

Calendar

August 20 **CTCGTA** Twilight Meeting Oak Ridge Tree Farm Middletown, CT August 23 MCTA Annual Meeting 8:00-3:00 Cranston's Tree Farm Ashfield, MA Sept. 5 & 6 North Carolina CTA Semi-Annual Meeting & Tour Jackson County, North Carolina Sept. 12 - 28 The Big E W. Springfield, MA CCTGA Fall Annual Sept. 20 Meeting: Angevine Family Farm Warren, CT

January 22 & 23 Pennsylvania CTGA
Winter Meeting
New Cumberland, PA

2015

Annual Meeting in Ashfield, MA

The MCTA Annual Meeting will be held Saturday, August 23, 2014 at the Cranston's Tree Farm. Our hosts will be Tom and Cynthia Cranston & family at their 372 Baptist Corner Rd., Ashfield location.

Registration will kick off at 8:00 am with coffee and donuts with plenty of time to socialize and catch up with old friends. Our special guest, plant pathologist, Dr. Nick Brazee from UMass Extension will be diagnosing and discussing the various diseases and insects during the walking tour.

The meeting will include an alternate program on the art and science of decorating a real tree and "Christmas Crafts for a Cure" with Mary Ellen Cranston and Sara Delany. Don't forget to bring your own chairs and maybe an umbrella, just in case! Guests welcomed. (Please note: Use a map or map program. GPS systems give the wrong directions)

Industry News:

This year the Eastern States Exposition will run from Sept. 12-Sept. 28, and draws more than 1.3 million people a year. As most of know. the MCTA maintained a an outdoor display promoting Massachusetts Christmas Trees in the Massachusetts building and given a great deal of support, trees and volunteer help to the NECTA booth over the years and will continue to it again this year. Yes, we'd love to have more entrants for the tree and wreath contests. Aside from the great prize money, our message gets to

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MCTA Annual Meeting Registration August 2 Deadline: for meal count August 19, 2013 Name		MASSACHUSETTS Christmas Tree Association christmas-trees, arg				
Address		_				
City	State	Zip				
Cost : Members & Other Associat	on Members \$1	L5 per person				
No. of persons X \$15 = \$_		_ Total Enclosed				
Make checks payable to MCTA Send To: MCTA Jim Colburn 104 West Main Street, Merrimac, MA 01860						

Annual Meeting Agenda						
8:00 - 9:00	Registration Coffee & donuts, Socialize, visit vendors.					
9:00 - 9:20	Welcome Introductions, meeting agenda and farm history.					
9:20 - 10:00	Annual MCTA Business Meeting with Rob Leab (see agenda)					
10:00 - 10:15	Vendors Corner Introductions & Services					
10:15 - 11:00	Cynthia & Seth Cranston Retail aspects of farm.					
11:00-12:00	Nicholas J. Brazee, PhD. Diagnosis & Treatment Of Insects & diseases					
12:00 – 1:00	Lunch BRING YOUR CHAIR(S)					
1:00 – 3:00	Farm tour and IPM Dr. Nicholas J. Brazee and Thomas G. Cranston					
	Program					
1:00 – 3:00	Decorating a real Christmas Tree					

Organization & Industry News

the consumers. We hope you consider volunteering for a shift or enter a decorated wreath or tree. If you have trouble getting your trees and wreaths to the fair, John Coward may be able to connect you with another farmer who is entering the contests. See more information in this newsletter.

A special "Thank You" to Casey & Susan Vanderwalk of Vanderwalk Tree Farm in Mendon, Alan & Cindy Bushey of Clara Belle Tree Farm in Shrewsbury and Jeb Brackbill of Crane Neck Tree Farm in West Newbury for hosting informative and enlightening twilight meetings this spring.

Our condolences to Judy Terry and her family of Balsam Acres in Blandford, Ma to the death of longtime member Howard Terry. (see obituary)

National News

7/22/2014 by Lauren Mangnall

NCTA is supports the STARS Act

With the help of AmericanHort, the NCTA along with 100 allied associations, (such as the hotel, restaurant, agricultural, general contractors have been educating Congress about the Affordable

Congress about the Affordable Care Act's complex treatment of seasonal workers. Congressman Jim Renacci (OH) introduced the STARS Act (the Simplifying Technical Aspects Regarding Seasonality Act), a bipartisan bill which clarifies the employer mandate's seasonal worker exemption provision within the President's healthcare law to provide one clear definition of seasonal employment.

Though the law intended to grant an that exemption for small, seasonal employers, intent is lost in multiple inconsistent definitions and has led to confusion for small business owners.

Hartikka Tree Farms

Wholesale Christmas Trees



Fraser Canaan Balsam Nordmann Concolor Blue Spruce Meyer Spruce Transplants also Available

Tel: (860) 376-2351 Fax: (860) 376-8963 <u>www.treeman2.com</u> Voluntown, CT

Under current law, a seasonal worker is not necessarily a seasonal employee.

The STARS Act will help reduce regulations and provide small businesses with the certainty they need to hire and expand. It replaces the complex, arbitrary seasonal worker exemption with one definition of seasonal employment. This simplified standard is consistent across industries and will reduce the administrative burden and hefty penalties in the law.



National News continued

Multi-year, multi-institution Christmas tree research project gets underway

By Gary Castagner and John Frampton Great Lakes Journal Summer 2014

A new five-year, \$1.3 million grant from the national Institute of food and agriculture (NIFA) was awarded to Christmas tree researchers from Washington State University, North Carolina State University, University of California at Davis, Michigan State University, and Pennsylvania State University to identify and develop genetic markers to identify trees that have superior needle retention in resistance to Phytophthora root rot.

Needle loss is one of the biggest concerns for families purchasing real Christmas trees. Decades of post harvest needle retention work at WSU has identified phenotypes of Douglas fir, balsam, Canaan, Nordmann, and Turkish firs that have excellent retention as well as those that tend to exhibit extensive

shedding within a few days of drying.

Over the past 15 years, Psion would from tested trees has been used to establish about 3 acres of clonal holding blocks at WSU-Puyallup. Clonal orchards of Fraser for from North Carolina are also being used in this project.

To identify genetic indicators or markers for needle retention, Fraser, balsam and Canaan fir trees were sampled in 2012 and 2013. The very small area at the vase of the current-year's needles (abscission zone) was dissected on branches from trees with excellent and very poor needle retention.

RNA was isolated from pooled abscission zones corresponding to trees with either very good or very poor post harvest needle retention. The resulting RNA samples were indexed and then sequenced. Analysis of the sequence data for individual trees is underway to identify not only possible genes involved in needle retention gene expression patterns that diverge between the two

with good needle retention.

Similar techniques will be used to identify those trees are resistant to Phytophthora root rot as noted in Katie McKeever's article on Phytophthora root rot, (see article) provides an update on one of the many projects being funded, in part of this grant.

As this disease plagues growers in all regions where Christmas trees are grown in often limits where consumer – desirable species, such as noble and Fraser fir, can be grown. There is no effective control for this disease, so the best way to tackle the problem is to find resistant tree species and strains. Considerable work on Phytophthora root rot has been done at WSU and NCSU.

Compared to the growth in the number of artificial trees used today, the actual number of real trees sold in the US has remained relatively static for decades.

National News continued on page 17





Plant Paths

Cultural and Pest Management Update

(Reprinted from January 2014 Tree Line)

By Tom Rathier, Emeritus Soil Scientist Connecticut Agricultural Experimental Station Valley Labs, Windsor, CT

Finally Found Phytophthora

Sometimes, in science (and life in general, answers to vexing problems pop up, seemingly out of nowhere. Sometimes, those answers are the ones we had been pretty sure were the answers we expected but the proof was lacking. Over the past few years, a lot of our attention has been devoted to solving, or at least learning more about Phytophthora root rot and other similar conifer diseases in Connecticut. We had been pretty sure that Phytophthora has been the biggest disease problem for our trees but have never been able to confirm that until now.

Several advances have been realized, thanks especially to the establishment of CCTGA's tree improvement committee which was originally spearheaded by the late Dr. John Ahrens and Dr. Richard Cowles Connecticut at the agricultural experiment stations Valley laboratory. The committee, which is now chaired by Dr. Richard James, has been responsible for securing outside funding to establish field trials for evaluating a wide assortment of true for species.

Additionally, the committee has seen to it that the CCTGA become part of a nine state effort, a funded mature, true evaluation and seed collection mission abroad. Seedlings from that collection effort have been established in trial areas in each state, including two here in Connecticut. Each trial area is located in difficult soils in order to evaluate the trees' tolerance of poor variation and drainage conditions.

It's expected that surviving trees will be exposed to one or more locality isolated species/strains Phytophthora to evaluate their tolerance of the disease - but that had been our stumbling block. For more than 2 years, we hadn't been successful at isolating and culturing a single Phytophthora species and it certainly wasn't due to lack of effort. During that time Experiment Station Plant Pathologist, Dr. Yonghao Li and I visited numerous farms throughout Connecticut where challenging soil conditions and symptomatic trees had been observed or reported. At each farm, we selected trees that met the standard appearance criteria for root failure: faintly or somewhat discolored; slower growth than surrounding trees; discolored vascular tissue beneath the bark near to or above the soil line.

The results of our efforts were discouraging. From all those sampled trees, Dr. Li was able to identify Phytophthora only a few times and he never had success growing it on to the point of establishing a permanent culture. I had started thinking (and saying)

that may be the disease wasn't such a big deal in Connecticut.

Maybe all of our cultural, physical and meteorological imperfections – reliance on Fraser fir; poorly drained soils; occasional drought tea and wet seasons – were the real culprits. We were considering the possibility of having to use non—native disease inoculations to complete the trial. That was where things stood as recently as last fall.

Then we got lucky. Early last October, we were contacted by Katie McKeever, a graduate student at Oregon State University working in Dr. Gary Castagner's lab has been a leading research Center covering many aspects of conifer/Christmas tree culture, especially disease work. Central to Katie's work has been a study of Phytophthora species samples from each of the 9 states participating in the study mentioned earlier. Though a student in Oregon, she grew up on the East Coast and would be staying with family in Eastern New York for a short time and was hoping to be able to obtain some samples from Connecticut trees later that month. I arranged, within easy driving distance from her local lodging, visits to 2 farms, each of which we have long presumed that Phytophthora infections were numerous though never successful in isolation attempts.

Will naturally, Katie's visit day was continued

Finally found Phytophthora continued

the rainiest day of the entire fall and we all got soaked. But I learned an awful lot that day. Each farm had had a number of (presumably) disease related losses last year and had already removed most of the poor looking trees in advance of the upcoming sales season mentioned to Katie that she may not find many obviously sick trees. Her response that obviously was affected trees were really good for disease sampling because, if they were looking that bad they were more likely already dead, drastically reducing the chance of finding life disease. The trick, she said, is to sample trees that otherwise look good but have a couple of early indicators of disease.

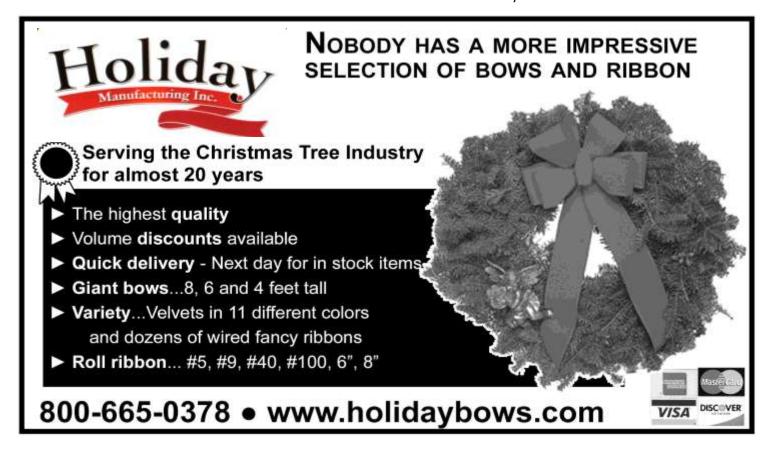
Katie's basic field approach is to look for trees with one or two yellowing or browning needle branches – often called flags – near the trunk base.

After making sure that a basal flag is not failing because any sort of physical damage caused by mowing or other maintenance activities, the flag is removed along with other surrounding branches and then thin slices are made into the bark so that the wood below is slowly exposed. If disease is the cause of the flag, there is likely to be a discolored streak in the surface would rising up from one or more groups and usually in-line with where the flag was situated. One or more thin slices of discolored wood can then be made and placed in a plastic bag for transport to the laboratory.

During that visit Katie took a few dozen samples, some of which were positive for Phytophthora when the lab work was completed. This success was a single for Dr. Li and me to try out this sampling method on our own and, during November, we visited several farms in obtain several samples that were positive.

There is some evidence that samples taken during cold weather are less yielding when it comes establishing sound cultures so we have halted our sampling efforts for now. But we have ambitious plans for the coming spring and summer revisiting farms where we were previously unsuccessful in attempts at isolation along with other farms in our effort to learn more about the disease and find practical solutions to this problem.

And intriguing aspect of this field detection strategy is whether or not it can be used as a predictor of the field longevity of infected trees. It may be important to know how long a good-looking but infected tree will remain so before it fails or what post harvest effects may occur to an infected tree with regard to needle loss or displayed longevity. At one farm, I've begun some observations by tagging likely infected trees or observation throughout the coming year.



Christmas Tree Survey for New Phytophthora Root Rot Diseases

By Anette Phibbs, Susan Lueloff, DATCP Plant Industry Laboratory; Reprinted from Wisconsin Christmas Tree Producers Association Quarterly Journal, April 2014 and psestsurvy.wi.gov/

DATCP inspectors surveyed for Phytophthora root rot disease during annual Christmas tree field inspections. This project was started in 2011 to look into the cause of tree losses observed by growers. It is funded with USDA Specialty Crop Block Grants and Wisconsin Christmas tree producers have the opportunity to participate through fall of 2014. In fields where patches of dying or declining conifers were found, inspectors carefully dug up affected trees and transported them to the DATCP's Plant Industry Laboratory for testing. Depending on tree size, two (2) to six (6) root rot symptomatic trees were combined into one sample per field.

Each survey year we try to add new farms, fields and counties to the survey, to assess the prevalence of root rot disease caused by Phytophthora. Figure 1 lists the number of growers, fields and counties inspected and sampled each year. Over the last three years, 81 growers in 30 counties have been sampled. Four new counties were added in 2013.

All samples from the new counties tested negative for Phytophthora. Nine samples from tree farms (see Figure 2) were infected with Phytophthora root rot in 2013. Trees

Figure 1									
Christmas Tree Program Statistics									
Year 2011 2012 2013									
Collection Time frame	9/26-10/14	8/16-10/29	9/15-10/31						
Growers Inspected	297	304	324						
Grower's Samples	32	37 (26 new)	324						
Fields inspected	689	702	767						
Field samples	51 (7.4%)	58 (8.3%)	44 (5.7%)						
Counties sampled	18	18 (8 new)	17 (4 new)						

that showed symptoms of root rot in the field were Fraser (Abies fraseri) and Balsam fir (Abies balsamea or phanerolepis), and Doulgas fir (Pseudotsuga meziesii).

The infected trees displayed basal cankers with characteristic orange brown discolored cambium and xylem wood underneath the bark. All thirteen Phytophthora were identified to be one of two species. They are species that have only been described in recent years: Phytophthora sansomeana (2009) and Phytophthora europaea (2002). All isolates were collected from declining or dead Fraser firs.

compaction, J-shaped roots and secondary infections with Pythium of decaying fine roots. Pythium can cause root rot disease of seedlings but as plants mature they can outgrow infections and become more resistant.

The identification of Phytophthora was based on observation of the pathogen's morphological features on three different media, followed by nucleic acid based detection techniques (PCR and sequencing). The use of molecular testing allowed us to compare DNA sequences, which was essential in identifying

Figure 2									
Number of Samples Infected with Phytophthora Root Rot by Tree Species									
	2011		2012		2013				
Tree Species	Total Samples	Positive for Phytophthora	Total Samples	Positive for Phytophthora	Total Samples	Positive for Phytophthora			
Balsam fir	10	0	8	2	19	5			
Fraser fir	35	14	35	12	24	4			
Cannan fir	1	0	2	1	0	0			
Korean fir	1	0	0	0	0	0			
Spruce	1	0	7	0	1	0			
Pine	3	0	6	0	0	0			
Grand Total	51	14 (27%)	58	15 (26%)	44	9 (20%)			

Figure 2. shows the survey distribution map. It's noteworthy that a high percentage of all trees examined, suffered from root

Phytophthora to species level.

In 2013, 20% of declining trees tested showed infections for Survey continued Survey continued

Phytophthora, compared with 26%

in 2012 and 27% in 2011. Other tree problems in 2013 were due to root compaction, Armillaria root rot, Cytospora and Sirococcus blight. The effects of 2012 drought also carried over into 2013.

The most frequently detected species of Phytophthora was P. Europaea and Phytophthora sansomeana.

These are two new species of Phytophthora were first detected in Christmas trees in 2011. sansomeana is known to certain firs. especially Fraser fir but has been reported on Douglas fir in Oregon and infected several weed species in New York. It was also detected in Balsam fir in Marathon County, Wisconsin in 2013. The range of host crops is important to know when crop rotation is considered for disease management. In 2012 and 2013, we documented the better known root rot pathogen Phytophthora cactorum Phytophthora cactorum in Balsam fir, Canaan and Fraser fir. Phytophthora plurivora was found in Fraser fir in 2 other Wisconsin counties. Phytophthora europaea was first found in European forest soils around oak trees. It has since been collected from soil samples in oak forests in Minnesota, West Virginia, Wisconsin and Pennsylvania (2006). It is considered a weak pathogen of oak. In our survey P. europaea infected Fraser displayed large areas of decaying wood tissue below the bark, while the foliage only showed mild foliar discoloration. This may indicate that this species is a more aggressive acting pathogen of Fraser fir but more research is needed to evaluate Pathogenicity of P. europaea on firs and other conifers.

The first three years of survey for Phytophthora root rot revealed that some new species may be involved in causing root rot disease problems Wisconsin. Although Phytophthora root rot only appeared in patches in localized fields in Wisconsin, it was present in most Christmas tree producing counties. A major concern about Phytophthora is its longevity in soils for many decades. During wet conditions outbreaks of disease can occur and decimate fields. More research is also needed to evaluate control treatment options conifers in Wisconsin

Figure 3								
Phytophtora Species found	in Wisconsin fir	2011	2012	2013				
P. europaea		6	12	5				
P. sansomeana	8	1	1					
P. plurivora		0	1	1				
P. cactorum			1	2				
P. sp. "kelmania" (3 in 201	0)	0	0	0				
Total Number of Samples		51	58	44				
Total Number of Samples w	/ Phytophthora	14	15	9				
Percent of Samples Infected Phytophthora	l w/	27%	26%	20%				
Percent of Fields Infected w	// Phytophthora	2.0%	2.1%	1.2%				

New Products

Terra Clean 5.0 by BioSafe Systems

TerraClean 5.0 is an activated peroxygen liquid concentrate that is effective for the control of soil-borne diseases like Erwina, Fusarium, Phytophthora, Pythium, Rizotonia, Thielaviopsis and Verticullium.

TerraClean 5.0 works by surface contact with the soils being treated, reducing the potential of spreading disease though the greenhouse and nursery crops, preventing an epidemic and severe plant loss.

TerraClean 5.0 has no mutational resistance and does not produce any visible residue or odor. It will help with root and stem disease control and can be applied during all stages of the growing season. TerraClean 5.0 is available in 5, 30,

55 gallon containers For more information:

www.biosafestytems.com

Avid 0.18EC (Miticide/Insecticide) By Syngenta

Emulsified Concentrate of 1.8% Abamectin

Superior control of mites and *Liriomyza* leaf miners. Compatible with beneficial arthropods and **Integrated Pest Management** Programs.

Avid can be tank-mixed with many other products A liquid formulation for easy application with standard equipment and broad plant safety. www.syngenta.com

Erase by Precision Laboratories

Erase is a powerful spray system cleaner that exceeds the capabilities of ordinary tank cleaners. Erase emulsifies oily residues in sprayer lines and hoses while elevating rinsate pH to degrade vulnerable crop protection products.

Erase ensures more thorough cleanouts and reduced risk of cross contamination. Advanced surfactant system that penetrates and removes dried on residues left behind from incompatible tank mixes.

Tree Research



Graduate Student's Investigation of Phytophthora Root Rot in True Fir Christmas Trees

(Reprinted from Great Lakes Christmas Tree Journal Summer 2014)

Katie McKeever Graduate Research Assistant WSU, Dept. of Plant Pathology, Puyallup Research & Extension Center

Phytophthora root rot (PRR) is a common disease which causes significant losses in their root, for nurseries and Christmas tree plantations. True for trees in the genus Abies are common hosts Phytophthora , and popular Christmas tree species such as Noble fir (Abies procera) and Fraser fir (Abies fraseri) are particularly susceptible to PRR. The methods available to control Phytophthora are limited and efficacy may vary depending on geographic region, field topography, and prior land use. Costly mitigation efforts such as installation of sub surface drainage systems or chemical fumigation they not are economically worthwhile when the per-unit value of the commodity is relatively low, such as in some Christmas tree operations. For these reasons, investigation of a markerassisted selection system for identifying fir trees that are resistant to PRR is justified to help alleviate current losses. As Dr. Gary Castagner's PhD student, my research is collecting information on the host-parasite interactions between true for and Phytophtora species, with the main objectives of constructing and isolate collection of Phytophtora species collected from fir roots, assessment of exotic & native fir susceptibilities, and screening true fir seedlings resistance to Phytophtora.

The culture collection consists of isolate's that have been obtained from different representing f5 major Christmas tree production regions of the U.S. isolates have been directly acquired from diseased fir samples that have been either personally collected or were sent collaborators.

This collection has provided information on the community structures and habitats of soil borne Phytophthora from widely different geographical regions and has revealed that, while the western part of the Pacific North West appears to be dominated by a single Phytophthora species, there is a great diversity of root rotting Phytophthora acted in Christmas tree plantations in the eastern U.S. (Figure 2). While the calls of this observation is unknown, it can be speculated that this may be a product of a greater range of annual temperature fluctuations in the East (cold winters and hot summers), a greater host diversity, and possibly the occurrence of ample soil moisture during the warm summer months that could sustain a greater variety of species.

The culture collection work has included the discovery of several novel Phytophthora-Abies combinations that have yet been reported in the literature the discovery of these newly described interactions has led to the implementation of trials of Koch's Postulates in order to generate proof of pathogenicity of publication for first reports.

Our project which we have labeled the "Checkerboard" experiment serves as an assessment of the field performance of the more resistant Turkish, Trojan,

for and Nordmann firs from Turkey as compared to our quite susceptible

State	Phytophthora spp.	Host		
CT	P. cactorum	Fraser		
	P. taxon "kelmania"	Fraser		
	P. plurivora	Fraser		
	P. pini	Canaan		
NY	P. taxon "kelmania"	Fraser		
	P. pini	Fraser		
	P. sansomeana	Fraser		
NC	P.cinnamomi	Turkish, Trojan		
	P. taxon "kelmania"	Fraser, Turkish		
	P. cryptogea	Fraser		
	P. pini	Fraser		
MI	P. cactorum	Fraser		
	P. plurivora	Fraser		
	P. sansomeana	Fraser		
	P. nicotianae	Fraser		
	P. cambivora	Fraser		
	P. megasperma	Fraser		
WI	P. plurivora	Fraser		
	P. sansomeana	Fraser		
	P. europaea	Fraser		
	P. taxon "kelmania"	Canaan		
	P. cactorum	Fraser		
ID	P. megasperma	Grand		
WA	P. cambivora	Noble		
OR	P. cambivora	Noble		
CA	P.cinnamomi	Nordmann,		
		Trojan, Concolor		

Figure 2: Culture collection results. A greater diversity of root-rotting Phytophthora is apparent in Easter and Great a Lake states.

native North American firs under intense disease pressure. 30 seedlings of such species were planted into a field that has been inoculated with a "cocktail" of 5 different Phytophthora species, then flooded to promote sporulation and dispersal of the pathogen.

As seedlings died throughout the warm dry summer, they are samples and isolations are made from group tips in an attempt to recover the pathogen. This project serves the dual purposes of qualifying the number of exotic versus Research continued



Figure 3: (left) 48-hour flooding period of "Checkerboard plot to encourage disease development

Figure 4: 2013 Checkerboard Mortality Results: Turkish, Trojan and Nordmann firs were much more resistant than the North American firs that are pictured along the right side of the graph. (N = 30 seedlings per source)

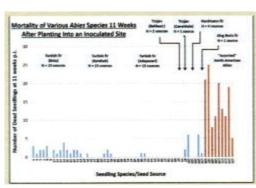


Figure 4:

native firs that have succumbed to Phytophthora infection as well as indicating whether there exists any evidence for host's specificity between the 5 different Phytophthora and the varied host species. Results from the 2013 trial indicate that the exotic firs are indeed much more resistant than our North American fir species and that there does not appear to be strong evidence for any host specificity under our field conditions.

Finally, we will be forming a large-scale resistance greening project that will examine the performance of seven species of Abies upon inoculation with 12 isolates of Phytophthora 3 genotypes each of 4 different species).

This experiment will take place under greenhouse conditions and will be performed at two different temperatures (warm & cool) in order to different mimic adaptation Phytophthora species to varying soil climates and thermal requirements. During the study, we will be assessing foliar conditions, speed of mortality, severity of root rot damage, and disparities in dry weights in order to classify a set of seedlings as resistant, moderate. or susceptible. information from this study will be applied to a future study where genomic DNA of resistant seedlings will be examined for patterns that could be implemented as molecular markers to assess resistant. The collective goals of

my research is to take the first steps towards understanding the dynamics of this fascinating and multifaceted disease complex, and to develop a way for growers to reliably and economically alleviate current losses from Phytophthora root rot. The course of this research is also provided a wealth of information regarding the population structures and behaviors of root rotting Phytophthoras from Christmas tree production regions around the United States and has allowed us to embark on new knowledge to contribute to the Christmas tree and forest/ nursery industries.





Annonous Root Rot.: Reprinted from Oregon State University Christmas Tree Disease handbook.

In Memoriam: Howard P. Terry

CHESTERFIELD, MA Howard Paul Terry of Chesterfield, MA, at

the age of 88, died April 20, 2014 at home after a long battle with prostate cancer. He

prostate cancer. He was born May 24, 1925, Howard graduated from Dewitt Clinton High School in New York City. He received a Bachelor of Science Degree and a Master's Degree in Engineering from Columbia University in New York City. He graduated from Fordham Law School receiving an LL.B. degree and then received an LL.M. degree specializing in Patent. Copyright and Trademark Law from New York University. He was a Navy Ensign during World War Il and served as a gunner officer on the USS Little Rock. He was a member of the USS Little Rock Association, Buffalo, New York, and held membership in the American Legion Post 85, Northampton, MA. He was a member of the New York State Bar and admitted to Practice before the United States Patent and Trademark Office. He lived with his first wife. Anastasia Nancy (Fox) Terry, Plainview, Long Island, New York, where they raised their family. She died in 1980. Mr. Terry was a Vice President of Corporation, Sperry Great Neck, New York, as Chief Patent and Trademark Counsel and retired in 1987.

He then began the Howard Paul Terry Intellectual property legal



practice at Plainview, Long Island, New York.

He married his second wife, Judith (Hartland) Terry of Chesterfield, Massachusetts, in 1984 and took full time residency at

Chesterfield in 1990 where he continued his patent and trademark legal office. He was a member of the Lady of the Hills Parish, St. Mary of the Assumption Church, Haydenville, Massachusetts.

Howard was a long time man of the outdoors since young childhood and shared that enthusiasm with all people. Many trips with his family and friends deep sea fishing in the Long Island and the Atlantic. Enjoyed hunting big game in the Rocky Mountains in Montana. He was a life member of the Ulster Heights Rod and Gun Club in New York, a member of the Chesterfield Seasons Club, the Worthington Rod and Gun Club, and was responsible for the reactivation of the Hampshire County League of Sportsman's Club. For many years Howard served on the Board of Directors for the Hilltown Community Development Corporation Chesterfield, in Massachusetts, a member of the Lake Damon Corporation., and board of Director member in Chesterfield. He was co-owner of Balsam Acres Farm in Blandford, Massachusetts. Member of the Massachusetts Forest Massachusetts Alliance and Christmas Tree Association. He leaves his wife of 29 years, Judith ,three sons Terry, Howard P. Terry & family, Paul W. Terry & family and daughter Nancy Ann Conner and family, and several grandchildren.

CHRISTMAS TREE RESOURCES

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Massachusetts Dept of Agriculture:

www.mass.gov/agr

Umass Extension Service

www.extension.umass.edu/agriculture

Soil Testing Lab:

Soil and Plant Tissue Testing Lab

West Experiment Station

682 North Pleasant St.

UMass, Amherst, MA 01003

(413)545-2311 fax: (413)545-1931

soiltest@psis.umass.edu

UMass Plant Diagnostic Lab

101 University Drive, Suite A7

Amherst, MA 01002

(413) 545-3208 - fax (413) 545-4385

umassgreeninfo.org/

Landscape & Nursery Insects:

Bob Childs, (413) 545-1053,

rchilds@psis.umass.edu

Plant Diagnostic Specialists

Landscape & Nursery Diseases:

Nick J. Brazee

Fax: (413) 545-4385 (413) 545-2826

nbrazee@umass.edu

Landscape & Nursery Weeds:

Rick Harper

rharper@umass.edu



Corp. Office 22 Morris Lane E. Providence, RI 02914

Gerry Lacasse

Regional Representative

PH: 603-878-3484 712 Hurricane Hill Road CL: 603-440-9506 Mason, NH 03048 Email: gllasse@myfairpoint.net

FX: 855-224-8566



"I suppose today's meeting is about our new mission statement"





"BIG E" VOLUNTEERS ARE NEEDED

Please help support the New England Christmas tree industry by becoming part of the special people needed to man the outdoor and indoor booths during The Big E. We need display trees for show, pruning, and boughs for wreath making and any demonstration talents you can provide.

September 12 – September 28

NECTA Outdoor Booth Contact

John Coward at: <u>jcow65@msn.com</u> or mail to: 13 Congamond Southwick, MA 01077

or Tel: (413) 569-6724

Or

Abby Tonry at: abbytonry@hotmail.com Mail to: 324 Exeter Road, Hampton Falls, NH 02844

Tel: (603) 6213 or Evenings (603) 772-2724

THE BIG E VOLUNTEER SHEET

NAME			
ADDRESS			
CITY		STATEZIP	
PHONE # () _		Email:	
I would like to work a	t the :	Christmas Tree NECTA Outdoor Booth	
	1 st Choice		2 nd Choice
September		September	
		9:00 a.m. to 3:00 p.m.	
		3:00 p.m. to 8:00 p.m.	
		Help Set up – Thursday, September 11	
		Help Take-down – Monday, September	29
Number of working	adults	I can demonstrate how to:	

Emails are appreciated over phone calls.

^{*}If you cannot meet your scheduled obligation, please contact another tree grower to replace you.



Christmas Tree and Wreath Contests 2014

Brought you by N.E.C.T.A & the Big E

Eligibility: Open to All New England Growers & Wreath Makers-Decorators

Entry Deadline: Thursday, September 11, 2014 in AM

Judging is on September 11th

General Tree Contest Rules:

Tree Classes: Pine, Spruce & Fir

- 1. Farms may enter a maximum of three (3) trees. One (1) tree per tree class. No flocked, colored or sprayed trees allowed. Tree handle must be trimmed and 6"-9" long.
- 2. Trees must have TWO (2) waterproof shipping tags attached to butt, with name & address
- 3. Tree (s) entered for prize money must be from 6' to 9' from tip to butt
- 4. Tip lengths must be appropriate for tree taper
 - ≈ Deliver all entries to: Mallary Complex Rotunda between 8 am 12 noon ≈

General Wreath Contest Rules:

Wreath Classes: Plain and Decorated

- 1. Two (2) entries permitted. One for each class
- 2. Wreaths to be made with natural conifer greens, holly and/or Laurel or assorted greens
- 3. Constructed on a 10" or 12" ring.
- 4. Attached ID tag with name and address to wreath (s)

Other Size Trees and Wreaths Welcomed for Display Only

Show Prizes

Christn	Christmas Trees: Grand Champion Prize : Includes a additional \$50 premium							
	1 st	2 nd	3 rd	4 th	5 th	6 th	7th	
\$	85.	\$ 70.	\$ 60.	\$ 50.	\$ 45.	\$ 45.	\$ 45.	
	ited Wrea 1 st	aths 2 nd	3 rd	4 th	5 th	6 th	7th	
\$	55.	\$ 45.	\$ 40.	\$ 30.	\$ 25.	\$ 25.	\$ 25.	
Plain W	Plain Wreaths							
	1 st	2'	od 3 rd	d 4 ^t	.n			
	\$ 55	5. \$4	5. \$4	0. \$3	0.			

For more information on how to enter or detailed "Tree and Wreath Contest Rules" go to: www.thebige.com or contact John Coward, the show superintendent at (413) 569-6724

Table 35. Cut Christmas Trees: 2012 and 2007

[For meaning of abbreviations and symbols, see introductory text.]

	2012						2007			
Geographic area	Acres in production Trees cut					Acres in production Trees cu		Trees cut	+	
	Farms	Acres	Acres Irrigated	Farms	Number	Farms	Acres	Farms	Number	
United States Total										
United States	15,494	309,365	12,982	12,079	17,319,06	17,367	343,374	12,255	17,415,971	
States										
	67	680	(D)	52	16,355	71	738	54	31,183	
Alabama	4	10	(D) (D)	3	24	1	(D)	-	31,103	
Alaska	6	15	15	3	300	10	39	7	289	
Arizona .	29	227	14	21	5,806	59	562	31	10,636	
Arkansas	385	13,805	1,181	301	109,045	400	4,033	279	119,855	
California	105	3,413	123	83	7,902	107	4,269	78	13,404	
Colorado	620	5,389	47	490	159,091	407	3,887	343	113,622	
Connecticut Delaware	31	318	46	25	7,627	49	385	41	10,819	
Florida	114	946	99	67	16,214	95	747	51	13,776	
Georgia	145	1,488	239	104	50,112	179	2,359	120	50,607	
Georgia										
Hawaii	20	52	7	14	2,007	37	91	29	8,323	
Idaho	88	759	63	54	27,732	112	972	51	46,145	
Illinois.	271	2,818	46	212	65,937	291	3,843	212	112,617	
Indiana	202 161	2,505	90 32	161 134	89,252	231	3,175	177 153	198,899	
Iowa	76	1,370 545	38	52	27,077 11,350	196 83	1,552 1,293	66	39,575 15,731	
Kansas	76 120	545 588	17	52 78	7,987	83 139	1,293 988	87	15,731 23,724	
Kentucky	60	494	52	36	10,811	67	590	50	23,724 17.227	
Louisiana	387	5,694	9	302	195,833	307	4,349	235	126,908	
Maine	173	2,188	89	144	55,926	229	2,978	168	77,801	
Maryland	170	2,100	00		00,020	220	2,070	100	77,001	
Massashusatta	471	2,770	151	397	52,188	420	3,164	284	75,914	
Massachusetts Michigan	1,077	37,908	5,089	746	1,739,538	1,319	41,954	832	1,572,208	
Minnesota.	301	6,935	343	247	130,527	368	9,963	243	202,259	
Mississippi	66	749	-	53	15,997	87	1,188	50	20,889	
Missouri	98	1,324	119	67	32,810	134	1,596	92	27,344	
Montana	55	1,150	75	46	9,028	84	3,707	55	32,104	
Nebraska	73	642	54	65	22,513	75	567	63	15,160	
Nevada	2	(D)	(D)	2	(D)	4	(D)	-	-	
New Hampshire	248	3,243	9	223	131,876	235	2,356	189	82,124	
New Jersey	809	4,611	360	690	68,471	1,150	6,314	879	78,791	
•	12	26	25	3	(D)	28	212	14	314	
New Mexico	1,185	18.623	651	844	274,444	1,154	20,267	795	348,043	
New York	1,370	40,352	314	1,135	4,288,563	1,251	37,653	922	3,085,383	
North Carolina North Dakota	10	(D)	-	10	735	14	169	12	1,150	
Ohio	607	7,173	124	489	151,327	746	8,005	528	272,981	
Oklahoma	39	(D)	68	31	8,760	63	415	42	14,310	
Oregon	1,517	53,605	577	1,202	6,446,506	1,852	66,816	1,282	6,850,841	
Pennsylvania Rhode Island	1,360	31,577	176	1,055	1,028,888	1,599	34,789	1,201	1,179,733	
South Carolina	68	549	(D)	48	15,962	83	770	49	19,251	
Oddin Odrollila	131	1,513	227	93	35,381	167	1,707	99	31,113	
South Dakota	9	52	(D)	9	2,620	23	204	16	4.161	
Tennessee	146	2,097	(D) 27	108	2,620 93,874	23 196	2,262	139	4,161 166,542	
Texas	152	2,097	426	95	93,874 38,645	202	2,262	99	42,327	
Utah.	26	75	71	95 21	2,525	202 50	2,425 159	32	42,327 2.126	
Vermont	288	3,607	12	232	134,504	318	3,600	259	168,206	
Virginia.	594	10,000	48	489	478,069	481	9,414	329	313,710	
Washington .	637	8,327	682	481	587,047	791	11,095	498	785,304	
West Virginia	211	2,363	55	179	49,867	267	2,260	173	42,102	
Wisconsin	868	23,651	1,073	683	611,387	1,136	33,458	847	950,440	
		,	,		,	.,	,	- ···	,	

Table 35. Cut Christmas Trees: 2012 and 2007

[For meaning of abbreviations and symbols, see introductory text.]

	2012					2007				
Geographic area		Acres in production		Tree	Trees cut		Acres in production		Trees cut	
	Farms	Acres	Acres irrigated	Farms	Number	Farms	Acres	Farms	Number	
State Total										
Massachusetts	471	2,770	151	397	52,188	420	3,164	284	75,914	
Counties										
Barnstable Berkshire Bristol Essex Franklin Hampden Hampshire Middlesex Norfolk Plymouth	5 28 30 38 26 49 60 56 24	11 148 206 263 165 283 460 317 184 187	4 - 46 - (D) (D) (D) 24	5 20 23 38 17 30 49 52 23 49	412 3,984 2,125 8,410 4,948 5,495 6,165 5,265 1,580 2,086	5 22 17 54 30 40 51 49 15 32	48 212 71 370 228 359 366 322 65 271	5 17 11 35 21 21 30 33 10 17	480 5,198 1,196 9,373 11,532 7,661 4,677 1,921 3,327	
Plymouth Worcester	50 105	187 546	24 33	49 91	2,086 11,718	32 105	271 852	17 84	3, 23,	

M.C.T.A. MEETING HIGHLIGHTS

July 9, 2014



Chicopee, MA: Rob Leab opened the meeting at 6:30 P.M. In attendance were Dan and Kathy Pierce, Tom Cranston, Seth Cranston, Greg Davagian, Scot Dwinell, Larry Flaccus, Susan Lopes, Dave and Vicki Morin, Dave Radabaugh, Joyce Leitl, Gloria Ellsworth, Rick LeBlanc, Peter Sweet and Jim Colburn.

President Rob Leab: The minutes of the April 2014 meeting were approved as corrected.

<u>Treasurer's Report</u>: Joe Meichelbeck reported an expected deficit for the year ending July 31st but explained it is offset by the surplus from the prior year. Essentially it is due to the timing of some items from last year's Annual Meeting expensed this year. Joe presented a budget for 2015 expected to break-even. The budget is based on 120 members.

<u>Secretary's Report</u>: Jim Colburn, reported membership renewals for 2015 were mailed at the end of June. The mailing included an information sheet and a registration form for the annual meeting.

Department of Agriculture

Cynthia Cranston suggested we start to plan for the tree cutting ceremony. It should be easier to get commitments from dignitaries now and possibly have more choices as to the date. Rick LeBlanc will coordinate the event. Greg Davagian offered his farm as the site for this year's ceremony.

Shearings

Editor Gloria Ellsworth reported the next Shearings issue in August will be email only and the Secretary will print and mail copies to the few members that do not have current email capability. The August issue will also be added to the Association's website in the publications section. Gloria is currently working to transition advertising in the newsletter to a calendar year cycle to better serve the needs of our advertisers.

Nominating Committee

Rob reported that a new slate of Officers will be elected at the annual meeting. There is an open position for Vice-President and two Director positions.

Annual Meetings

The Cranston family reported they have been busy planning and organizing the day. The caterer and menu is set. Tom confirmed that 3 pesticide credits will be available. It was suggested that as part of the field visit, a tree shearing exhibit would be interesting. The event is posted on the Association website in the Calendar of Events section with a link to the information sheet and registration form.

Twilight Meetings

The Board members agreed that the three twilight meetings in June were well attended and offered insights into some of the unique and diverse challenges our Association members face in growing and selling their trees. The Board extended its' appreciation to the hosts: Casey Vandervalk and family - Vandervalk Tree Farm & Winery, Mendon, Jeb Brackbill and family and Bill Latham - Crane Neck Tree Farm, West Newbury, and Alan Bushy and family - Clara Belle Tree Farm, Shrewsbury.

Old Business

The Board reviewed a draft of the proposed By-Law change to Article III, Section 2 and requested that a notice to the membership be posted in the August issue of Shearings prior to a member vote at the annual meeting. Next Board meeting is scheduled for October 8, 2014, in Chicopee, Mass.

Respectfully Submitted, Jim Colburn, Secretary

North Carolina Phytophthora in 2014

By Dr. Jeff Owen, NC State Extension Service

Information from: www.ces.nscu.edu/

The Upper Mountain Research Station recorded almost 84 inches of rain in 2013, with even higher amounts recorded at different areas in the region. This was nearly double our average annual rainfall of 45 inches and well above the previous

recorded annual record of 64 inches. Most horticultural crops in the southeast were considered a failure. While Christmas trees fared better than most other horticulture crops, we still had significant nutrient leaching and shallow root growth. The most visible issue from all the rain was the spread of *Phytophthora cinnamomi* across entire blocks and sometimes fields in the worst case scenarios.

Fraser fir is one of the most susceptible species in the world to this disease, and we do not have any effective method to eradicate it from our land.

ns of dollars are appropriated for research to look at genetic resistance in fir species to Phytophthora. We recommend cutting and disposing of diseased trees and establishing a buffer zone to prevent it from spreading. However, the most effective control method may simply be a long cold winter. Research was conducted in the late 1970's by Dr. D.M. Benson at NC State University on cold inactivation of Phytophthora cinnamomi. Phytophthora was inactivated in the winters of '77 and '78 when soil temperatures at a depth of 5" dropped below freezing for an extended period of time. In their lab tests they found that two days at 22°F would inactivate the disease.

We have already seen many cold days this winter, including a period of 6 days where the temperatures never climbed above freezing, and soils

	Annual MCTA Budget Report						
		2013		2014		2015	
	,	Actual	Е	stimate	E	Budget	Change
Receipts							
Membership	\$	8,460	\$	5,460	\$	7,200	\$ 1,740
Meetings		2,600		1,300		1,300	-
Advertising/Marketing		1,536		800		800	-
Interest		195		205		200	(5)
Apparel/Misc.		324		40		250	210
Total	\$	13,115	\$	7,805	\$	9,750	\$ 1,945
Disbursements							-
Marketing	\$	1,925	\$	1,650	\$	1,650	\$ -
Secretary		29		280		200	(80)
Meetings		2,357		3,550		2,800	(750)
Dues/Subscr.		1,138		2,700		2,200	(500)
Printing/Postage		1,380		1,200		1,200	-
Travel						-	-
Stipends		1,650		1,650		1,650	-
Misc		100		-	100	0	100
Total	\$	8,579	\$	11,030	\$	9,800	\$(1,230)
Surplus/Deficit	\$	4,536	\$	(3,225)	\$	(50)	\$ 3,175
Cash Balances							
Start	\$	38,624	\$	43,160	\$	39,935	\$(3,225)
End	\$	43,160	\$	39,935		39,885	\$ (50)

- 1. Note: includes 120 members for 2015
- 2. Annual meeting revenue-lower turnout budgeted
- 3. Subscription expenses up to 4 issues of Christmas Tree News

Submitted respectfully, Treasurer Joseph Meichelbeck

remained frozen nearly two weeks.

During these cold periods there has been excessive wind, which removes warmth from the soil very quickly. There has also been very little snow cover which provides insulation for the ground. It may be the one positive

note to a winter of polar vortexes and frigid temperatures. My hope is that the

winter of 2014 continues to validate the research conducted decades ago by Dr. Benson, with winter leading to a significant decrease in the spread and occurrence of Phytophthora in the 2014 growing season.

Transferring New Knowledge and Technology to the U.S. Christmas Tree Industry

From Research to Field:

By: Rick Bates, Professor of Horticulture, Penn State University

It is anticipated that the results of the USDA SCRI project will have a wide applicability across diverse geographic regions of the U.S. as well as variety of user groups included wholesale and retail tree growers, tree improvement practioners, and researchers.

It will be important for the research team to administer a comprehensive extension and technology transfer strategy throughout the life of the project and beyond. Central to this goal of outreach to stakeholders is the new Christmas Tree Genetics website: www.christmastreegenetics.org

The purpose of this website is to coordinate and transfer information and knowledge developed by the research project, eventually becoming a multi function, virtual enter for a variety of tree improvement endeavors. The venue will simulate and organize tree improvement information and multimedia resources relating to Christmas trees from across the country, and will provide a forum for researchers, extension professionals and growers to discuss and share information on tree improvement. Functionally, the expectation is that the site will present quality content, load quickly, update regularly, be easy to use and respond to inquiries. Website will also play a crucial role in developing much-needed institutional knowledge and memory, related to Christmas tree improvement.

In addition to the project website, integrated outreach program will educate growers about producing and using genetically improves plant stock to target consumer preferences. Multiple methods of dissemination will be implemented including:

- 1) regional grower/retailer focus groups, to discuss knowledge to attain from national consumer Christmas tree preference surveys and determine further steps of
- integration of consumer preferences in production in breeding practices,
- 2) Creation and dissemination of practical educational materials designed to educate and advised Christmas tree growers on using improved genotypes related to post harvest needle retention, Phytophthora resistant and adaptability to climate change,
- 3) Development and implementation of an integrated series of training modules and webinars tailored to specific educational needs of Christmas tree improvement practitioners, and representing the geographic diversity of the industry

National News Continued

To address the stalled markets for real Christmas trees, the NIFA grant will also support Jeff Joireman at WSU, who will research consumer preferences. This work is done in collaboration with Rick Dungey, of the NCTA.



NOTICE to ALL MCTA Members

<u>Massachusetts Christmas Tree Association</u> <u>Proposed By-Law Amendment</u>

(Vote to be held at Annual Meeting August 23, 2014)

All members present at the Annual Meeting August 23, 2014 will be asked to vote on amending Article III, Section 2 of the Association's By-Laws.

Article III - Membership

Section 2: Each application for membership shall be accompanied by one year's dues. Those whose applications for membership are received after *June 1* shall be considered paid in full through the next fiscal year.

Proposed Change

<u>Section 2:</u> Each application for membership shall be accompanied by one year's dues. Those whose applications for membership are received after *January 1* shall be considered paid in full through the next fiscal year.



2013 Annual Meeting Report August 24, 2013 Seekonk Tree Farm, Great Barrington, MA

As Recorded by Jim Colburn, Secretary MCTA (bylaw requirement to be posted to members)

At 9:10 A.M., President Rob Leab introduced the hosts for the day Peter and Carol Sweet. Peter introduced the rest of the Sweet family and gave a history of the property, initially purchased in 1975. He outlined the operation of the farm and made special note of the benefits of using National Resource Conservation Service maps (NRCS) to aid in soil testing the property.

Other introductions included Dr. Elizabeth Lamb, guest speaker for the day, Dr. Nicholas Brazee, UMass Extension, the Officers and Directors of the Association and vendors present. The total number registered for the meeting was 86, with 78 of those actually in attendance.

Exhibitors for the day included: Berkshire Farm Bureau, OESCO and Vandervalk Farm.

At 9:40 A.M., President, Rob Leab, opened the Annual Business Meeting. He called for the minutes of the 2012 Annual Meeting. On a motion and second, the report was accepted as written.

The Secretary reported 121 members for 2012-13. 10 members from the prior year did not renew, with 3 new members. New member present, Megan Bryant of East Bridgewater was introduced.

The Treasurers' report was given by Joe Meichelbeck. He presented the Budget for 2014 with an expected small surplus (<\$1000). The budget is based on 121 members. There was an operating surplus for 2013 with an ending cash balance of approximately \$43,000. On a motion and a second, the Treasurer's report was accepted as presented.

New England Christmas Tree Alliance (NECTA)

It was reported that NECTA's main function now was to staff the Christmas tree exhibit at the Big E. The Fair continues to be the best opportunity to promote "real trees" to potential customers and the opportunity for people to see state champion trees. There was a concern that the tree contest for the event no longer represented all NE growers and those present were encouraged to show their trees and wreaths and volunteer to work at the fair.

Shearings and Website

Gloria Ellsworth, Editor of "Shearings", reported that the last issue was sent by email so anyone that did not receive it should contact her. She expected the hardcopy along with the email version to continue as long as it was affordable. Shearings issues can be found in the publications section of the Association website. In the future there was a potential that pesticide credits could be offered through the newsletter. Before the next Christmas season, there are plans to update and make the website a little more user friendly.

The President then opened the election of Officers and Directors. The following slate was presented:

Treasurer - 1 year term - Joe Meichelbeck; Secretary - 1 year term - Jim Colburn

Director 2nd term to expire 2016 - Greg Davagian, & - Joyce Leitl Nominated from the floor:

Director 1st term to expire 2016 - Casey Vandervalk; Director 1st term to expire 2015 - Gloria Ellsworth With no further nominations the president asked for a motion. Tom Cranston moved that one ballot be casted for the slate as presented. The motion was seconded and the slate was elected unanimously.

The President asked for a motion to adjourn. Having received a motion and second and in agreement by all, the meeting adjourned at 10:10 A.M..

MCTA OFFICERS & DIRECTORS

Vice-President............. Daniel Pierce 431 Chase Rd., Lunenburg MA 01462 (978) 582-4723 piercetrees@verizon.net 2 yr term-Expires 2014

*Treasurer.....*Joseph Meichelbeck 44 Fay Mountain Rd., Grafton, MA 01519 (508) 839-6739 jrm44@verizon.net

1 year term

Secretary... James Colburn 104 West Main St., Merrimac, MA 01860 (978) 346-4381

jas.colburn.@verizon.net

1 year term

Immediate Past President....Thomas Cranston 197 Bellus Rd., PO Box 77, Ashfield, MA 01330 (413) 628-3911

tcranston@verizon.net 2 year term expires 2014

Submission Deadlines

 $\ \square$ Jan. 15 (February Issue)

☐ April 15 (May Issue)

☐ July 15 (August Issue)

□ Oct. 15 (November Issue)

Seth Cranston

372 Baptist Corner Rd., Ashfield, MA 01330

(413) 628-0090

cranstonstreefarm@yahoo.com

1st term expires 2014

Scott Dwinell,

132 Salem Road, Topsfield, MA 01983

(978) 887-2670 tdwinell@verizon.net 1st term expires 2015

Greg Davagian,

19 Merriam Lane, Sutton, MA 01590

(508) 865-3413 davatrees@gmail.com, 2nd term expires 2016

Larry Flaccus

1394 Mohawk Trail, Shelburne, MA 01370

(413) 625-6116

farm@kenburnorchards.com

1st term expires 2014

Joyce Leitl

500 North Liberty Road , Belchertown, MA

01007

(413) 563-3003

joyceleitl@hotmail.com

2nd term expires 2016

Susan Lopes

161 Slate Road, Chicopee, MA. 01020

(413) 592-6015 1st term expires 2015

Casey Vanderwalk Mendon, MA (508) 473-7418

vanderwalk@comcast.com

1st term expires. 2016

Carol Nims

114 Woodard Rd., Greenfield, MA 01301

(413) 774-5742 nims@crocker.com 2nd term expires 2014

"SHEARINGS" Editor Gloria Ellsworth

246 School St., Northborough, MA 01532

(508) 393-6479

shearings2u@verizon.net

1st term expires 2015

NECTA Representative:

John Coward, 13 Congamond Road, Southwick, MA 01077

(413) 569-6724 Jcow65@msn.com

David Morin – Email Manager & Liaison

(508) 278-5017

info@arrowheadacres.com

2012-2013 ADVERTISING RATES

Size	Dimensions	One (1) Issue	Two (2) Issues	1 Yr (4) Issues	
Full Page	7.5"w x 10" h	\$ 86.00	\$ 162.00	\$ 304.00	
2/3 Page	7.5" w x 6 ¾ " h	68.00	128.00	246.00	
1/2 Page - Horizontal	7.5"w x 5" h	48.00	90.00	172.00	
Vertical	3.5"w x 10" h	48.00	90.00	172.00	
1 /4 Page	3 ^{5/8"} w x 5" h	32.00	56.00	104.00	
Lg. Business Card	4 ¼" w x 3 ½ "h	26.00	48.00	92.00	
Business Card	3 ½ " w x 2" h	20.00	38.00	74.00	
Classified Ads – Non Members	Priced per word		Priced per photo		
Classified Ads – MCTA Members	Free	25 Words w/contact	Buy-Sell or Trade	Small photo's allowed	

For more information and details or questions please contact: Gloria Ellsworth (508) 393-6479 Email to: shearings2u @verizon.net

Acceptance of advertising in the "Shearings" publication is not an endorsement by the M.C.T.A of any product or service and is not responsible for content or proofing of ad prior to publication.