



George Landis Arboretum NEWSLETTER

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President's Message

We've had a wonderfully successful and progressive year. The best thing that ever happened to us was bringing on board a full-time horticulturist. I hope you've all had a chance to meet her - Pam Rowling - a real miracle worker; energetic, strong, full of knowledge, and with the ability to get things done, and done well. Under the guidance of our horticultural committee, so ably chaired by Dr. John Abbuhl, they have created wonders. All the trees have been evaluated and a careful thinning and pruning program is being followed. All the paths are mowed and passable, and our magnificent stone wall has been cleared of their choking weeds for all to admire. A complete labeling plan is under way so that everything will soon bear its correct name. The Horticulture Advisory Committee has met several times to give us their valued advice and they are extremely pleased with our progress.

As always, the Friends group and our volunteers have done an enormous amount of work to help the Arboretum. The Plant Sale, always our annual Spring Kick Off, was especially successful this year under Margaret Law's skillful management. As a result many of our members are growing and enjoying special treasures.

The Wednesday Weeders - and other days too - make all the difference in the maintenance of the ground and it is hard to fully express our gratitude and admiration for their hard work and great accomplishments. So many people have helped it would be impossible to thank them all, but special recognition must go to Chuck Weed, the Friends' Chairman, for his farsighted planning and help in many directions, and to Pat Daly, assistant to Pam, and a great asset on our staff.

Two important Benefits during the past year brought in most gratifying results. We thank especially the chairman of these events: Paul Blair for arranging the highly successful and educational talk on Scottish gardens, and Margaret Law for luring C.Z. Guest to our area for her charming and delightful program; the Fall Flower Show, chaired by Evelyn Sturdevan, was a beautiful event and once again proved the utility and value of our Meeting House.

Our weekly educational programs covered an enormous field of interests and offered something for everyone.

We did not confine our work during the year to the grounds and planting for the buildings received much attention too. The Homestead has been made livable for year-round occupancy. Several grants have enabled us to stabilize the old barn, and the library is serving its purpose to house our books and as office space for our horticulturist.

As we enter the New Year I wish you all happiness, thank you for your past support, and hope that you will continue to make us grow.

Elizabeth P. Corning

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It seems that not all our members are fully aware of what our arboretum really is, so for their information here are a few brief facts. It consists of approximately 100 acres, and it's the only arboretum near the Capital district. Because of our severe northern climate we are in a unique position as a testing ground for plant hardiness. We have an exceptionally fine collection of conifers in many genera, as well as comprehensive collections of lilacs, crabapples, oaks, rhododendrons, viburnums, and so forth. Perennial borders, roses, an outstanding planting of peonies, and an unusual quarry rock garden, plus our choice location with its superb view of the Schoharie valley, add interest at all seasons.

Stupendous it was not! After unsuccessfully attempting to dig the drainage ditches for the newly installed septic tank at the Lape Homestead, the contractor decided to resort to dynamite to blast through the solid limestone ledge found just below the topsoil. Curious visitors gathered as the big moment arrived. The charges were laid and the crowd held their breath as the plunger was pushed. At the plunging of the lever, small "burps" and puffs of smoke emerged from the lines. No rain of dirt and stones or loud explosion occurred to make this a memorable moment. The end result was highly successful, if undramatic. The lines are in at the proper depth and we will soon recover from the ruts of heavy equipment on the lawns and the piles of raw earth.

Considering the limestone ridge so close to the surface, our high water table, and the poor drainage on some of our acreage, our future plans for continued plantings must be well thought out. The Horticulture Advisory Committee will meet again soon to formulate a masterplan. The Soil Conservation Service is lending its expertise with soil type maps and suggestions to ameliorate conditions. It's exciting to see renewed enthusiasm and the Arboretum starting to expand again.

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Trustee Dale Morgan has recently accepted the position of Vice President of the Arboretum. Most of you will remember that Dale was a very involved member of the Board a number of years ago while Mr Lape was Director. Although demands in his professional life kept Dale busy in another direction for several years, he remained a loyal member. To our great good fortune, he has recently returned to give us his services again.

Witches Brooms
Betty Bloom

Witches brooms are dense congested growths appearing on the lateral branches of many woody plants. Since the abnormal growth tends to be upright, the result gives the impression of a small broom growing on a normal size tree. It was once believed that witches flying low over certain trees produced these brooms. After talking to experts at two Canadian schools, I favor this medieval interpretation but will leave it to your judgement.

Most of the dwarf conifers that are becoming so popular today are the progeny of witches brooms. Both asexual and sexual propagation of brooms, when successful, tend to produce a dwarf plant having the basic characteristics of its normal sized parent but usually with a much denser growth pattern. Propagation is difficult as both grafts and cuttings tend to have a high mortality rate. Successful experimentation, however, has produced some relatively stable dwarfs such as the well known "birdsnest" or the dwarf alberta spruce. Other dwarfs are not as stable and must be constantly policed for aggressive growth patterns which are the plant's attempt to revert to its natural state.

Occasionally the broom will develop cones and set viable seed. The progeny from such seeds vary widely but some seem stable. The Sargents weeping hemlock, for example, can be raised from seed and tends to produce offspring identical to the dwarf plant.

It is well known that every branch of a woody plant produces many more bud initials than needed for normal development of that plant. These buds are typically held in reserve in case of injury to the plant. An imbalance of the hormones in the plant can stimulate these extra buds and produce an abnormal congested growth. It would appear that this disruption of the normal growth pattern is a response to a parasitic organism. Although viruses, fungi, mildew, mites, or other organisms are the most common causes of the hormone change, it has even been suggested that the recent increased levels of nuclear fallout may be effecting the genetic structure controlling the hormone production.

Although the initial abnormality is relatively easy to understand as the plant's response to an external stimuli, it is more difficult to determine why the altered growth is perpetuated. Obviously there must be a permanent genetic change resulting from the initial damage by the virus. According to today's genetic theories, the pathogenic DNA becomes incorporated into the original DNA of the plant and produces a new genetic code which is then transmitted to the plant's progeny. Since this is now a stable chromosome change, it will be reproduced in the seed and the resulting progeny will display the characteristics of its altered parent. Theoretically a dwarf plant could be crossed with a normal sized plant of the same species and produce offspring carrying the dwarf characteristics as recessive genes. Thus Swartley (1984) has suggested that it is possible for normal appearing trees to be carrying recessive genes coming from a witches broom developed a thousand years ago. This could explain the dwarf plants found today with no apparent link to a witches broom.

Although witches brooms are unusual, they are not extremely rare. Since plant fanciers all seem to want to propagate the unusual, there has been a proliferation of dwarf plants in recent years. Now most of us are not compulsive enough to carry our propagation experiments into the commercial realm, but there are enough breeders to cause confusion in the market.

Author's Postscript: If any of you are interested in seeing a low growing witches broom on a white pine, call me at 356-3577. My interest in this field was developed when Pam Rowling found this broom on our farm. In addition, as a result of trying to find published material on this topic, I found a great place to visit if you happen to be in the Niagara Falls area. The Niagara Falls Park Commission runs a horticulture school with beautiful grounds open to the public. It is on the Canadian side of the river and well worth your time to see it.

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Tree Contest

If one were asked to name a favorite tree, it would be a difficult choice to make. So many factors such as placement and usage are involved. It might be easier to pick your least liked tree, but to be fair, even among this group each one has redeeming features. Therefore, we are submitting this challenge to you in the form of a contest. We are asking our readers to submit an essay on your favorite or least like tree and the reasons why. To the winner among adult entries, we will give an autographed copy of C.Z. Guest's book First Garden (this book retailing at \$24.95 has magnificent photos of flowers and trees); and to the winner of juniors under 15 years old, we will award a \$20 prize. The winning essays will be printed in this newsletter. All entries must be submitted to: George Landis Arboretum Newsletter, c/o Margaret Law, Simmons Rd., Glenmont, N.Y. 12077 by March 15, 1988. Start thinking about it. Do you love evergreens most? and which among them?

Gardens and Castles of Scotland

The itinerary for our proposed trip to Scotland May 23-June 5 1988 has been completed and promises a superior tour. We will only name a few of the delights now, but those who are interested will be able to obtain the full brochure by calling Margaret Law 463-5256 to have one mailed to you. Dream of these scenes: Glasgow Garden Festival, the walled gardens at Bellahorston, the drive up the side of Loch Lomond to Inverary Castle, Crarae Gardens, Isle of Skye with the Armadale Gardens and Dunvegan Castle, Lochalsh Woodland Gardens, Inverense Gardens, the lovely Castle of Craigievar and Crathes, Dulthie Park winter gardens etc. ending in Edinburgh and the Royal Botanic Gardens. (We also plan to visit a woolen mill for shopping, and a tour of the Glenfiddich malt whiskey distillery!) Remember the tour is limited to only 30 people, so if you are interested, contact us quickly.

The Arboretum sponsored luncheon on Nov 20 with C.Z. Guest as speaker was a great success. Capital Newspapers underwrote the fee charged by Mrs. Guest. The invitations were donated by Trustee Ann Logan. The raffle items, all of which were donated, included a framed artist-signed poster commemorating the one hundredth anniversary of Arbor Day, a gift certificate from Yunck Nursery, a gift certificate from Blair of Loudonville Florist, a five pound jar of Arboretum honey, and a handsome hand crafted leather notebook. We realized a small commission on the sales of Mrs Guest's book which she autographed. We want to thank all who helped make this such a special day for the Arboretum: especially Mr. Joseph Lyons and the Capital Newspapers for their generosity; Ann Logan for the invitations; Evelyn Sturdevan, who provided names and addresses and handwrote those invitations, and as reservation chairman kept track of all checks received and then at the luncheon checked off names as people arrived; Peter Rumora for handling the raffle; and Paul Blair who provided the unusual flower arrangement at the head table. We would like to express our great appreciation to Irene Gardner Keeney of the Albany Times Union, who, writing for that paper, gave such an interesting account of Mrs. Guest that many more subscriptions to our luncheon were received. Also a thank you to Frances Ingraham for her mention of our event in her column, The Social Scene.

The Friends of the Arboretum announce their upcoming quilt raffle. The hand made, earth-tone quilt, contributed by Evelyn Sturdevan, comes from a seamstress living along the Evangeline trail in Nova Scotia. It will be offered with chances of \$1 per ticket or 6 for \$5. The winner will be announced on Founder's Day. (Our program of events will be in the next newsletter) Proceeds will, of course, be used for the Arboretum. Tickets will be available from any of the Friends or by calling the Arboretum, 875-6935.

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Please support the extensive work of the arboretum

GEORGE LANDIS ARBORETUM Membership Application

Member	\$10-25	Name	_____
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Supporting	\$50-100		_____ Zip _____
Patron	\$100+		
		Phone	_____
		Amount	_____
		Enclosed	_____
		Renewal	[]
		New	[]
		Member	[]

THANK YOU

Members receive a quarterly newsletter and early admission to the annual rare plant sale.

Make checks payable and mail to: George Landis Arboretum
Tax deductible Esperance, N.Y. 12066

Notes from Pam:

Maryde King of Schenectady, a retired librarian, has taken a very active role in organizing the George Landis Arboretum library collection. She has applied for a grant for both the arboretum and the Adirondack Research Center. This grant will serve to actively upgrade the collection as well as automate the present resources for easier inventory control and evaluation. We presently possess a good basic botanical/horticultural library collection. Mrs. King's efforts will make the collection more easily and readily available to staff and researchers.

The Seed Exchange program, as a co-operative effort between the George Landis Arboretum and SUNY Cobleskill has been reactivated. This program enables the arboretum to participate in exchanges of seed, free of charge, with other arboreta and botanical gardens worldwide. Peter Kaskeski, a professor of horticulture at SUNY Cobleskill and participant in our educational programs is the university co-ordinator of this activity. This exchange program is the lifeblood of an arboretum as it enables acquisition of species that would be otherwise unavailable.



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