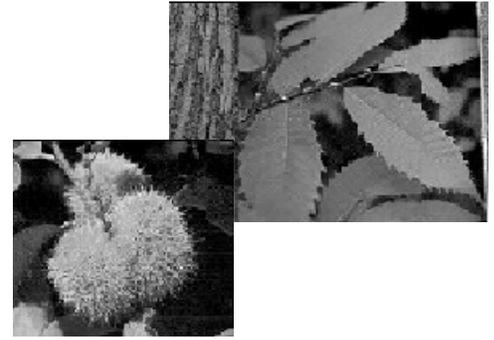


# Chestnut Tree



## Newsletter News

In March 1995, 'Barney' Barnhart published the first *Chestnut Tree* for the Chapter and initiated a column called "The Chestnut Stump." He climbed onto the stump and appealed for a takeover. He was 75 at the time. Well, almost three years later 'Barney and wife Charlotte have been replaced as editor, layout, typist, printer, producers of mailing labels, sorters and mailers. Health problems have prevented them from continuing in the active production of the newsletter. What a fantastic job they have done! The membership has been kept well informed of Chapter activities.

### Thanks and best wishes for good health Charlotte and Barney!

It is the good fortune of the Chapter to have Warren H. Lauder from Kennett Square as the new editor, Dave Armstrong of Hanover to prepare the copy for printing, and Ron Stanley of Clearville to prepare labels and to mail. Ron has also taken on the responsibilities of Membership Coordinator formerly carried by Charlotte Barnhart. The Barnharts have generously agreed to provide for the printing by The News Printing Company. The logistics are complicated, but hopefully the *Chestnut Tree* will continue to arrive on time.

This newsletter is your voice in the organization as well as your source of information. If you care to climb on the stump and let go, be our guest. Send your contributions to Warren Lauder, 405 Pierre Drive Kennett Square, PA, 19348. The next deadline for items is March 1.



## President's Message

**Outgoing President Ann Leffel.** Working for the newly reorganized Pennsylvania Chapter of The American Chestnut Foundation (PA-TACF) for the last three years has been one of the most challenging and rewarding experiences of my life. We started as a group of interested people at the TACF Annual Meeting in October 1994. We have grown into an active chapter with 362 members. We have a strong extension program to bring the American chestnut story and mission to Pennsylvanians and nearby out-of-state as well (calls actually came from Alaska and Germany!).

We have had significant media coverage, and have developed an ongoing breeding program — all of which has been done by active volunteers.

It has been a privilege to serve my two terms as president.



I thank each and every one of you for the opportunity, for your cooperation and support, and for your friendship. I look forward to continued involvement in as many ways as possible.

Sincerely, Ann

**Incoming President Al Eelman.** My membership in the PA Chapter of the TACF has been an exciting and rewarding experience for me as I am sure it has been for all of you. It has been an honor and a privilege for me to have been selected as your president.

My education was in the technical fields of manufacturing. I worked for many years as a railroad supervisor on Penn Central and Conrail lines. I presently operate my own business as a Mfg. Rep. selling equipment to RRs and Highway Departments.



An article in the Philadelphia Inquirer led me to join TACF two years ago, and the wonderful people that I have met while working with this chapter has increased my enthusiasm.

My interest in American chestnuts comes from a longtime love for American history, and especially for the story of the pioneers and those who helped carve a nation out of the wilderness. As in the past, our goal and biggest challenge is to continue backcrossing breeding efforts, and recruit new members. If you wish to take part in any of these programs, please contact me. I look forward to working with all of you.

Al

### What's in this issue

- Newly elected board - pg. 2
- TACF annual meeting - pg. 3
- Origins of chestnuts - pg. 4

- Fall meetings - pg. 4
- Who's Who - pg. 5
- Boy Scouts help - pg. 6
- Regional breeding program - pg. 7

## The Pennsylvania Chapter of The American Chestnut Foundation

### Board Members

1999 Blair Carbaugh, Montour Co.  
1999 Phil Gruszka, Chester Co.  
1999 Chandis Klinger, Snyder Co.  
1998 William Peifer, Ohio  
1998 Rich Polini, Berks Co.  
1998 Tom Pugel, Bucks Co.

### Officers

Al Eelman, President, Chester Co.  
610-358-1077  
610-358-9308 fax  
Dan Heacock, Vice President, Perry Co.  
717-957-2733  
717-232-5300 work  
717-232-1885 fax  
Bob Summersgill, Secretary, New Jersey  
908-647-5864  
Tracey Coulter, Treasurer, Cumberland Co.  
717-486-8935

### Committee Coordinators

History, Bill Lord,  
412-793-0255  
PA Farm Show Exhibit, Dan Heacock,  
717-957-2733  
717-232-5300 work  
717-232-1885 fax

Membership, Ron Stanley  
814-784-3652

Education, Mary Stanley  
814-784-3652

Tree Location and Identification,  
Blair Carbaugh

717-275-7848  
Grants, Larry Patchel  
412-824-5019

Tree Breeding Program, Bob Leffel  
717-927-9557  
717-927-8410 fax

Communications, Ann Leffel  
717-927-9557  
717-927-8410 fax

Fund Raising Auction, Chandis Klinger  
717-837-0457

Newsletter, Editor, Warren Lauder  
610-388-6944

Newsletter, Print Preparation, Dave Armstrong 717-632-8669

Printing, News Printing Co., H.A. Barney Barnhart 814-224-2271

Newsletter Mailing, Ron Stanley  
814-784-3652

*The Chestnut Tree* is published four times a year by The Pennsylvania Chapter of The American Chestnut Foundation. Printing is donated by News Printing Co., Inc. of Claysburg, PA. (Thank You!) Founded in 1983, TACF is a 501(c)(3) non-profit organization. Its sole goal is to restore the American chestnut through co-operative research and a scientific breeding program.

The bylaws provide for an Executive Committee composed of four Officers and six Board Members. The Committee Coordinators participate in meetings. At least once a year, the Area Coordinators are also present. If you, as a member, wish to attend please advise and you will be notified of the next meeting.



**PA TACF Executive Board of Officers.** Former and new officers pose during their meeting at the home of Ann and Bob Leffel. Back row, left to right are: William Peifer, Tom Pugel, Bob Summersgill, Tracey Coulter and Al Eelman. Front row: Chandis Klinger, Phil Gruszka and Dan Heacock.

## Newly Elected Executive Board Meets

dinner and a planning session. We met and ate from 10:00 a.m. to 4:00 p.m. There was no scarcity of ideas. As the chapter grows and word of the chestnut restoration project spreads, so the needs grow for better communication, education, record keeping, financing, and planning. Many suggestions were offered for investigation, consideration, or initiation. For education and public relations: additional displays for environmental education centers, schools, special events, etc.; incorporate our educational materials on a web-site, possibly as a sub-page of TACF web-site. **We need the help of a web page designer.**

For education: developing educational materials for school programs and environmental education

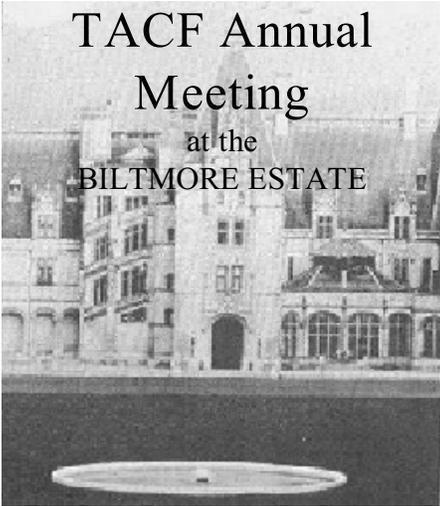
centers. **We need teacher input to the education committee.** For membership: investigate dividing the state into six districts corresponding to tree breeding

districts, i.e., NW, NCentral, NE, SW, SCentral, SE, as a way to encourage participation and to increase membership. Currently have 14 Area Coordinators serving 30 counties and 362 members spread all over the state. For Finances: Preparing a budget and tracking in-kind contributions of our members will be tackled in 1998. Up to now, most operating expenses have been covered as in-kind contributions of our members, and other expenses have been approved by the board on an individual basis. The budget will identify spending needs and priorities in advance. The bylaws grant the Executive Board power to commit necessary funds to implement projects adopted by the membership. Tracking in-kind donations will also give prospective donors and grantors a clear idea of our total operating expenses and the willingness of members to support its mission. For record keeping: a breeding program is only good as its documentation. The data collected on our nursery plantings need to be properly recorded. One of our members, Dave Armstrong, has agreed to enter our accumulated data on pollinating and nut collection into a computer data base. Ron Stanley will investigate a program which can track every tree in the breeding program. For the breeding program: contacting professional plant breeders remains a priority for the integrity of the program.

The executive board of former and new officers met at the home of immediate past president, Ann Leffel and Bob Leffel for the combined purpose of fellowship,



# TACF Annual Meeting at the BILTMORE ESTATE



by Ann Leffel

The Annual Meeting began in the beautiful 426-acre North Carolina Arboretum with views of Pisgah National Forrest at peak of autumn color. It began with a presentation to the Board on Thursday afternoon, October 30 of work supported by NY-TACF on Bioengineering Research at the College of Environmental Science and Forestry in Syracuse. William Powell is applying genetic engineering to construct, from a frog skin, a gene that is toxic to the chestnut fungus. Charles Maynard is developing a way to transfer that gene into a chestnut tree. Zizhuo Xing is involved in tissue culture, to grow seedling trees from chestnut cells with these transformed genes. (This is a gross simplification as I

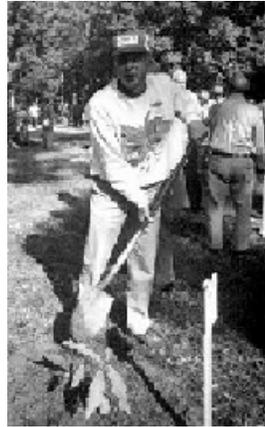


Members of TACF plant B2F2 American chestnuts on the Biltmore Estate at Asheville NC. at the Annual Meeting.

try to understand this very highly technical science)

Next the Science and Development Cabinets met to prepare for the Board Meeting. The Board met and received committee reports and proposals. A task group headed by president Bud Coulter will research proprietary rights agreement suitable for cooperative work with institutions, individuals, and chapters. Elections were held and the \$ 4 3 2 , 0 0 0 budget was accepted.

The American Chestnut Foundation has a lot of above average people. Particularly in terms of age! Perhaps an association with chestnuts prolongs life. I hope so, but it is with great enthusiasm that I report an influx of youngsters into the leadership. After all, this is a long-term project. Bud Coulter, Bill MacDonald, and Don Willeke remain as officers - President, Treasurer, and Secretary, respectively. Dr. Hill Craddock, Department of Biology & Environmental Sciences at the University of Tennessee, Chattanooga was elected Vice President, Science Cabinet. Dr. Craddock, who earned his degree while in Italy for seven years, worked extensively on Italian (European) chestnut trees. He began a backcross breeding project for TACF in Tennessee. Forest McGregor is an ambitious entrepreneur from Asheville, North Carolina. He is an electronic designer and consultant, and he is supercharged with energy and ideas. He was elected Vice President, Development Cabinet. He is already reviewing and reworking, with other development cabinet members, the five-year strategic plan adopted in October 1994. Newly elected directors include, Dr. Robert I. Doudrick, US Forest Service, Southern Institute of Forest



Dr Fred Hebard planting a chestnut tree( Can you imagine something like that?!!) At the Biltmore Estate.

Genetics; James O. Mills from Cattanooga, and Kevin Scibilia from New Brunswick, New Jersey. The newest staff members include Marshall Case, Executive Director, Kelly Grundman, Membership Director; and Shelly Stiles who is part-time Communications Director and editor of the *Bark and Journal*.

In August, Dr. Yen Shi reigned from his position at Meadowview Research Farms. A search for a replacement scientist for Dr. Shi is in progress, as well as a search for a farm manager to allow Dr. Fred Hebard more time for research.

The work of the Board completed, the general meeting began with registration and reception at the Winery of the Biltmore Estate. It was a festive Halloween night with over 170 participants, the largest turnout ever for an annual meeting.

Saturday morning began with the threat of rain and storms as we gathered in the Lodge Room for a slide presentation by Bill Anderson, Landscape Curator, Biltmore Estate. The development of this immense historic home and an 8,000-acre estate unfolded in a fascinating story. Gifford Pinchot (former PA Governor), the first American-born forester was hired by George Vanderbilt to manage his Biltmore Forest in 1892. It was his first job after graduating from forestry school in Europe. According to Pinchot "--there was not, I



The author, Ann Leffel, planting a hybrid American chestnut tree on the Biltmore Estate where a total of 150 trees were planted by members of TACF and another 1450 were planted elsewhere on the estate.

repeat not a single acre of managed forest anywhere in the

Continued on the next page.....

## TACF Annual Meeting

Continued from page 3....

United States.. My work in Biltmore Forest began February 3, 1892.. Thus Biltmore Forest became the beginning of practical Forestry in America. Here was my chance. Biltmore could be made to prove what America did not yet understand, that trees could be cut and forest preserved at one and the same time." At that time it was all cutting and no preservation. After the presentation, the rain stopped and the sun came out. We gathered on a hillside on the estate to plant 150 B2F2 chestnut trees. Another 1450 will be planted. After lunch, a series of concurrent workshops were offered at the NC Arboretum. Topics discussed included beginning and advanced chestnut identification methods, chestnut culture, current trends in chestnut research, chestnut blight, the chestnut in Europe, Meadowview farm operations, culinary uses of chestnuts, and how you can become involved in TACF. Some folks preferred a shopping expedition into Asheville as others poured over microscopes looking for glandular hairs on the underside of chestnut leaves. Something for everyone!! Saturday ended with the banquet and a candlelight tour of the 250-room Biltmore House. Sunday morning wrapped up the weekend with the business meeting and informal sharing of chestnut experiences and stories among the members. It didn't end there. Some of us enjoyed the wondrous autumn display on the drive home via the Blue Ridge Parkway or other equally beautiful routes. It was a grand weekend! Thanks to Tammy Carpenter, Forest McGregor and all the others who made it a special meeting.



### Late Breaking Computer News!!

The Chapter has acquired a new computer. We now have the capability to send and receive e-mail, actively participate on the internet, use a state-of-the-art word processor and incorporate programs to document the tree breeding program.

### The Pennsylvania Farm Show

### And Now, For a Reely Beag Sheuw

by Dan Heacock

In this 'computer age' most people's lives are far removed from agriculture and the natural earth. Paradoxically, there has been a strong increase in interest and attendance at the farm show. For the third year, The PA Chapter will present the American Chestnut Exhibit to promote the return of the American chestnut tree to the forest. Last year many volunteers spent some time during the 6-day exhibit manning the booth. They enjoyed answering questions, hearing stories, meeting lots of people, and learning new ideas. There was plenty of time for visiting the other exhibits and tasting many Pennsylvania grown and made products. The mushroom soup and baked potatoes are big favorites.

If you would like to help, schedule your time for January 10-15, 1998 by contacting me. A splendid way to beat that mid-winter cabin fever. 717-957-2733

## Origins of Chestnut Trees

(Everything you always wanted to know about our favorite tree)

Chestnuts have been cultivated for nuts and wood for thousands of years. The name *Castanea* is believed to have come from *Kastanea*, a city in Pontus, Turkey. European chestnuts, *Castanea Sativa*, probably originated in the Caucasus mountains between the Black and Caspian Seas. They were planted throughout the Roman Empire, and now grow wild in Italy, France, Spain, Morocco and Greece. Chestnuts are also important in China, Korea, and Japan. Where there are four native species, *C. mollissima*, *C. Henryi*, *C. seguinii*, and *C. crenata*

In North America, pollen records from the last interglacial period show that the American chestnut tree, *Castanea dentata*, was present on Long Island 30,000 to 50,000 years ago. American chestnut trees were once found up and down the Appalachian range, from Main to Georgia. Within this area it occurs either singly or in mixed forest growth, usually on high sandy land, gravel ridges or mountain slopes wholly or nearly free from limestone. In the last 150 years it has been planted outside its range in favorable spots (Michigan and Wisconsin) where it became a forest tree, protected from chestnut blight disease geographically until only recently. American chinquapins, *Castanea pumila*, share the southern part of the American chestnut range from Pennsylvania south.



European chestnut trees were extensively planted in North America, starting in 1773 by Thomas Jefferson. This species is almost as susceptible to chestnut blight as American chestnuts. There are many hybrids of European X American in the U.S. including the old and frequently planted cultivar 'Paragon'.

Japanese chestnut trees, *Castanea crenata*, were first imported into the U.S. in 1876 by S.B. Parsons of Long Island, New York. The chestnut blight fungus came into the U.S. on some of the early imports of this species. Japanese chestnut trees are usually very resistant to chestnut blight, but may not be very winter-hardy north of Pennsylvania. Chinese chestnut trees, *Castanea mollissima*, can be small, apple-like orchard trees or tall, straight forest trees. They were planted extensively in North America, starting about 1915. Chinese trees range in resistance to chestnut blight from very susceptible (as susceptible as American chestnut trees) to highly resistant. They are a little more tolerant of cold weather than Japanese chestnut trees.

There are two varieties of Chinquapin, the Allegheny, *var pumila*, and the Ozark, *var ozarkensis*. The Chinquapins are shrubs up to 60 feet tall. Ozark chinquapins can look very much like American chestnut trees. All are very susceptible to chestnut blight and they have single nuts in the burs.



## Fall Meetings

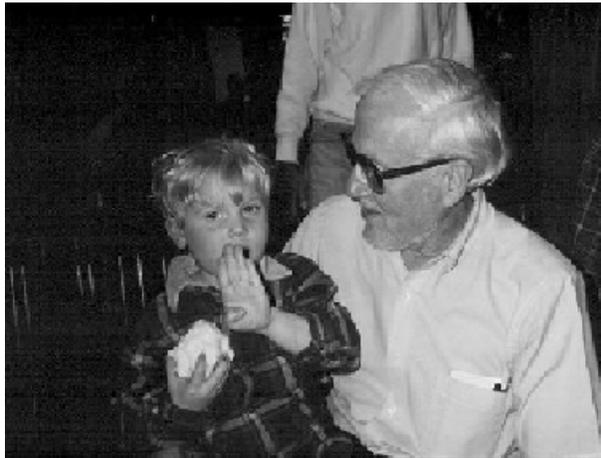
Two regional meetings, the Chapter's Annual meeting, October 18, and the National Annual Meeting, October 30, kept chapter members on the go this fall.

The Northeast Regional Meeting, September 27, at Clarks Summit near Scranton was held in conjunction with the Pennsylvania Forestry Association meeting. The September 26 day of tours included Al and Eleanor Maass' Butternut Tree Farm, an award-winning Registered Tree Farm and Stewardship Forest. A self-guided tour demonstrating management practices for timber stand improvement showed 35 years of effort on the part of the Maass family to protect and improve privately owned PA forest land. Such experienced tree growers will lead the way to the introduction of future blight resistant chestnut trees into the forest.

Ann Leffel showed a slide presentation on the progress of the PA-TACF breeding program at the Saturday morning session. Twenty-eight attended the PA chapter picnic at the home of John and Janice Mauhnich. State Senator Roger A. Madigan, Tony Santoli (District Forrester-Lackawanna), and Jim Kessler (Service Forester-Susquehanna and Wyoming Counties) were among those present. An identification workshop and a discussion of plans for the northeast followed lunch.

A regional meeting for Lancaster, Dauphin, and Lebanon Counties was held by area coordinator Eugene Witmeyer on October 10 at the Pinch Pond Campground in Manheim. On hand for the meeting were seven people with particular interest in woodworking. The Heisey family from Manheim, Dana Atkinson from Selinsgrove, Donald Geib from Manheim and Barry McFarland from Mount Joy all find chestnut wood among the best to work with. Barry donated four saffron jars turned from old chestnut wood for the spring auction.

The PA Chapter Annual Meeting opened on a perfect autumn day in a perfect setting at the Montour Preserve visitor center near Danville. Officers and Board Members were elected at the business meeting. Progress reports were given. Jim Nelson, retired director of PA Bureau of Forestry showed excellent slides depicting the early history of forestry in Pennsylvania. Following the catered lunch at the picnic pavilion, the 72 participants attended four concurrent workshops on chestnut identification, nut collection, handling and storage, educational resources, and planning and planting a chestnut nursery. Many who had collected native American chestnuts brought them to the meeting for spring nursery planting. Among our guests were



Lewis Santini with his grandson, Aiden McDonald, the youngest member of the PA Chapter, TACF at the fall meeting. Can you guess how old Aiden is?

Tammy Carpenter and Kelly Grundman, TACF staff from Vermont. Charles Sober, the great-nephew of Colman Sober who was the largest producer of chestnuts for the food at the turn of the 20<sup>th</sup> century. Sober's groves were located on a large farm in the Irish Valley near Shamokin. His beautiful old barn still stands on the property. Members of the Susquehanna Woodland Owners attended, and our youngest and newest member, Aiden McDonald, grandson of Lewis Santini.

The Pa Chapter thanks Lewis Santini, who provided the delicious refreshments, and Jon Beam, Montour Preserve naturalist, who provided the meeting place.



## Who's Who in Chestnuts? .....

The American Chestnut Foundation (TACF) has a new **Executive Director, Marshal T. Case**. Marshal jumped right in at the Cabinets and Board meeting prior to the Annual Meeting in Asheville. He expresses a strong interest in conserving and preserving the natural resources of the earth, and teaching young people the need for doing so. Education is his strong suit along with much experience in organizational operation and chapter development through more than twenty years with state, regional, and national work for the National Audubon Society. His last position with NAS was as Vice President for Education. He also served as Public School Curriculum Consultant in Southwest Vermont.

Most recently Marshal was Deputy Director, and Head of the Education Department of the International Crane Foundation. His work has taken him all over the country and to other parts of the world as well - particularly Russia. He enjoyed meeting many members at the Annual Meeting. He enters this new challenge with energy, enthusiasm, and good nature. We look forward to his first visit to Pennsylvania. Welcome, Marshal!

**Warren H. Lauder** is the new editor of our newsletter, *Chestnut Tree*. He has had a long-term interest in the American chestnut tree and became involved with the PA Chapter breeding program as a volunteer at Longwood Gardens.

### Warren's Comment

"I served in the U.S. Army during World War II, 1942-46. In 1950 I earned a B.S. degree from Temple University, Philadelphia. In 1985, I retired from the Dupont Company after 33 years in communications, as senior technical editor and publisher for the Engineering Department.

My interest in the American Chestnut tree began as a child on an old farm up in New York State.

Continued on the next page....

## Who's Who in Chestnuts?

Continued from page 5....

I marveled at the great pale grey hulks of the dead chestnut trees, and I was curious about the sprouts growing out of the old stumps. I learned about chestnut blight from my parents. Throughout my long life I have never lost hope that one day these magnificent trees would return to our woods.

For the past 37 years I have helped to increase the Eastern Bluebirds by developing an effective nest box for them. I helped manage 100 bluebird nest boxes along with other wildlife nest boxes at Longwood Gardens."



# Boy Scouts Help the Chestnut Cause

by Erin C. Rasor-Shellhamer

Pennsylvania Department of Conservation and Natural Resources , DCNR

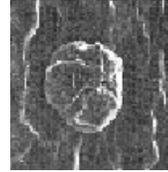
The DCNR, Tuscarora State Park chestnut plantation received a helping hand on June 7. The Tamaqua Boy Scout Troop#783 came to the park to plant 50 American chestnut hybrid saplings under supervision of area coordinator Eugene Dougherty. The troop quickly formed an "assembly line" plan of action. Eugene would mow a row where he wanted the saplings planted. Then the boys would dig holes, put a mixture of peat moss and soil into the hole, add the sapling, and fill the hole. A 2' tree tube was then placed over the sapling to prevent deer damage. The troop had a great time and learned about the American chestnut's history, blight, and hopeful future.

This is not the first time that Troop #783 has helped to implement Tuscarora's planting plan. In June of 1996, the troop planted their first 50 chestnut hybrids at the park. The Boy scouts enjoyed planting the first year and offered to plant this year's.

Tuscarora's American Chestnut Hybrid Planting Plan was established in May 1995. The plan calls for the planting of 100 Douglas 1A x Walbridge American hybrids.

While we were attending an outstanding annual TACF meeting in Asheville, NC, a few of us volunteered for an advanced chestnut identification course with Dr. Fred Hebard.

Fred and others brought "bushel baskets" full of leaves, branches, and twigs. We reviewed and observed the general characteristics of the American, European, Chinese, Japanese, and chinquapin chestnuts. Our main focus was observing, by microscope, the glandular hairs on the underside of leaves. These glandular hairs are different on all the chestnut types and are



American chestnut glandular hair.800x

rather difficult to locate due to their size, smaller than the usual hairs, and also the presence of dust, dirt or pollen. It took several hours of concentration and many leaves before I felt confident in glandular hair identification.

The American glandular hairs are small mushroom-shaped and resemble a hot cross bun. The Japanese is the only other leaf to have mushroom-shaped hairs. They resemble a cut pie or walnut formation. The European resembles a club while the Chinese is penile in shape with a large head. We hope to demonstrate and observe these at one of our chapter meetings.

They are planted in a 300'x100' clear-cut areas. There is good sunlight and well-drained soil as the planting is at the base of Locust Mountain. The hybrids will be used for further backcrossing through acquired seed and pollination directed by research. Totally there were 103 hybrids planted. Only two saplings did not survive for a total of 101 trees.

The weekend was beneficial not only to the future of the American chestnut tree, but also to those who took part in the project

Hopefully, this type of partnership and volunteerism may find its way into other plantings for the benefit of the American chestnut, wildlife, forest biodiversity, and ultimately for the people.



Troop #783 Tamaqua Boy Scouts plant 50 hybrid American Chestnuts at the Tuscarora State Park on June 7, 1997.



(SPROUTS from the Stump)

# Regional Breeding Progress and Challenges

by Bob Leffel

PA-TACF 1996 and 1997 plantings of third backcrosses (BC3) to American chestnut established BC3 nurseries at Longwood Gardens and at Hummelstown, Dornsife, Central City, and Brogue — a total of 1154 BC3 seed (seven lines) plus the appropriate checks of American, Chinese, and American x Chinese F1 hybrids. 1997 was a difficult year for hybridization nationally and locally — PA-TACF obtained 147 BC2 seeds with 'Clapper' as pollen parent and 67 BC2 seeds with NHR2T2 as pollen parent. This latter cross will provide material to study the inheritance of a new source of resistance to chestnut blight. Our members collected more than 1500 open-pollination seeds from American chestnut trees in 1997 — a source for new American chestnut nurseries and for replanting in lost entry spaces within our BC3 nurseries. A diverse collection of American trees within a BC3 nursery will allow BC4 crosses prior to recombination among selected BC3's for the BC3F2 generation.

If we do an adequate job culturally, our 1996-97 BC3 trees should develop adequately to allow inoculations with the blight in 2000 - 2001 and, hopefully, first flowers concurrently or soon thereafter.

But only 4 of 17 surviving trees in the 1988 Reineman Wildlife Sanctuary planting produced male catkins in 1997, and only one bore female burs! The larger our BC populations, the more stringently we can select for resistance and for American chestnut characteristics. We must remember, however, that any BC tree selected originally as partially resistant (R1r1R2r2) on the basis of reaction to inoculation must be progeny tested to confirm its genotype for resistance. The seed required for the progeny test is provided by backcrossing each BC tree selected for moderate resistance to blight to a locally adapted American chestnut. We are always a generation ahead in backcrossing versus confirmation of resistant genotypes. Thus our BC3 nurseries are progeny tests of BC2 trees selected by TACF as partially resistant, but nonconfirmed R1r1R2r2 genotypes.

Yet a greater challenge will be the classification of BC3F2 and subsequent BCF2 generations. Only 1/16 of a BCF2 is expected to be completely blight resistant to blight (R1R1R2R2 genotype). Again, large populations will allow more stringent selection.

But the test to ascertain genotype will be the backcross of each selected tree to an American chestnut tree. One of the nine genotypes expected in the BCF2 population, only R1R1R2R2 trees will produce all partially resistant (R1r1R2r2) progeny when backcrossed to an American chestnut. The other eight genotypes will produce some or all susceptible genotypes when backcrossed to American chestnut.

Wisdom dictates that chickens not be counted before the eggs hatch! We have uncharted but challenging and exciting decades of research ahead. The requirements of progeny testing and the unknown of how many generations of backcrossing will be required to recover American chestnut characteristics and regional adaptation dictate an adequately planned, coordinated regional backcross breeding program. We must be certain that our final products are just what we seek — releases of adequately documented, regionally-adapted, blight-resistant populations of American chestnuts. This is no time for exclusivity — but is the time to gain the confidence, trust, and cooperation of our public agencies essential to the success of our mission!



## Stump Shoots

A reminder ...  
By W.H. Lauder

Tall plastic tree guards if left uncovered can be a hazard to birds seeking insects or a suitable nesting cavity. In certain areas where plant guards of 3 and 4 foot lengths were in use without covers, I have observed the mortality of bluebirds, sparrows and others that entered the guards but could not fly out. This can easily be prevented by securing the mesh guards to the tops of the plant guards. If mesh covers got lost or removed, mesh plastic onion bags can become replacements.

## The Calendar of Events

### Calendar

**January 10-15**

#### PA Farm Show

PA Chapter TACF Exhibit  
Harrisburg, PA  
Contact: Dan Heacock  
717-957-2733 home  
717-232-5300 work

**May 16- April 18**

#### Spring Plantings

Across Pennsylvania  
To volunteer help,  
Contact: Bob Leffel  
717-927-9557  
717-927-8410 fax

**April 18, 1998**

#### PA Chapter Meeting and Fund Raising Auction

News Printing Co. Farm  
Roaring Spring, PA

## Notes and Notices

**April 18, 1998**

#### Fund Raising Auction

Begin collecting or making items for the spring auction. The many hand crafted items of chestnut wood were big sellers last year.

#### Newsletter Deadlines

Articles to the editor by March 1<sup>st</sup>  
Mailing Date - March 26<sup>th</sup>

#### Don't let your chestnuts for planting freeze in storage!

#### Office Hours

**Wednesdays**

**1:00 pm. - 8:00 pm.**

Beginning January 5, 1998  
Ann Leffel requests that calls to Chapter Headquarters be made during office hours if possible.

**717-927-9557**

**717-927-8410 fax**

The Pennsylvania Chapter of the American Chestnut Foundation needs your help. We need new members.

Our members keep up the enthusiasm and interest that helps to bring back this once magnificent tree from the brink of extinction. The Chapter and Foundation depend on the private sector for their support.

Please make it a 1998 new year resolution to bring in at least one new member to our Chapter. They will appreciate the opportunity.

Send the following information including \$40 annual dues to: TACF, 469 Main St., P.O. Box 4044, Bennington, VT 05201-4044:

**Name:** \_\_\_\_\_

**Mailing Address:** \_\_\_\_\_

**Telephone:** \_\_\_\_\_

*TACF is a 501(c)(3) non-profit organization. Contributions are tax deductible to the full extent of the law.*

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Brogue, PA 17309

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Ecological Link

Abundant Food  
For Wildlife

Forest in good  
health & balance

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