

Strategic Plan of the Connecticut Chapter of TACF --- January 2006

Introduction:

The Strategic Plan for the Connecticut Chapter of The American Chestnut Foundation (CT-TACF) is an extension and complement to both the national strategic plan of TACF and the statement of Mission in the Connecticut Charter.

Every member of The American Chestnut Foundation is committed to the mission of our organization: to restore the tree to its native forests through breeding and research. The purpose of the Strategic Plan is to translate the general goals of TACF into a specific action plan and to establish a time line for completion by creating a detailed list of the tasks needed to achieve all the goals.

Our mission with regard to American chestnut restoration can be described in terms of Primary Program Goals:

- A. Protect, conserve, preserve, and propagate trees from diverse remaining native Connecticut American chestnut populations in the state.
- B. Make blight-resistant American chestnuts derived from Connecticut genetic stocks available to the people of Connecticut.
- C. Establish self-propagating blight-resistant forest clusters or groves of Connecticut derived American chestnuts within selected forest study sites in cooperation with Connecticut private and public forest landholders.
- D. Restore American chestnuts to a place of ecological and economic importance and self-sustainability throughout the forests in Connecticut.
- E. Build an organizational structure to support a long-range vision and commitment to sustained effort enduring many decades.

In order to accomplish these Primary Program Goals, we need to focus our work toward these Implementation Steps:

1. Find and catalog remaining populations of native American chestnuts in Connecticut, with an emphasis on locating blooming trees and trees that can be released for bloom.
2. Preserve, conserve, and propagate genetic material from widely diverse populations in the state.
3. Harvest and distribute native viable chestnut seeds.
4. Breed genetically diverse, blight-resistant native Connecticut American chestnuts, based on the remaining populations of native Connecticut trees (incorporating blight resistance derived from Asian chestnut genes).
5. Establish a tree nursery system in Connecticut to allow for American chestnut propagation.
6. Reintroduce blight-resistant American chestnut trees into the Connecticut forest in an ecologically acceptable manner.
7. Develop affiliations with important "end-users" of blight resistant chestnuts stocks, both in the forestry industry and in the state conservation community, and share information and resources with other organizations with common goals.
8. Diversify and strengthen our board and the leadership it provides, including ability to facilitate the organizational roles required.
9. Educate members and the public about the American chestnut tree and about the place of the American chestnut in forest ecology, and increase public awareness of TACF-CT programs and projects.
10. Keep current members and secure new ones, and increase active participation of members.
11. Develop funds and acquire assets from a variety of sources.
12. Disseminate scientific knowledge by promoting research, and fostering science-based learning, including at the elementary and secondary level.

IMPLEMENTATION STEPS:

Implementation Step 1

Find and catalog remaining populations of native American chestnuts in Connecticut, with an emphasis on locating blooming trees and trees that can be released for bloom. Reports of American chestnuts continue to come to our organization from many sources. Our goal is to continue to investigate all new reports, ascertain the species and likely origin and importance to our program goals, and put all pertinent information into a central computer database.

Legend: X – selected, S – some, A – all, For our preservation and breeding work, Priorities 1, 2, 3 in the table below have the greatest importance.

TREE CATEGORIES with properties

CHARACTERISTICS	1	2	3	4	5	E	F	G
Productive enough for breeding, CT natives (Priority 1: flower, accessible)	X							
Productive enough for breeding, CT natives (Priority 2: flower, remote)		X						
Beginning production, CT natives (Priority 3: released)			X					
Important ecologically, CT natives, not blooming (Priority 4)				X				
CT seedlings, registered and distributed to public (Priority 5)					X			
dentata, but not certainly CT native (imported American chestnuts)						X		
Non-dentata Castanea							X	
TACF experimental plantings: BC2F2s (White Mem., CAES, Graves etc.)								X

ACTION ITEMS for each Tree Category

ACTION ITEMS, AND PRIORITIES	1	2	3	4	5	E	F	G
Use Tree identification form to define basic information	X	X	X	S				
Obtain accurate GPS data on trees for GIS mapping	X	X	X	S				
Survey form transcribed to database	X	X	X	S				
Seed collection from open pollination sites		X						
Regional Diversity Breeding program	X				X			
Visit site as needed to gather data and follow trees over time	A	S	S	S	S			X

Inventory Tasks in Support of Implementation Step 1

	Time Frame						Progress
	'06	'07	'08	'09	'10	'11	
1. Develop and maintain a team of tree visitors to investigate reports of blooming trees.	'06	X	X	X	X	X	0%
2. Develop tree ID guidelines and protocol to ensure positive identification of all leads. Create <u>Tree ID Form</u> .	'06						0%
3. Designate <u>Tree ID Experts</u>	'06						0%
4. Update database, on <u>Tree ID form</u> for <i>previously cataloged</i> trees, and transfer to database.	X						0%
5. Fill out a <u>Tree ID form</u> for <i>new</i> leads likely to be category 1, and submit to <u>Tree ID Experts</u> for positive ID	X	X	X	X	X	X	0%
6. Submit a grant for an intern to assist in items 4 & 5	X						0%
7. Expand tree database to include more trees	X	X	X	X	X	X	0%
8. Publicize search for blooming American chestnuts with annual press releases with a picture in late June and September each year (at time of blooming and at time of bur ripening), using newspaper listing for Connecticut.		X	X	X	X	X	0%
1. Establish cooperative outreach with established field personnel to locate trees: a. CT DEP Foresters b. CT Audubon, CT Woodlands c. Utilities Foresters d. Town Tree Wardens & Cons. Officers e. Nature Conservancy Personnel	X	X	X	X	X	X	0%

Implementation Step 2

Preserve, conserve, and propagate genetic material from widely diverse populations in the state. (from all Priority 1, 2, 3, 4 populations defined in Implementation Step 1 - throughout the state).

	'06	'07	'08	'09	'10	'11
1. Conserve existing stands of native Connecticut chestnuts with landowner education, agreement, and incentive.	X	X	X			
2. Implement Bio-Control Program using strategy of efficient use of mud-packing to preserve flowering trees.	X	X	X			
3. Propagate material by collecting seeds from <i>naturally pollinating, or manually pollinated</i> priority 1 and 2 populations	X	X	X			
4. Provide site work to release accessible trees	X	X	X			

Implementation Step 3

Harvest and distribute native viable chestnut seeds. Viable seed of pure CT populations can be distributed to select individuals as reward for membership support. Viable seed of pure CT populations can be distributed to organizations as support for public relations, and in both the individual and organization case, to protect the genetic diversity of the populations.

Uses	'06	'07	'08	'09	'10
1. Distribution to members and public (as membership benefit): # per year.	200	200	200	200	200
2. Special public plantings and publicity: Arbor Day - # per year	100	100	100	100	100
3. Controls within Back Cross Orchards and also for "limited" member orchards : --- 100 per year	100	100	100	100	100
4. Eating --- possibly at harvest time or annual meeting	600	600	600	600	600
Total numbers per year --- Goal for 2006	1000	1000	1000	1000	1000

Implementation Step 4

Breed genetically diverse, blight-resistant native Connecticut American chestnuts, based on the remaining populations of native Connecticut trees (incorporating blight resistance from Asian chestnut genes). The core of our chapter support for TACF advanced breeding, lies in our program to incorporate wider genetic diversity into the chestnut restoration program.

Tasks: Pollinations & Selections	Time Line	Target (with actual in parentheses)					
		'06	'07	'08	'09	'10	'11
BC3s Generation (Pollination)							
1. Create at least 24 BC-3 lines based on First Source (Clapper) of blight resistance, by pollinating CT mother trees (one population for each "line") with BC2\3 pollen from Meadowview. Harvest at least 80 viable seed from each line.	2005-2008	6 (2 -'05)	6	6			
2. Create at least 20 BC-3 lines based on Second Source of resistance. As above.	2008-2011	0	0	4	6	6	4
3. Challenge BC-3 trees with blight and select for the next breeding generation.	2009-2012					X	X
F2s Generation (Pollination)							
4. Create intercross generation of BC3F1 x BC3F1: BC3F2 generation	2012-on	X	X	X	X		
5. Challenge BC3F2s with blight and select for blight.	2016-on					X	X
6. Create third inter-cross generation: BC3F2 x BC3F2	2017-on						X

Tasks: Pollinations & Selections	Time Line (with Actuals in Parentheses)						
	'06	'07	'08	'09	'10	'11	'12
Controls: F1 Hybrids, and Chinese							
1. Generate 100 – 200 Chinese X American and reciprocal cross per year						X	X
2. Harvest 100 Chinese Controls per year						X	X

Implementation Step 5

Establish a tree nurseries system in Connecticut to allow for American chestnut propagation. Note: Orchards need to be manageable after planting by a single orchard manager, preferably with ongoing mowing assistance. The desirable site is therefore limited to 1 to 2 acres, depending on resources.

Tasks: Orchards	Time Line	Target (with Actual in Parentheses)								
		'06	'07	'08	'09	'10	'11	'12	'13	'14
1. Locate and establish orchards for the First Source (Clapper Lines), with capacity for 4-5 lines/orchard (absolute minimum of 3)	2006-2007	2	3	1						
2. Plant at least 20 Clapper-pollen lines, with 4-5+ lines per orchard	2006-2009	2	6	6	6					
3. Locate and establish orchards for the Second Source , with capacity for 4-5+ lines/orchard	2008-2009				2	3				
4. Plant at least 20 Second Source - pollen lines in, with 4-5 lines per orchard	2008-2011				4	6	6	4		
5. Inoculate for blight resistance and select	2011-2014						X	X	X	X
6. Locate and establish orchards for the BC3F2 Intercross Generations	2011-13						X	X		
7. Create first intercross generation of BC3F1 x BC3F1: BC3F2	2011-16						X	X	X	X
8. Inoculate BC3F2 for blight resistance and select	2018 - 2020									

Summary Orchard General Tasks:	
1. Establish one-to-two acre sites for BC3 nuts from 20 Clapper lines and for 20 Second Source , with 4-5 lines (or possibly less) per orchard	~12 orchards by 2010
a. Planting Strategy developed for efficient use of personnel and materials	Summer 2006 Winter 2006\7
b. Planting Manual developed and approved by Board.	
c. Maintenance: Orchard manager and crew established for each site.	ongoing
2. Establish Orchard Database Management Program	MN 2006
3. Develop Future Orchards using Cooperative Land Arrangements	ongoing
a. Coordination with land-trust and state land programs to develop future orchards: TTOR, SVT, Town Land Trusts, DEM, State Institutions	ongoing
b. Approach CT Independent School Association about ecological project with orchard plantings	ongoing

Implementation Step 6

Introduce blight-resistant American chestnuts into Connecticut forests in an ecologically acceptable manner.

Reforestation Tasks	'06	'07	'08	'09	'10
1. Discuss plantation and reforestation scenarios with national TACF and cooperating natural resources groups in CT: a. State Forest System b. MDC c. Private and Town Land Trusts d. NEWFS e. TTOR f. The Nature Conservancy					
2. Research ecological impact of re-introduction of the American chestnut into Connecticut forests through: a. Adopting methods from the ongoing research on reforestation strategy with National TACF.					
3. Develop cooperative arrangements with University or College ecology departments, forest products industries, and environmental organizations within Connecticut, and develop grant support for out-planting phase. Develop list of such organizations in 2006 and begin contacts.					
4. Lectures and discussions at annual meeting targeted towards species purity and ecological implications of reforestation.					

Implementation Step 7

Develop affiliations with important “end-users” of blight resistant chestnuts stocks, both in the forestry industry and in the state conservation community, and share information and resources with other organizations with common goals.

It is important to recognize that the program of reforestation requires active participation of public and private foundations, beyond individual landowner participation, and these organizations need involvement by the seed orchard phase.

	Time Line
1. Work closely with national TACF to release 6 th generation of program into public domain	Ongoing
2. Establish seed orchard professional managers.	2012

Implementation Step 8

Diversify and strengthen our board and the leadership it provides, including ability to facilitate the organizational roles required. This goal requires that we continue to define specific functional roles and develop additional volunteer resources for Board-defined tasks.

Role and Staffing	Target Resource Need			
	'06	'07	'08	'09
1. Create and Fill <u>Board Level Coordinator Role</u> for <u>Communications</u>				
a. Establish a Committee to manage roles and Communications Coordination				
b. Establish & Publish Newsletter in April and September each year.				
c. Identify a Publicity Manger who manages publicity and coordinates press releases				
d. Create a web-site and webmaster.				
2. Create and Fill <u>Board Level Coordinator Role</u> for <u>Education</u>				
a. Create and implement a speaker program				
b. Organize a demonstration planting program				
c. Create a program for developing communications strategy including print and web				
3. Create and Fill <u>Board Level Coordinator Role</u> for <u>Pollination and Orchards</u>				
a. Establish a role of Pollination Coordinator				
b. Publish rules for tree Identification				
c. Establish regional tree visitors\validators				
d. Identify <u>owners</u> to monitor\coordinate mother trees				
e. Identify and recruit coordinator intern				
f. Cultivate pollinators for mother trees (Bucket Truck, Climbers)				
4. Create and Fill <u>Board Level Coordinator Role</u> for <u>Finance</u>				
a. Define Treasurer Role and Policy				
b. Grant writer				
c. Accountant-Bookkeeper-Purchasing Agent				
5. Create and Fill <u>Board Level Coordinator Role</u> for <u>Membership</u>				
a. Track Membership, manage renewals				
b. Membership Database Manager: maintains Stats and mailing list				
6. Create and Fill <u>Board Level Coordinator Role</u> for <u>Operations</u>				
a. Calendar Manager: Establishes yearly calendar of events & staffs				
b. Membership Database Manager: maintains Stats and mailing list				
7. Create and Fill <u>Board Level Coordinator Role</u> for <u>Data Management</u>				
a. Databases (Orchard, Mother Tree, Member, PR, contact)				
8. Professional development for Board Members				
a. Attend TACF annual meeting				
b. Attend conferences, symposia				

Implementation Step 9

Educate members and the public about the American chestnut tree and increase awareness of and visibility for our organization.

Education Activities	Time Line				
	'05	'06	'07	'08	'09
1. Establish & Publish Newsletter in April and September each year.	XX	X			
2. Create a web-site strategy for Education		X			
3. Sponsor annual lecture on chestnut research at Annual Meeting					
4. Establish Speakers Program, and solicit presentation slots		X			
5. Establish and use Posters highlighting overall and specific efforts		X			
6. Create Demonstration Orchard Locations with appropriate signage		X			
7. Make scheduled press releases		2	4		
a. Publicize pollination successes with reporters to site		X			
b. Publicize orchard locations and planting opportunities		X			
c. Publicize ad-hoc meetings and talks		X			

Implementation Step 10

Keep current members and secure new ones.

	'06	'07	Target
1. Create and Fill Board Level Coordinator Role for Membership	X	X	
a. Manage Renewals to improve retention from 20% loss to 10% loss			
b. Develop membership growth goals for regular members: net positive x% per year in category of Regular or >.			
c. Develop a centralized yet accessible contact management system			
d. Create a Privacy committee and privacy policy			
2. Create and Fill Board Level Coordinator Role for Communications			
a. Maintain information brochures at all TACF signs sites.			
b. Develop membership incentive & recruitment program: 2 CT American chestnuts or container of Magic Mud for each membership at regular level or above	CT Flower Show, Individual Talks		10 members 20 members
c. Improve recruitment via website, with revision of membership form			10 members
3. Continue to analyze and collect information about retention of members.			
a. Improve retention from ~20% loss to 10% loss.			

Implementation Step 11**Develop funds and acquire assets from a variety of sources.**

1. Adopt Strategic Plan.	April 2006
2. Staff CT-TACF Fundraising Committee	Spring 2006
3. Develop funding strategy with specific grant goals for each year	Spring 2006
4. Identify target funding sources: a. Individual Contributions - Intern b. Norcross Foundation - Grant Fencing c. Other Capital Funding Grants – Fencing d. Other Operating funding Requests - Orchards	a. Spring 2006 b. June 2006 c. Spring 2006 d. Summer 2006
5. Develop annual schedule of source solicitation: a. Sportsman Clubs b. Timber Companies c. Private Landowners d. Supplier or Local Business Donations of Equipment/Supplies e. Local Community Orchard Tree Sponsorships	a. Spring 2006 b. June 2006 c. Spring 2006 d. Spring 2006 e. Spring 2007
6. Improve Website and post to search engines	Done: Fall 2005

Implementation Step 12**Disseminate scientific knowledge by promoting research, and fostering science-based learning, including at the elementary and secondary level.**

Task	'06	'07	'08	'09	'10	'11
1. Develop partnerships with University and College undergraduate and graduate programs		X	X	X	X	X
2. Sponsor undergraduate/graduate work internship	X	X	X	X	X	X
3. Disseminate research results from TACF sources	ongoing					