The Pennsylvania Chapter now has 801 Members!!

DEDICATED TO RESTORING THE AMERICAN

Chestnut Tree

The Pennsylvania Chapter of
The American Chestnut Foundation



Volume 5 Number 1

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March 2000

April 8th Chapter Spring Meeting

he Chapter has been invited to hold our spring meeting at the Pennsylvania State University, Mont Alto Campus located ten miles south of Chambersburg, PA. It is the oldest public forestry school in the country and Dr David Goldenberg, CEO, will brief us on Mont Alto's history.



Penn State Mont Alto, Wiesting Hall

Our guest speakers will focus on chestnut ecology and history. Our afternoon workshops will offer a trip to Michaux State Forest to observe an American chestnut grove; chestnut planting on Mont Alto campus; a new member's orientation; a children's, teacher's, and parent's program; plus a timber sports demonstration by the instructors and students at PSU-Mont Alto. It's going to be an exceptional day.

<u>The full agenda, map, and motel accommodation are shown on pages 7 & 8.</u>

Please call, e-mail or send a note for the number of attendees to the York office. We need a good headcount to help with food and planning - Thanks. Phone: (717) 852-0035 e-mail: pachaper@acf.org

April 7th County and Regional Coordinators Meeting

ur coordinators are invited to a meeting at Mont Alto Friday, April 7th beginning at 3 P. M. for a membership update and conference on local coordinator ideas. A PA-TACF Executive Board meeting is also planned that evening. The Penn State - Mont Alto staff is graciously providing dinner. A personal invitation will be sent to Coordinators and Officers with more details.

We're now on the Internet

at: www.pachaptertacf.org

Please take a look!

he site outlines our general purpose and allows viewers an opportunity to move to the Foundation page as well as provide access to the membership application page. The newsletter is published on subsequent pages with an additional chart showing the chestnut breeding program.

This initial web site entry will be updated every three months with a new calendar and the latest newsletter. Please send any comments or suggestions for improvement to he York, PA office.

The American Chestnut Foundation also has a new web site

at: chestnut.acf.org

Members of TACF in MARYLAND and DELAWARE Receive Newsletter Copies

Copies of *The Chestnut Tree* newsletter are going to TACF - MD and DE members this month as these states expand their memberships and regional chestnut breeding programs with a focus on future chapter development Please see page 7 for details.

The Pennsylvania Chapter The American Chestnut Foundation (PA-TACF) **800 East King Street** York, PA 17403 (717) 852-0035

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CHAPTER DIRECTOR: Dave Armstrong 717-632-8669

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South Central: Lee Saufley

717-566-2993

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Pocono: Gene Dougherty 507-467-2303

North West: John Maruhnich 570-378-3565

American Chestnut Foundation.

The PA Chapter bylaws provide for We do not discriminate with regard an Executive Board composed of to race, religion, color, natural four officers and six board origin, gender, age, or disability. members. The Board meets several times per year. The Region Coordinators and Committee

Coordinators are invited to participate in meetings. All members are invited and encouraged to attend meetings.

TACF was founded in 1983 as a The Chestnut Tree newsletter is 501(c)(3) non-profit organization. published four times a year, March, It's sole goal is to restore the June, August and December, by the American chestnut tree through co-Pennsylvania Chapter of The operative research and a scientific breeding program.

REORGANIZATION **UPDATE**

he December newsletter outlined reorganization of our chapter board and proposed changes to the by-laws. We received 85 votes, all approving these changes. Thanks for your response. We plan to complete the balloting at the spring meeting of those members in attendance who have not yet voted. It appears that we will have enough votes to implement the changes, rewrite the by-laws, nominate officers and hold an election this year. Based on our board's guidance and direction this spring, the August newsletter will have more details.

The FARM SHOW 2000 was a **Giant Success!**

reat crowds, moderate weather, and lots of chestnut wood masterpieces to raffle gave our 21 member volunteers exhausting, fulfilling days at the farm show in mid-January. Our volunteers generated several new members and we met many current members as well.

The raffle winners were:

3rd Prize, an American chestnut clipboard Douglas Cowley, Philadelphia, PA 2nd Prize, an American chestnut table Bill Anderson, Glenmoore, PA 1st Prize, an American chestnut corner cupboard Alvin and Mary Stake, Shippensburg, PA

Our display was located, as usual, in the farm and

family section of the farm show - 2nd floor. Our volunteers found that the main exhibit area on the lower level was more popular and had larger crowds. We have requested to be move there next year. Fortunately, the cost of the booth will be the same.

Expressions Of Appreciation

Carl Mayfield, a loyal member and supporter from Virginia lost one of the American trees to blight that he has collected nuts from through the years. It was about 30 years old, and 11 or 12 inches in diameter at the base. He cut the trunk into 4 eight foot lengths, and transported it all the way to the Leffel farm in Brogue, PA.) Merle McElwaine, a neighbor with a Wood Miser band saw, transported the logs, and sawed them into about 80 board feet of chestnut lumber. The boards were then transported to **)** Chris Ditlow in Harrisburg where they will be dried and made into chestnut articles to produce income for the chapter. The Chapter realized over \$1100 from the sale and raffle of Chris-s donations of crafted clip boards, cutting boards, and chestnut furnishings at the PA Farm Show.

- And of course, we thank all those who manned our exhibit at the Farm Show in January and the York Outdoor Show in February.
- Scott=s Miracle-Gro Products, Inc. again contributed 30 pounds each of Miracle-Gro and Miracid which keeps those chestnut trees growing and
- Two cooperative growers, Red Clay Reservation and Moshannon State Forest, have added fencing to protect the backcross orchards from deer.

(Continued on page 3)

the

Our thanks to new member **Bob Sweet** of Alum Bank, PA who generously donated all the planting stakes we will need for our orchard planting this year.

The gifts of many people contribute immeasurably to the advancement of the chapter. It impossible to recognize all of you, but the chapter appreciates each and every effort.

Wild Turkey Federation **Supports PA-TACF Spring Planting**

On Saturday, February 19th, a check in the amount of \$4,000 was presented to the PA Chapter by the

Mason-Dixon Chapter of WTF.



The check was presented during the Isaac Walton League of America Outdoor Show in York, PA. This was the culmination of an idea begun in 1999 by PA Chapter member Norm Wurzbach

Chapter Director, Dave Armstrong and WTF board member **Brad Roads** to provide dollars to pay for this spring's planting supplies. Thanks WTF.

The Chapter also operated a display at the Isaac Walton Outdoor Show with seven York County Chapter members. The York County coordinator, Gladden Gingerich, drew these members together to educate the public about our chestnut story. The host and coordinator for the entire outdoor show was PA Chapter member Bill Frey. The show was a great success.

Grant Provided by the National Tree Trust

hanks to the untiring efforts of our Western Region Coordinator and Grants Coordinator, Larry "Chip" Patchel, we received a \$5,000 grant from the National Tree Trust in Washington, DC.

The Trust is a non-profit organization that provides grants to organizations that promote public awareness and a spirit of volunteerism in support of tree planting, maintenance, management, protection and cultivation projects throughout the U.S.

Larry forwarded a check to the Chapter in February from the Trust for \$1,666 which first of three covers the These funds are installments. targeted for office costs, internet Planting AMERICA'S FUTURE costs, and newsletter mailing.



Thanks Larry Patchel and The National Tree Trust.



The National Wild Turkey Federation, Mason-Dixon Chapter presents a \$4,000 check to the PA Chapter-TACF at The York Outdoor Show. Pictured (L to R) are: Brad Rohrbaugh, WTF Outdoor Show Chairman, WTF Mason-Dixon Chapter President George Airing, PA-TACF Board Member Ann Leffel, PA-TACF York County Coordinator Gladden Gingerich, PA-TACF member Norm Wurzbach, PA-TACF Chapter Director Dave Armstrong



Grant

xxon again supported the PA Chapter with a generous grant. This one will be used to develop an automated management system for our orchards and the backcross breeding program.

PA Chapter Board member and Exxon employee, Tom Pugel obtained the \$1,000 grant through the Exxon Volunteer Involvement fund. That program encourages and supports employees who actively volunteer their time and talent to non-profit charitable organizations by providing special project funding on their behalf. Tom has certainly done all that! Thanks.

The Growers Corner

Tips and Experiences of Planting, Pollinating, Harvesting and Nut Storage from around Pennsylvania



Internship Program for PA Orchard Survey

Since 1996, the PA Chapter has had an extensive regional breeding program to introduce blight resistance into American chestnut trees native to Pennsylvania then grow out the progeny in our state. This extensive project is operated and staffed entirely by volunteers who grow the American and hybrid chestnuts on their own land.

In the past, the arduous task of manual inventory and documentation of the breeding program has been done by **Dr. Bob and Ann Leffel** in Brogue, PA. Today, there is a pressing need to update this inventory, design a computer program and record the data for analysis now and in the future.

The Stanback Internship Program, generously donated by **Brad Stanback**, TACF Board Member, has funded an intern to work in Pennsylvania May through August this year traveling to hybrid tree orchards for the inventory. **Dr. Paul Sisco**, Staff Geneticist at Meadowview, VA and the PA Chapter have selected an intern, **Sara Fitzsimmons** of Duke University and she will try to join us at our spring meeting on April 8th. We will provide information to the respective orchard growers as we develop the schedule and specific tasks.

Spring Plantings

by Ann Leffel

he ground is still snow covered, but planting preparations have been in full swing since long before Groundhog Day. Numerous cooperators and member growers plus potential new growers have been contacted, sites visited, supplies ordered, planting plans made, nuts repackaged, and some planting dates projected. As the grand plan all comes together, the excitement mounts. More winter, or an early spring? Ah, the anticipation of spring!

With over 3000 third backcross seed produced and over 3000 American seed collected in the fall, the work of the chapter continues to grow just as fast if not faster than the membership. Once again, we were able to provide 1000 American chestnut seed to TACF for their seed kit and seedling sales. Another

300 seed were provided to Dr James Zaczek, University of Illinois for his chestnut research project. Members will have ample opportunity to help plant trees this spring. Join in the fun!!

North Central Region

Remember those trees that were started by Dr. Larry Kuhns at PSU last spring? He started half of the seed for two BC3 orchards **B** one in Clinton Co. and the other in Moshannon State Forest. The other half of the seed was directly seeded at the two orchard locations. This spring, the half that were container grown using accelerated growth methods will be transplanted to their respective field sites. The 4 2 to 5 ft. seedlings grown by Dr. Kuhns and the direct seeded seedlings will be compared over the next several years for differences in survival rates, growth rates, flowering dates, etc. Planting the large seedlings will be a challenge. Clinton County site -Contact: Lee Saufley, 717-566-2993. planting date first week in April. Moshannon State Forest site - Contact: Wayne <wwynick@dcnr.state.pa.us> or Jane Ramsey, PA-TACF, 814-692**B**7277. Planting date mid to late April depending on weather.

Western Region

The plantings at <u>South Park</u> near Pittsburgh and <u>Summersgill Farm</u> near Stahlstown will be enlarged. Contact: Larry Patchel, <lcpatchel@cs.com>, Ph: 412-824-5019

Allegheny Region

Two plantings are in the planning stages in Warren County. This will be the first opportunity for folks from that region to work together on a project. Contact: Mike Shanshala, Warren Co. Coordinator, Ph: 814-723-1170.

For information about helping with other plantings, contact PA-TACF office: 717-852-0035.

Looking for a Science Fair Project?

There are many opportunities for pursuing your scientific interests in the chestnut breeding program. For example: there are several different types of protective bags available for excluding pollen from female flowers when controlled pollination is desired. Which type of bag is most effective? Which holds up better in the wind and the rain (Hurricane Floyd destroyed many of our bags in fall of 1999). What is the best size bag for the job? If you have a chestnut tree (doesn't have to be American) close to your home or in your yard, we can help you get started on a project this

Progress! And the Road Ahead! The PA-TACF Backcross Breeding Program by Dr Bob

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The table below summarizes the PA-TACF backcross breeding program to date, by source of resistance to chestnut blight and years of planting. We have achieved our minimum goal of producing 20 or more BC3 lines with Clapper resistance: 20 lines of at least 100 nuts each and 15 partial lines of less than 100 nuts each — for a total of 4823 seeds. The BC1 and BC2 lines offer new sources of resistance to chestnut blight.

Our immediate challenge is to complete the Year 2000 plantings and to prepare for a BC3F2 orchard, Clapper source of resistance. Burnham proposed intercrossing screened BC3 trees via open-pollination, requiring elimination of all chestnuts except selected BC3 trees and isolation from all other chestnuts. The Review Team recommended controlled (bagged) crosses. Assuming 20 BC3 lines, we can attempt controlled crosses, intercrossing screened BC3 tree(s) of one line with screened BC3 tree(s) of another line, to produce a total of 10 single crosses (1 x 2, 3 x 4,......19 x 20), avoiding crosses between sibs and halfsibs. This hybridization plan can begin in Year 2001 and

will require five or more years to complete, as the BC3 nurseries planted in successive years are screened and flower. The resulting BC3F2 seed from all BC3 nurseries should be consolidated in one orchard. This orchard, after inoculation with blight, selection for resistance, and screening for American chestnut characteristics, will serve as the seed orchard for the BC3F3 seed of the first blightresistant American chestnut bred for adaptation to PA! We envision a BC3F2 orchard of 10,000 trees (1000 per single cross), completely isolated from other chestnuts. seedlings in this nursery can be inoculated after 2 years growth and most of them removed to allow growth and development of the remaining, completely resistant trees. These trees must be seeded at much closer spacings than in BC3 nurseries, to provide open-pollination among approximately 100 remaining trees. Dr. Hebard suggests a maximum density of about 5000 trees per acre for a BC3F2 orchard, thus the acreage is not as demanding as the work!! WE MUST HAVE THIS BC3F2 NURSERY SITE BY YEAR 2002!!

		Number of Seed Planted:		
Source of Resistance	BC Generation	<u> 1996-99</u>	2000 (to be)	Total
Clapper	BC3	2264	2559	4823
Clapper	BC2	127		127
Graves	BC3	418	487	905
Japanese - NHR2T2	BC2	101		101
Douglas	BC2		145	145
Nanking	BC1	133		133
Chinese - NHR3T5	BC1	177		177
Meiling	BC1	2	43	45
GM 65-11	BC1		62	62



A TRIBUTE TO DR. LAWRENCE L. INMAN by Dr. Bob Leffel

arry Inman graduated from School of Forestry, Iowa State College, in 1947. His undergraduate program was interrupted by World War II, in which he served as a flight instructor, U.S. Navy. At the conclusion of World War II, Larry was in a special U.S. Navy Unit training to combat kamikaze pilots, a unit that had already lost 10% of its pilots!! Upon graduation, the Chairman, Dept. of Genetics at Iowa State, advised Larry that in his desire to specialize in tree breeding and genetics, he should pursue graduate training in a Dept.of Horticulture or Agronomy that specialized in plant breeding and genetics. Thus at University of Minnesota he received his PhD degree under Dr. Charles R. Burnham in 1957.

Dr. Burnham* stated: "I knew vaguely that the USDA had a chestnut breeding program, but not until 1959 did I write asking about the program." Also in 1959, Dr. Inman, then Assistant Professor of Forestry, University of Idaho (Ponderosa pine tree breeding), published, "The

divergent points of view of forest geneticists and of agronomic and horticultural crop breeders", Journal of Forestry 57 (5) May 1959. In this article, Dr. Inman states: "Agronomic and horticultural plant breeders who are familiar with some of the tree breeding programs have serious doubts about their success because some of the basic principles have been overlooked." advised that he would either breed trees via previous tree breeding methodology or "else", resigned and devoted his career to foreign assignments in agronomy. Dr. Burnham* describes his early search (1981-1982) for usable hybrids "jump-start" breeding blight-resistant American chestnuts: "Also at about that time I told Dr. Lawrence Inman the same story. He.....had prepared a review of the literature on tree breeding for Dr. Arthur Wilcox in Horticulture here at the University of Minnesota. He now says he knew the American chestnut story, but believed he was in no position as a student to do anything about Inman's familiarity with the tree breeding it..... literature, his first-hand experience in a tree breeding project, and background training in forestry, genetics, and

plant breeding have been a valuable resource. We have had numerous discussions about the goals of the chestnut program.......... The ultimate goal is to establish breeding populations of blight-resistant American chestnuts, each of which will be adapted to a different growth zone in the natural range, as described by Inman in 1987 and 1989 in the Journal of the American Chestnut Foundation."

Dr. Burnham belongs to the Ages as of 19 April 1995. His 3 March 1995 note to Janet Inman, Dr. Inman's wife, reads: "Janet, you will play an important role in the future of the ultimate goals of the chestnut breeding Breeding populations of blight-resistant American chestnuts each adapted to a particular growth zone. Larry will have to keep plugging - don't give up. Thus PA-TACF is greatly indebted to Dr. Inman for his contributions to the concept of breeding for regional adaptation and for his continuing support and encouragement of the PA-TACF backcross breeding program. Dr. Inman and Janet traveled from Minnesota to our PA-TACF April 1999 Annual Meeting, and Larry participated in our chapter session on Strategic Planning. Dr. Inman, if our generation is not the "Greatest Generation", you are certainly a GREAT ONE within our generation. We thank you!!!

*Burnham, Charles R. A Minnesota Story: Restoration of the American Chestnut. Journal of the American Chestnut Foundation 5(2): 82-90. 1991.

ThorpeWood

by Ann Leffel

ThorpeWood is located at 1400 feet atop Catoctin Mountain, situated among more than 20,000 acres of forested public lands, including the City of Frederick Watershed, Cunningham Falls State Park, and Catoctin Mountain Park. The new center is nestled on the side of a hill surrounded by local rock outcroppings, stone walls, and gardens alongside a tree-shaded and fast flowing native trout stream with cool glistening water splashing from rock to rock. Most of the property and surrounding slopes are cloaked by an expansive forest of century-old oaks and hickories. The setting is beautiful and serene.

For three decades, the site was the personal retreat of Merle Thorpe, Jr. – a place of calm and beauty away from the rigor and stress of his busy city life and work as an attorney in Washington, D.C. Merle loved the mountain and was absorbed with building dry stone walls along the paths he carved out of the steep hillside which rises above Bussard Branch. At the end of each day he would reserve time

to walk through the woodlands, enjoying the natural beauty and reflecting on his own dry wall handiwork. Merle wanted others to experience the same pleasure he had known. So, prior to his death in 1994 he established a charitable trust, to ensure that the public benefit from his land. Merle also wanted to provide an opportunities for urban children to restore a connection between them and the natural world.

ThorpeWood is an impressive recycled timber frame structure. Built to be environmentally sensitive, the 4,700-square-foot facility's meeting rooms can accommodate up to 70 people and will serve as the perfect getaway spot for business meetings or social functions. In addition to his passion for stone wall building, Merle had a romance with chestnut. In tribute to Merle's admiration for the species, chestnut makes up many important design and structural elements of the building. The entry posts are 70 year



old chestnut trees, formerly used as floor joists in a Maryland church built in 1700 (the bark was still on when the posts were delivered). The floor of the main room is chestnut, red and white oak, two inches thick and from barns built in the 1780s, tapering end to end from wide to narrow. The dining area is constructed using hand-hewn chestnut, posts, beams and roof rafters. To achieve maximum insulation value, stress skin panels were used on the roof, and a concrete product, "air-crete," was used in the walls. Dual fuel (wood and oil) furnaces are used to heat the facility. ThorpeWood is cooled by a combination of natural and designed elements: (1) its elevation, (2) shade, (3) its North slope location (4) convection flow of warm air out the cupolas. The septic system is a combination of composting toilets and graywater nutrient recycling. Rainwater is directed to irrigate plantings. The result is a large and beautiful building, which blends innovative technologies and a traditional design to create an environmentally friendly and energy efficient structure. In short, ThopeWood is a very inviting and pleasant place to indulge in study of the wonders of nature.

At the invitation of **Sam** Castleman. Executive Director, of the Thorpe Foundation, Bob and I had the pleasure of touring the center and surrounding lands, including a visit to the chestnut orchard established in cooperation with TACF and the Pennsylvania Chapter spring of 1999. A wooded mountaintop site with southerly exposure was cleared to provide for the planting of American and BC2F2 They have been well cared for by Robert Strasser, consulting biologist. A native of Maryland, Robert received a B.A. in Biology from Earlham College in 1988 and a M.S. in Environmental Biology from Hood College in 1998. Since 1988, he has lived and worked as property manager at Catoctin Quaker Camp, pursuing interests in natural history, ecology and ceramics.

This spring a 250 tree BC3 planting will be added to the Thorpe Wood chestnut reforestation site. Maryland TACF members and PA-TACF members from bordering PA counties are invited to meet at the center and participate in the new planting, on Saturday, March 25, 2000. Detailed directions to the facility can be mailed or faxed by calling (301) 271-2823 or obtained from our website, www.thorpewood.org or requested through emailing, sam@mtct.org.

PA Chapter Mont Alto Meeting

Notice to Maryland Members
In addition to the Thorpe Wood planting, a
meeting will be held to review, study and discuss
the development of a chapter. There will be an
organizational presentation by the PA Chapter
followed by a general discussion and question
session. All interested Maryland members are
invited. Any questions should be directed to
Barbara Knapp of Germantown, MD at (301) 4280044. The meeting will begin at 10 AM with the
planting to follow.

Below and on page 8 are the details of the Mont Alto meeting; agenda; campus map; Chambersburg road map; and list of accommodations.

Friday, April 7 PA Chapter Coordinator Meeting First Floor of the Campus Bookstore

Saturday, April 8
Spring Member's Meeting

General Studies Building Auditorium

8:30 AM Reception and Coffee
9:30 AM Introduction - Dave Armstrong

CEO, Dr. David Goldenberg - Mont Alto History

10:00 AM Chestnut Horticulture -Guest Speaker

11:00 AM PA Chapter Operations 2000

Ann Leffel, Dr. Bob Leffel, Dave Armstrong

12:30 PM Lunch at the Mont Alto Millstream Café - Pay as

you go.

1:30 PM Workshops

Chestnut Planting on Campus - Dr. Bob Leffel Trip to Oak Mountain to Observe Native Chestnuts and the Blight - Forester Phil Varndell

Chestnuts and the Blight - Forester Phil Varndel

Transportation Provided

Timbersports Demonstration - Dr. Beth Brantley and Students of PSU, Mont Alto

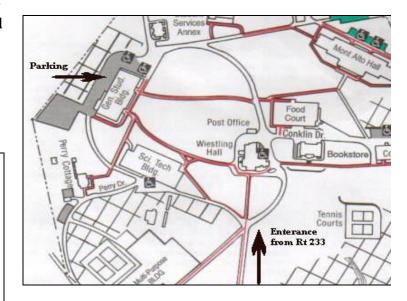
Children's Chestnut Program - Tracey Coulter

Chapter Briefing and Slide History

Presentation - Ann Leffel

Mont Alto Campus

The Chapter meeting will be held in the Auditorium of the General Studies Building. Parking is in the rear of that building. The Coordinators and Board meeting will be held on the first floor of the Bookstore.



Pennsylvania Chapter The American Chestnut Foundation 800 East King Street York, PA 17331

Nonprofit Organization U.S. Postage Paid York, PA Permit No. 238

The Chestnut Tree Newsletter

Address Service Requested

PA Chapter Spring Meeting Directions

Coming South on Interstate 81:

Exit 8 then south on Route 997. Across Route 30 and continue south on Rt 997 for 4.5 miles. Left on Route 233 to Mont Alto Campus.

Coming North on Interstate 81:

Exit 3 then west on Rt 16 to Waynesboro. North on Route 997 through Mont Alto and right on Rt 233 to Mont Alto Campus.

From Route 30:

West of Chambersburg, turn south on Route 997 for 4.5 miles and left on Rt.233 to Campus.

Accommodations

Comfort Inn, Int 81, Exit 8 717-263-6655 (Ask for the \$49 rate as a guest of PSU)

Super 8 Motel, Int 81, Exit 8 717-264-6288 Days Inn, Int 81 Exit 6, 717-263-1288 Howard Johnson, Int 81 Exit 6 717-263-9191 Fairfield Inn by Marriott, Int 81 Exit 5 717-264-1200 Many other National chains at the exits of Interstate 81. Please call their 800 number.

Chambersburg, PA Area Map

