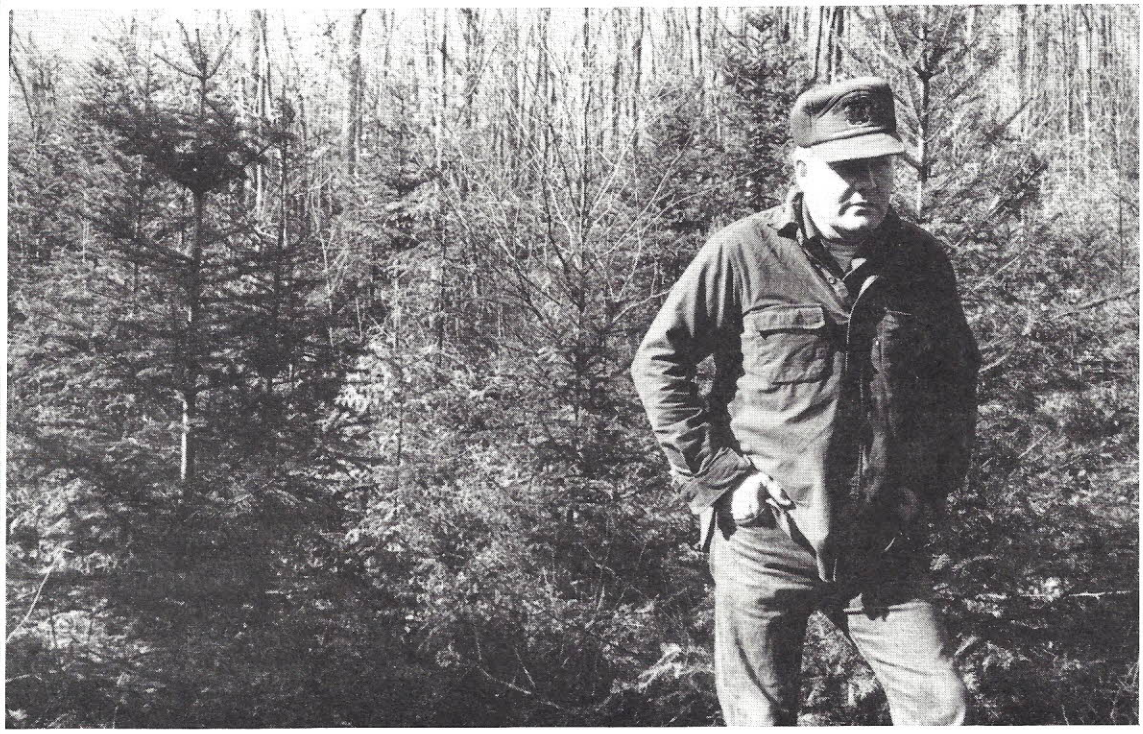
THE NEW YORK FOREST OWNER

A Publication of the New York Forest Owners Association

MAY/JUNE 1990



(RREP) photo by Taber)

Forestry: Problems and Solutions

FRONT COVER

State maple specialist Lewis J. Staats, at the Uihlein Sugar Maple Research Extension Field Station of Cornell University's Department of Natural Resources, evaluates a Third-World concept of agro-forestry in his management and research on growing naturally seeded balsam fir trees in a developing sugar bush.

See story page 3.

Red Spruces in Decline — Ruth G. Alscher, left, a scientist at the Boyce Thompson Institute for Plant Research, and Suzanne Fellow, a research assistant examine some of the red spruce saplings that have been exposed to different levels of zone in experiements conducted at the institute's field research site near campus.

See story page 4.

THE NEW YORK

FOREST OWNER

Published for the New York Forest Owners Association by
Karen Kellicutt, Editor

Materials submitted for publication should be addressed to: Editor, N. Y. Forest Owner, RD #1, Box 103, Lisle, New York 13797. Articles, artwork and photos are invited and are normally returned after use. The deadline for submission is 30 days prior to publication in July.

Please address all membership and change of address requests to Executive Director, P.O. Box 360, Fairport, N.Y. 14450.

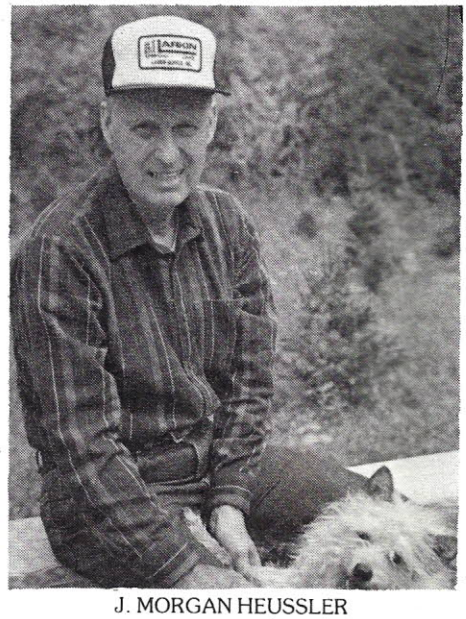
President's Farewell Message

Some observations and thoughts as we end our term as your President . . .

It has not been dull. During the two year term, it was necessary to replace the Editor of the *Forest Owner*, the Treasurer, and the Executive Secretary. Each was a traumatic situation and we were blessed to have Karen, Stuart and John appear. They continue to do caring, skillful work for your association.

It has been rewarding. The support, wise counsel and friendship the officers, Board members and many members of the chapters and affiliates have given us have been exceptional and a joy to experience. To mention names would take another page but please accept my grateful thanks.

It has been educational. One learns things at every woods walk and Board meeting. But the greatest learning experience for me was serving as an advisor to the Governor's Task Force on Forest Industry. I know perfectly well that Dr. Whaley did not appoint me to that job because of my expertise as a professional forester or other forestry expert. It was an honorary thing because I was President of NYFOA. So, when we got to Silver Bay on Lake George and found the Task Force members plus seventy advisors all discoursing on their fields of expertise, it was an awesome, humbling experience for a country boy from Western New York. But it was a great opportunity to learn about things like 480A, conservation easements, marketing problems, what loggers really think, etc.



J. MORGAN HEUSSLER

So now it's time to get into the truck and drive off into the sunset. Waiting at home is work on our next project for NYFOA. We are optimistic about chances for starting a new chapter. It would serve Erie and Wyoming Counties and possibly Niagara. We have about 50 NYFOA members in these counties now and the potential for many more. Bob White from Holland is our sparkplug. Jim Cheesman, our DEC forester from Warsaw and I are helping. Mike Levy, the *Buffalo News* Outdoor writer recently did an article on NYFOA. At this writing, we have received in excess of 65 inquiries about membership as a result of the story. We expect most will join.

Thanks again and our congratulations and very best wishes to the new officers and Board members.

Forest Conservation Practices Vary Widely

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

Every woodland parcel is different. Each forest stand (group of trees with similar attributes that distinguish it from adjacent groups) is unique.

Time is one critical factor that affects the appearance of all patches of trees. All woodlands began on open land. However, once covered by forest, the woodlands change rapidly at first and then more slowly unless natural "disasters" due to wind, snow, ice, insects, disease, lightning fires, or floods affect them; or if the landowner decides to develop the land or have some trees harvested.

Trees have a natural life span and all will someday die. The abundance, lifespan, and health of trees may be diminished by the natural environment which is modified by human activities that may change global temperatures, increase acidity of precipitation, produce soil or "smokestack"-suspended particles in the air, and introduce exotic plants to the land.

Society's needs and wants from forest land include timber to build wood products, wood fiber to meet people's appetite for paper, fuelwood for warmth, scenic landscapes, outdoor recreation opportunities, habitat for wildlife, privacy for one's home, and ownership of "a piece of the earth."

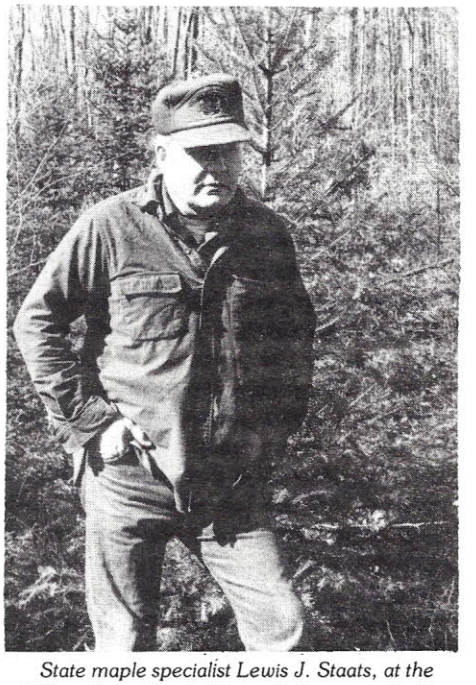
Tree form, health, and growth rate depend on interactions of tree genetics, soils, micro-climatic conditions, insects, diseases, competition from adjacent trees, and human damage to a tree's leaves, limbs, buds, branches, bole, and roots.

Conservation can be defined as wise use or preservation. Forest conservation is often considered to include not only preservation of the trees, which will naturally change in size and shape over time, but also protection of the soil from compaction and erosion, management of habitat that enables birds and animals to have food and cover, preservation of natural scenic beauty, and protection of "wilderness" from encroachment by people.

Forest conservation practices may be considered by some to include "management" of a wooded housing lot, one carved out of forestland by the economic exploitation of land resources through subdivision, to meet the needs and wants of many people.

Timber stand improvement practices (TSI) refer to the pruning, weeding, and thinning of a forest stand; and perhaps even the salvage cutting of naturally dying trees. An equivalent to TSI in the urban or suburban setting might be the practice of arboriculture; but a significant difference is that usually arboriculture does not lead to yielding wood products for consumers, whereas TSI can contribute to not only improved growth of valuable wood products but the arboricultural amenities of increased tree life, scenic beauty, and wildlife habitat in a forest stand.

Forest conservation practices vary widely and can be tailored to fit the needs of a particular site and woodland owner. Discussing your ideas, needs, and wants with professional foresters can provide you with additional insight into your situation.



State maple specialist Lewis J. Staats, at the Uihlein Sugar Maple Research-Extension Field Station of Cornell University's Department of Natural Resources, evaluates a Third-World concept of agro-forestry in his management and research on growing naturally seeded balsam fir trees in a developing sugar bush. (RREP photo by Taber)

Acid Rain Studies Reveal New Clues

By YONG H. KIM,
Science Writer,
Cornell News Service

Scientists have shown for the first time how acidic clouds that frequently shroud high mountain forests can kill red spruce trees by damaging their foliage, thus impairing photosynthesis, and by upsetting their nutritional balance.

The finding constitutes strong evidence that such clouds are killing red spruce trees in the forests of the eastern United States, from Maine to Tennessee, according to scientists at the Boyce Thompson Institute for Plant Research (BTI) at Cornell University.

The scientists found that two key ingredients of acid rain — sulfuric acid and nitric acid — are detrimental to the red spruce and are contributing to forest decline, a slow death of forests at high elevations.

Scientists have long suspected that acid rain, snow, sleet, hail, mist, clouds, and even fog may cause forest decline in the region, resulting in the death of untold numbers of trees at high elevations over the past three decades.

Jay S. Jacobson, a plant pathologist at BTI, based his finding on five years of controlled field and greenhouse experiments conducted at the institute.

"We have demonstrated that sulfuric acid, at concentrations similar to those found in acidic mist and cloud-water, seriously weakens the foliage, thus impairing the tree's photosynthesis process," Jacobson said. "At high concentrations, it kills the needles outright."

Jacobson found that, while sulfuric acid destroyed the trees' foliage, nitric acid upset the balance of essential nutrients, causing chronic nutritonal deficiencies. Nitric acid also may be implicated in the weakening of the tree's ability to cope with frigid winter cold, he said.

According to Jacobson, red spruces growing at low elevations in the coastal areas of Maine and Nova Scotia are also dying possibly because of ground-level fogs that are heavily laced with air pollutants.

Hardest hit are red spruces at high altitutes in the Northeast, including New York's Adirondack Mountains. A dominant tree species in the region, the red spruce is an important commercial tree for the pulp and paper industries. Other kinds of trees, including sugar maples, balsam fir, and Fraser fir, also are dying in the Northeast as well as in the southern Appalachians of North Carolina and Tennessee.

Sulfuric acid is formed in the atmosphere when sulfur oxides emitted during the combustion of coal and oil at power plants undergo chemical reactions. Nitric acid, also a major component of acid rain, is the product of emissions from internal combustion engines, such as those in automobiles, and from the combustion of coal and oil.

"These pollutants end up in clouds that envelop trees growing on mountaintops for a good part of the year," Jacobson explained. In field and greenhouse experiments conducted over the past five years, red spruce seedlings were sprayed with acidic mist containing sulfuric acid, nitric acid, or both.

The average pH level for cloud-water at high elevations is 3.5, Jacobson said. In his experiments, red spruce seedlings were treated with mists ranging in acidity from pH 2.5 to pH 4.5 for 35 percent of the time during the growing season from June to September. Acidity and alkalinity are measured on a scale of 14, with pH 7 being neutral. A pH below 7 is acidic and above 7 is alkaline.

At pH levels of 2.5 to 4.5, the mist treatment injured the needles, impairing the tree's capacity to manufacture life-sustaining food, Jacobson said. This may hamper it in developing adequate tolerance to freezing temperatures in winter, he added.

"This finding is a surprise, because sulfuric acid from acid rain was shown in previous studies to be harmless to crop plants," he noted.

The red spruce needles died when exposed to high concentrations of sulfuric acid at pH 3 or below, which is 10 times more acidic than pH 4, Jacobson said.

He also found that nitric acid upset the delicate balance of nutrients required by trees for growth and development. Nitric acid is a form of nitrogen fertilizer for plants.

"All plants need nutrients from the soil to grow. If we give them too much of one nutrient such as nitrogen fertilizer from the atmosphere and not enough of others, the trees would develop chronic nutritional deficiencies, a factor detrimental to the health of the affected tree in the long run," Jacobson explained.

Some scientists theorize that the atmospheric nitrogen fertilizer also may stimulate tree growth well into the fall when the tree is supposed to go dormant in preparation for cold winter months. Continued growth in the fall may jeopardize the tree's ability to survive winter's frigid weather.

However, Jacobson is reluctant to draw such a conclusion. He believes further studies are needed on how atmospheric nitrogen fertilization might affect cold hardiness and on the validity of methods scientists now use for measuring the cold tolerance of affected trees.

Safety Tips for Woodlot Hazards

The Rural Health and Safety Council notes that recent information from the forestry industry indicates a rising incidence of accidents related to woodlot work. This concern carries over to the farm because much forested acreages is in farm woodlots.

The most common hazard is a hung or lodged tree. This is a tree that gets caught in the branches of an adjacent tree as it falls. A common mistake made by the chainsaw operator is to move to the second tree and attempt to cut it, thereby bringing them both down. The chainsaw operator is placed in a position where escape from the unexpected fall of the hung tree may be impossible.

The proper approach is to leave the tree and allow it to fall naturally, or to attach a long cable to its trunk and pull it down with a tractor. The cable should be long enough to keep the tractor operator from being hit should the base of the tree lodge in the ground and the tree fall forward towards the tractor.

The second most common hazard is called a "widowmaker." This is dead material in the top of the tree being cut or in adjacent trees that can become dislodged during cutting or tree felling. The risk must be assessed carefully and then the tree left uncut or the gamble taken that the widowmaker can be avoided when and if it falls.

Severely leaning trees often are not recognized as a problem because they seem likely to fall in the direction of the lean. The problem arises, when the saw operator fails to make an adequate undercut or makes no undercut at all. Then, when the backcut is made, stress within the tree may cause it to split vertically and the base of the tree kick outward throwing the saw or the operator, or both, a considerable distance.

To prevent this, be sure to make a standard undercut one-fourth to one-third of the way through the tree. On large-diameter trees, make a plunge cut with the tip of the saw into the heart of the tree to cut out what is called the neutral axis. Be sure to leave a normal hinge of wood near the undercut as well as an attachment of wood where the backcut will be made. Finally, make that backcut and allow the tree to fall.

Spring poles are saplings that are caught by the falling tree and are bent into an arch. The internal stresses are sufficient to cause severe injury if the spring pole is not released properly. The injury may be inflicted by the pole itself or by the chainsaw being thrown back toward the operator.

The best technique for handling spring poles is to move the fallen tree, thus allowing the sapling to return to its original position. If the spring pole must be cut, release the stress slowly by first making a partial cut on the compression side of the sapling. This is the inside of the arch. Carefully complete the cut on the opposite side being careful to stand to the side of the line of cut of the saw. Spring poles are very dangerous and should be handled with extreme caution.

Straight standing trees are a hazard because extra effort must be made to assure the proper direction of the fall. Plastic or aluminum wedges firmly inserted in the backcut will help prevent the tree from tipping the wrong way, trapping the saw and endangering the operator. Professional woodcutters habitually use wedges during all backcuts as added insurance that the tree falls the right way.

Farm woodlots have emerged as valuable resources for supplementing farm income. Agricultural workers should seek to become skilled chainsaw operators and should use professional cutting and felling techniques when working in the woods.

Reprinted from Jan. 1990 American Agriculturist

Ask a Forester

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

If you really want to improve timber harvesting practices in New York, what group must be consulted? 63% of New York's forest land is privately owned, with 75% of this under non-industrial ownership. So that makes us a prime target for improving the stewardship of forest land in New York. As the owners, we are ultimately responsible for its care.

Assuming you have harvested wood products on your land, are you happy with the results? You may be pleased with the cash received for stumpage or wood sold, but how about the condition of your woodlot after the sale — are you happy with that too?

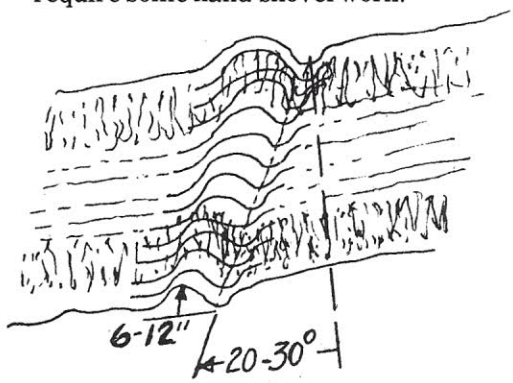
Occasionally, we are not satisfied with the way things "look" after a logging or harvest job. The remaining trees may be damaged or of low quality, slash may be improperly disposed, but the worst thing that can happen is a degraded soil and water resource. Normally, the most damage to the soil occurs on and near the main skid trails and truck roads, for example, deep surface rutting of trails and road washouts at drainage crossings. Trails and roads become impassable, site potential for growing trees is reduced, and the quality of water draining the area is impaired.

Possibly, you had a poor contract or none at all, or the contract date expired before you spotted the damage. In any case, you want to improve these degraded sites. After all, you will use the truck road and main trails again, and you want an environmentally "clean" woodlot. Active erosion will increase the damage, so you should make the repairs as soon as possible. Let's look at some of the most cost effective methods you can employ to reduce this damage.

MAINTAINING SKID TRAILS

Generally, ruts should be filled and the trail drained to stop gully erosion. Start on the worst sections first, usually on the steepest grades. Assuming you have a tractor with bucket or blade, first push or back-blade the "berms" (humps of soil forced out by the skidder tires) back into the ruts. Fill the remaining ruts with gravel or coarse soil, grading as you go.

After the section of trail is "smoothed over", install a few water bars to divert surface runoff. The main skid trails should allow tractor travel, so construct "rolling" water bars, 6-12" high with gradual, compacted sides. For rapid drainage, skew each bar (20-30 degrees downslope (see diagram). It will require some hand-shovel work.



A ROLLING WATER BAR

Where do you locate the bars, and how many are needed for proper drainage? This depends on factors specific to the section or slope that is being treated. As an example, note the photo of a badly rutted skid trail with ruts 2' deep and a 6% grade over a damaged section of 500'. Here, seep runoff (located near the top of photo) is draining into the rut which is eroding into a smally gully.

A RUTTED SKIDTRAIL

The sequence of operations must be changed here. Before any smoothing or filling can be done, the section must be "dried out". First, a water bar must be formed at the top of the section to divert the seepage flow across and away from the skid trail. Then it would take about a week of "normal" weather for the section to dry out before rolling back the berms or filling the ruts.

The photo shows about 300' of rutted skid trail, and it continues for another 200' down-slope before crossing an intermittent channel. Over this total distance, there are three natural interruptions or gradiant breaks in the slope. The first one occurs at the seep near the top of the photo — where we installed the first water bar. You can see the second break in the slope near the middle of the photo — install the second water bar here. And there is another natural break about 150'

CONTINUED ON PAGE 7

Ask a Forester

(from Page 6)

downslope from this one — place the third water bar there.

In other words, first attempt to locate water bars at the natural breaks in slope to facilitate drainage. This is especially true when a long, low gradient section steepens downslope. As located in the diagram, the water bar keeps concentracted flow off the steeper section.

So far, we have 3 water bars on the 500' section of rutted trail, the middle one about 200' below the upper bar and the lowest bar about 150' below the middle one. Do we have enough bars for adequately draining this 6% section? According to the general guide below, the interval should be about 125'. Our 150' is probably ok due to the high rock content of these soils (low erosion hazard). One more bar may be required between the middle and upper bars to break the 200' interval.

Grade - %	Distance-ft.
1	400
2	250
5	125
10	80
15	60
20	45
25	40
30	35
40	30

RECOMMENDED DISTANCES BETWEEN WATER BARS

(Source: **Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont**- Department of Forests, Parks and Recreation, Waterbury, VT)

NYFOA to Sponsor 2nd Woodswalk for 1990 On June 9

Because of a tragic illness in the family originally sponsoring this woodswalk, we have switched it to the Kreb's Tree Farm near Springwater, NY. This is a 435 acre farm with 310 acres of hardwoods and conifers and five ponds for improved wildlife habitat. The tour will be guided by the DEC state forester responsible for helping the Krebs successfully manage this resource. Highlights of the tour will include:

- Examples of several types of improvement thinnings.
- A variety of site variations.
- A hardwood stand logged in 1986.
- Clearcuts completed two and ten years ago.
- A 35 year old Douglas Fir stand.
- A 55 year old larch stand.
- 20 and 30 year old red pine stands.
- Timber and firewood sale techniques and results.
- Tips on how to operate "in the black".

The Woodwalk will begin at 10 a.m. and will last until about 1 p.m. A picnic area will be available for those who wish to stay for lunch. Please bring your own food, coffee and soft drinks will be provided.

Livingston County - 10 a.m. June 9

DIRECTIONS: Beginning from a point on route 15 A, 0.6 miles North of Springwater, NY, turn east on Wheaton Hill Rd. and continue 2.5 miles to Tabor Corners. Jog 300 yards North in Tabor Corners and turn east onto Tabor Corners Road. Proceed about 0.5 miles and bear left on Dutch Hollow Road. Continue another 0.5 miles to Peglow Road where the woodswalk will begin. NYFOA direction signs will be placed along the route beginning at the route 15 A, Wheaton Hill Road intersection.

Magazine Deadline

Materials submitted for the July/August issue should be sent to:

THE FOREST OWNER
BOX 103
LISLE, N.Y. 13797

NO LATER THAN JUNE 10

Landowners and Forestry Industry Meetings

"Forest Stewardship," "Forests Forever," and "Economics of Privately Owned Forests and all of New York State's Forests" will be addressed at a special meeting that is expected to attract 200 attendees from throughout New York State. Environmentalists including those intrested in many different aspects of forest based land stewardship, including forest preservation, wildlife habitat, hiking, camping, canoeing, ornithology, tree farming, and timber harvesting, are expected to attend.

Registration for the educational meeting begins at 6:45 p.m. followed by door prizes and introductions at 7:15 p.m. at the Adirondack High School, Ford Street, Boonville, NY on Friday, August 17, 1990.

Sponsored by Cornell Cooperative Extension and the New York Forest Owners' Association, Inc. as part of the New York State Woodsmen's Field Days, the following renowned speakers, starting at 7:30 p.m., will highlight timely topics of interest to many environmentally concerned citizens and organizations, outdoor recreationists and the tourism industry, and New York's timber harvesting and wood using industries that supply wood products to consumers.

* Robert H. Bathrick - Director of Division of Lands and Forests, NYS SEC: "Forest Stewardship"

* Curtis H. Bauer - Professional Consulting Forester & President of FORECON, Inc.: "Is Your Forest Forever?"

* Hugh O. Canham - Professor of Forest Economics, SUNY ESF: "Economics of Your Forest and New York's Forests"

A special feature of the program will be "Gifts from the Forests for Attendees," according to the meeting's moderator, David W. Taber of Cornell Cooperative Extension, Department of Natural Resources. In addition, he has noted that the timely-topics technology transfer program will climax with refreshments while attendees have an opportunity to personally meet the speakers during a social gathering in the high school cafeteria from 9:30 - 10:00 p.m.

IN ITHACA - Sept. 18-20

"Challenges in the Conservation of Biological Resources: Exploring New Tools for Managers, Planners & Educators" is a symposium to be held in Ithaca, NY, September 18-20, 1990. It has been organized by Cornell Cooperative Extension - Department of Natural Resources and Cornell Laboratory of Ornithology and sponsored by a host of interested organizations.

During the symposium the emerging disciplines of conservation biology and landscape ecology will be examined.

For a flyer on the symposium contact Deborah Walsh Grover, Conservation of Biological Resources Symposium, Natural Resources Dept., Fernow Hall, Cornell University, Ithaca, NY 14853-3001 (tel. 607/255-2115).

Forest Stewardship Program is an initiative involving many conservation-minded organizations in New York. The "Forest Stewardship Act of 1989" at the national level has a goal of placing 25 million acres of non-industrial private forest lands under stewardship management within 5 years. This program is important in New York with its 17.5 million people, and 30.2 million acres of land, 61 percent of which is forested, including some 15.4 million acres of commercial forest land, held in over ½ million private ownerships.

Renowned speakers at the "Landowners and Forest Industry Meeting" on Friday evening, August 17, 1990 (with a 6:45 p.m. registration) at the Adirondack High School in Boonville, NY as part of the New York State Woodsmen's Field Days are as follows:

* Robert H. Bathrick, Director of Division of Lands and Forests, NYS DEC, on the topic, "Forest Stewardship";

* Curtis H. Bauer, Professional Consulting Forester, FORECON, Inc., on the topic "Is Your Forest Forever?"

* Hugh O. Canham, Professor of Forest Economics, Faculty of Forestry, SUNY College of Environmental Science and Forestry, on the topic "Economics of Your Forest, and New York's Forests."

According to moderator for the program, David W. Taber of Cornell Department of Natural Resources, the "state of the times seminar," which will include "gifts from the forests" for attendees, and a "meet the speakers with refreshments segment" is sponsored by the New York Forest Owners' Association, Inc. and Cornell Cooperative Extension, as part of the New York State Woodsmen's Field Days. WBRV Radio of Boonville, 900 on the A.M. dial, will be live broadcasting the "seminar" and arrangements are being made relative to accepting questions from callers, and pre-meeting broadcasting interviews with official delegates from "conservation minded organizations" throughout the state.

For a flyer (which will be available in late May) on the New York State Woodsmen's Field Days, send your name and address to NYS Woodsmen's Field Days, P.O. Box 123, Boonville, NY 13309 (Mrs. Phyllis A. White, Executive Secretary - Tel. 315/942-4593).

"Directory of Forestry, Fish & Wildlife Publications" (Revised Winter 1990) is a "Conservation Circular that lists 140 publications and a Woodland Management home-study correspondence course, available from Cornell University. To obtain a copy of the directory, which costs $1.00, contact a county or New York City office of Cornell Cooperative Extension; or send a check payable to Cornell University with your request to Distribution Center, Cornell University, 7 Research Park, Ithaca, NY 14850.

Black Walnut Trees In New York

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

Planting black walnuts may interest you. But most soils in New York are not conducive to successful long-term growth of healthy, vigorous, and nice-form black walnut trees. Juglans 'nigra' (the genus and species of black walnut) identify the tree by its scientific name from about 20 species of walnuts found throughout the world.

Black walnut is a medium-sized tree normally reaching about 80 feet high and 2 to 3 feet in diameter measured at 4½ feet above the ground (DBH), at maturity. Sometimes the trees reach 150 feet in height and 8 feet in DBH.

The natural range of black walnut covers most of New York State, but the tree has a taproot and does best on a deep rich soil that has no hardpan or bedrock for at least 3 feet from the soil surface. The species is intolerant of shade. Therefore, in an even-aged forest stand a vigorously growing black walnut tree will be found as a dominant tree with its crown in the main canopy of the tallest trees. Its bole will be straight and free of limbs below the crown, thereby making the veneer or lumber it yields more valuable for many consumer products.

In addition to its edible nuts, which are enjoyed by both nut-eating wildlife and humans, its wood is prized for lumber, veneer, bentwood, and lathe-turned products. High-quality black walnut veneer logs in New York, over the years, have brought relatively high stumpage prices to their landowners. And some people have planted black walnut seedlings in plantations. Pruning the trees can increase their value for timber products by eliminating the existence of knots in the wood.

ADIRONDACK WOODLAND OWNERS VARY

Preliminary results of a Cornell University Department of Natural Resources 1989 study of Adirondack forest owners shows significant differences between residents and non-residents. Land use planners, land management organizations, environmental groups, wood-using industry executives, and educational organizations will be interested in these initial findings.

Based on random samples of non-industrial non-resident private forest owners, and non-industrial private forest owners who reside in the Adirondacks, three major differences were discovered. Residents 1. have more knowledge about forest management than non-residents, 2. have a more positive attitude about the benefits of forest management than non-residents; and 3. carry out more forest management (timber harvesting, wildlife, recreation, maple syrup production, timber stand improvement, wildflowers, and berries, etc.) activities than non-resident woodland owners, according to Valerie Luzadis Alden. Alden, a former Cornell Cooperative Extension agent in Schenectady County, is conducting the study as part of her M.S. thesis at Cornell.

Final results of Alden's study and recommendations for using the findings in developing educational programs for non-industrial private forest owners should be available in a few months. For additional information, you can contact Ms. Alden at 661 MacElroy Road, Ballston Lake, NY 12019 (Tel. 518/877-7148).

WILFLIFE DAMAGE MANAGEMENT

Wildlife damage management is important to some growers of orchard crops, field crops, evergreens for ornamentals, and Christmas trees, as well as homeowners who have their yards landscaped with evergreens. Paul D. Curtis, extension associate, has just joined Cornell University's Department of Natural Resources to begin a new extension and research program on wildlife damage management in New York State. Within a few months he will be conducting a mail survey of Cornell Cooperative Extension field staff to help identify the significance of various types of wildlife damage. Information gathered will be used as a basis for developing programs.

NYFOA Membership

We have all heard people say that one vote, or one person's position on an issue doesn't matter. I submit that each of us who cares about the future of this planet CAN matter.

By improving our own special woodlots and influencing our neighbors and acquaintances to improve theirs we can each definitely make a difference. Although these can be accomplished as individuals we believe the success can be even greater within an organization like NYFOA. We learn from each other, we motivate each other and together we can reach higher goals. When one of those goals is a more desirable environment in the future or possibly total survival it can be pretty important.

If you are not already a member please consider joining today. You help us become a stronger, more effective organization and we offer you new sources of information, personal contacts and a lot of new friends with a very common interest.

BECOME A MEMBER TODAY

Join! NYFOA

Check your preferred membership option:

☐ **Regular - $10** ☐ **Family - $15**

☐ **Contributing - $16 - $99**

☐ **Supporting - over $100**

Send checks payable to:
New York Forest Owners Association
P.O. Box 360
Fairport, N.Y. 14450

Name .

Address

City

State/Zip

County Phone

George Squires Named Tree Farmer - NYFOA Member

Property owned by George Squires, technician for the Genesee County Soil and Water Conservation District (SWCD) was recently added to the American Tree Farm System.

The American Tree Farm System is a nation-wide program which encourages private forest owners to grow trees as a crop.

Squires owns 13 acres of forest land in the town of Bethany and has worked hard to improve it through the removal of native grapevines that had begun to take over the woodlot and the construction of an access road. Squires will maintain his status as an American Tree Farmer by continuing to manage his woodlot through the removal of poorer quality hardwoods which he will use as firewood during the next five years.

"George's property is a great example of what can be done by the small woodlot owner," stated Mark Keister, Senior Forester for the Department of Environmental Conservation who nominated Squires. "It takes hard work, commitment and patience but the rewards come in the way of reduced heating oil bills, a nice stand of high quality trees in the future and the satisfaction of improving a part of the environment."

"I know I have a great deal of work ahead of me in order to accomplish the goals set forth in my management plan," stated Squires when asked to comment on his Tree Farm membership, "but its work I know I'll enjoy. Being a member of the American Tree Farm System will help drive me towards these goals."

In New York State 87 percent of the timber resource is owned by non-governmental, private (referred to as NIPFs, non-industrial private) owners. And, almost 40 percent of these landowners own woodlots smaller than 50 acres in size. Therefore, small woodlot owners make an important contribution to the health and welfare of New York's forest products industry.

As a member of the American Tree Farm System Squires will receive a sign, a quarterly magazine and the opportunity to compete against other tree farmers for national recognition. There is no fee to the landowner to be a tree farmer, just a woodlot and a commitment to proper forest management.

The Undeniable Importance of Trees

Reprinted from North County News, Yorktown Heights, N.Y. Dec. 5 Issue

The following commentary has been prepared by the Conservation Advisory Council of the Town of Cortlandt.

"TREE — a. A woody perennial plant having a single usually elongate main stem generally with a few or no branches on its lower part. b. A shrub or herb of arborescent (i.e., woody) form." -— Webster's Ninth New Collegiate Dictionary

"Spare, woodman, spare the beechen tree." — Thomas Campbell (1777 - 1844)

"Shedding the leaves is chiefly a means of conserving water during the winter when the ground is frozen." — The Columbia Encyclopedia

* * *

The tree stands there in all its eye-pleasing beauties of form and color, shielding us from the direct rays of the sun, taken for granted by most passersby. Efforts to preserve the tree are not based on esthetic reasons alone. In addition to providing food and lumber, the tree performs many other, less obvious functions that benefit mankind. Among these, in no particular order of importance, are:

OXYGEN SUPPLY

Man cannot exist without oxygen, yet he constantly concocts ways to imperil his sources of this vital element. Fortunately, the tree not only generates oxygen during its natural processes, but it absorbs the carbon dioxide that we exhale and that we exhaust from our factories and engines, thus helping to keep our air supply fresh. Dan O. Barnhart, quoted in the *News*, published by the Federated Garden Clubs of New York State, says that "Trees act as nature's dustmops, catching much of the 12 million tons of pollutants released into the atmosphere each year in the United States. Twenty trees are needed to offset the polluting effect of one car driven 60 miles. Finally, for each person in the U.S., we need seven trees to change carbon dioxide to oxygen." In New York City, he points out, there is ¼ tree per person.

WATER LEVEL CONTROL

The clearing of trees causes the water level in the affected area to rise, since trees, through their root systems, absorb thousands of gallons of water each year. As a result, flooding may result as water fills the air spaces in the soil, affecting the root systems of other plants, resulting in further rise in the water table and negatively impacting other areas. In addition, leaves keep rain water from directly hitting the soil, preventing over-inundation of the ground and, through natural percolation, filtering the water as it descends.

SOIL EROSION

Tree roots act to hold the soil in place, acting as a stabilizer against the forces of erosion. Writing in *Westchester Environment*, published by the Federated Conservationists of Westchester County, Inc., Mitzi Suskind Pike points out that "Lost soil in the form of sediment causes a great deal of damage. It fills drainage channels, plugs culverts and storm drainage systems, thus necessitating frequent and costly maintenance . . . Ponds are filled in more quickly than otherwise." Over four billion tons of sediment a year go into the ponds, lakes and rivers of the U.S. and one billion tons go into the ocean, of which 10 percent comes from highway and land development, according to Dr. Piker.

As an example of both water control and soil erosion, development of a 19,000-acre site in Sherwood Forest in northern New Jersey is being contested on the grounds that the drinking water supply of two million residents would be imperiled. Opponents claim that two critical reservoirs which provide water for the area would be threatened by excess siltation and the area would be subject to flood conditions if plans for development are implemented.

(contined on page 11)

BIG OAKS

BY FLOYD KING
Columnist with Rochester Democrat & Chronicle

One man's vision altered the landscape

The oak, 'tis said, is the king of trees.

If this is so, the land of the Genesee is blessed with an abundance of arboreal royalty. Immortalized by landscape artists, photographers and writers, it is unique in the nation.

The dream of it all traces back two centuries to one man. The year was 1790, and there in the wings of history stood James Wadsworth.

The Revolutionary War was over, the Seneca allies of the British were defeated, and settlers were pouring into the fertile Seneca homeland.

Among the settlers were the Wadsworth brothers, James and William. They bought 2,000 acres along the east bank of the river and founded the village that would become Geneseo. As fast as they cleared the land and put it into production, they bought more. At one time, James alone owned 34,500 acres.

Nevertheless, this man of vision was not content. His marvelously fertile fields, with their huge crops of grain ripening in the sun, didn't look quite right. Something was missing.

On a trip to the estates of England, he figured out what it was. Trees! The very thing the pioneers had been cutting down and burning.

James hurried home. By the time the Wadsworths had so much land that they were leasing out some. James put a new clause into the leases:

"Tenants are not to destroy, nor suffer to be destroyed, any shade tree, to leave growing on such lands as are to be cleared off, at the rate of one shade tree to every two acres, and occasionally a clump of shade trees; and in case such Lessees shall destroy, or suffer to be destroyed, any shade trees, they shall pay to the Lessor the sum of ten dollars for each and every shade tree so destroyed, as stipulated damages therefor."

This clause was almost heresy for pioneers who had worked to clear the land with ax and fire. But as time wore on and they saw the results, they began to appreciate the beauty of a shade tree. Neighbors noticed and followed suit.

Since oaks were the area's dominant species and made marvelous shade trees, they were the almost unanimous choice of the settlers.

Fortunately, oaks live on and on. Today you can still enjoy the fruits of James Wadsworth's vision. Six years ago, Carl Wiedemann, a senior forester for the state Department of Environmental Conservation, identified 246 of the original oaks on one-time Wadsworth lands along 25 miles of the Genesee River.

Wiedemann made the survey for an article in the September/October 1983 issue of the DEC's *Conservationst* magazine. All the oaks he found were over 45 inches in diameter at breast height.

Probably nowhere else in these United States would you find such a collection of trees saved for posterity by one man's dream. It is truly a legacy of the ages.

Importance of Trees—

TEMPERATURE CONTROL

We are all thankful for the shade that trees provide with the resultant feeling of coolness. But trees act as air conditioners in another way: they lower air temperature by evaporating water in their leaves. *The New York Times* reports that studies in Florida have shown that trees, if properly placed, can reduce energy costs of air conditioning by as much as 20 percent. Trees also act as air purifiers by trapping and filtering out dust and pollen particles on the hairy surfaces of their leaves.

PROPERTY VALUE

Do trees add value to your property? Well, "yes" and "no". "Yes," according to research by the United States Forest Service which found that trees can contribute an average of 7 percent to the value of a half-acre home site and as much as 27 percent to the appraised value. "No," because the same research has also found that these figures hold true only for 1 - 29 trees on a half-acre site. Above 30 trees, the value is reduced, due to perceptions of diminuation of light and possible damage from ice or wind storms.

FOODS and BY-PRODUCTS

Some of our most tasteful and nutritious foods come from trees: apples, cherries, pears and nuts and berries of all kinds which have been a source of sustenance to man from his earliest beginnings. However, the tree also produces other products which benefit man: cellulose for making paper, rayon and other materials; turpentine, resins, rubber, maple sugar, among them. Medicine, too, uses the tree, particularly in the form of quinine, widely used as a specific in the treatment of malaria and other fevers.

WILDLIFE

Just as the tree has helped man survive by providing food and shelter, so has the tree fed and sheltered birds and other forms of wildlife which are an essential part of nature's life chain. The protection of endangered species in our national forests has become a major concern of governmental agencies entrusted with these lands. For example, legislation to protect the habitat of the spotted owl while allowing tree cutting in federal forests in the northwest was recently enacted by Congress and sent to the White House.

Does your community presently have a tree preservation ordinance? Is one being considered? In either case, these efforts deserve your support, and the planting of new trees and shrubs will enhance the value of your property, contribute to your enjoyment of your home and benefit the general environment.

Gold Hard Hat Award

Richard Rommel, a Senior Forester with the NYS Department of Environmental Conservation, was recently presented with the Tree Farm Gold Hard Hat Award at the Southern Catskill Tree Farm Field Day. The award is given to Foresters who have certified 100 or more landowners as American Tree Farmers. Mr. Rommel is only the second Forester in New York State to receive the Gold Hard Hat.

Richard Rommel has been a forester for 18 years, having been stationed at the New Paltz DEC Office for the last 12 years. During that time he has certified most of his Tree Farmers in the Orange, Sullivan and Ulster County Area. Many of these properties can be recognized by the green and white diamond shaped Tree Farm sign in their front yard.

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LETTER TO EDITOR

April 5, 1990

To the Editor,

Regarding the article (Year of the Tree) written by David W. Taber, I was very disturbed by the fact that when he summed up the history of government action concerning forestry over the past 200 ytears, there was no mention of Franklin D. Roosevelt, former Governor of New York who became the (Father) of the U.S. Civilian Conservation Corps known as "Roosevelt's Tree Army". We of the C.C.C.'s planted around 3 billion trees and shrubs to establish forests and control erosion etc. during the thirties and early forties, for the dollars spent the greatest government conservation project EVER.

Senator Hewitt of Locke, N.Y. was also instrumental in establishing reforestation in New York State. Currently over 800,000 acres have been purchased by the state under this act.

As a former member of the C.C.C. and a charter member of the NACUA Oswego, NY Chapter 80 and also a member of NYFOA, Cayuga Chapter, I feel 1990 "The year of the Tree" should recognize the CCC's accomplishments.

Respectfully,
Alfred B. Signor