

# The Landis Arboretum Newsletter

Lape Road

Esperance, New York

Fall 1998

Vol. 17, No. 4

## From the Garden - Patricia Rush

The Arboretum has been glorious this fall, as the green of summer gave way to the brilliant reds, yellows and russets of September and October. The mild sunny weather attracted crowds of visitors to our trails, and brought rave comments in the visitor's book.

We've had some exciting events this fall - the first Tree Badge Assistance Workshop for the Mohawk Pathways Council of Girl Scouts was held on Sunday, October 25, attended by 34 Scouts and their parents. The Esperance Boy Scout troop camped out under the Great Oak on a recent weekend and did wonderful work on the Woodland Trail.

A group of trustees and members of the Webster Arboretum, near Rochester, visited with us and toured the Arboretum; they are just developing their arboretum, in an old apple orchard, and wanted to learn from us. We had a great day with them.

### Long Range Planning

A really significant event occurred with the formation of the Strategic Planning Committee of the Board, chaired by Trustee **Ken Wing**. Landis was visited by Dr. Donald Rakow, Director of Cornell Plantations, who toured the Arboretum with the Committee and spoke to the group on planning efforts at Cornell Plantations. As a follow-up to this initial meeting, the Board of Trustees is holding a retreat on November 7 to "revisit" the mission statement adopted

in 1996, and to develop a vision statement about the Arboretum's future.

### Volunteer Recognition

Trustee **Carol Wock** has been awarded the Distinguished Service Award for her many years of service to Landis Arboretum, as treasurer, as Board President, as co-chair of the highly successful plant sales. Carol has been faithful to her commitment to the Arboretum during some difficult transitional years; we are very lucky to have her. At the Volunteer Recognition Breakfast on October 3, **Peter Rumora** and **Ron Neadle** were honored for their years of service. Thanks, Peter and Ron, for your loyalty and hard work.

### Gifts and Grants

Landis has received a \$2,900 grant from DEC to support the purchase of interpretive signage for our 100 top trees, and for the development of a brochure.

**William Vetter** has given us a beautiful cedar garden bench in memory of his grandmother, Anna Zinglæ Abramo. Thank you very much, Bill.

And thank you, as well, to **Alan Bugbee** for another group of engraved plastic identification signs. *Continued on page 2 >*





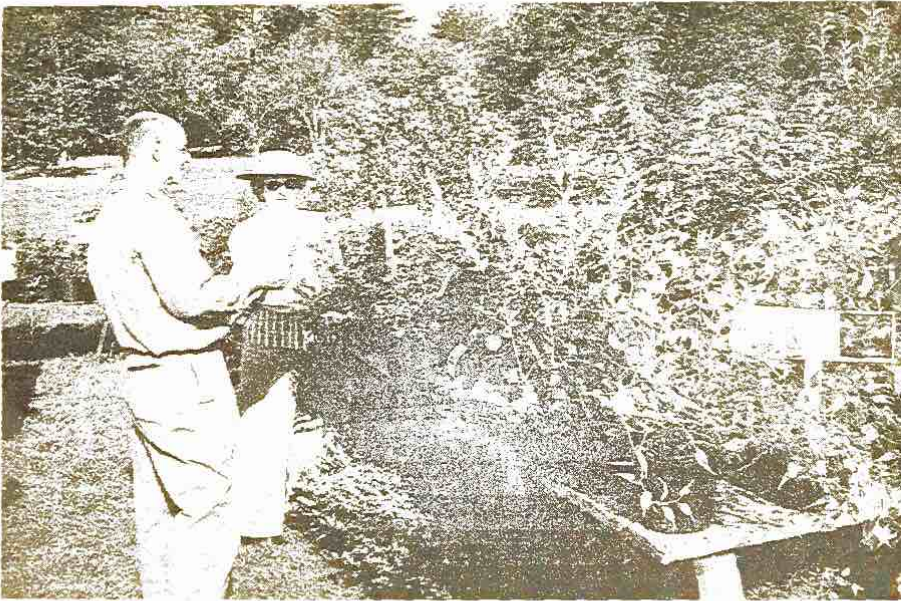
**Barn Update**

The barn, as I write this, is painted, the windows are installed and the doors are being made on-site. When you visit the Arboretum, you will see a completed barn; even the doors will be painted, I hope. Many thanks to Trustee **Herm Finkbeiner** who chaired this effort, and saw it through to completion.

**Out and About**

When you visit the Arboretum you'll notice **enormous changes!** A great deal of cleaning out and cleaning up has been done. The huge brush piles are gone, the rhododendron area looks like a peaceful park (note before and after photos); the entire Arboretum is mowed; new cross-country ski and hiking trails have been cut in the fields and woods on the hillside below the greenhouse and meeting house. An additional 1.5 miles have been added to our trail system and a continuous hike may be taken that would be almost four miles long - including the Woodland and Lape Trails, and the trail that skirts the meadows below the willow pond. The new trails open up the entire eastern edge of the Arboretum grounds, where meadows and woodland push against the stone walls that mark our property line. (We thank **Brian Largeteau**, the Esperance Fire Chief, who brush-hogged the new trails out for us.)

Come out and see us! Enjoy a walk on the trails!



**Fall Plant Sale** - Several factors came together on September 12 and 13 to make the '98 fall plant sale the most successful fall sale ever. The weather was beautiful, sales were brisk, and a new system of parking worked smoothly. Volunteers were generous with their time both during the sale and through the days of preparation before the sale. Customers were delighted with two new features of the fall sale - the uncommon houseplants brought by GAIPA and the many varieties offered by the Daffodil Society. By the end of the sale, we had exceeded our budgeted income, realizing a net income of \$6,876. We are especially pleased to welcome the 24 new members who joined the Arboretum during the sale. - Carol Wock

*(Carol is pictured here at the fall plant sale, along with volunteer Robert Flynn.)*



**THE LANDIS ARBORETUM  
NEWSLETTER**

is published quarterly for its members.

The Arboretum's mission is to provide natural history and horticultural education through its programs and through its plant collection.

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Viktoria Serafin,

Carol Wock

**Printer**

Shipmates

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*A special Thank You to our  
volunteers who contributed to so very much  
time and effort to making 1998 a successful  
year for the Landis Arboretum.*



## Before and After

Photos at the right were taken by Fred Breglia to show (top to bottom) 1) the need for care in the rhododendrons, 2) pruned and mulched rhododendrons, and 3) a hawthorne after numerous suckers were removed.

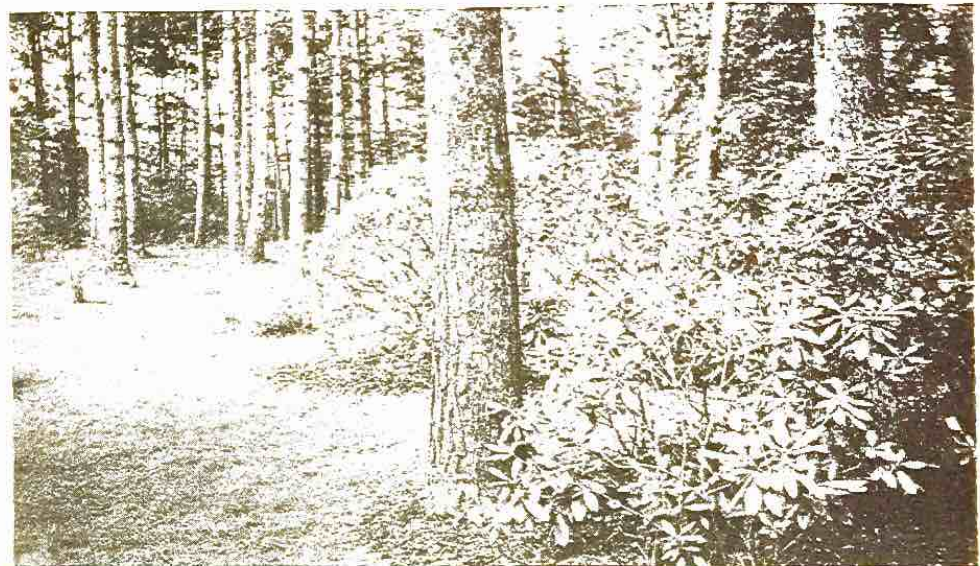
## Big Tree Search in Schoharie County

- Pat Rush

The Arboretum is a partner in the Big Tree Search, a project initiated by Trustee Chris Cash of the Plant Science Department at SUNY Cobleskill.

Trees will be measured using standardized techniques, and will be evaluated using the point system devised by the National Register of Big Trees. Trees will be evaluated within their species, and included, if they qualify, in the National Register. But, we are talking really big! The Arboretum's old oak is surpassed already by at least four bigger ones here in Schoharie County!

Arboretum horticulturist Fred Breglia will assist the project by helping to validate and measure trees nominated by county residents. He's looking for volunteers to go out with him, approximately one afternoon a week during December, January and February, to assist him with this process. Let him know if you're interested by calling the Arboretum.



### **SUPPORT THE ANNUAL FUND**

Landis relies on friends and members for support of our programs. Your gift to the 1998 Annual Fund will help allow continuous care of the collections, reclamation of areas that have been neglected because of lack of funds, and help us meet our budgeted goal for operating expenses for the year.



**YOUR GIFT IS IMPORTANT!  
YOU CAN MAKE A  
DIFFERENCE!**



## The Beeches... A Species for the Far-Sighted Gardener

- Viktoria Serafin

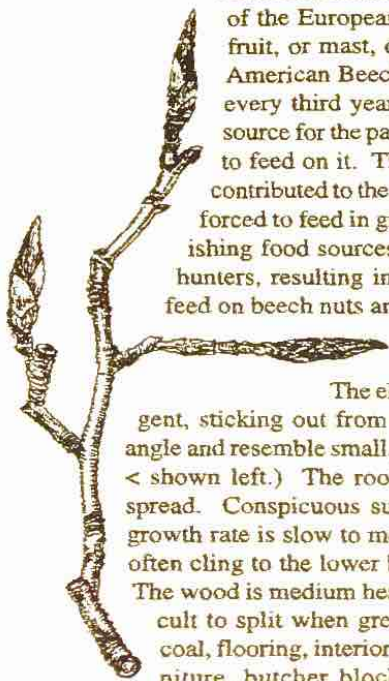
This is the second in an on-going series of articles describing species included among the notable trees at the Landis Arboretum. Viktoria Serafin is one of the Arboretum's most able and active volunteers; her last article for the newsletter described the lilacs at Landis. The drawings are by Anne Jaster.

Beeches, Michael Dirr and Fred Lape agree, are planted for the future. They resent transplanting and are relatively slow-growing as well, so one is unlikely to enjoy the mature tree in one's lifetime.

Grand forests of beeches were found throughout the Northeastern United States. The Eastern deciduous forests used to consist of beeches and chestnuts (chestnuts and hornbeams are also in the Beech Family) on good lime/loam soils, in cool, moist climates. Much of the beech forests were lost to farming since the soils were ideal for this. After the decline of the chestnut due to the blight, beech is now seen growing in association with hemlock, Sugar Maple and White Birch which make up today's climax forest. Beeches cast deep shade and there is little or no shrub or herbaceous layer in beech forests.

The bark of beeches is thin and smooth, smoke-gray and likened by some to elephant hide. The bark of the American beech is slightly lighter in color than that of the European beech. When grown in the open, a beech will retain its branches down to the ground to protect the thin bark from sunlight.

Beeches have male and female flowers. The edible fruit of the American Beech contains two nutlets, while that of the European Beech has three. The beech fruit, or mast, drops with the first frost. The American Beech tends to bear a heavier crop every third year. The mast was a major food source for the passenger pigeon, which migrated to feed on it. The decimation of beech forests contributed to the extinction of the bird; they were forced to feed in greater concentrations on diminishing food sources and became easier targets for hunters, resulting in mass slaughter. Pigs used to feed on beech nuts and the dead birds.



Beeches prefer a sunny site. The elongated, slender buds are divergent, sticking out from the reddish-brown twigs at an angle and resemble small, rolled cigars. (American Beech < shown left.) The root system is shallow and wide-spread. Conspicuous surface roots are common. The growth rate is slow to medium. The leaves fall late and often cling to the lower branches throughout the winter. The wood is medium heavy and medium hard, and difficult to split when green. It is used for timber, charcoal, flooring, interior trim, crates, boxes, brushes, furniture, butcher blocks, carpenter's planes, carved bowls, tool handles and more, making it a general util-



ity hardwood. It is more appreciated in Europe. Gutenberg's first movable type was reputedly made of beechwood. Beech hedges are common in Great Britain. The wood burns hot and produces little smoke.

Other old-time uses include stuffing mattresses with the leaves, the fragrance of which was thought to repel bugs. Oil extracted from the seeds burned well and was also used for cooking. The seed pulp was edible, too. In the Eastern U.S. the leaves were used as a potherb and the nuts ground for a coffee substitute. Medicinal uses abounded. The husks contain *fagine*, a slightly narcotic chemical. In Kentucky the sap was used to make a syrup to treat tuberculosis, and the bark and leaves for an ointment to treat burns, sores and ulcers. Native Americans steeped the bark in salt water to make a salve for similar purposes. Beech products were also used to treat bladder, liver and kidney complaints.

It was thought that planting a beech near a house would deter lightning. A high oil content in the trunk may explain why beeches are struck by lightning less often than any other kind of tree.

Beeches have no significant disease or pest problems. European Beech is affected by some bark diseases.

The Beech Family (*Fagaceae*) includes 10 species of beeches, of which two are represented at the Arboretum, along with many cultivars of these species. The specimen beeches are planted at the top of the Fred Lape Trail. The location was chosen for its good soil and drainage. While the American Beech (*Fagus grandifolia*) occurs naturally along the east- and southeast-facing stretches of the Woodland Trail, all the specimens represent the European Beech (*F. sylvatica*, pictured above).

The American Beech is the only species of beech native to Northeastern United States and Canada, with westward distribution throughout the Great Lakes area. It will reach heights of 100 feet and it will sucker from its roots. The leaves are larger with more veins and coarser teeth. The fall color is yellow and the winter profile twiggy. It is hardier than the European Beech as well as more tolerant of higher temperatures and thrives in zones 3-8, while



(Continued from the previous page)

the European Beech is limited to zones 4-7. There are no cultivars available in the trade; all cultivars used in landscaping are of the European Beech.

The European Beech, a smaller tree, is native to most of Europe from Norway to the Mediterranean. It has yellow to russet fall color. It is more adaptable to different soils, growing even on chalky, poor soils. It transplants better and offers an interesting variety of cultivars, so it is the beech most used in landscaping. Interestingly, the American beech does not grow well in Europe.

In addition to the species, seven cultivars of the European Beech are found at the Arboretum. Perhaps the most remarked-upon specimen tree here is the Contorted Beech (*Fagus sylvatica tortuosa*), which is also known as Parasol Beech because of its growth form, with a short, stout, contorted trunk and spreading canopy of twisted branches. This form of the European beech was originally found in the wild and there is speculation that a radioactive meteor may have caused this mutation.

The Purple Leaf Beech (*Fagus sylvatica 'Atropunicea'*) is descended from a naturally occurring form which was found in a few locations in Europe before 1660. It has deep red foliage which often becomes darker in late summer. The Copper Beech is a form of the Purple-Leaf Beech, with less intense coloration. The red color is stable, and seedlings are often red. *F. sylvatica 'Roseo-Marginata'* prefers some shade; too much sun will burn leaf edges.

The Weeping Beech (*F. sylvatica 'Pendula'*) is lauded by Dirr. It has many growth forms and habits from umbrella-like to ones with a central leader and narrow profile.

*F. sylvatica 'Rotundifolia'* has smaller, rounded leaves and leaf out later than other beeches. *F. sylvatica 'Cristata'* has coarse-toothed, short-petioled, crumpled leaves bunched at the ends of shoots. Dirr compares this form to cockscomb flowers.

*F. sylvatica 'Laciniata'* has the finest foliar texture of the beeches. Its leaves have deep sinuses, almost to the midrib, resulting in a ferny appearance; it is sometimes called the Fernleaf Beech. >>

## Vertical Mulching

-Fred Breglia

As trees grow older they gradually lose the ability to take up nutrients and water. In areas where soils are less than perfect, trees may be very shallow rooted. The soil here at Landis is clay-loam, which makes it difficult for roots to go very far down due to the hard, compact properties of the soils. When drought hits here in the summer, trees with feeder roots only six to eight inches under the soil surface undergo severe stress. The soil in this zone becomes very dry and roots can't pick up the water and nutrients available in the ground at a greater depth. The plants then exhibit stress signs such as leaf scorch; this is the case with many of the trees here at Landis, such as our beech collection among those trees which we mulched by this method this year.

Vertical mulching is a procedure used on large trees to build stronger and healthier roots. The theory is to get feeder roots to go down deeper into the soil. The equipment used for this is a drill and a 1 1/2 inch wide by 24 inch long auger bit. Holes are drilled into the soil in concentric rings around the outer 2/3 of the tree's canopy, approximately two feet apart and 18-24 inches down. This is the zone where a tree's feeder roots are located. These holes are then filled with a sand/bark/compost mix.

Roots are opportunistic, so when a feeder roots hits the compost-filled hole, it will grow down to the depth of the hole. Now we have feeder roots 18-24 inches down instead of six to eight inches down. The deep roots are going to greatly help the overall health of our trees, because when drought hits and the soil surface begins to dry, the deep roots will still have plenty of water and nutrients so the tree fares better. Once the roots get stronger, we will see an increase in the top growth of the trees.

The beeches at the Arboretum can be enjoyed in all seasons. The bark and structure stand out in winter and spring, the various leaf forms and colors provide summer interest and the fall color contributes to the seasonal spectacle.



Here at Landis we are using a 22 cc. gas-powered engine drill (see photo above) which is the choice of professional arborists and horticulturists who care for large numbers of trees. The home owner who has only a few large trees to care for may be able to substitute a regular electric drill or a hand drill.

Vertical mulching is better for a tree than giving it fertilizer. Fertilizer, if applied in the fall, will produce an increase in top growth the next season but when drought hits, the same size root system has to feed even more foliage and the tree is actually in worse shape than if the tree weren't fertilized at all. By building the root system first we will get the top growth we are looking for and the tree will also be able to support the top growth when the soil gets dry.

### Save This Date!

#### SPRING AUCTION

6 pm, Friday, March 19, 1999  
Upper Mohawk Club  
Schenectady

Silent and Live Auctions  
to benefit the Arboretum

Dinner afterward  
by advance reservation



## How Does Our Garden Grow?



**New Members** - Please note that the names listed here are new members that joined during the third quarter of 1998. **We wish you welcome!** A complete list of members and contributors will be available once each year.

Elliot & Ann Adams  
Phyllis & Ed August  
David T. Austin  
Sharon Bedford  
Maggie Bootier  
Ursula Bower  
Judith D. Breitenstein  
Elizabeth J. Bulger  
Jennifer Burton  
Edward & Priscilla Coates  
Howard & Barbara Cohn  
Marion Collins  
Julann Constantine  
Joan B. Cook  
Barbara Crammond  
Randy & Kenny Cravotta  
& Jodi Gregory  
Priscilla D'Amico  
Melinda Dare Hill  
Connie Dean  
Garrett & Shellie DeGraff  
Fiona Dejardin  
Diane DeLuca  
Millie Eidson  
Melanie L. Ernst  
Edward & Ramona Feuz  
George Forfa  
Caroline Forfa

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Stanley Kiyonaga  
Lancaster Development Inc.  
Gillian Lindt  
Catherine Macek  
Jean Mancuso  
Susan B. McChesney  
Cathy McEneny  
Kay Moss  
Mildred Patnode  
Sandra Riter  
Rockville Cafe & Bakery  
Laura E. Rogers  
Karen Streck  
Thomas Traverse  
Neila Traverse  
Van Geest Nursery  
Rita Wellman  
Cheryl Wright

## Second Place Winner Arbor Day Contest 1998

### Tree

A tree is a home.  
A tree is a place  
Where animals have their housing space.  
Ask the squirrel,  
He lives there.  
A home in the branches  
Is his lair.  
The woodpecker  
He takes a rest  
In a hole in the tree  
Which is his nest.  
A lot of birds  
Live in the tree.  
So many birds -  
How many more can there be?  
Rabbits don't live in the trunks of the trees.  
They don't live in the branches that sway with the breeze.  
They live in the underground tree root space -  
It makes a wonderful sleeping place.  
It's the same with  
The weasel,  
The fox,  
And the mouse.  
They think tree root burrows  
Make a fabulous house.  
Plus there's  
The otter,  
The shrew,  
And the vole.  
To them a house means  
A tree root hole.  
And in the trunk of the tree  
There lives the raccoon.  
During the night  
When out comes the moon,  
The raccoon goes out of his home in the tree.  
Raccoons are nocturnal,  
You see.  
So the next time you're out and  
You find a tree,  
Look at it closely and  
Try to find out or see  
What types of animals  
Live in there.  
What types of animals  
Make it their lair.

By Lillian Androphy  
Fourth Grade, Westmere Elementary School





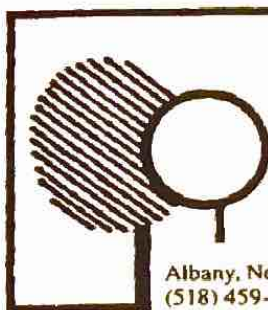
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*The First Place Winner, 1998 Arbor Day Contest*

**A Tree is Home**

A tree is home to me.  
As I sit in its leafy embrace  
Silent as I listen to the music of the bird  
And the silver whistling of the wind.  
With book in hand, I climb up, up, up  
Toward the branches,  
Toward the leaves,  
Toward home.

Katie Crandall, Grade 5  
Westmere Elementary School, Guilderland