



VT/NH Chapter of the American Chestnut Foundation 3-5 Year Strategic Plan; December 2021

The mission of The American Chestnut Foundation (TACF) is to restore the American chestnut tree to our eastern woodlands to benefit our environment, our wildlife, and our society.

For nearly 40 years TACF has pursued this mission through an organizational structure composed of a Central Office in Asheville, NC, Meadowview Research Farms and State Chapters. The VT/NH Chapter is one of 16 spread across the historic range of the American chestnut. Chapters implement American chestnut restoration actions consistent with scientific guidance developed at Meadowview and receive administrative and organizational guidance from Asheville.

Since its founding in 1983 the major focus of TACF has been to develop a chestnut blight resistant tree through backcross breeding between American and Chinese chestnut trees. The VT/NH Chapter has participated in this process since 2008 by locating surviving American chestnut “mother trees” and cross-pollinating them with Chinese chestnut. The chapter now manages 11 orchards containing various generations of these trees.

During recent years a biotechnology approach to chestnut restoration has emerged with development of a transgenic chestnut at SUNY, Syracuse, NY, College of Environmental Science and Forestry known as “Darling 58.” In response to this evolving technology TACF put forth the 3-BUR concept: “**Breeding, Biotechnology, and Biocontrol United for Restoration.**” A description of “3-BUR” can be found on the TACF web site: acf.org. Go to “Science Strategies.”

Given this innovative and rapidly advancing technology the VT/NH Chapter adopted “3-BUR” in November of 2018. In 2021 the Board of Directors decided that its 2017 Strategic Plan was outdated and that plan revision is needed to assure that the VT/NH Chapter keeps pace with chestnut restoration technology and that it is prepared to work effectively with the transgenic chestnut once it is approved for distribution. Events driving this process include:

- *The American Chestnut Foundation (TACF) and its 16 Chapters are now guided by “3-BUR,” a concept that facilitates consistency and communication within the chestnut restoration community.*

- *During 2020 the Chapter began operating within a Committee Structure that facilitates organization of objectives and assignment of responsibilities for strategy implementation.*
- *Objectives and Strategies in the current plan were not responsive to advances in American chestnut restoration science and technology.*

VT/NH Chapter Goal

Self-sustaining stands of blight-tolerant American chestnut trees growing in Vermont and New Hampshire woodlands

Effective implementation of Breeding and Biotechnology is dependent on creating and managing chestnut orchards specific to each approach. Orchard descriptions can be found in Appendix 1.

Orchard management and other Chapter tasks are implemented by various committees. Descriptions of these committees are found in Chapter by-laws, Articles VI and VII. By-laws can be accessed at the following link:

https://acf.org/wp-content/uploads/2021/08/VT_NH_Chapter_-Bylaws-as-Amended-20210501.pdf

Requests for Volunteer Assistance

Committee Chairs are responsible for requesting volunteer assistance. They send details about specific needs to the Constant Contact Manager who distributes the request to Chapter members.

Reporting Committee Activities

Committee Chairs are responsible for reporting overall activities to the Chapter Secretary each April 15 and October 15. In addition, as specific orchard and outreach actions occur, chairs ensure they get recorded, or promptly reported to the secretary. Each committee determines its process for reporting to the Secretary. Event date, location, number of trees planted, and number of volunteers/attendees are needed to facilitate preparation of annual reports required by the National TACF Office.

Board members serve on at least one committee and are expected to maintain a “basic literacy” of how the VT/NH Chapter committee structure functions.

VT/NH Chapter Objectives and Strategies

ORCHARD MANAGEMENT COMMITTEES

Orchard management is guided by the:

- VT/NH Chapter Specific Science Plan – 2021 and Beyond (Appendix 2)

This plan was developed by the TACF Science Staff and the New England Regional Science Coordinator. It specifies annual action items, as well as long-term management plans for existing breeding and seed orchards, and asks the Chapter to capture germplasm from 35 new sources of wild American chestnut trees in preparation for incorporating the transgenic tree into restoration efforts. It is reviewed and updated annually, no later than March 1, to identify specific actions to be taken.

A chart showing 2005-2030 “Status and Timeline for Breeding Orchard Establishment, Inoculation, Selection/Roguing, Harvest and Seed Orchard Planting” can be found in Appendix 3

Nine breeding and three seed orchards are currently managed within the Chapter’s Breeding Program:

- Camp Endo (Breeding) - Jamaica, VT, managed by Eric Shearing
- High Shelter Farm (Breeding) - Perkinsville, VT, managed by Randy Knight
- Lake St Catherine (Breeding) - Poultney, VT, managed by Evan Fox
- Merck Forest (Breeding) - Rupert, VT, managed by Merck staff
- Old Gurdy Farm (Breeding) - Bristol, NH, managed by Hans Shaefer
- Otter Brook Farm (Breeding) - Peterborough, NH, no current manager
- Pikes Peak Farm (Breeding) - Perkinsville, VT, managed by Mike Greenburg
- Shieling Forest (Breeding) - Peterborough, NH, managed by AJ DuPere
- Valley View (Breeding) - Shelburne, VT, managed by Jeff Tricou
- Tom Rush Forest (Seed) - Deering, NH, managed by Gabe Roxby
- Essex (Seed) - Essex Junction, VT, managed by Jason Nerenberg
- Fox State Forest (Seed) - Hillsboro, NH, managed by Inge Seaboyer

Breeding and Seed Orchard Objective

Objective: Maximize blight-resistance in the VT/NH Chapter breeding program that occurs in breeding and seed orchards.

Breeding Coordination Committee Strategies

- Work with the Regional Science Coordinator (RSC) to annually determine and implement actions prescribed in the “VT/NH Chapter Specific Science Plan – 2021 and Beyond.”
- Meet with orchard managers annually to determine any actions, next steps, or support necessary to maintain the orchard and hosting relationship. These meetings may be coordinated with the Regional Science Coordinator, if desired.

- Meet with Regional Science Coordinator annually to determine the best use of trees in selected breeding lines, as resistance predictions are available.
- Develop a process for responding to situations in which a land owner no longer is willing, or able, to continue hosting a chestnut orchard on his or her property.
- Maintain unique backcross lines/families that are determined to not have sufficient blight resistance for breeding in Backcross Conservation Orchards (BCOs), such that they may be used for transgenic diversification or other projects.

Biotechnology Objective

Conserve germplasm from 35 sources of VT and NH wild American chestnuts and plant them in Germplasm Conservation Orchards (GCO) to prepare for diversifying transgenic blight-tolerant American chestnuts.

Two Germplasm Conservation Orchards (GCO) are managed by the Chapter and additional test sites have been established. In addition, a GCO managed by the Regional Science Coordinator contains several unique sources available for chapter use.

- Plymouth, NH, managed by Douglas McLane
- Allen Street School GCO, Rutland VT, managed by Tom Estill
- (Test Site) Two-Rivers Reserve, Epping, NH (Southeast Land Trust) Managed by Parker Schuerman
- (Test Site) Private land owned by Lewis LeClair, Walpole, NH
- (Test Site) Private land owned by Chris Leask, Mason, NH
- UVM Horticulture Research Center – South Burlington, VT, managed by Kendra Collins

Biotechnology Coordination Committee Strategies

- Work with the RSC to annually determine and implement actions prescribed in the “VT/NH Chapter Specific Science Plan – 2021 and Beyond.”
- Ensure GCO plantings are properly tracked in TACF *dentataBase*.
- Anticipate the need for additional GCO space to accommodate at least 35 sources.
- Locate potential GCO sites and conduct test plantings to determine their viability.
- Establish one new GCO each year until the conservation objective is met.
- Develop pollination plans in anticipation of transgenic chestnut deregulation.
- Utilize biological control (mud packing) as needed to maintain GCO sources.

American Chestnut Location Committee Strategies

- Search for flowering wild-type American chestnut trees and confirm their identity by sending a sample and Tree Locator Form to the RSC.
- Cooperate with land owners to gain access to flowering wild-type trees.
- Coordinate cross-pollination of flowering wild-type trees where feasible.

- Harvest nuts from at least four new open pollinated and/or cross-pollinated wild type American Chestnut trees annually. Record cross and harvest data in TACF's *dentata*Base.

MEMBERSHIP, OUTREACH AND DEVELOPMENT COMMITTEE

Membership Objective

Sign up 20 additional VT/NH Chapter members annually.

Membership and Outreach Committee Strategies

- Analyze monthly Membership Reports received from the Asheville Office to understand and react to trends in Chapter membership numbers and geographical distribution.
- Prepare and distribute a newsletter every May and November to reflect Chapter activities gleaned from biannual Committee reports, due each April and October.
- Use Constant Contact (CC) to inform and update Chapter members, lapsed members and contacts who are considered potential members about Chapter activities.
- Maintain the Chapter web page by updating and inputting new information approximately once every month.
- Publicize Chapter activities and volunteer requests through CC and news media outlets.
- Offer free American chestnut seeds to "Chapter members only" as an incentive to attract new members.
- Participate in public events such as the NH Farm, Forest & Garden EXPO and the VT Farm Show to convey the American chestnut restoration story.
- Encourage lapsed members to rejoin TACF.
- Increase Chapter membership, and support, by developing and implementing outreach campaigns that convey the American chestnut restoration story to specific audiences such as organizations and State legislative committees that focus on natural resource protection and/or management, and schools. Prepare follow-up materials and actions for distribution to people who respond to these campaigns.

Development Objective

Raise adequate funds to support VT/NH Chapter activities

Development Strategies

- As needs for project specific funding arise, the President will assign an ad hoc group to estimate project costs, and raise funds needed to complete the project.

GOVERNANCE COMMITTEE

Governance Objective

Assure that the Chapter administrative infrastructure adequately responds to evolving Chapter activities.

Governance Committee Strategies

- Track the overall Chapter's agenda via periodic meetings to keep up with evolving Chapter activities.
- Recommend applying best practices gathered from various references and/or experiences from other non-profit boards which may coincide with VT/NH Chapter needs.
- Annually review Chapter compliance against expectations of National, State and Federal authorities, Chapter policies and annual budget.

NOMINATING COMMITTEE

Nominating Objective

Assure that the VT/NH Chapter has an effective Board of Directors and qualified Officers.

Nominating Committee Strategies

- Continuously canvass Chapter membership to identify potential Board members.
- Contact potential Board members and interview them to determine willingness to serve.
- Interview Board member to assess their interest in serving as officers:
President, Vice President, Secretary and Treasurer
- Prepare a slate of Board members and officer candidates and conduct an annual election consistent with Chapter Bylaws.

SALVAGE COMMITTEE

Salvage Objective

Provide adequate care and storage for American chestnut wood obtained by the VT/NH Chapter.

Salvage Committee Strategies

Manage wood caches

- Document the history, storage location, expenses and quantity of chestnut wood caches.
- Develop chestnut wood treatment and storage guidelines, and adhere to them.
- Arrange for safe transportation of wood to adequate storage when necessary.
- Organize the harvest, transportation, and storage of newly found caches.
Note: Before acquiring additional caches of chestnut wood assure that there is a plan for its use to avoid the necessity and cost of long-term storage.
- Submit salvage wood handling budget requests for BOD approval.

Oversee uses of Chapter owned chestnut wood that benefit Chapter activities and funding.

- Determine a price schedule for sales of Chapter owned chestnut wood.
- Find wood workers willing to make items that can be sold as Chapter fund raisers, or used as gifts.
- Maintain records of sales or bartering, sharing that information with the Treasurer.