Tree Line

New Hampshire-Vermont Christmas Tree Association — January 2004

Special points of interest:

- The NHVTCTA fall meeting was held at the farm of Bill and Srimalai Nichols in Orford, N.H., on September 20.

- Newly elected Officers and Directors for 2004 are:
  - President, Russell Reay
  - Vice President, Dana Blais
  - NH Directors, Mike Ahern and Susan Taylor
  - VT Directors, Rich Hourihan and Rich Rockwood
  - Alternative NH Director, Ben Hoyt
  - Alternative VT Director, Larry Krygier

- Special thanks are extended to outgoing directors Peter Mollica, Marshall Patmos, Walt Rockwood, MaryLou Schmidt and Bill Weir

Inside this issue:

Meeting and Marketing

The winter meeting of the New Hampshire-Vermont Christmas Tree Association will take place on January 28 at the Canadian Club in Barre, Vt. Registration forms were mailed recently with a complete agenda.

The meeting is scheduled to coincide with the Vermont Farm Show, which will take place Jan. 27-29 at the Barre Civic Center. NHVTCTA president (and program chair) Russell Reay says there is a strong line-up of speakers and topics, adding that, "everyone who attends the meeting in Barre on January 28 will enjoy our featured speaker, Dr. Graham Powell, professor emeritus, University of New Brunswick at Fredericton. He last addressed our group in 1984 on the subject of how balsam firs grow and how they respond to shearing. He will refresh our knowledge this year."

Members are urged to consider entering a tree or wreath in the Farm Show's "Products Contest." Christmas trees judged excellent will receive that rating, along with a ribbon and $12. The best products in each class will receive a $10 award; the outstanding entry in each category of products will receive a special $50 "Award of Merit." All entries must be delivered between 9 a.m. and 4 p.m., Monday, January 26.

For complete contest entry details, visit http://www.uvm.edu/extension/farmshow/contest.htm or call (802) 828-2421.

Tree Line Returns!

After several years (and countless technical glitches, changed e-mail addresses, etc.) as an e-mail publication, this issue marks the return of *Tree Line* to its traditional printed format.

The Association extends its appreciation to Walt Rockwood for his years of service producing *Tree Line* electronically. He has decided to take a well-deserved break and hand over the reins of the Association newsletter.

The new editor of *Tree Line* is Patrick White, a member with a young Christmas tree farm in Middlesex, Vermont. Patrick has assisted with the production of the Association's *Wholesale Buying Guide* for the past three years and writes regularly on Christmas trees and other topics for *Farming: The Journal of Northeast Agriculture*.

The value and success of this publication depend on two things: member input and advertising.

To that end, please send along any items of interest, news about member farms, Association happenings, advice about growing, product reviews, whatever.

In addition, we hope to hear from industry members interested in supporting the Association and cost-effectively reaching their target audience by placing an advertisement in *Tree Line*.

Submissions, classified ads, comments, advertising inquiries and any other input related to *Tree Line* can be directed to:

Patrick White
NHVTCTA *Tree Line*
18 Merritt Road
Middlesex, VT 05602
Phone/fax: (802) 223-3880
E-mail: pwhitevt@aol.com

President's Message

Welcome to the revived *Tree Line*. Communication is a critical component of the Association, and due to a number of technological challenges, our e-mail format newsletter simply was not reaching *all* of our members. Needing to take corrective action, the directors voted to re-activate *Tree Line*.

This project was handed off to Patrick White. Patrick is a Christmas tree grower, freelance journalist and son of Jim White, long-time Bennington (Vt.) county forester. He's eager for input and members should not hesitate to make their wishes known to him, Jim Horst or myself about the content of *Tree Line*.

As I take the helm from Nigel Manley's able hands, I'd like to preview a few issues on the horizon for our membership:

-Root diseases continue to be one of our major, nearly uncontrollable challenges, and the program committee will try to keep this matter on the front burner. Just when we think we have herbicides and their proper uses mastered, something comes along to change the scenario.

-Personnel changes in the Vermont Dept. of Agriculture may prompt some policy or program shifts that affect our industry.

-Our June meeting will be at Mountain Star Farms in Swiftwater, N.H., and future hosts include Rich Bizzozero in Brookfield, Vt., and Dave Olson in Durham, N.H.

-I would like to appeal to all members to step forward to help in the operation of our organization. Despite the skills and ability of our executive secretary, Jim Horst, he is not—and should not be—a one-man army. The board of directors meets three times a year, making and defending policies, preserving fiscal integrity and dealing with "sticky" issues. Many of the directors may appear to be permanent fixtures in the administration of NHVTCTA. This dedication comes from their commitment to the Association's goals and their desire to contribute their energies. If you feel similarly, please step forward.

-Committees are equally important. Marketing, program, legislative and membership committees always have tasks on their plate, and silviculture and youth committees would appreciate some new members.

-Finally, if you would be willing to host a meeting at your farm, please let me know. The several farms we have visited in recent years are ample evidence that NH and VT Christmas tree growers are not clones of just a few models, but represent dozens of different approaches to a common product goal. If you do something unique, or just like lots of company, please consider hosting a meeting.

See you at the winter meeting in Barre, Vt., on January 28, and don't forget your dues.

Russell Reay, president

New Hampshire-Vermont Christmas Tree Association

2004 Officers

President	Russell Reay	(802) 492-3323
Vice President	Dana Blais	(603) 747-2263
Recording Secretary	Carolyn Page	(603) 664-2934
Executive Secretary/Treasurer	Jim Horst	(802) 447-1900
Past President	Nigel Manley	(603) 444-6228
Marketing Committee Chair	Walt Rockwood	(802) 685-2282

2004 Directors

(Term Ends)		
(2006)	Mike Ahern	(603) 536-2334
(2005)*	Dana Blais	(603) 747-2263
(2005)*	Mike Dannehy	(603) 747-2457
(2004)*	Mike Godzyk	(603) 237-5702
(2006)	Rich Hourihan	(802) 563-2369
(2005)	Phil Kivlin	(802) 897-8031
(2004)	Tom Lang	(802) 223-7028
(2004)	Milan Miller	(802) 443-5382
(2004)	Bill Nichols	(603) 353-4832
(2006)	Rich Rockwood	(802) 685-4343
(2006)	Susan Taylor	(603) 239-4005
(2005)	Bob White	(802) 899-4924

Alternate Directors

(2004)	Ben Hoyt	(603) 838-6403
(2004)	Larry Krygier	(802) 827-6123

**Denotes second consecutive term*

Contact Information

Jim Horst, Executive Secretary
569 Pleasant Valley Road
Bennington, VT 05201-9637
Phone: (802) 447-1900
E-mail: info@nh-vtchristmastree.org
Association Website: www.nh-vtchristmastree.org

For matters related to *Tree Line* only:

Patrick White, Editor
NHVTCTA *Tree Line*
18 Merritt Road
Middlesex, VT 05602
Phone/fax: (802) 223-3880
E-mail: pwhitevt@aol.com

2004 Tree Line Publication Schedule

Issue	Ad/Submission Deadline	Mailing Date
January	---	January 9
June	May 28	June 4
September	August 27	September 3

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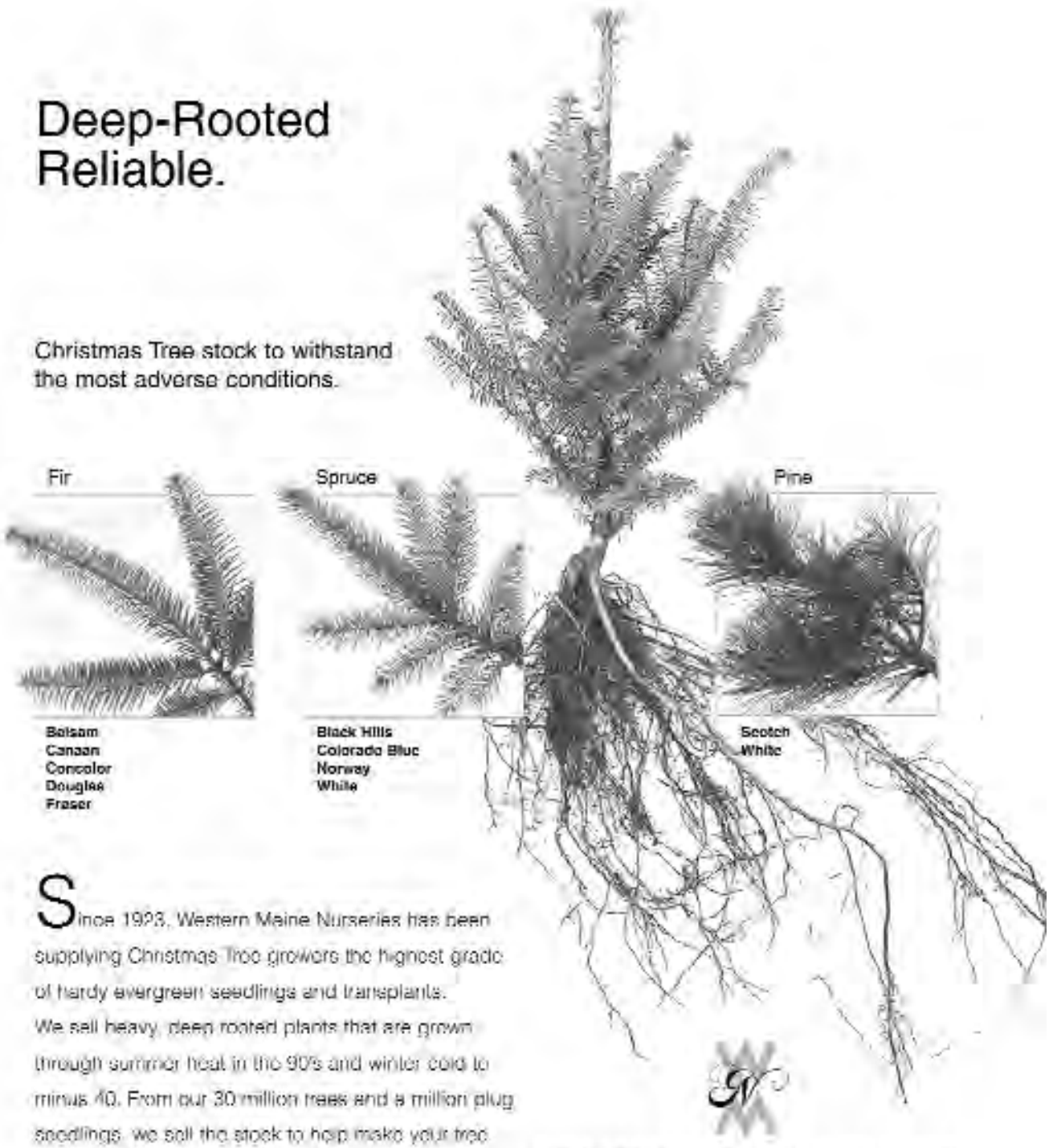

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Tracking Down the Fraser Fungi

Have you recently seen dead branches or unexplained mortality of fraser fir? Fungi we don't usually see causing problems on Christmas trees have been found on fraser fir from a single farm in southern Vermont. We'd like to know how widespread this apparent problem is.

This summer, Dr. Dale Bergdahl, a forest pathologist at the University of Vermont, identified a species of "Fusarium" (a fungus) from dead branches, main-stems, and the roots of dying trees. Another fungus, called "Cylindrocarpon," was also isolated from diseased roots, especially the fine roots.

If you grow fraser fir, we'd like to know if you have seen any of the following symptoms. We're particularly interested in trees that have been growing at your farm for at least three years.

Branch Symptoms:

-Red-brown foliage on dead branches

-Inner bark is brown instead of green in color

-Branches died suddenly

-No wound at the base of the dead branches (e.g. from shearing)

-Occurs on a number of trees

-Diseased branches are usually scattered within the crown of a tree

-Diseased trees are usually more concentrated in one part of the plantation

-White bumps may appear near the base of diseased branches

Dead Tree Symptoms:

-Needles start showing symptoms by turning greyish-green

-Diseased trees generally dry out (light weight when cut) as they die

-Dead trees turn red and hold their needles

-Usually pitch exudation at the base of the trunk

-Diseased trees are more concentrated in one part (or in several different areas) of a plantation

-Balsam fir in the same area not affected

There are many different species of fungi in the group called "Fusarium." Some grow on tomato plants, others on bodies of insects, while some others cause tree diseases. In conifer nurseries, Fusarium (and Cylindrocarpon) fungi can cause root diseases that kill young seedlings. Also, species of Fusarium are known to cause branch and main-stem canker diseases by growing in the inner bark of trees, including conifers.

Pitch canker is an example of an important disease of southern pines caused by a species of Fusarium. This canker disease is becoming more widespread in North America and is considered a threat to other pine growing regions throughout the world.

Is this a "new disease" of fraser fir in northern New England? Probably not. Most likely, it's a common fungus taking advantage of certain conditions: weather, site, or cultural practices. But we'll know more about it if we can find it in other locations—or not find it, and learn that this plantation problem is simply atypical.

If you've seen symptoms like the ones described above, please let one of us know. Our contact information is included below. Thanks.

Barbara Burns
Forest Health Specialist
Vermont Division of Forestry
802-885-9227
barbara.burns@anr.state.vt.us

Dale Bergdahl
Plant Pathologist
University of Vermont
802-656-2517
dale.bergdahl@uvm.edu

Cheryl Smith
Plant Pathologist
University of New Hampshire
603-862-3841
cheryl.smith@unh.edu

Article and photos provided by Barbara Burns.

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Research Report: Biotechnology

The Institute of Forest Biotechnology, based in Research Triangle Park, N.C., recently held an exploratory meeting to look at the threats posed to Fraser fir. The group vowed, "to facilitate efforts to use biotechnology to improve Fraser fir by developing and maintaining a broad-based network of scientists and interested parties focused on attacking problems of the species." Following is a excerpt of findings from that meeting, and a look at some possible solutions researchers hope to employ.

Status of Natural Stands

Fraser fir is the only fir species native to the South and one of the dominant species of the spruce-fir ecotype of the Southern Appalachians. Due primarily to the introduced balsam woolly adelgid (BWA) and, secondarily, to harmful atmospheric depositions, old growth Fraser fir has been almost entirely decimated and the prospects for regenerated younger trees are bleak.

Although fir reproduction is abundant in some areas, the long-term prospects for survival of the young trees range from uncertain to dismal. In addition, the character of the forest has been drastically changed. Overall, the future survival of Fraser fir is threatened. Found nowhere else in the world, Fraser fir has a global rank of G2, indicating that it is imperiled and vulnerable to extinction.

Christmas Tree Industry

In addition to its aesthetic and ecological value, Fraser fir is economically important. In North Carolina, 5.5 to 6 million Christmas trees (over 98% Fraser fir) are harvested annually. Fraser fir has been widely accepted as the premier Christmas tree species in much of the United States due to a combination of attributes including pleasing aroma, dark blue-green foliage, natural Christmas tree shape, strong branches for holding ornaments and excellent post-harvest foliage retention. The later characteristic allows Fraser fir to be harvested early and shipped to markets primarily along the Atlantic seaboard but, also, to the nation's interior and West Coast as well as to Caribbean and Latin American markets.

The most damaging pest of the Fraser fir Christmas tree industry is phytophthora root rot (caused by the water mold, Phytophthora cinnamomi). Annual losses are estimated to be $6-7 million and the long-term viability of the industry is in doubt.

Once sites become heavily infested with the pathogen, the land must be abandoned for Fraser fir production. Development of disease-resistant planting stock is urgently needed since chemical methods for controlling this disease in infested plantations is largely ineffective or uneconomical.

Other pest problems in Christmas tree plantations include balsam woolly adelgids (BWA), balsam twig aphids, spruce spider mites, and rosette bud mites among others.

Biotech Research Needs

Successful amelioration of Fraser fir problems via biotechnology could potentially produce both ecological and economic benefits, from preservation of the threatened natural population to improved income for Christmas-tree farmers, wholesalers and retailers. The two most important objectives would be the development of resistance to BWA and phytophthora root rot.

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To make meaningful progress, a focused research program is needed. Objectives of the program would be to:

1) develop somatic embryogenesis (SE) techniques. SE is a means of cloning trees from individual cells. SE has successfully been developed for other conifers, including Abies species, but a reliable technique has not yet been developed for Fraser.

2) develop genetic transformation techniques. Genetic transformation is the process whereby novel genes are incorporated into the chromosome of a plant cell. When combined with SE (the regeneration of a tree from that cell), it could result in novel forms of resistance for Fraser fir. Genetic transformation and regeneration have been documented for other conifer species, but not yet for Fraser fir.

3) better understand the genetic interactions between Fraser fir and its pests. Information is needed to better understand how pests are attracted to Fraser and how defense mechanisms are regulated.

While these are not trivial endeavors, it is anticipated that through a sustained and coordinated effort by a team of researchers and interested parties, the status of the natural Fraser fir stands and the Christmas tree industry will ultimately be significantly enhanced.

Prepared in February 2003 by John Frampton and Barry Goldfarb, N.C. State; and Bob Kellison,The Institute of Forest Biotechnology. Excerpt used with permission.

Trading Post

Members may advertise goods and services related to the tree and wreath industry for no charge. Nonmembers may advertise items for $10. Submit ads and questions to *Tree Line* editor.

For Sale: Our two oldest girls would like to sell about 1,000 potted blue spruce, 18-24". They would like to get $3.00 per pot. Contact Alan and Celise Johnson at 802-695-3308.

For Sale: Balers, elevators, shakers, twine. Howey Christmas Tree Baler Coporation. Contact Lucien Pilote, dealer for New Hampshire and Vermont. Call (802) 277-5223.

Blast From The Past

Following is an excerpt from the NHVTCTA's first newsletter, published in February of 1957:

As Charles Lathrop Pack once said, "if the Nation saves the trees, the trees will save the Nation." Let us be aware that if the producers or growers keep the culls the premium trees will save our New England Christmas Tree Industry.

It is becoming more prevalent each year that the New England producers must market quality or premium trees singly or bundled if we are to maintain or better our positions in the cities we sell to. After looking over reports and bulletins of other Christmas tree associations, of which there are now 11, not counting the national association, it is apparent that wholesalers, retailers, and the individual buyers are looking for "good-trees" only.

The course for us is now laid out, we must supply good trees or take the chance of other species, not native to our area, taking the markets over. The N.H.-Vt. Association is off to a good start, we have had very good publicity from the East Coast to the West Coast and down to the Sunny South.

Our area is the only area that produces good balsam and spruce, let's not allow ourselves to be sidetracked just for the sake of a few extra dollars; let's produce a good tree and be proud to say we produced it.

Look for more such excerpts in future newsletters; these snipits from earlier days provide a look at how much has changed—and how much remains the same.

New England Christmas Tree Management Course

The 2004 New England Christmas Tree Pest Management course has been scheduled for March 18-19 at Keene State College in Keene, NH.

The course is an intensive two-day series of lectures and laboratories providing hands-on learning about conifer tree health, insects and diseases, weed identification and control. The program is sponsored by UNH Cooperative Extension and brings together insect and disease experts from throughout the Northeast as instructors.

Pesticide recertification credits for all the New England states and forestry continuing education credits are available.

The biennial course has been well received by past attendees from New England and Canada. In addition to Christmas tree growers, foresters and landscapers can benefit by attending.

Cost for the two-day session, including reference materials and lunches, is $120. Space is limited and advance registration is required.

Brochures will be mailed in January. For more information or to be sure you are on the mailing list, contact Marshall Patmos, UNH Cooperative Extension, 800 Park Ave, Keene, NH 03431. Phone 603-352-4550 or email marshall.patmos@unh.edu

Penn State Short Course

Penn State's 2004 Christmas Tree Management Short Course will be held at the Penn Stater Conference Center and Hotel on the University Park Campus, Wednesday February 18-19. The course is sponsored by the College of Agricultural Sciences and the Department of Horticulture, and attracts Christmas tree growers from over 10 states and Canada.

The course is designed to help growers adopt the latest pest control, production and business management practices. Just a few of the speakers and topics on this year's program include:

- Mel Koelling, *Michigan State University - Fraser fir quality*
- Rayanne Lehman, *PA Dept. of Ag. - Douglas fir needle midge*
- Paul Shealer, *Penn State - Deer control on tree farms*
- Larry Kuhns, *Penn State - Weed control; Farm safety;*
- Kathleen Kelley, *Penn State - Christmas tree marketing*
- George Perry/Bob Pollock, *Penn State - Spray adjuvants*

A registration fee of $175 includes all educational sessions, instructional materials, breaks and lunches for Feb 18 and 19. Registration for one day is $100. Registration deadline is Feb. 9.

If you do not receive a registration form, please call the Christmas Tree Management Short Course office at (814) 863-0918 or e-mail Rick Bates at rmb30@psu.edu. A block of rooms has been reserved at The Penn Stater at a rate of $76. Reserve a room *by Jan. 14* by calling 800-233-7505, and indicate you are attending the course.