

THE BUR

volume 5, No. 1

Newsletter of the New York State Chapter of the American Chestnut Foundation, Inc.

Spring 1995

PRESIDENT'S MESSAGE

Five years of hard work has produced a very hard hitting ACF volunteer organization to restore the timber type American chestnut to the hardwoods of New York State. The Board of Directors are all pulling their own weight individually making for a good team. All Committee chairs have produced excellent results, each in their own fields. As a result, the membership continues to grow passing the 400 mark by the time this is published. The Scientific Program continues on schedule. The Education Program is ready to go into high gear in Western New York, and soon, all across the State. With all the programs in place, it is time to make a major push for funding of these programs. This will be our next priority.

The District Directors each have a good speaking program in their areas and planting sires planned and underway. It is the dedicated efforts of all District Directors that is making our organization so effective. A special welcome to Margaret Collins our New York City District 2 Director. She has enthusiastically started to work!

It has been a good five years and we are well on our way to our goal of having a blight free tree. The target is the year 2000. Our fall back position would be 2004, 100 years after the start of this biological disaster. Thank you, each and everyone of you for your own contribution. You are truly appreciated.

Long live the American Chestnut.
Herbert F. Darling, Jr.
President.ACFNY

GENETIC RESEARCH IN HIGH GEAR

Good News! The research at the College of Environmental Science and Forestry, Syracuse has gone into the next phase, the tissue culture protocol has been built, and it works! They are able to produce both roots and shoots. You can see dozens of healthy little chestnuts, which have been grown from shoot tips, growing vigorously in the laboratory cabinets.

This provides the raw material for the next stage, the resistance gene insertion (called transformation). As has been reported, Dr. Powell already has two resistance genes ready which have proven themselves in vitro.

When the genes are inserted into the tree's cells, and the tree regenerates, the next step is to look for the gene in the plants genome (or DNA). When they find it, the

tree has been transformed. When they also find the gene's product when challenged, they have "expression"... the genes are working. This will take some exploring to find a usable transformed tree, but they are progressing steadily.

We're now to the middle of the Pert Plan and our research work is being accelerated. A 1995-96 program has been laid out using a full-time post-doctoral worker. (With graduate students, the work was slowed during the school year and fully manned only in the summer.) We hope to be able to help keep up or add to this level of activity.

In 17 of our 20 or more seed orchards we have code-named each parental line: each wild mother and her progeny share a name that may be followed to track their performance, so that champion lines can be favored somewhat and poorer performing lines eliminated from the breeding program. The records preserve the value of the tree for

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After planting at the Zoar plantation on Arbor Day, planters enjoyed an old fashion hot dog and marshmallow roast.

\$100,000 AVAILABLE FOR CHESTNUT RESEARCH?

PORDUM BILL #1855 HAS PASSED INTO COMMITTEE.

ACFNY SUPPORTERS MUST MAKE THE BILL'S IMPORTANCE KNOWN.

1988 Assemblyman Fran. Pordum (Blasdel) first introduced legislation to establish a National Chestnut Research Center in Allegheny State Park. This spark helped ignite the foundation of ACFNY in 1990. Unfortunately high level officials quoted this as an example of special interest funding and it never passed. ACF members understand the importance this tree once played in timber, nut crops and habitat productivity. However this memory fades with each passing generation and few elected officials realize the potential benefit. If the blight never hit New York this state would currently be harvesting \$100 Million of American Chestnut timber annually. It is essential that we inform our elected officials of the great benefits: Developing valuable new technologies, Support of rural economics and wood products manufacturing, Ecological benefits derived by reestablishment of Chestnuts. Other funding sources for essential research are uncertain. Passing of this bill will insure that disease resistant, pure American will be developed for pollinating the seed orchards now being planted.

For this bill to pass, we must influence what happens in Albany; Our Best Opportunity is Now! It is very important that your elected NYS Assemblyman and Senator know your wishes and is convinced that Chestnut restoration is economically valuable and needs to be supported so that the progress in ACFNY programs can be maintained. Recent ACFNY accomplishments include: Recent breakthroughs in research, Enthusiastic teacher and student involvement with our Education Program, Increasing numbers of planting sites and popular interest in planting trees statewide.

The opinions of the environmental, agricultural or forestry staff in each office is very important. These individuals read our letters and guide the position and decisions of elected officials. When possible, direct contact with the elected official is most valuable. "Passing this legislation is our best opportunity for a successful American Chestnut Restoration Program to proliferate throughout

NYS!" We need to encourage our Assemblymen to get Pordum's Bill #1855 to the floor and to vote in support of its passage. As a senate sponsored bill can be modified, we should encourage potential sponsors to allocate additional funding to complete instructional materials for teacher and student use, an essential component of ACFNY's Education Program. This bill still needs a sponsor in the Republican Senate and one that is excited and enthusiastic about ACFNY's classroom program is most desirable. Points to be made about our Education Program are:

1. Involvement of school groups in a successful community service and

conservation project

2. Generates volunteers to support numerous plantings throughout the state
3. The educational materials complement and integrate with the Education Department's curriculum and fulfill required units on plants, epidemics, agriculture, trees, forests, the local environment and ecology
4. Seed from NY trees are student grown and become a seedling source for numerous plantings

A GUIDE TO LETTERS WRITTEN TO ELECTED OFFICIALS

It takes only a few minutes to write a letter but those few minutes make a big difference. Re-election is always important, your vote counts!

Use your own words and your own stationary. Corporate letterheads are very valuable and the same text can often be readdressed for sending to other officials.



Robert Stoddard/Buffalo News

Three Brownies plant an American chestnut seedling at Tiffy Farm Nature Preserve in Buffalo as Assemblyman Francis J. Pordum looks on. Pordum is the sponsor of the bill to make \$100,000 available for chestnut research. This bill needs the writing support of our members and friends.

- Try to write more than just one or two sentences yet be concise. In addition to requesting their support of the Assembly bill and to support a bill in the Senate, explain how the issue directly affects your life, the people and resources in your area. Stress that this bill is uniformly supported by many diverse groups (Sportsman, Foresters and Environmentalists), will lead to stronger rural economies, provides for environmental and habitat restoration in our state forests. Personal touches are important for influencing our legislators.
 - Ask your Assemblyman to vote in support of Assembly Bill #1855
 - Ask the Senator to support a Senate sponsored version of Assembly Bill #1855
- Ask for a reply
- Try not to use photocopies or carbon copies. They provide a much smaller impact.
 - Don't be critical. Negative correspondence often does more harm than good.
 - Be sure to include your return address and date on the letter.

If you need assistance in identifying legislators (mailing address & phone numbers) or have questions regarding letter writing and the status of Bill #1855 and a Senate sponsored bill, contact Andy Thompson at (716) 825-7760. Andy maintains a list of Senators whose endorsement will be crucial. The passage of this bill will greatly multiply ACFNY's effectiveness in fostering restoration and allow us to increase our level of activity in all regions of NY. Please consider this letter writing campaign that requires immediate attention and is the most important task we can accomplish. Best wishes with your letters.



Carol Seigel will lead the July 2 walk to see American chestnuts in bloom in District 9. She is shown here at the last year's event which was attended by over 30 interested members and friends.

SET JULY 2 ASIDE TO SEE AMERICAN CHESTNUTS IN FLOWER

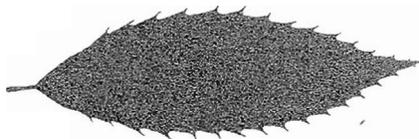
In earlier days, when chestnuts dominated the eastern forests, the hills around the Fourth of July were said to be "covered in smoke," an optical illusion caused by the numerous creamy-white catkins produced by *Castanea dentata*. Today, the ACF uses those flowers to locate American chestnut trees via aerial reconnaissance, a procedure possible because chestnuts are the only large tree of

the forest to bear white flowers in early July.

if you don't have an airplane handy, join us on the ground for a hike at Shale Creek Sanctuary, where two American chestnuts, 8 - 10" DBH, will hopefully be in bloom! Meet ACF member Carol Seigel on Sunday, July 2, 1995, at 9:45 am, in the parking lot behind the Casino at Chestnut Ridge Park, approximately 2 miles south of the village of Orchard Park. (Heading south, the park entrance is on the west side of Route 277 and a bridge connects you across Route 277 to the Casino.) From the park, we'll travel a short distance south to Shale Creek Sanctuary on Seufert Road.

Wear shoes you can hike in, as the trail along the gorge is short, but includes some steep spots. For those who don't mind the possibility of getting their feet wet, we will continue down into the gorge, and up the creek bed, to see the "eternal flame," a naturally occurring vent of natural gas, before returning to Chestnut Ridge Park.

Time and weather permitting, we will view several other *Castanea* species planted in the park. As a suggestion, bring your lunch and enjoy a picnic in the park with your family afterwards!



Seventy people turned out on a beautiful day for the fifth annual Planting Day on Arbor Day in District 9's Zoar Valley plantation. Over 700 American chestnuts are growing in this location, one of 17 across the state.

IN MEMORIAM DR. CHARLES BURNHAM April 19, 1995

One of the founders of the ACF. A theoretical geneticist, Dr. Burnham developed the backcrossing concept in use at the ACF research farm.

YOU CAN ORDER CHESTNUTS SAVED FROM LOGGERS

A rescue is being brought about of some 5-6 year old American chestnuts by Woody Clark, ACFNY Director of Region 8. They range from 6 to 10 feet and taller. Woody became aware of a large stand which was scheduled to be logged completely and he was unable to arrange withholding from cutting of the precious chestnuts on the site.

Just the kind of challenge Woody rises to! He is now racing the big saws from daybreak until his backhoe has to work on ESP to dig these trees, ball the roots, and preserve them until they find a home.

Would you like some fairly large American chestnut trees to plant immediately? To cover the costs, they **will** be approximately \$10 per foot each and transplanting instructions **will** come with them to help you get them settled in.

This is one way you can join the effort to save some original wild stock, and treat yourself to some beautiful trees without waiting years. But time is of the essence!

Call or write Woody Clark, 2303 Canaan Road, Bloomfield, NY 14469; 716-657-7730. The best time to reach him is between 7:00 - 9:00 pm.

CATSKILLS TO BE SITE OF 1995 ANNUAL MEETING

A weekend in the Catskills - and two days of chestnut activities! What better way to welcome Fall and our 5th ANNIVERSARY ANNUAL ACFNY MEETING.

Beginning Friday evening, October 20 with a gathering around the fireplace in one of the lodges, the meeting officially will be kicked off Saturday morning, October 21, and will finish on Sunday noon, October 22, with our 2nd Harvest Exchange, and something unusual - a participatory



Sandra Lee Anagnostokis will be a featured speaker at the 1995 Annual Meeting in the Catskills. She is on the Staff of the Connecticut Agricultural Experiments Station in the Department of Genetics

costumed Iroquois Indian Council enactment which recognizes the history of the area.

Frost Valley Family Conference Center, our meeting site, is located on 5000 acres of beautiful trees, trails and mountains in a pristine Catskill wilderness. (It's 40 minutes north of Rt. 17 Liberty exit.)

To celebrate our 5th anniversary, we have planned a very special occasion - a gala dinner Saturday evening with internationally known Chestnut authority Dr. Sandra Anagnostokis of Connecticut. She will

speak on "Chestnuts in the 21st Century." (Very appropriate to our mission.)

The agenda will include reports from Dr. Charles Maynard and/or Dr. William Powell of CESF in Syracuse on the exciting progress being made in our science programs; reports from our Directors, Seed Plantations and new Coding Program; workshops on American chestnut Identification, Planting, Pollinating, Mudpacking, Hypovirulence, and possible others on request.

Also, a special Saturday afternoon trek to the other side of the mountain to see some of the American chestnut trees still remaining in the Catskills. We appreciate the Catskill Forest Association members who are organizing and hosting this meeting highlight.

And your free time - what temptations! Available are boating and canoeing on their lovely lake, archery, tennis, biking, Raptor Center, birding, apple cidering, fishing (no license needed but bring your own equipment) and if requested, staff can be provided for things like cable bridge hikes, rock wall climbing, acid rain walks (their knowledgeable staff emphasize environmental programs.)

In the evening, after our special dinner, there are hay rides, square dancing and star watching at an observatory with a computerized, self focusing 12" telescope; and on our week-end, a haunted house for

kids of all ages. (Incidentally, children will have a special rate for the weekend.)

Saturday will end with a session with taxonomist Dr. Richard Zander of the Buffalo Museum of Science. who will do microscopic identification of the nuts, twigs and leaves the harvesters and others have brought in.

On Sunday, there will be Topic Tables set up at breakfast so that those who want to discuss a specific subject can meet with others of similar interest. The Harvest Exchange will follow and then the meeting will conclude with another high point - the costumed enactment of an Iroquois Indian Council Meeting (circa 1850), and we will be invited to participate. Even if you're not a history buff, this will be a fascinating insight into the region, and fun too.

Lunch will give us time to say good-bye to all our friends, new and old, and then head for home replete with happy feelings. We'll all get something different from this experience together.

WHERE'S YOUR CALENDAR?

Find it now and put in OCTOBER 20, 21, 22, 1995 and start anticipating a great weekend.

Frost Valley is 2.5 hours driving time from New York City, 2 hours from Albany and Binghamton, 3 hours from Syracuse and 5.5 hours from Buffalo.



A "Planting Circle" of eight trees was established in the Arboretum of Audubon's Beaver Meadow Nature Center east of Buffalo on Earth Day. The "Circle" assures cross pollination and is one of several groups isolated in hopes that some will escape the deadly blight over a longer time.

AMERICAN CHESTNUTS GO TO SCHOOL

From endangered species to cartooning, from microscopic work to multicultural study, from specification to social impact: These were some of the instructional strategies brainstormed by 17 teachers preliminary to designing lesson plans for use in schoolrooms across the state. Mostly earth science and biology teachers representing several grade levels were brought together in January at Buffalo State College by the ACFNY Education Committee headed by Glen Gelinias.

In introducing the lesson plan design session, Herb Darling, president of the ACFNY said: "The success of our research and propagation programs will become a major turnaround of an ecological disaster. For teachers, it is an opportunity to involve students in an environmental study and activities that are both hands-on and close to home unlike the problems of distant rain forests or Spotted Owls. Students will be able to participate in this turnaround."

Numerous lesson plans will be developed for pilot testing and refinement this Spring by the participating teachers in their Western

New York classrooms. After testing, ACFNY plans to prepare teacher manuals with teaching aids for wider distribution next Fall, eventually making them available across New York State.

At the conclusion of the session, each of the teachers enthusiastically asked for enough American chestnut seeds this Spring for their students to become involved in growing and planting a real threatened species. These were supplied by ACFNY.

STATE TREE RECORDER NAMED

John R. Hamilton of Macedon, NY, a member of District 8, has accepted the post of Recorder for the chapter. He will keep a record of the bearing chestnuts which have been found. John has designed a record sheet for the 1994 harvest which will fit the IBM Paradox program he is using, and will send copies to last fall's planters and harvesters. Later he will pick up older planting records and will prepare for the 1995 harvest exchange in the fall. He will report at the annual meeting and will lead a workshop on the record-keeping system.

Sets of numbers for each district are as follows:

Headquarters	0 - 4,999
Out of State	5000 - 9999
District 1	10,000 - 19,999
District 2	20,000 - 29,999
District 3	30,000 - 39,000
District 4	40,000 - 49,999
District 5	50,000 - 59,999
District 6	60,000 - 69,999
District 7	70,000 - 79,999
District 8	80,000 - 89,999
District 9	90,000 - 99,999

(Each district has 10,000 lines, others have 5,000)

John will be working with each district director in assigning blocks to harvesters and planters (H&Ps). He will record data returned to him from the H & Ps and send a copy to both the district director and Headquarters. The sender retains his own copy and thus has his own record on paper to work with.

Each mother tree is code-named for the district she stands in, and each nut - wherever it goes - gets the same name as the mother, with a suffix so that seedlings can be followed individually, later in the breeding program.

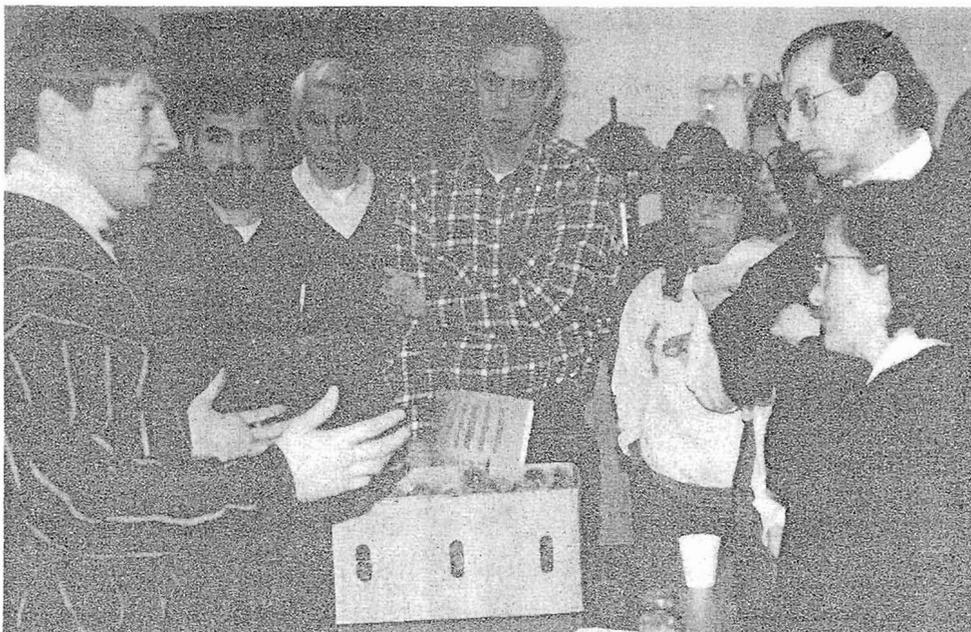
The suffix appears at the end of the code as letters. It's not necessary to use them now until the progeny develops some history. Suffixes also should be used if they are planted in mixed or separated plots.

The records preserve the value of the tree in future years. There is no guessing about performance; it's there to see and measure in two generations?the basis for rational breeding for later workers.

John is an electrical engineer. He and Marile are dog breeders too with their specialty the Nova Scotia Duck Trolling Retrievers. Marile is president of the breeder's association and John also keeps the pedigrees in his database. (If the computer goes berserk, would the outcome be dogwood?)

ACFNY appreciates the time and contributions from John. It's a key element to the goal of restoring the American chestnut. Thanks also to all you hardworking field workers for making it happen.

For questions, NYS Tree Recorder: John R. Hamilton, 224 Wilkinson Road, Macedon, NY 14502-9731; 315-986-4077.



Teachers representing several grade levels view American chestnut levels, burs and wood etc. as they acquire background before preparing classroom lesson plans. These plans will be tested soon before distribution throughout the state.

The Bur
NY State Chapter
American Chestnut Foundation Inc.
c/o Buffalo Museum of Science
1020 Humboldt Parkway
Buffalo, NY 14211



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future years. There is no guessing about performance; it's there to see and measure in two generations.

It is vital to identify each seedling of a line so that the opportunity for rational breeding in the next generation is assured. As our program develops, a tree with no record becomes less useful because it is still an unknown.

A good sample of the Northern gene pool is present in our orchards. Each planter received the number of nuts he wanted to plant with enough of all 17 lines in his set to make his total. Thus the 1994 harvest of 2400 nuts was divided so that if any seed orchards are lost to blight, we still have their genes in other locations. (Remember what a great time we had doing it at the '94 annual meeting?) We should all continue our search for more wild stock as well as monitoring our plantings.

In addition to seed money for the NY chapter, thanks to your participation and memberships, the team at Syracuse received two grants this year to keep the project moving. One was from the International Society of Arboriculture Research Trust and the other from the NY Center for Forestry Research and Development.

The backcrossing program (which we support in addition) is also progressing. A report from Virginia notes 5,000 trees growing at the Wagner Research Farm, some well advanced. Their resistance pattern fits the model for control by only two genes, as Dr. Burnham predicted, and they are being

developed. Reports from the 1994 ACF annual meeting covered other aspects of chesinut work being carried out in various areas such as gene mapping.

It's an exciting time, and you can feel good about being a part of saving the American chestnut.

DID YOU RENEW YOUR MEMBERSHIP?

ACFNY is a totally volunteer, non-profit organization receiving no funding from any governmental group. It is totally sustained by your membership dues and contributions. Please **renew now** if you have not already done so.

NOMINATIONS FOR THE BOARD OF DIRECTORS

New York State is divided into nine Districts. A director from each Region will be sought, as well as general board members. Their duties will include: Attendance at annual meetings. Help in development of membership in their district. Seeking out of interested leaders and assisting in forming local groups. Please send nominations with a brief resume to:

Nominating Committee
New York State Chapter
American Chestnut Foundation: Inc.
c/o Buffalo Museum of Science
1020 Humboldt Parkway
Buffalo, NY 14211.

Nominations must be received by September 1, 1995.