



Tree Line



New Hampshire-Vermont Christmas Tree Association

June 2019

Special points of interest:

◆ Upcoming Meetings

The Fall Meeting of the NHVTCTA will be held on Saturday, September 21, at Jim and Julie Horst's farm in Pownal, Vermont.

The National Christmas Tree Association's annual meeting will take place August 8-10 at Roba Family Farms in North Abington Township, Pennsylvania, in conjunction with the Pennsylvania Christmas Tree Growers Association Summer Meeting.

Inside this issue:

Summer Meeting Preview	1
President's Message	2
Association Contact Information	2
Fertilizer Spreader Invention	3
One Farm's Approach to Ticks	4
Lirula Needlecast	5
The Story of the Flood of 2017	6
Trading Post	9

Summer Meeting at Maplecrest Farm

The 2019 Summer Meeting of the New Hampshire-Vermont Christmas Tree Association will be held on Saturday, June 22, at Maplecrest Farm in Contoocook, New Hampshire. Our hosts are Sue and Jeff Dearborn.

Following the morning business meeting, Jeff Dearborn will provide an introduction to the farm, its history, and a discussion of drainage projects.

Gail McWilliam Jellie, director of the NH Division of Agricultural Development, will be onhand to provide an state agricultural marketing update.

We will also hear from Anna Wallingford, entomology and IPM specialist, and Ethan Belair, natural resources field specialist with UNH Cooperative Extension. They will talk about

integrated pest management and Christmas trees.

Following a BBQ pork and chicken lunch, Jeff Dearborn will lead a walking tour of the farm, including discussion of deer fencing, drainage, fertilization, and insect and disease control. There will be plenty of time for questions and answers.

We have invited members of the New Hampshire Timber Owners Association to join us at this meeting; if you happen to see a NHTOA member, please take the time to answer any questions they may have about growing Christmas trees.

Registration for the meeting (without a guaranteed meal) is available onsite if you have not already sent in your registration form.

Champlain Valley Fair

Due to an oversight by your humble editor, the results of the tree competition from last fall's Champlain Valley Fair were not included in the January issue. Here they are, with many thanks to Peter Lyon for organizing this great display that provides a wonderful opportunity to remind consumers that we have very active growers producing fresh/local trees to be enjoyed during the holidays. Thanks also to Tom and Judy Lang for volunteering their time as judges.

- **Best of Show & Best of Class:** Alan Johnson with a Balsam Fir. (This is Alan's fourth year in a row taking Best of Show!)
 - **Best of Class:** Bob White with a Cork Bark Cross Korean
 - **Best of Class:** Alan Johnson with a Fraser Fir
 - **Best of Class:** Peter Purington with a Canaan Fir
 - **Best of Class:** Bill Assack with a Fraser Hybrid
 - **Additional ribbons** were awarded for trees that scored very well to the following growers: Chad Fontaine, Bob White, Alan Johnson, Will & Sue Sutton, Doug Hamlin, Peter Purington, Patrick White, and Bill Tester.

President's Message

In my last President's Message, I talked about how the weather hadn't cooperated during the past harvest season, and predicted that surely things would turn around soon. Well, after the wettest spring I can remember, that prediction didn't pan out. Our planting and spraying was delayed weeks—transplants were late to be ready, and our field was too wet in many parts to plant them anyhow. I didn't dare put the tractor in most places because of fear of rutting the roads. I'm sure we're not alone. So now we're really due for some good weather—I promise!

In any event, we should count our blessings. Mike Ahern's tale in this issue of 2017 flooding at this farm is a reminder to us all that it could always be worse. It's a very nice story, and the real takeaway has more to do with persistence and community support than it does with Mother Nature.

I'm grateful that we have so many member contributions in this issue. In addition to Mike's story, you'll also find pieces written by

John Archambault about a fertilizer spreader he invented; by Bob White about his (and all of our) ongoing battle against ticks; and by Ron Kelley, who graciously shared his expertise on Lirula—if you have that or any other disease or pest pressure at your farm, Ron's consulting services can be invaluable.

Hopefully you all will be at our upcoming Summer meeting at Jeff and Sue Dearborn's farm in central New Hampshire. We'll be in southern Vermont at Jim and Julie Horst's Pownal farm for our Fall meeting in September. We thank them both for their willingness to play host, and remind everyone else that we're always looking for meeting sites—if you're interested, come find me at a meeting and let me know.

Meanwhile, enjoy the time before shearing season starts. The weather is going to be nice, I can just feel it.

*Patrick White,
President*



New Hampshire-Vermont Christmas Tree Association



2019 Officers

President	Patrick White	pwhitevt@aol.com
Past-President	Dan Beloin	belointreefarm@gmail.com
Vice President	Jeff Taylor	taylorpeople@aol.com
Recording Secretary	Russell Reay	russreay@vermontel.net
Exec. Sec./Treas.	Jim Horst	mtafarms@comcast.net

2019 Directors

Andy Aldrich	aaldrich@pshift.com
Dan Beloin	belointreefarm@gmail.com
Ben Hoyt	b.hoyt@roadrunner.com
Nick Potter	nicklrobertlpotter@gmail.com
Bill Lefebvre	billfcg@comcast.net
Paul Lemire	mrrplemire@msn.com
Nigel Manley	info@therocks.org
Carl Szych	breezyhillacresszych@yahoo.com
Jeff Taylor	taylorpeople@aol.com
Bill Tester	bill_tester@hotmail.com
Bob White	whitechristmasvt@googlemail.com
Patrick White	pwhitevt@aol.com

Contact Information

Jim Horst, Executive Secretary
569 Pleasant Valley Road
Bennington, VT 05201-9637
Phone: (802) 447-0660
E-mail: info@nh-vtchristmastree.org
Association Web site: www.nh-vtchristmastree.org

For matters related to Tree Line only:

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

Copies of the Association bylaws and policies are available to members at any time by contacting the Executive Secretary.

2019 Tree Line Publication Schedule

Issue	Ad/Submission Deadline
January	—
June	—
September	Sept. 6

How Do You Fertilize Your Christmas Trees?

By John Archambault

We use the banding method—why waste fertilizer feeding the grass and increasing the amount of time mowing the stuff? Until last year, we used a bucket of fertilizer held under one arm, grabbed the fertilizer and fanned it over the banded rows of large trees, or sprinkled around the drip edge of the smaller trees, a very time-consuming method.

For 18 years I had a choose-and-cut farm with 7,500 trees; it would take approximately 8 hours to fertilize, which was somewhat manageable. Ten years ago, we started our second farm, which now has 15,000 trees, so to fertilize both farms manually became just too time-consuming.

I searched the market for a

banding fertilizer spreader and found only the pendulum spreaders (Vicon), which I thought were a bit pricy and too big for my tractor. Being a retired mechanical engineer, I challenged myself to design the ultimate banding spreader. After many years of embarrassing design failures, the spreader now works beyond my expectations.

I modified a 150-pound-capacity pull-behind broadcast spreader. The changes redirect and accelerate the flow of fertilizer, and dispenses it evenly across the banded rows. The spreader can fertilize two rows of trees simultaneously while evenly spreading the fertilizer in band widths of 2 to 3 feet; manual adjustments are required for changes in row spacing and band

widths. The calibration is fully adjustable within the spreader's original capabilities. The fertilizer is delivered at 6 to 8 inches above ground level, getting under most branches. It can fertilize approximately 3,000 trees per hour. I have also used it to spread 10 tons of pelletized lime.

I am currently in the process of a patent application and looking for comments, input, and peer review. If you have any interest, plan on attending the Fall NHVTCTA meeting (at Jim Horst's new farm in Pownal, Vt.), where I hope to demonstrate the prototype. Note that the current model is not marketable, a redesign for robustness and manufacturability would be required. Feel free to contact me at jarchambault04@yahoo.com.



Asack & Son
 SEEDLINGS & TRANSPLANTS
 Balsam • Fraser • Canaan
 Balsam X Fraser Hybrids
 P. O. Box 37 • Barton, VT 05822
 Tel & Fax: 802-754-6934
 email: asack@together.net
www.billasack.com

**Want to Get a Jump on
 Spring planting?
 Plant In the Fall!**

**Transplants Can Be Ordered
 for Fall Digging,
 Starting after Labor Day.**

TRANSPLANT TYPE	SEASON	TREE AGE	PRICE EACH
Balsam Fir: Mountain Strain Vermont Seed Source	Fall 2019/Spring 2020	2-2	\$1.15
Balsam Fir: Cooks Strain Vermont Seed Source	Fall 2019/Spring 2020	2-2	\$1.15
Balsam-Fraser Hybrids: Vermont Seed Source	Fall 2019/Spring 2020	2-2	\$1.15
Fraser Fir: N.C. (Rogers Mtn.) Seed Source	Fall 2019/Spring 2020	2-2	\$1.15
Fraser Fir: N.C. (Ayers) Seed Source	Fall 2019/Spring 2020	2-2	\$1.15
Canaan Fir: West Virginia Seed Source	Fall 2019/Spring 2020	2-2	\$1.25
Canaan Fir: West Virginia Seed Source	Fall 2019/Spring 2020	2-1	\$1.05
Mystery Tree: Late-Breaking Fraser Fir	Fall 2019/Spring 2020	2-2	\$1.30
Veitchii-Mtn. Balsam Hybrids: Limit 100/Customer	Fall 2019/Spring 2020	2-2	\$1.30
Korean-Mtn. Balsam Hybrids: Limit 100/Customer	Fall 2019/Spring 2020	2-2	\$1.30 (limited supply)

One Farm's Approach to Managing Ticks

By Bob White

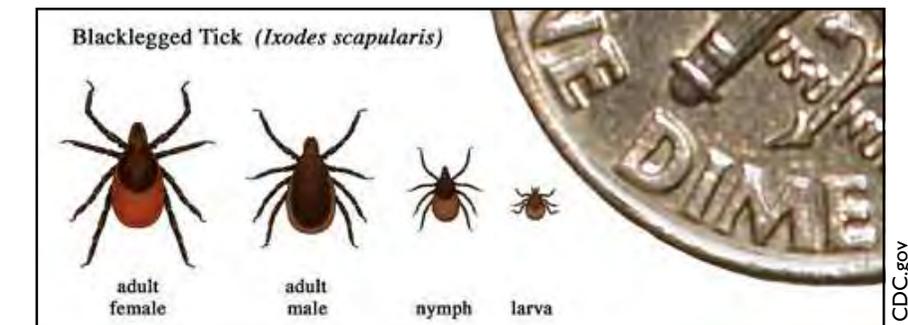
All of our workers in the maple woods got bit by ticks this year early in the sugaring season. Since late April, when I was finally able to get them all serious about protection, no one has been bit.

We had one worker who was bit in May on the Christmas tree farm in a field that never had ticks before. They are very active in our area the majority are infected and spreading fast.

Instead of using tweezers, as some recommend, we have found special (very inexpensive) plastic removal tools available online that do a really good job at removing all sizes of ticks, and so far we have been able to remove what we believe is 100 percent of the tick—I've found that tweezers often leave the head of the tick imbedded. I supply the tick removal tools to all workers to keep at their home.

While some resources say to discard removed ticks, I don't think that makes sense. Why would you discard the one piece of evidence that can rapidly identify if you may or may not be infected. We place them in a Ziploc bag and ship them to UMass (tickreport.com); for \$50 dollars (cheapest money ever spent) a few days later we get a report on all the pathogens the little SOB did or did not have. Our results this year on six ticks tested for Lyme: five came back positive, one came back clean. And there were no bull's-eye rashes left by any of them.

We've found that it can be difficult to get medical treatment without results from an official Lyme test, or if a bull's-eye has



not appeared. But in all cases once the tick report came back positive, with this in hand each person then was given treatment.

In our maple woods it's pretty easy to identify where the ticks are, in the Christmas trees I was not too sure. So I started doing a drag test using a fluffy bright towel on a rod with some baler twine to pull it with. I dragged the mature tree area for a couple hours and found nothing (thankfully they do not seem to like being around our trees).

Then I dragged the road area around the field. What a shock, there were very high numbers all the way around the outside of the field. I pulled them off the towel with packing tape, checking it every 100 feet or so. I had walked unprotected

in front of the towel and did not pick up any on me. Then I moved to our main farm, which also has never had a tick found on it. I dragged the hole thing and was glad to find just two in one outside corner, again none in the Christmas trees.

The next day I applied a very low dose of Bifenthrin treatment of the road and outer border areas around the farms. The day after that I redragged the whole thing again and found no ticks at all. Time will tell if and when they repopulate.

Dragging is an effective way to look around your yard or farm. Our house had none. Another property that I checked was loaded—it is hard to know, as they can become established in an area very rapidly.

Good luck and try your best to stay safe.

QUALITY PRODUCTS MADE IN THE USA

TREE/TECK INC

**Tree Drillers • Pin Stands
Balers • Pruners • Lot Supplies**

1-800-4-PRUNER

(1-800-477-8637) 🌲 www.treeteck.com

CALL FOR OUR COMPLETE PRODUCT CATALOG

Lirula Needlecast: An Increasing Threat

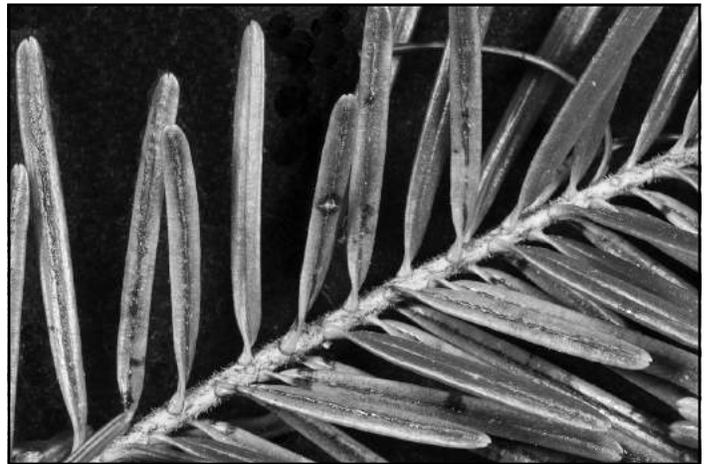
By Ronald Kelley

With an increase in rainfall due to climate change, diseases have become the predominant source of damage to Christmas trees. Often, heavy precipitation occurs early in the growing season when new growth is emerging and needle-killing fungi are releasing spores. In the 1990s, *Rhizosphaera pini* was the predominant source of needle mortality, with occasional *Delpihnella* shoot blight, which kills needles as well as small shoots. *Lirula* was usually confined to a few scattered individual balsam fir trees in just a few plantations back then. It still can occur as only on scattered trees but has become the predominant needle killer in recent years. *Rhizosphaera* can often be found on the same trees but usually as the minor culprit. Last year, for the first time, I saw serious needle loss due to *Lirula* in several Fraser and Canaan fir plantations in Vermont and New Hampshire. There are several species of *Lirula* but the predominant one here appears to be *Lirula nervata*.

Quebec has also been dealing with these same fungi. They refer to the needle-killing fungi (*Lirula*, *Rhizosphaera* and *Ishmiella*) as “rouge des aquilles” or needle red. They find that balsam is the most susceptible but under periods of abundant rainfall when spores are being released, considerable damage can occur on Fraser fir. One Fraser plantation had heavy damage a few years ago that could not have been predicted by the amount of damage present the pr year. That grower had to remove the bottom couple of feet from trees in order to sell them.

Quebec has found that *Lirula* releases the spores (called ascospores) that cause infection beginning in early to mid-June, which infect current-year needles. These needles do not brown up till the following year, when pycnidial blisters show up on the upper surface. The long black fruiting bodies on lower needle surfaces that produce the ascospores do not show up until the third year. Infected needles remain attached in their normal orientation to the stems, while needles infected with *Rhizosphaera* tend to hang down and easily drop. The long delay in symptoms increases the difficulty in determining the effectiveness of any fungicide treatments. They have found that these fruiting bodies open to release spores when wet, then close back up when dry, with infection usually continuing till mid-July. Quebec has an agro-environment consulting group headquartered in Sherbrooke. Scientists from this group monitor trees for participating growers and notify them when spore release is beginning so that they can spray their trees at the correct time.

In Vermont and New Hampshire, fungicides containing mancozeb or chlorothalonil are the primary products registered and used for Christmas trees. Once on the needles, these act by preventing spores from germinating and entering the needle.



Second year *Lirula pycnidia*.

Photos by Ron Kelley

Therefore, frequent applications are often needed for good control. Quebec growers have had good control success with either Flint (trifloxystrobin) or Banner (propiconazole). These are systemic fungicides that translocate into the interior of needles and should give better long-term control with fewer treatments. Neither of these products are registered for use on Christmas trees here but propiconazole comes closest to being an acceptable use, since it is labeled for some diseases of fir in the U.S., as well as for nurseries. The Vermont Agency of Agriculture has agreed to seek a special needs permit for Banner Max, the principal propiconazol product made by Syngenta. They will need some justification for that from me. For growers who have had some losses from these fungi, it would be much appreciated if you could send me some information on that. It can be approximated and in terms of trees destroyed, trees unmarketable or dollars lost. I promise to keep names and locations confidential. It would be good if someone from New Hampshire could contact their state agriculture pesticide

Continued on page 9.

The Story of the Flood of 2017

By Mike Ahern, Glove Hollow Farm, Plymouth, NH

It was early October when local Jack Killian stopped by to ask if I needed help with the upcoming harvest. How cool would that be to have someone experienced not only with tractors and equipment but someone who knew how to run a crew. Little did I know how important Jack would be to the farm over the coming weeks.

On Oct. 30, 2017, at 8 a.m., the rain from the previous day was starting to cause flooding in the lowest lying areas of our fields. Little did we know what we were in for. The previous day, in the rain and with heavy rain expected that night, we were cutting trees in our more flood-prone fields. We had 3 men cutting all day and a crew bailing most of the afternoon and the same crew working till late to bring the trees up to high ground in case of flooding. I know too well what could happen and I wanted to play it safe. "Mother Nature will not get these few hundred trees," I thought to myself. As I watched out the window the next morning I could see the flooding start. I called the crew to take the day off as I expected the access road to flood making it difficult to get around. Not to worry, I started early enough with the harvest to account for a couple of days of delays. The road floods most every spring as its very low compared to the much higher ground where the trees are planted. When several of my high school workers showed up off the bus at 2:30 I knew things were not looking good. I had about 2,000 trees that were in jeopardy of being

swept downriver. I had the trailer ready to bring the trees up to safety. We held out hope that the floods would not reach any of the cut trees. As I approached the patch of water already over the roads I made the decision to turn around and not risk damaging the tractor. I told the workers to go home, there was nothing more we could do that day. I was helpless. I had reports that the river would crest around 4:30 p.m. but that was not the case as it kept rising and at 6:30 it was spilling into my fields. This was new territory for me as I did not know what the floods would do to my neatly piled up trees along all the roadways. And that was before we even thought about our own retail season.

The next morning I got up early before the crew arrived to survey the damage. Trees were everywhere and water got trapped in low spots as the river receded. That day we started to drag and restack trees back along the roadways. Some trees we located as far as half a mile away, getting caught up in the treeline before the rushing water would have taken them downriver. Two and a half days were spent collecting the 2,000 trees from ditches and small pools of water and beneath debris. That first night I sat at my computer to write to my wholesale buyers what had happened and to tell them the silt on the trees was going to take too much time to remove and I did not have the help to clean them, let alone the time to harvest the rest of the trees. I wrote that I would not be able to supply trees and would be sending back deposits. After a

couple hours of heart-wrenching time putting the words together the email was finished and ready to send out to my 30 or so buyers. Then in a flash the letter on my computer vanished and my efforts to retrieve it came up short. After the frustration of all that time for nothing I decided to go to bed and rewrite it the next day. The next morning the Plymouth State University mens hockey coach contacted me; he explained how he and his family have been long-time customer of ours and had heard that we needed help to harvest our trees because of the flood. He said he would talk to his team and that he thought he could have all 21 guys there Saturday morning. I was thinking how surreal this conversation was, then immediately thought about the lost email I almost sent the night before. Something good was happening. That Saturday morning cars kept arriving and soon I had the entire PSU hockey team mixed in with my 10 employees. We went to work cutting, hauling trees up, dragging, cleaning the trees with three pressure washers and moving trees around the yard. A couple of days later I received a call from the women's lacrosse coach who heard about our story and wanted to know if her team could help. Next was the baseball team captain, who showed up to help. I was overwhelmed by the university's sports teams. It seemed like the whole town now knew something was going on at Glove Hollow.

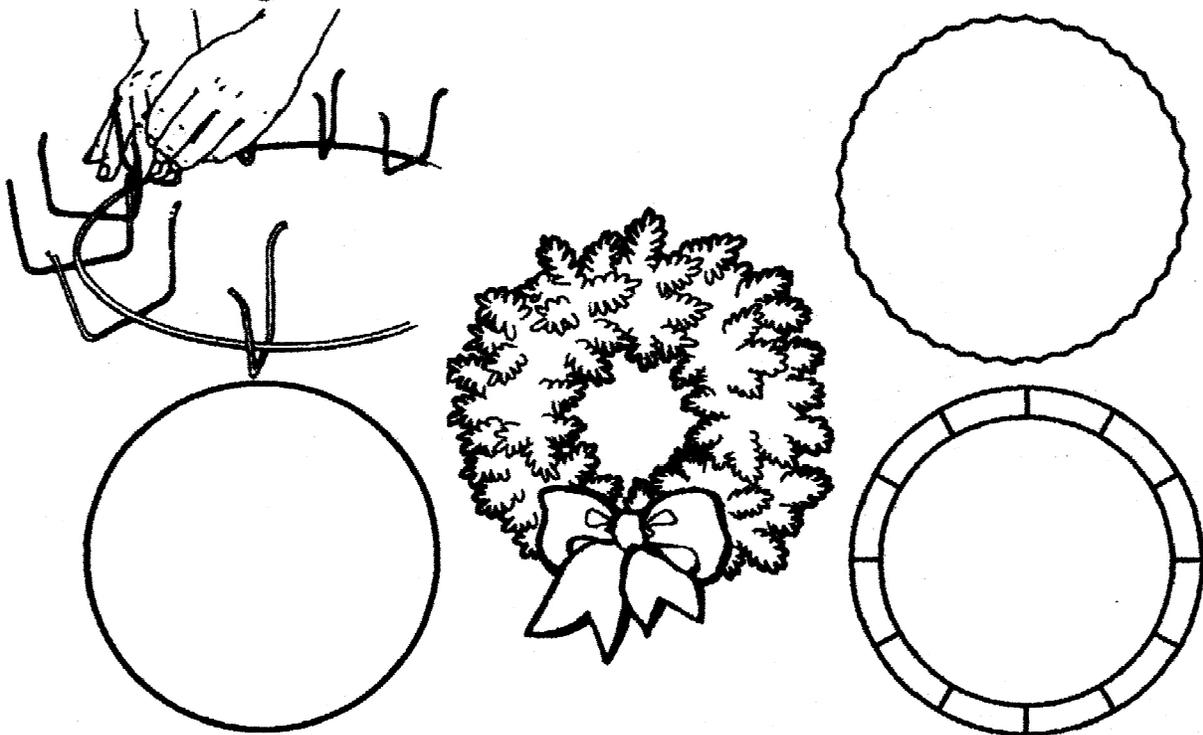
Although an email still went out to the buyers there was optimism that they would get their

Continued on page 8

Wreath Frames

For All Your Christmas Needs

Clamp, Crimp, Plain, Double Rail
Rings, Custom Works & Much More



We Have Topiary Frames Too!

Top Quality - Low Prices

518-272-3800 • 888-773-8769



RIVERSIDE ENTERPRISES

484 RIVER STREET • TROY, NEW YORK 12180

The Story of the Flood of 2017 (continued)

Continued from page 6

trees if they could allow for extra days to clean them, to take split shipments and be understanding they won't be as clean as they normally would be. The response was overwhelming. Two buyers came back for more trees as the season progressed, selling more trees than ever before. One buyer said he wanted the trees more than ever just because of the ordeal we were going through and stopped in to give moral encouragement and to pay early as he thought we could use it. Many were so nice and understood even though we were doing all we could to pressure wash the trees two and three times that they were fine with cleaning

them again once they were on their lot. One by one they let me know that they understood and we would get through this year.

The harvest took many more work hours than I even imagined. Normally we bring up 70 to 120 baled and stacked upright side by side on the trailer and then offload them into piles for pickups. Now we were bringing up 14 to 24 loose trees laid over the sides of the trailer. The loose trees were dropped off outside my house where the house water supply spigots were located to wash them twice before allowing them to be put onto a truck. The process to wash and then bale each tree (we eventually learned to pressure wash the trees *after*

they were baled, to give the water pressure a hard target rather than the loose branches moving away from the water stream) allowed for only 20 trees per hour with 6 workers instead of the usual 80 trees per hour with two or three workers.

The days when the temperature was above 32 degrees we ran the pressure washers and shut them down when it turned too cold. As the season wore on, the days shorter, the workers, many arriving on middle or high school buses, worked to wash trees when it was warm enough, even into the dark by flood lights. The extra weight to handle water-soaked

Continued on page 10

MOW SPRAY SHAPE

OESCO, Inc. has everything for the Christmas Tree Grower



Tree Mowers

The ultimate mower for tree farms & nurseries



Sprayers

Self-contained ATVM air-blast sprayer



Pruners & Loppers

Long-reach loppers, electric shears

**Call us for a catalog
or a demonstration!
800-634-5557**

P.O. Box 540
Rt. 116 / 8 Ashfield Road
Conway, MA 01341
www.oescinc.com



Lirula (continued)

Continued from page 5
control division to see if they can do the same. Another systemic fungicide, thiophanate-methyl, is already registered for Christmas trees in Vermont and might be worth trying, but I have not been able to find any information on its effectiveness for fir diseases. In the meantime, I recommend that growers monitor their trees closely and if they have just a few symptomatic trees, destroy these to prevent a possible blow-up of the disease. And of course, it is always a good practice to do everything possible to promote good air flow through the plantation. This includes adequate tree spacing, basal pruning and re-



Third-year Lirula fruiting bodies

moval of larger nearby trees that might hinder good air flow.

Ron is a retired Vermont Insect & Disease Specialist and a NHVTCTA Associate Member who continues to serve growers as a pest management consultant. He can be reached at 802-888-7466 or by emailing ronald.kelley76@gmail.com

Trading Post

FOR SALE: Tree Equipment Design two-seat Christmas tree planter with five-foot marking wheel, good condition - \$2500 or BO. Tow-behind four-row herbicide sprayer, good condition, \$1500 or BO. Mechanical CT 12 Christmas tree planter, excellent condition, \$3500 or BO. Contact wkogut@cox.net or (203) 641-1632.

FOR SALE: Dana and Jane Blais still have a 23-inch red Kirk baler that is bolted to a very heavy, hand-made metal table. Asking \$200 for the baler, \$250 with the table. It is like new and is being store in their barn in Henniker, NH. Email jloringblais@roadrunner.com or call (603) 747-2263.

WANTED: Used Kverneland plow 3 or 4 bottom in working condition and Used Northwest Rototiller in good condition. Contact wkogut@cox.net of (203) 641-1632.

Kelco INDUSTRIES
MILBRIDGE MAINE, 04658
Your Complete Source For Christmas Tree And Wreath Supplies
Visit our website or call for a catalog to see our full line of tree planting, farming equipment and supplies.
www.kelcomaine.com
800-343-4057

The Story of the Flood of 2017 (continued)

Continued from page 8

trees required two men at times to moved the trees from the field to trailer, into a stack, and then to the wash area, to baler, to pile again, and then repeat the process for a second wash or even a third. The days dragged on but the boys and girls knew the situation and the limited days left to finish so they kept up the pace. An announcement at high school continued daily and brought in new workers almost daily. Locals were empathic at the sight of pressure washers and the parking lot lit up during night hours. Care packages of food arrived, along with words of encouragement. The local community and University sports teams were not allowing for failure. We were very lucky.

Our local customers were

instinctively understanding, you see Plymouth's history is of a humble agricultural community. Still reflected today not only by the rich soil, rich because of flooding not despite flooding, but by the agricultural heritage of its people passed on from the earliest of families to current families. Residents stood by us and supported us because the river is just as much part of them as it is our farm.

Jack Killion throughout the harvest made critical observations, among them, that the trees needed to drip dry standing up so they don't drip back onto each other. My dad, Omer Ahern Sr., when he was alive depended upon Jack's grandfather, Russ Gilman, to work on our equipment. In some cases Russ could modify the

equipment better do the type of work the farm demanded than when it was new. At times, during my past harvests, you might find me in Thornton at the Gilman family home working with Russ, late into the night repairing a piece of equipment that was needed the next morning. More than once I pointed out to Jack a tool that his grandfather had fabricated for me just a few short years ago. Now I was depending on Jack and his two boys, Jake and Ryan. A couple weeks after the season ended, Jack's grandfather passed away at the age of 89. I don't believe Russ was aware of what his grandson was doing but if he did he would have been proud that his family was once again pitching in to help someone in need.



Vigorous plants from selected seed source

Can make all the difference...

Larry & Marlene

1860, Spring Road, Cookshire Eaton (Quebec) J0B 1M0



DOWNEY

tree farm & nursery

Tel. 819 566.0319

www.downeynursery.com

Access Website for price list