:

1. What are you doing to promote better forest management?
2. What do you think needs to be done for N.Y.F.O.A. to make a greater impact?
3. What do you think needs to be done in your area?
4. Would you like to see regional groups of members?
5. How would you expand the organization?
6. What would you like to see in the *Forest Owner*?
7. What do you like best about the *Forest Owner*?
8. What do you like least about the *Forest Owner*?

Allen Road
Chaffee, N.Y. 14030
Oct. 20, 1983

Dear Mrs. Stock,

In response to your questionnaire in the Sept.-Oct. issue of the *New York Forest Owner*, I am finally finding a few minutes to respond to the eight items.

No. 1. When I am not doing volunteer work at our Audubon Nature Center, or taking short vacation trips, I work nearly full time doing timber stand improvement work in our 78 acre woodlot and in even more acreage in neighbor's woodlots. This involves making and delivering firewood, primarily. I have led groups through our woods to show woodland improvement we have done.

No. 2. I believe a good job is being done at present. I have noted that the pad of information blanks is on display at our County Extension office and at our Agway Petroleum office. The blank is sponsored by the Extension Service and N.Y.F.O.A. Inasmuch as the Extension people are conducting educational meetings on woodland subjects and seem to be co-operating with N.Y.F.O.A., I feel we should see some results of this impact.

No. 3. We are in the western extremity of N.Y.F.O.A. territory, so it is more difficult for some members to become involved. The fall meeting held at Cumming Nature Center was surely appreciated by some of us Western New York

On the CALENDAR

January 6-7

Christmas Tree Growers Annual Meeting.

February 28

Computer Decisions II. Information available from Dr. John Yavorsky, Dean of School of Continuing Education, College of Environmental Science & Forestry, Syracuse, New York 13210. Tel. (315) 470-6891.

April 24-26

Forest Management and the Spruce Budworm, Burlington, Vermont.

April 28

NYFOA Annual Spring Meeting in Ithaca.

September 20-22

Live Feed (Live Forestry, Equipment Exhibition and Demonstration) at Arnot Forest, Cornell University.

members. Perhaps woods walks in outlying areas may help.

No. 4. No opinion at present.

No. 5. Keep up the publicity. I'm sure more people would join and benefit from N.Y.F.O.A. if they knew about the organization.

No. 6. I believe the *Forest Owner* is getting better all the time and with the quality of paper now being used, the pictures are excellent.

No. 7. Looking over the 1983 *Forest Owners: Jan.-Feb.* issue had excellent article on timber stand improvement by Doug Monteith. Also outstanding were the career highlights of Dave Hana-burgh and the sample timber sale contract. **March-April** — Stumpage prices and Al Roberts career highlights. **Sept.-Oct.** Firewood thinning by Norm Richards was especially informative, and, of course, *all* the monthly articles on the back cover by Al Roberts.

Earl Pfarner

P.S. We were with the group that visited Al Roberts' woodlot and saw what a fine job he is doing.

No. 8. I can't recall *anything* I don't like about the present *Forest Owner*.



Evelyn A. Stock
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Energy Tree for the Eighties HYBRID POPLARS

"Fast Growing Hardwoods Plantations" was the title of the workshop co-sponsored by the School of Forestry and the School of Continuing Education at the SUNY College of Environmental Science and Forestry; NYS Energy Research and Development Authority, The Gas Research Institute, and New York Gas Group.

Fast growing hybrid poplars are becoming increasingly attractive for the production of energy fiber.

The Morton Frey family has raised hybrid poplars for 28 years. In 10-20 years he claims to have produced pulp and lumber. A planting on 6 x 6 foot centers should yield in excess of 5 cords annually on an acre of land.

Heating your home, running your car or generating your own electricity are some of the possibilities of hybrid poplar energy. Municipal sewage sludge mixed with wood chips can be processed to make a fertilizer for the use of nurseries. There are many other uses being developed. For further information you may contact any of the following:

Morton Frey

Frey and Sons Nursery
Ephrata, PA 17522

Wood Power Energy Corp.

RD #3
Ephrata, PA 17522

B.A. Barkley, Forestry Specialist

Fast Growing Hardwoods
A.M.N.R.

P.O. Box 605
Oxford Avenue

Brockville, Ontario, Canada K6V 5V8

Dr. Lawrence Abrahamson

116 Illick Hall
SUNY, of E.S.F.

Dr. Charles Maynard

216 Marshall, School of Forestry
Syracuse, NY 13210

HOW MUCH DOES A TREE WEIGH?

By Doug Monteith

You may just be curious. You may need to know how much a particular tree weighs so you can estimate its total volume. Or judge how much of it to carry in your trailer after cutting it for firewood.

The table below enables you to estimate the weight of a tree, whatever the reason. To use the table, measure the circumference of the trunk of the tree of interest. This measurement should be made at the location on the bole which is 4½ feet (about chest height for most people) above the highest level of the ground.

The numbers in the lower half of the tables are provided to facilitate converting the weight of your tree into other useful measures.

Bear in mind that the weights given are for the entire tree above the stump. If, for example, you use only portions of the tree larger than 4" for firewood, your useful yield will be less than the table weight.

For additional information call: **Wood Utilization Service, School of Forestry, (315) 470-6562.**

TREE WEIGHT TABLE

Tree Circumference at 4½ feet above ground level (inches)	Species							
	Maple	Oak	Beech	Ash	Pine	Hemlock	Other Softwoods	Other Hardwoods
	green weight (pounds)							
10	90	70	103	81	60	53	61	79
20	501	488	531	416	359	340	358	453
30	1,254	1,284	1,324	1,018	914	893	911	1,142
40	2,347	2,463	2,476	1,884	1,727	1,713	1,719	2,146
50	3,781	4,024	3,988	3,016	2,798	2,799	2,784	3,464
60	5,555	5,967	5,858	4,413	4,123	4,151	4,104	5,097
	Percent dry weight							
	64	58	58	66	42	47	46	60
	Specific gravity							
	0.62	0.62	0.64	0.60	0.35	0.40	0.40	0.60
	BTU/dry pound							
	8,288	8,363	8,455	8,583	8,604	8,885	8,600	8,400
	lbs/cord air dry (20%)							
	3,700	3,700	3,800	3,600	2,100	2,400	2,300	3,700