Shearings

Fall 2015

Guest speaker Dr. Todd Mervosh at the M.C.T.A 2015 Annual Meeting held at D.J. Hussey Farm in Townsend, MA

Massachusetts Christmas Tree Association
www.christmas-trees.org

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ORGANIZATION & INDUSTRY NEWS

Ah…the joys of the season will soon be upon us. All that hard work will hopefully result in positive rewards by December 25. This short burst of warm weather (let's hope) gives us a little more time to prepare for things to come. Let's stay positive as the market and the employment data continue to be upbeat.

Welcome new members, Nicholas Graham of Texas Tree Farm, Bill Latham of Crane Neck Farm, Nick Potter of Pineberry Farm, and William Wolfendale. We hope you take advantage of all the association has to offer and never hesitate to ask for advice from any one of our members. If they don't know the answer at least they can lead you in the right direction.

The MCTA Annual Meeting 2015. Thanks to all the hard work and efforts of John and Darlene Hussey, their family member and the committee we had another successful meeting even with a few glitches. We apologize for the confusion and were grateful for Dr. Todd Mervosh and his expertise, patience and generosity help fill the void. A nice day of food, fun, conversation and education! Business meeting report in this issue.

It saddens us to hear the death of Bob Constanzo of Plymouth. Bob was a longtime, recognizable member of the MCTA, as many of you may know, from the many years of his presence at the annual and twilight meetings. And, most recently our annual meeting. He always wanted to learn as much as he could about growing Christmas trees. I will never forget how devastated he was after the fire on his property and then enduring the death of his wife Joyce so soon after. Encouragement from other farmers gave him fortitude to move forward to restore the farm. Our heartfelt sympathies to Bob's son Dan and his the rest of his family.

As a reminder, the MCTA Website will be getting some additional features and photos in the upcoming new year. If you have any pictures from your farm that you would like to share on our website, please send them to Gloria Ellsworth, by email, or regular mail. Our consumer traffic love to see the faces of our farms. NEW additions to the website include access to reports, budgets and other related MCTA business. In order for members to access member specific information, a member login will be active starting early 2016. The Login ID and password will be sent to each member via email. Members who do not have email, and would like to be able to login will need to contact Jim Colburn our secretary, for the information. Login will be accessed in the "Member's Only" section.

The Big Eastern States Exposition check out our winners in this issue. Thank you volunteers for all your support of getting the booth setup, keep it operating and the break down. We love the new the look of that beautiful booth. Great job! (see photo in this issue) And, to all the Christmas tree and wreath contest entrants, (from all states), the Big E exhibit would be non-existent if it weren't for the your contributions. New England fares are the best!

We hope you have a healthy, prosperous season, and a Merry Christmas.

NATIONAL NEWS

Trees for Troops: The Christmas Spirit Foundation: Trees for Troops will continue its launch of the *One Thousand Tree Campaign*. This is the second year of the on-line, buy-a-tree campaign, offered to consumers to support the troops. A $40 dollar donation equals one tree for one service member's family. Tree Farms can also become local sponsors of the program. If you can't host a trailer drop, you can still provide your community with a method to help ensure trees are available for troops and military families. sponsors. Donations/sponsorships of any amount are appreciated. Those who give $25 or more receive a tax receipt from CSF. You can download a "Thank You" certificate to give to those who give less than $25. Businesses that donate $500 or more will receive in-facility "Trees for Troops" signage and "Proud Supporter" on your website as well. For more information go to: http://www.christmasspiritfoundation.org/dnn/GetInvolved/TreeGrowersandRetailers.aspx

National Wreaths Across America Day: December 12

You can support Wreaths Across America to honor our fallen heroes and veterans. National wreath Day is December 12. If you wish to donate wreaths to your local community or local fallen soldiers in your local cemetery, contact your Town offices for rules and regulations. Other ways to donate include direct donations of $15 and up to the Wreaths Across America. For more information to add a location or donations from your business go to: http://www.wreathsacrossamerica.org

NCTA **Introductory Membership - $99**
Basic member benefits for new members, those who run small operations, or are retired but still want to keep up with the industry.

NATIONAL NEWS

Progress for Christmas Tree Promotion Board

The Christmas Tree Promotion Board met in late August in North Carolina to continue its mission of promotion and research for the Christmas tree industry.

The Christmas Tree Promotion Board members and staff are joined by USDA representative, Patty Petrella at the North Carolina Christmas Tree Association meeting.

The board met formally over a two-day period and also had the opportunity to participate in portions of the North Carolina Christmas Tree Association's summer meeting in Alleghany County.

Industry Communications

On the lengthy board agenda for this meeting, many items feel under the umbrella of industry communications. The board took action on the recommendations by the Industry Relations Committee (IRC) and selected netStride to develop the Christmas Tree Promotion Board website. Prior to this meeting, CTPB staff reviewed more than 30 applications from web designers and narrowed the field to six to be reviewed. The IRC recommended netStride as their top choice to the board. Staff will be working closely with netStride to begin initial work on the website with the goal of being on-line in October. Initially, the website will serve

as a tool to communicate with the industry, media and general public regarding the Christmas Tree Promotion and Research Order and the programs.

Another significant communications project includes the preparation of a mailing that will be distributed in October to all Christmas tree growers. This mailing will provide information on the Christmas Tree Promotion and Research Order, activities of the board and what producers need to know about reporting details following the upcoming harvest.

Promotion

The promotion Committee, chaired by

Jim Heater is charged with recommending a promotional campaign for the industry working within the budget set by the board. Because the CTPB will not be collecting funds at a significant level until at least December, promotional efforts for 2015 will most likely included social media, "earned media" and other public relations opportunities. In early 2016, the Promotion committee will begin to interview agencies to execute a promotional campaign. The committee was provided some consumer insights through feedback from two focus groups executed in mid-August in Denver by Tim O'Connor and Marsha Gray. These two focus groups included Millennials and artificial Christmas tree users and probed their feelings about real Christmas trees.

Although this was just one small sampling and the CTPB plans to undertake more consumer research in the future, there were few strong themes that surfaced:

- Consumers select artificial trees because they are easy
- Real Christmas trees are closely associated with family time, making memories and are a more emotional purchase.

Further, participants had the opportunity to react to a number of promotional campaign ideas and themes.

The Christmas Tree Promotion Board names Committee Members

Industry Relations Committee
Betty Malone, OR
Committee Chair
Mark Steelhammer, WA
Vice Chair

Ellen Church, NC
Della Deal, NC
Fritz Ellett, OR
Pat Gaskin, NC
Dugald Kell, ME
Scott MacKinnion, Nova Scotia
Steve Meier, MO
Dave Vander Velden, WI

Promotion Committee
Jim Heater, OR
Committee Chair
Chris Maciborski, MI
Vice Chair

Ashley Ahl, WI
Mark Arkills, OR
Sue Bostic, VA
Travis Drexler, NY
Phil Hunter, WA
Rex Korson, MI
Nigel Manley, NH
Carrie McClain, NC
Wendy Richardson, OR
Fred Somerville, Ontario
Suzanne Stokoe, NY

Their feedback provided strong direction for the board.

Research

Initially, much of the research that the CTPB will undertake will likely be consumer research; learning more about what consumers want and expect, and what may encourage them to be real Christmas tree customers in the future. Another area that the board is currently considering for the research component of the program is in the area of fire safety; developing and distributing accurate fire safety information regarding Christmas trees to fire officials.

Jim Rockis advocated for this type of program. "We have opportunity to help educate those in fire safety" noted Rockis. "When fire chiefs and other fire officials understand the truth about real Christmas trees, they are much less likely to participate in staged events burning Christmas trees and more likely to share accurate tree care information.

Compliance

One of the important responsibilities of the board is assessment collections and compliance, and this will provide a unique set of challenges for a start-up program that depends on self-reporting by its producers. However, the board is committed to fairly collecting assessments from all qualified growers (500 or more trees sold this season). "It is critical that we make every effort to collect assessments from all qualified growers and importers – large and small", comments Jim Heater.

"With the participation of all growers and importers, we can create greater demand for real Christmas trees. When we work together, I see a bright future for the industry!"

How Climate Change *May Affect* Arthropod Pests

Reprinted from the American Nurseryman, June 2013
Written by Raymond A. Cloyd, PH.D.is Professor and Extension Specialist in Horticultural Entomology/IPM at Kansas State University, Manhattan.

Factors attributed to climate change require careful observation of plant pest and their life cycles and possible fine-tuning of pest control protocols.

The issue of "climate change" or "global warming" continues to generate controversy among scientists and non-scientists. However, this article will strictly discuss the potential impacts of climate change or factors associated with climate change on arthropod (insect and mite) pests and how this may develop into effects on pest management.

Background

Before we focus on pests, it is important to have some background information regarding the factors associated with climate change. This information, in most cases, cannot be predicted with any degree of certainty. However, some questions affiliated with climate change include the following:

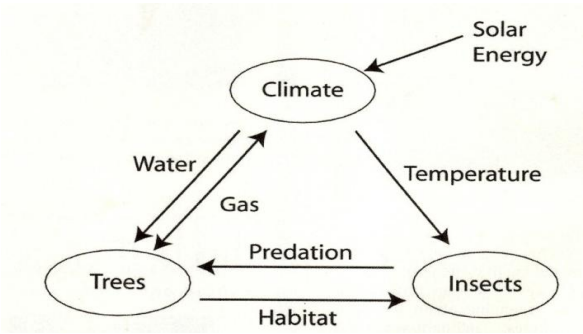

Figure 1. Direct effects of climate change on arthropod pests are associated with the distribution and abundance of pest populations, with climate being the primary factor that limits geographical distribution of arthropods. In addition, temperature and moisture may influence survival, development and reproduction of arthropods.

- Have human (anthropogenic) activities contributed to climate change, or is climate change a natural phenomenon? Well, overall, average temperature of the earth has changed less than a degree (for example, .06 to .07^{o}) over the past 100 years. In addition, the earth's geological record indicates numerous shifts in the climate throughout the ages.
- What may be the possible factors contributing to climate change? It has been consistently proposed that human-made emissions of carbon dioxide (CO_2) due to burning fossil fuel, and other gases that may trap infrared radiation emitted from the surface of the earth, are responsible for the so-called "greenhouse effect". However, it has been suggested that natural forces such as solar cycles and/or volcanic eruptions are also associated with contributing to the greenhouse effect.
- What is the impact of climate change on biodiversity? There are predictions that any change due to climatic or environmental factors may increase the risk of extinction of certain species.

Impact of Climate Change

What is the potential impact of climate change on plant-feeding (insect or mite) pest or herbivores? This is closely associated with "phonological synchrony". As such, climate change may increase asynchrony between host plants and herbivores resulting in adverse consequences.

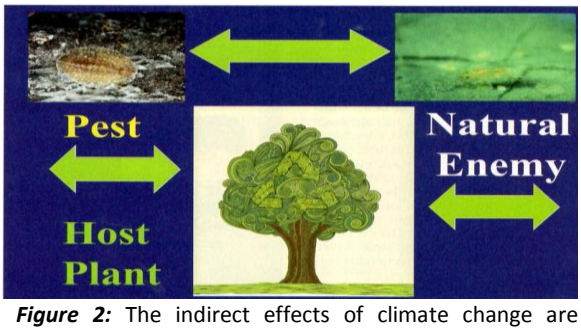

Figure 2: The indirect effects of climate change are affiliated with host plants, competitors and natural enemies. For example, drought stress may cause changes I plant chemistry and plant structure, that could increase or decrease suitability as a host.

Also, it is important to understand that the effects of climate change may be direct or indirect. Direct effects (see Figure 1) are associated with the distribution and abundance of arthropod pest populations, with climate being the primary factor that limits geographical distribution of arthropods. In addition, temperature and moisture may influence survival, development and reproduction of arthropods.

The indirect effects of climate change are affiliated with host plants, competitors and natural enemies (see Fig. 2). For example, drought stress may cause changes in plant chemistry (such as concentration of amino acids) and plant structure that could either increase or decrease suitability as a host. Furthermore, the distribution and abundance of natural enemies including parasitoids, predators and pathogens may be affected, which could influence their ability to regulate arthropod pest populations, thus resulting in potential outbreaks.

There are a number of factors associated with climate change that may impact the relationship among climate, arthropod pests, natural enemies and host plants. These include:

- Distribution, abundance, and quality of host plants;
- Pest physiological and behavioral processes;
- Natural enemy effectiveness
- Plant growth rates and plant health;
- Distribution and abundance of pest population; and
- The presence of competing species

However, what may have the greatest effects on arthropod pests as it relates to climate change are carbon dioxide (CO_2) and temperature.

Impact of Carbon Dioxide and Temperature

There are a number of potential relationships or factors associated with climate change and arthropod pests. For example, increased carbon dioxide levels may:

- Result in higher consumption rates by insects
- Allow invasive insect species to outcompete native insect species (for example, Argentine ant in California)
- Encourage the increase in migration of invasive insect species and noninvasive species into new regions/areas;
- Increase the duration and intensity of arthropod pest outbreaks due to extended frost-free periods; and
- Create a higher potential for the occurrence of insect-borne human diseases such as malaria and dengue fever.

In regard to the last point, climate change may affect the incidence of insect-borne diseases such as malaria and dengue fever by increasing the range of insect vectors, extending seasons of transmission and enhancing reproduction and biting rates. Furthermore, development of the dengue virus inside the mosquito vector (Aedes aegypti) may be shortened under higher temperatures, thus increasing the proportion of mosquitoes that may become infectious at any given time.

It is important to understand the relationship between insect pests and increased carbon dioxide levels and temperatures. For instance, insects may consume more when plants are exposed to elevated levels of carbon dioxide because less nitrogen is present in leaf tissues, (see Figure 3),

Figure 3. Insects may consume more when plants are exposed to elevated levels of carbon dioxide because less nitrogen is present leaf tissues, and certain insect pests such as caterpillars may consume more leaf tissue (compensatory feeding) in order to acquire an equivalent amount of nutrients.

continued on page 9

Climate Change continued

It is possible that climate change may increase the range of expansion of certain insects. Migration of new insect pests, both in terms of latitude and altitude, may result in a change in the ecosystem thus allowing populations of new species to increase.

and certain insects such as caterpillars may consume more leaf tissue (compensatory feeding) in order to acquire an equivalent amount of nutrients. In addition, an increase in the carbon-to-nitrogen balance (ratio) in plants may influence a number of factors, including insect feeding, concentrations of defensive chemicals in plants, compensation responses by plants to insect herbivory, and competition between pest species. Temperature increases may also impact species diversity and distribution of certain insect pests such as the mountain pine beetle (*Dendroctonus ponderosae*). Nevertheless, current insect pests may extend their ranges into new areas by means of geographical movement northward.

So, what is the influence of elevated carbon dioxide levels on plant defenses? First of all, plants have two groups of chemical defenses: carbon-based and nitrogen-based.

Carbon- based defenses include: tannins, lignins and phenolics that are designed to slow insect growth and development. These types of defenses are present at higher concentrations under elevated levels of carbon dioxide.

Nitrogen-based defenses are present at higher concentrations under include alkaloids and cyanogenic glycosides that are directly toxic or repellent to insect pests. These types of defenses are present at lower concentrations under higher levels of carbon dioxide. As such, chewing insect pests such as caterpillars and beetles that consume more plant tissues when plants are exposed to increased levels of carbon dioxide may actually ingest more toxins and thus may be killed faster and in greater numbers.

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This may force other species to extinction because the new species may be better competitors at higher temperatures, although this may not always be the case. Population dynamics are not predictable as insect pests could be constrained by natural enemies, host-plant availability, and competition with other insect species. Furthermore, the rate at which insect species can establish populations permanently into new areas that are suitable will be limited by the rate of spread of host plants into new areas, which would impact specialist and generalist herbivores differently.

What about the effect of higher temperatures? This will likely benefit some insect species more than others, which may be due to the impact on life history parameters (for example, reduced offspring production) of natural enemies such as parasitoids and predators. A reduction in natural enemy populations (due to climate incompatibility) may lead to more arthropod pests present and thus plant damage, and more insect outbreaks as temperatures increase. It should be noted that population dynamics new geographical ranges will be unpredictable with more insect pests outbreaks occurring due to ranges expanding quicker that natural enemies. As such, this may transcend into more pesticide applications.

Insect development, survival, distribution and abundance are directly affected by temperature because insects are cold-blooded, and as temperatures increase, these parameters also tend to increase. Thus, arthropod pest populations may develop faster and plant damage may occur more rapidly and possibly last longer than previously. Furthermore, higher temperatures may influence the effectiveness of insect pathogens (such as fungi, bacteria, and viruses) and natural enemies (for example, parasitoids and predators), which may negatively affect sources of natural mortality. In addition, an increase in temperature could lead to temporal and/or geographical separation leading to arthropod pest outbreaks. It is likely that higher temperatures will favor those arthropod pests with multiple generations more so than those with single generations. This may result in insect pests breeding throughout the year. Also, in regard to insect-vectored diseases, warmer temperatures may translate into additional insect generations, which may increase transmission rates of plant pathogens including viruses transmitted by aphids.

What about the impact of overwintering?

Well, increased temperatures, which may lead to expanded warm seasons or shortened winters, could lead to earlier emergence and later overwintering of arthropod pests. This may result in greater survival of arthropod pests during the winter.

What are the potential issues in the U.S. associated with the impact of climate change on arthropod pests?

There are a number of factors that need to be considered, including

- **Expanded ranges of certain arthropod pests already present;**
- **Increased arrival or migration of more arthropod pests;**
- **Changes in ecosystems that may allow certain arthropod species or populations to** reach outbreak proportions, which may result in extinction of other species;
- And, expanded time period (earlier and later) in which arthropod pests would be present during the growing season.

In the end, how will these factors and those described above influence pest management?

Impact on Pest Management

The questions to address at this point are:

Will we have more problems with certain arthropod pests, and what will be the potential impact on pest management?

In general, this could lead to increased pesticide use (in this case, insecticides and miticides) throughout the growing season with more frequent applications, resulting in higher incidences of resistance occurring in arthropod pest populations because of the increased selection pressure place on these populations. In addition, this may directly and indirectly impact natural enemies thus influencing any natural mortality.

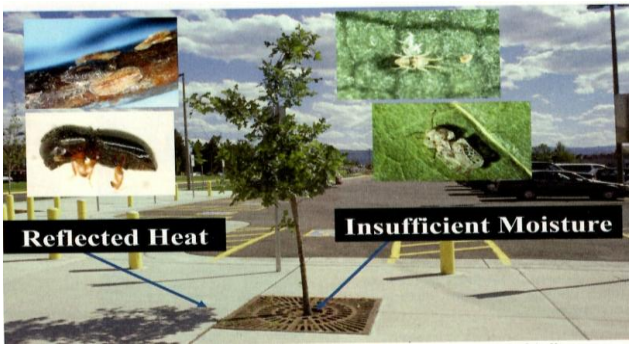

Figure 4: Additional factors to consider in regard to pest management include long-term harmful effects to plants (phytotoxicity) due to the amount of pesticide applications, and associated infestations of arthropod pests for extended periods of time. This may lead to natural infestations of multiple arthropod pest guilds such as chewers, suckers and/or wood-boring insects.

Additional factors to consider in regard to pest management include long-term harmful effects to plants (phytotoxicity) due to the amount of pesticide applications and associated infestations of arthropod pests for extended periods of time. This may lead to natural infestations of multiple arthropod pest guilds such as chewers (caterpillars and beetles), suckers (aphids, scales and leafhoppers) and or/or wood-boring insects occurring simultaneously on the same plant (see Fig. 4)

Finally, what about the potential effects of climate change on pesticides? *Continue on page 14*

ROBERT A. CONSTANZO

Bob at MCTA 2015 Annual Meeting

Robert A. "Bob" Costanzo, 82, of Pembroke, and formerly of Marlborough, passed away October 18, 2015. Beloved husband to the late Joyce Costanzo, he was the loving father to Steven Costanzo and his wife Pam of Shrewsbury, Dan Costanzo and his wife Terri of Pembroke, Lisa Gemma and her husband Don of Shrewsbury, Laurie Logan and her husband Robert of Millbury, and the late Michael Costanzo; son of the late Mary Costanzo; brother of Marie Lacroix and her husband Phil of Marlborough; cherished grandfather to Rob Costanzo and his wife Nicole of Pembroke, Tara Costanzo of Pembroke, Corey Costanzo of Shrewsbury, Cassie Van Beekom and her husband Corey of Shrewsbury, Alycia Gemma of Shrewsbury; great-grandfather to Emma Van Beekom and Colton Costanzo.

Robert also leaves his faithful dog Buddy. Robert retired from the Marlborough police dept. in 1990. He was the first of four generations of Christmas tree growers in Pembroke. He loved his garden, wine making, and was active in the Hanson Senior Center. He was also a devoted member of High Street Methodist Church. Memorial visiting hours will be held Saturday, October 24, from 11 a.m. - 2 p.m. at the Shepherd Funeral Home, 7 Mattakeesett St. (Rte. 14), Pembroke. In lieu of flowers, donations may be made to American Cancer Society at www.cancer.org and/or to the Alzheimer's Association at www.alz.org. To offer condolences or for directions, please visit www.shepherdfuneralhome. com. Shepherd Funeral Home, Pembroke.

Climate change continued

This may include decreased residues or persistence, reduce toxic action on arthropod pests, increased treatment rates or dosages required, increased number of pesticide applications, and fewer times suitable for pesticide application (influenced by temperature and wind, which may prevent or delay application).

In summary, although what has been presented in this article is mostly speculation, the fact that we know how arthropod pests will respond to changes in environmental conditions, especially temperature, allow us to make somewhat accurate predictions of what could occur in regard to changes in insect abundance, distribution and how this may impact pest management strategies. However, it should be noted that Mother Nature is going to do her own thing, because she knows what is best!

24,000 FRASER FIRS FOR SALE

I have my house and farm on the market. I'd like to retire sometime soon. The problem is that the potential buyers who can afford my place don't want to be Christmas tree farmers and many of the people who would like to grow trees, can't afford to buy it.
Therefore, I would like to sell the remaining trees on the farm separately. There are approximately 24,000 viable, healthy Frasers, planted between 2005 and 2013. Terms and prices are very negotiable. I could envision a contract under which the tree buyer would agree to buy the trees, but pay for them over a four or five year period, as they were harvested. This part of the contract would be locked in concrete and the tree buyer would be guaranteed time to harvest the trees. However, it would be quite possible to continue to farm if the future buyer of the property and the tree buyer agreed. There are all sorts of possibilities.
If interested, contacted me at

Peter Mollica : 802.885.9597
mollica@christmastreesofvt.com

2015 White House Christmas Tree Selected

Chesterfield, MO – (September 30, 2015) – Bustard's Christmas Trees in Lehighton, PA has already had their first visitors searching for a special Christmas tree. Angela Reid, White House Usher, along with White House Superintendent of Grounds Dale Haney and Jim Adams with the National Park Service visited the farm owned by Glenn & Jay Bustard and selected a Fraser Fir to be used in the White House Blue Room this coming holiday season. The tree stands 19 feet tall and measures 11 feet wide.

Bustard's Farm won the National Christmas Tree Association's 2015 Christmas Tree Contest held in July in Spring Grove, Illinois and became the Grand Champion. This is the first time Bustard's Christmas trees has won the National contest. Christmas trees have been in the Bustard's family for over 85 years. In 1961, the Bustards bought a tree farm in New Brunswick, Canada and began growing Christmas trees. Glenn and Jay are third generation in the business. With their mother, Virginia, they grow trees on 60 acres of land and sell approximately 7,000 trees per year offering over 10 varieties.

Cultural and Pest Management Update for Christmas Tree Plantations August 2015

By Tom Rathier, Retired Soil Scientist
Connecticut Agricultural Experiment Station
Valley Laboratory, P.O. Box 248, Windsor, CT 06095

Reprinted from The Real Tree Line Vol. 55 No. 2 Spring 2015

As if I need to it, 2015 growing season has been another one in contention for the driest we've seen in years. I'm writing this update in July and things are quite dry regardless of the soil types you have on your farm. Total rainfall at the Connecticut agricultural experiment stations Lockwood farm for April 1 through July 21 has been 12.39 inches. That doesn't sound too bad until you consider the fact that over 57%(7.1") of that fell in June while just a bit more than 0.5 inch fell in May and, so far in July, only 1.78 inches have fallen. I've heard of new planting losses from some farmers and I'll likely hear more as the summer progresses. If it weren't for the rain fall in June, we'd be in a deficit of proportions by now.

Maybe, when both read this update later in August, will have gotten some decent rainfall and the word drought won't make folks shudder. Even if we do get substantial rainfall, many conifers - especially younger ones - will have experienced significant loss of vigor or even have died without some sort of irrigation help. So far this summer, it hasn't been a question of, if irrigation is needed- it has been a question of when and how often it might be necessary.

Most folks know that, while I conducted an assortment of experiment that involved planting and maintaining Christmas trees and have accumulated a pretty sound knowledge of how they grow and what it takes to keep them healthy and productive, I am not a tree farmer. Owning farmland just wasn't in the cards for me and my family. I have, however, learned to think like a tree farmer and respect the health of each tree planted. With every experiment I conducted over the years, statistically meaningful results depended on the successful establishment and continued care of every tree planted in order to ensure a sound study. I learned that nothing was better for ensuring establishment and all seeing to the water needs of young trees through at least the first two years after field planting. Most of my experiments involved managing tree fertility with varied fertilizers applied at varying rates over the course of entire rotations. Irrigation frequency and volumes were at levels that didn't adversely those experiments.

Since I retired, I haven't had to worry very much about making sure you or young plantings are safe from dry but this year has been different. Thanks to a series of strong when tropical storms starting with the surprise snowstorm in October 2011 and continuing through 2013, wooded area behind our house that once kept our view of utility swap has been pretty much wiped out. To fix that concern, we decided to establish a screen of medium size deciduous trees and shrubs mixed with an assortment of sizable up right growing conifers. Our soil is borderline excessively well-drained and prone to quick drying during drought periods and I've been on my toes trying to keep our soils moist enough to ensure successful establishment.

As it turns out, the obstacles to successful establishment of fairly large tree and shrub specimens aren't much different from those of conifer transplants. The fifteen or 5 foot conifers we planted were about as expensive as a half acres worth of transplants. Over time, in order to streamline shipping, handling and marketing concerns of modern nurseries, all sizes (and, consequently root volumes) of the specimens have gotten smaller and, while container or field grown specimens may have more roots, the percentage of

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long-term useful roots may actually be reduced. The time spent installing them properly probably did match that of an acre of -3 transplants, but on money spent vs. time spent basis, I say it was pretty much equal. Timely irrigation has been my principal approach towards protecting my investments, just as it should be for Christmas tree plantings.

Irrigation volumes and frequency should usually be based on physical characteristics of the soil(s) trees are growing in. At issue primarily is how easily or how hard it is to saturate the soil and how long will the soil retain enough moisture to keep trees healthy. How any particular soil in any particular location ended up with the physical characteristics it has is explained by the geologic history of that location or general area. In Connecticut (and southern New England) most of our soil histories have been determined by earth activities during some rather ancient times - ancient in our minds, at least, but more links of the eye in geologic terms.

While Connecticut's general geology was determined principally by continental drift over billions of years, it's most recent soil history dates back to the most recent Ice Age that started some 100,000 years ago and ended about 15,000 years ago during which time more than one glacier cover the landscape from the north all the way down to the New England's southern coastline. These glaciers were not the Alpine type we still can see in mountainous settings throughout the northern hemisphere. They were land mass glaciers perhaps a half mile or more thick that began at the pole and slowly moved southward, covering everything and transporting rocks and soil particles of all sizes in a conveyor belt kind of manner beneath the ice along with them.

Land mass glaciers as thick as these don't just melt along with them overnight. They may take decades of warming and cooling cycles to disappear. The rate of melting and the locally prevailing geography accounted for the two basic types of soils that now occupy our state. Glacial till. When the last (more recent may be a better term) glacier began melting, the relationship between the melt-water and the mineral particles varied significantly, depending on the local topography. In much of Connecticut's Eastern and Western uplands and its southern Plains, much of the boulders, stone and soil simply remained in place as the melt water slowly found its way to the south (what now is called Long Island sound). We need melt-water ceased; conglomerates of soil and rocks were left in place becoming what are now called glacial till soils.

Stratified drift. Soils carried by that last land mass glacier and positioned on the slope areas between the central low lands and the Eastern and Western uplands were more likely to have been washed off the slopes by melt-water and into the flatter settings of the valleys. As the melt-water settled down in the river valleys, so did the various soil particles with the heavier gravels and sands falling first and the lighter silts and clays remaining suspended in the water for a longer time. If the melt-water

stayed calm long enough silts and, finally, clays would also settle forming layers or stratification's office particle types. If things didn't settle down, the silts and clays remaining suspended to be moved further downstream to form river deltas and into what is now Long Island Sound. Since the melts took many years, the same routine of stratification was repeated many times, ultimately resulting in the well drained rock and stone free soils that make up our river valleys.

Among the name soils found in Connecticut that is suitable for agriculture, the droughtest is likely Windsor loamy sand. With an average sand content at or around 70- 75%, it doesn't have much of a chance at water retention. Some years ago, the USDA Natural Resource Conservation Service shows Windsor loamy sand as our state soil, I think more for its historic annual cropping versatility in what was once the center of our state's production agriculture

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Tree Care Information for Retail Lots in Cool Market Areas

The cool, moist conditions that occur in areas such as the coastal portions of the Pacific Northwest and Northern California provide near optimal conditions for maintaining the quality of cut Christmas trees. The key to maintaining maximum freshness in your trees is to protect them from heat, sun, and wind.

Ideally, trees awaiting sale to consumers should be stored at temperatures from 34 to 50 F with high relative humidity. When these conditions do not occur naturally, there are a number of steps that can be taken to maintain the freshness of the trees on your lot.

An important second step in providing consumers with high quality trees is to give your customers a few tips on how to properly care for their tree once it leaves your lot.

Care in Storage

- When possible, arrange for multiple deliveries of fresh trees.
- Avoid piling trees on hot parking lots or against south-facing brick or concrete walls.
- Store trees upright or in shallow piles.
- Never store trees in the sun and always protect them from drying winds.
- Maintain high relative humidity around stored trees. Mist trees or store them in locations where they are exposed to natural rainfall to minimize moisture loss.
- Sell "first in, first out."

Care of Displayed Trees

- If not previously shaken, shake trees to remove dead needles prior to display.
- Protect trees from direct exposure to sun and wind.
- Where trees are displayed in tents or other structures, the structures should be well vented to avoid head build-up.
- If unusually dry conditions occur, maintain high relative humidity in the displayed area by spraying water on the surface of the ground or by misting trees at night.
- Monitor tree freshness and discard trees that show evidence of excessive drying and/or needle loss.
- Recut the base of the tree for the consumer and emphasize the benefits of displaying trees in water holding stands.

These are general recommendations and additional steps may be needed to protect trees from extremes in environmental conditions that may occur at your retail location. For additional information on the handling and care of Christmas trees, check out the following link:
http://www.ba.ars.usda.gov/hb66/contents.html

Prepared by Gary Chastagner and Eric Hinesley, Edited by the Scientific Research Committee of the National Christmas Tree Association

Reprinted from The Michigan Christmas Tree Association;
2015 MCTA Buyer's Guide & Membership Directory

Tree Care Information for Retail Lots in Warm Market Areas

Rapid drying of trees can occur in warm, dry market areas such as the Southwest and warm, humid areas in the Southeast up through Virginia. Heat and drying winds can rapidly reduce the quality of freshly cut Christmas trees in these areas. Heat damage can result from direct exposure to the sun or transfer of heat from asphalt and concrete surfaces. Lack of appropriate ventilation can also result in heat build up in storage structures like tents, trailers or containers.

The key to maintaining maximum freshness in your trees is to protect them from heat, sun, and wind, but also to use water to maintain high humidity in your storage and display areas.

Ideally, trees awaiting sale to consumers should be stored at temperatures from 34 to 50 F with high relative humidity. If these conditions do not occur naturally, there are a number of steps that can be taken to maintain the freshness of the trees on your lot.

An important second step in providing consumers with high quality trees is to give your customers a few tips on how to properly care for their tree once it leaves your lot.

Care in Storage

- When possible, arrange for multiple deliveries of fresh trees.
- Avoid piling trees on hot parking lots or against south-facing brick or concrete walls.
- Store trees upright or in shallow piles.
- Never store trees in the sun and always protect them from drying winds.
- Protect trees from high temperatures by storing them in refrigerated trucks set on wet-cycle, by icing loads in storage containers, by covering with moist burlap, or storing them under shade cloth.
- Maintain high relative humidity around stored trees. Mist trees to minimize moisture loss.
- To reduce mold at storage temperatures above 50F, shake trees prior to bailing to remove old dead interior needles and increase ventilation.
- Sell "first in, first out."

Care of Displayed Trees

- If not previously shaken, shake trees to remove dead needles prior to display.
- Recut the bases of trunks and display trees in water holding stands.
- Protect trees from direct exposure to sun and wind by displaying them in shaded areas if possible.
- Where trees are displayed in tents or other structures, the structures should be well vented to avoid head build-up.
- Avoid displaying trees directly on asphalt of concrete surfaces. If unavoidable, cover the surface with saw dust or another suitable material.
- Maintain high relative humidity in the displayed area by spraying water on the surface of the ground and mist trees at night.
- Monitor tree freshness and discard trees that show evidence of excessive drying and/or needle loss.
- Recut the base of the tree for the consumer and emphasize the benefits of displaying trees in water holding stands.

These are general recommendations and additional steps may be needed to protect trees from extremes in environmental conditions that may occur at your retail location. For additional information on the handling and care of Christmas trees, check out the following link: *http://www.ba.ars.usda.gov/hb66/contents.html*

Tree Care Information for Retail Lots in Cold Market Areas

In cold market areas, such as the inland Pacific Northwest, upper Midwest down through northern Arizona and New Mexico, the Prairie and Lake states, and the Northeastern U. S. down through Pennsylvania and West Virginia, freezing temperatures and drying winds are enemies of freshly cut Christmas trees. The key to maintaining maximum freshness in your trees is to protect them from the elements whenever possible.

Damage to trees potentially can occur whenever the natural moisture in the tree's needles freezes or when cold, drying winds remove this moisture. Freeze damage to needles occurs due to the rate of freezing and not to the rate of thawing. The greatest damage occurs when there is a sudden drop in temperature and water within the cells does not have enough time to move into the spaces between the cells before it freezes.

Lack of appropriate ventilation can also result in heat build up in display structures like greenhouses. Ideally, trees awaiting sale to consumer would be stored at temperatures from 34 to 50 F with high relative humidity. If these conditions do not occur naturally, there are a number of steps that can be taken to maintain the freshness of the trees on your lot.

An important second step in providing consumers with high quality trees is to give your customers a few tips on how to properly care for their tree once it leaves your lot.

Care in Storage

- When possible, arrange for multiple deliveries of fresh trees.
- Avoid piling trees on parking lots or against south-facing brick or concrete walls.
- Never store trees in the sun and always protect them from temperature extremes and drying winds.
- Trees vary in their tolerance to freezing temperatures. Sensitive species, such as coastal types of Douglas-fir, need to be protected from exposure to extreme low temperatures to avoid needle loss problems.
- Minimize handling of frozen trees since this has the potential to cause extensive needle damage and broken branches.
- Sell "first in, first out."

Care of Displayed Trees

- If not previously shaken, shake trees to remove dead needles prior to display.
- Protect displayed trees from direct exposure to sun and drying winds if possible.
- Where trees are displayed in structures like greenhouses, the structures should be well vented to avoid head build-up.
- If possible, maintain high relative humidity in the displayed area.
- Monitor tree freshness and discard trees that show evidence of excessive drying and/or needle loss.
- Recut the base of the tree for the consumer and emphasize the benefits of displaying trees in water holding stands.

These are general recommendations and additional steps may be needed to protect trees from extremes in environmental conditions that may occur at your retail location. For additional information on the handling and care of Christmas trees, check out the following link: *http://www.ba.ars.usda.gov/hb66/contents.html*

Cultural & Pest Management continued from page 16

efforts. When it comes to water needs, any soil that

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Cultural & Pest Management update continue

needs as much water as Windsor loamy sand to keep woody plants healthy is probably not a good choice. s it happens, the Connecticut Agricultural Experiment Station's Valley Lab has some areas of Windsor loamy sand and yes, Christmas trees have been grown in it - but not without frequent high volume irrigations. And the soil in my home landscape - Windsor loamy sand, of course. Interestingly enough, CCTGA's for field meetings are held on two farms with stratified drift soils and two farms with glacial till soils. Our 1st twilight meeting was in June at the Pinchbeck Tree Farm in Guilford where be dominant soil type is Canton and Carlton fine sandy loam (glacial till). The 2nd twilight meeting was a lie at the Valley Lab where most of the soils are stratified drift types. Our third twilight was at Scott's Tree Farm in Andover, where despite the fact that most of Andover is upland; the tree farm is located in a River Valley with several stratified drift soils for their production areas. The annual fall field day was held at Gray Ledge Tree Farm in Plainfield where, interestingly, the predominant soil type is the glacial till Canton and Charlton fine sandy loam - the same as our first meeting in Guilford. If you have any questions or comments about this update other aspects of Christmas tree culture, please email me at trathier@sbcglobal.net

"I never thought it was such a bad little tree. It's not bad at all, really. Maybe just needs a little love".

ATTENTION MCTA MEMBERS

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Use the following info:

Login ID: fraser fir
Password: christmas

The Ugly Tree Contest: It's all in the eye of the beholder…….

2015 Christmas Tree and Wreath Contests Winners

Grand Champion

Finest Kind Tree Farm - ME

Reserve Champion

Olsen Tree Farm – CT

2nd Reserve Champion

Coward Farm – MA

State Champions

ME	Finest Kind Tree Farm	Fir
CT	Olsen Tree Farm	Pine
MA	John Coward	Spruce
NH	Nichols Tree Farm	Fir
RI	Henry Tree Farm	Pine

Species

Fir	
Pine	
Spruce	

Fir Contestants

1st	Finest Kind Tree Farm	ME
2nd	Coward Farms	MA
3rd	Pierce's Tree Farm	MA
4th	Nims Tree Farm	VT
5th	Cranston Tree Farm	MA
6th	Nichols Tree Farm	NH
7th	Seekonk Tree Farm	MA
8th	Kogut Hemlock Hills	CT
9th	Itty Bitty Tree Farm	MA
10th	Davagian Tree Farm	MA
11th	Henry Tree Farm	RI

Spruce Contestants

1st	Coward Farms	MA
2nd	Sweetscapes Tree	MA
3rd	Angevine Farm	CT
4th	Seekonk Tree Farm	MA
5th	Cranston Tree Farm	MA

Pine Contestants

1st	Olsen Tree Farm	CT
2nd	Cranston Tree Farm	MA
3rd	Angevine Farm	CT
4th	Henry Tree Farm	MA

Wreaths - Decorated

1st	Pierce Tree Farm	MA
2nd	Davagian, Jan	MA
3rd	Indian Rock Farm	MA
4th	Nichols Tree Farm	NH
5th	Davagian, Sara	MA
6th	Cranston Tree Farm	MA

New NCTA Hut at Big E

Wreaths- Undecorated

1st	Nichols Tree Farm	NH
2nd	Lewicke Tree Farm	MA
3rd	Pierce Tree Farm	MA
4th	Davagian Tree Farm	MA
5th	Cranston Tree Farm	MA

Cultural and Pest Management Update for Christmas Tree Plantations Fall 2015

By Tom Rathier, Retired Soil Scientist
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Reprinted from The Real Tree Line Vol.55 No. 4 Fall 2015

It is really a drought? Not that I have the best of memories but, I don't remember always worrying about droughts, hot summers and similar weather concerns. When I first started out writing this column (I confess that I don't know the exact issue), it seemed that the bigger concerns for growers were biological (insects, mites and diseases), pest and weed management 9and pesticide use) and cultural (fertility, soil conditions, planting methods). Lately, though, everyone seems to be more concerned about weather. So the question is: have weather and climatic conditions become increasingly unfavorable for conifer growth in the past ten to fifteen years or have other challenges that weather/climate issues just stand out more? Sp, I've spent some time going over some weather records to see if anything stands out.

Perhaps the most useful weather information to examine are monthly and annual precipitation data (rain and snow included) to see if there have been trends over time. Luckily the Connecticut Agricultural Experiment Station has, on its website (http://www.ct.gov/caes) some very nice precipitation records (observed at Lockwood Farm location in Hamden) that cover a fair amount of (though not all) of time over the last 80 plus years. Curiously, precipitation records from 1931 to 1960 are recorded as are the records from 1993 to the present but those from the middle 33 years are not. Nonetheless, the data are quite useful. (see below)

All of the data shown are average over multiple years except the bottom line which depicts 2015 data only. There are very few differences between older data (1931-1960) an the more recent 22 years nor is there much difference between the recent 5 years (2010-2014) and entire recent 22 years (1993-2014). If anything, there appears to be an interesting trend over time in annual rainfall totals through 2014. The only apparent pessimistic rainfall data are those for this year (2015) which appear to be heading toward a most significantly low annual total. This year's monthly rainfall has seen May, with just a bit more than a half-inch of rain, lead directly a 12.5% increase in June. In fact, that fortunate may increase may have been enough to keep this year from being a disaster for some farms. I'll be watching the rainfall data for the rest of this year to see how things turn out.

The data isn't specific enough to indicate gaps of 2 or more weeks that might go without rainfall and result in mini droughts which could limit root activity and subsequent growth particularly for younger trees so it would be unreasonable to presume that rainfall deficiencies aren't involved in tree loses. The data does, however, suggest that annual rainfall over the years, at least in general and specifically in Hamden, which is pretty typical of conditions in Connecticut.

Temporary lack of soil moisture can also have a negative effect on tree roots when daily temperatures exceed 90^{o} F, adding another twist to droughty periods. *continued on page 22*

Monthly Precipitation Totals (averages Recorded at The Lockwood Farm, Hamden CT.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan-Sept	Total
1931-1960 (avg)	3.81	3.01	4.77	4.17	4.06	3.69	3.58	4.16	4.26	3.65	4.52	4.05	35.5	43.7
1993-2014 (avg)	3.61	3.52	4.93	4.87	4.14	4.12	3.55	4.42	4.08	5.00	4.04	4.48	38.7	47.7
2010-2014 (avg)	3.36	3.63	5.53	3.77	5.59	6.13	3.73	6.01	4.30	4.07	4.43	4.98	36.5	50.0
2015 to date	3.72	2.13	3.95	3.02	.59	7.40	2.19	2.54	4.08					

Fall update continued on page 22

The weather data at the Valley Lab in Windsor (Lockwood Farm data was incomplete when I prepared this report) shows 23 such days, many occurring during spells without significant rainfall. So it's fair to say that, while soil conditions aren't always the most significant cause of tree

losses or decline, adding extremely warm temperatures to the mix may push trees at risk further into harm's way by making 2015 a real problem year.

If lack of rainfall and temperature extremes aren't always the reason for tree losses, it makes sense to consider some other reasons. One standard factor is soil texture. Course sandy soils that have limited water retention capabilities may dry quicker than finer textured soils which can maybe hold moisture long enough to get trees to the next rainfall. Poorly drained soils which hold too much water may have the same effect by limiting oxygen availability resulting in poor tree health. For either problem, a solution to either condition may include addition and thorough incorporation of organic matter but such efforts are usually too difficult to conduct in an average tree farm. Occasionally, soil water holding capacities and oxygen availability can be improved with significant restructuring efforts with heavy machinery.

Tree failures can also be relate to choices of species to be grown, especially when farms switch to species that are more difficult to grow. Tree choices by most farms often follow consumer preferences, especially true firs (Fraser, Canaan, Balsam) and Douglas firs that are often more difficult to grow due to greater sensitivity to challenging soil conditions and climate.

Additional complication can occur due to genetic variations that arise from greater production efforts of young trees grown to be sold as transplants for production tree farms are often likely to make selections among many genetic strains of the same tree species to suit their needs for ease in production and tolerance of local soil and cultural conditions. Its likely that some selections are not suitable to all soil types or climates and could result in difficult initial survival or slower, less vigorous growth in production settings.

To answer my initial question: yes, to a significant degree, I think we have improved our abilities to identify and manage most of the biological threats to Christmas trees and are now probably more focused on cultural issues. Cultural problems can actually be more troublesome than biological pest because there aren't always distinct causes with specific management strategies. One of these conditions or characteristics may not keep trees from successful culture, but, when more than one are involved, decline in vigor and greater susceptibility to additional problems could become an issue.

Soil borne disease and soil pH. Among the biological pests that have been of particular concern to growers are soil borne disease that infect trees through roots and eventually into vascular tissue limiting successful water and nutrient uptake. Phytophthora species are among the most likely fungi to be involved in our region and can be native in some soils or introduced to soil environments via transplants and have been isolated from affected trees in our region. Attempts at management with fungicides have not been especially successful in our soil environments leading to thoughts about different strategies other than avoiding planting susceptible trees in some soils.

Working on the knowledge that some Phytophtora species do not fare well in acid soil environments has prompted some initial trials by Dr. Richard Cowles. Over the past year, Rich conducted some trials using sulfur to significantly reduce soil pH throughout the entire upper 12 inch soil environment of true firs. Among the results Rich observed are improved tree vigor and no evidence of disease.

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MASSACHUSETTS 2015 GROWING DEGREE DAYS & PRECIPITATION RATES March to October

2015	Total GDD		Precipitation Rates Mar 1 - Oct. 4 Season							
	Mar 1 -Oct 4	Snow	Mar	Apr.	May	June	July	Aug	Sept-Oct	Rain Total
Cape Cod	2931	85"+	4.47	3.2	0.63	2.25	3.2	1.85	11.4	26.99
South East	2518	103"	4.46	2.26	1.02	5.71	4.5	1.5	8	27.45
North Shore	2889	86.3"	0.89	2.93	0.18	3.35	0.7	2.93	11.62	22.56
East	3079	104"	1.75	3.41	0.42	5.0	4.2	0.81	6.19	21.73
Metro West	2642	108"	1.98	2.98	0.28	6.42	3.2	0.94	6.58	22.41
Central	2356	110"	1.61	4.05	0.34	5.42	3.6	1.98	8.15	25.14
Pioneer Valley	3027	50"+	1.55	3.32	0.32	6.19	4.2	2.3	8.72	26.63
Bershires	2367	67"+	1.54	2.85	1.53	8.22	5.4	4.87	6.89	31.34

2014	Total GDD		Precipitation Rates Mar 1 - Oct. 4 Season							
	Mar 1 -Oct 4	2014	Mar	Apr	May	June	July	Aug	Sept.	Rain Total
Cape Cod	2356	10"	6.2	4.7	4.2	2.2	2.3	1.2	3.9	24.7
South East	2335	48"	4	6.2	2.9	2.1	3.2	2.62	2.2	23.2
East	2671	74"	4.3	4.5	2.2	2.8	1.8	3	0.8	19.4
Metro West	2186	66"	3.4	3.5	2.9	2	1.8	4.7	1.6	19.9
Central	2155	50"	4.2	5.5	5.7	2.5	1.0	2.7	1.6	23.2
Pioneer Valley	2598	59"	3.9	4.1	6.1	4.2	2.3	7.3	1.8	29.7
Bershires	2035	41"+	3.1	2.6	4.0	3.2	1.9	6.2	1.5	22.5

2013	Total GDD	Snow"	Precipitation Rates Mar 1 - Oct. 4 Season							
	Mar 1 -Oct 4	2013	Mar	Apr	May	June	July	Aug	Sept.	Rain Total
Cape Cod	2723	33.3	7.1	5.3	5.4	8.6	0.3	2.1	4.7	33.2
South East	2601	43.9	10.9	2.7	3.4	9.3	2.5	2.1	3.3	34.1
East	2724	54.1	5.0	1.6	3.9	10.6	7.5	3.5	3.1	35.3
Metro West	2386	42.9	2.1	2.3	2.0	8.8	0.6	3.5	2.1	21.3
Central	2377	82.7	1.4	2.4	4.5	9.7	1.9	3.6	3.3	26.7
Pioneer Valley	2658	25.0	1.7	2.0	5.6	9.0	3.5	3.3	4.1	29.1
Bershires	2257	10+	3.0	2.2	7.9	8.4	5.8	3.6	6.5	37.5

2015 Days Below Zero		2015 Days Above 90 ^{o}	July	August	Sept
Cape Cod	2	Cape Cod	0	0	0
South East	14	South East	4	2	1
North Shore	8	North Shore	4	5	4
East	9	East	4	1	3
Metro West	17	Metro West	3	4	4
Central	20	Central	2	2	5
Pioneer Valley	18	Pioneer Valley	4	3	5
Bershires	30	Bershires	1	1	1

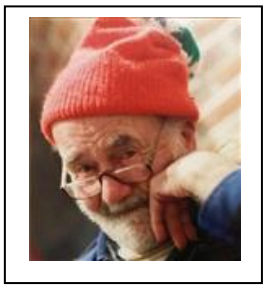
* Statistical information obtained from Umass Landscape Messages, NOAA. & National Weather Service

Rich accomplished this effort by thoroughly tilling the soil throughout the upper 12 inch profile and incorporating pelletized sulfur into the disturbed soil; then reestablishing the soil profile while reestablishing moderately young trees into that soil environment. While this was an encouraging finding conducted in a safe, scientifically correct manner, it is unlikely that such a method of introduction is either practical or safe to conduct on a large, whole field scale. This presents us with a significant challenge – is there a safe, practical way to introduce sulfur, sulfates or any other acidifying agent into a soil in an entire 12 inch deep soil profile without disturbing the established soil structure or any trees already planted. Likewise, it would be scientifically and safety concerning inappropriate to apple that much sulfur or sulfate as a topdressing.

Probably the most sensible approach is to make sequential/annual top dress applications over the course of 6 to 8 years rotation using sulfur or sulfate products. I'm planning to start such a trial this late fall/early winter taking this sequential approach. I've decided on this sort of timing because it is the time of year when there is little or no human activity that might disturb the top dressed products with the potential added benefit of snowfalls that, as they melt, top dressed products can be efficiently introduced to the soil profile.

This project will take some time, but I'm encouraged that I can provide useful information in both the short and long term. For additional information on the topics discussed in this update or other issues or concerns about Christmas tree culture, email me at trathier@sbcglobal.net.

In Memory of the
Founding Member of the CCTGA



Philip Hubbell Jones, Jr., age 96, of Shelton, died peacefully August 10 at home surrounded by his loving family. Born October 16, 1918 at Griffin Hospital in Derby, he lived his entire life on the Jones Family Farms, founded by his great grandfather. He never retired, inspiring and mentoring his children, grandchildren, great grandchildren and a wide circle of family and friends with his interest in trees, history, collecting and land stewardship. He lived his life with intention, wanting to leave a legacy of improving the lives of family, land, and community. Philip was continually pursuing his passion for lifelong learning. Throughout his life he volunteered tirelessly with myriad groups that exemplify the scope of his interests. These included UConn 4-H, Scouting, Shelton Land conservation Trust, Plumb Memorial Library, Connecticut Forest and Park Association, Fairfield County Farm Bureau, Connecticut Christmas Tree Growers Association, National Christmas Tree Association and its journal, The Institute for American Indian Studies in Washington, CT, The National Manuscript Society, The Ephemera Society of America, Shelton History Center, Monroe Historical Society, Monroe Cemetery Association and the Huntington Congregational Church. He served two terms (1948-1952) in the Connecticut House of Representatives. In many of these organizations he served in a leadership capacity, often participating in the founding of the organization. He walked two miles to the White Hills School until the advent of the horse-drawn school bus. Because the country needed food during World War II, he was asked to stay on the farm. With encouragement from his grandfather he had begun planting evergreen trees in the late 1930s. By the late 1940s he realized people were eager to cut their own Christmas trees and with his wife Elisabeth created a beloved tradition for generations of families to harvest their own trees at the Jones Tree Farm. Philip delighted as his son, grandson and their spouses added new agricultural endeavors which evolved to the current Jones Family Farms. Into his early 90s he could often be found at his sawmill sawing lumber from trees he'd planted in his youth. He is predeceased by Elisabeth, his wife of 61 years.

Christmas Tree Fire Safety

Extinguishing the Christmas Tree Fire Myth

Every holiday Season, the Christmas tree industry faces a barrage of "media events" where Christmas trees are lit on fire. Images of dry trees being torched on the five o'clock news (some demonstrations have been found to use accelerants such as gasoline) all in the name of " fire safety". For years, the Christmas tree industry has battled this sensationalized type of demonstration. In November of 2004, and again in 2007, the Michigan Christmas Tree Association had the opportunity to work with the Farmington Hills Fire Department and Brighton Fire Department respectively. In presenting a fair and accurate demonstration of how Christmas Trees react to a house fire. Planned and coordinated by Denny Hughes and Michael O'Brien of the Farmington Hills Fire Department, the demonstration featured a structure with three rooms. Each room was set as a home may be during the holidays with carpet, upholstered chair, artwork, gifts and a Christmas tree. The only variable was the tree. In one day place a real, well cared for real trees. The second room included a real tree that was dried and the final feature an artificial tree that was advertised as "flame retardant".

In the demonstration, the department set fire in the room. Typically the furniture caught on fire first, and the flames then moved to the tree. Each of the rooms was allowed to "burn" for an equal length of time before the fires were extinguished. The result was very telling.

The real tree that was dry burned fairly vigorously. The artificial tree did resist the flames for an amount of time, but when the room became hot enough, the entire tree was engulfed in flames and projected a significant heat and toxic smoke. The well-cared-for real tree did receive some burn damage on the corner to the tree next to the burning chair, however after the demonstration; the majority of the tree was intact and looked much like it did before the demonstration started.

The demonstration was held in conjunction with a meeting of the Metropolitan Detroit Fire Inspectors Association, where Michigan CTA Executive Director, Marsha Gray had the opportunity to address the inspectors and share Christmas tree fire research and data.

"I know that this demonstration made a real impact when the fire fighters and inspectors were surprised with the results " comments Gray. "We had the opportunity to discuss misconceptions and actually show the resilience of a well cared for, real Christmas tree". Channel 4, the NBC affiliate in Detroit, WWJ News Talk Radio 950 in Detroit, and at least four cable access stations, also covered the demonstration.

The Farmington Hills Fire Department, in conjunction with the Farmington Hills cable access developed a video that featured video footage of the demonstration along with an interview of Marsha Gray by Michael O'Brien. The video will be distributed to civic and school groups and was also run on the cable station.

Resource: Michigan 2015 MCTA Buyer's Guide & Group Membership Directory, Fall 2015

CHRISTMAS TREE FIRE SAFETY

Michigan Christmas Tree Association 29

Massachusetts Christmas Tree Association

57th Annual Meeting

D.J. Hussey Farm

August 22, 2015

The annual meeting of the Massachusetts Christmas Tree Association was held at the farm of John and Darlene Hussey in Townsend, Massachusetts. Registration was from 8:00 A.M. to 9:00 A.M. with coffee, donuts and time to socialize and visit with vendors. Approximately 80 people were in attendance.

At 9:00 A.M. President Dan Pierce introduced the hosts for the day, John and Darlene Hussey. John spoke about the history of the farm, the recent expansion to the second location on Burgess Road, the construction of the new barn, land clearing and all the other tasks recently completed in time for the annual meeting and ready for the next holiday season. Both John and Darlene fielded questions from the audience about their operation.

At 9:30 A.M., President Dan Pierce opened the annual business meeting. He thanked the Hussey family for hosting the event and welcomed Association members, speaker Dr. Todd Mervosh and representatives from vendors; Downey Tree Farm & Nursery, East Commerce Solutions, Farm Credit East, Kelco, Massachusetts Department of Agricultural Resources, OESCO, Padulla Bros., Sheerlund Products and Sue and Casey Vandervalk. Dan invited members to host twilight or the annual meeting next year and mentioned a sign-up sheet was located at the registration desk. He reminded members with pesticide licenses that there was also an attendance sheet at the registration desk.

Dan then called for a reading of the minutes from the 2014 annual meeting. A motion was offered and seconded to forgo the reading and accept the minutes of last year's annual meeting as printed in the last issue of Shearings and as posted at the registration desk. The minutes were accepted by a show of hands.

Secretary Jim Colburn reported the Association ended the year as of July 31st with 119 members. Membership renewals for 2016 were mailed July 1st. There were three well attended twilight meetings in 2015, with two of the meetings having 40 or more participants. Additionally one meeting offered a pesticide credit. The Board of Directors met twice during the year.

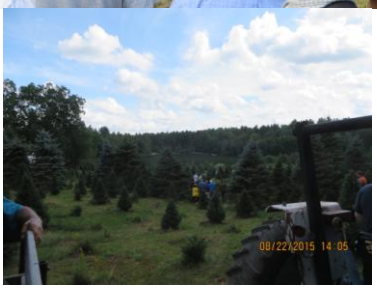
The Treasurer Joe Meichelbeck presented the Budget for 2016 with revenue based on 119 members. As in 2015, a small operating surplus was expected in 2016 subject to our final membership number and continuation of advertising revenue from Shearings. The Association's ending cash balance was approximately $39,500.

Rick LeBlanc the Association's representative from the Massachusetts Agricultural Resources group took the floor. Rick indicated that the department's budget for 2016 was level funded and expected most programs to continue with an emphasis on "Buy Local.". He outlined some of the grants available from the state and pointed out more information on grants could be found on the Ag Resources group website. He encouraged the audience to sign up for the online "Farm Market Report Newsletter." Rick reported as of December 1st we should expect to see new plant nutrient legislation issued. To highlight crops at harvest time Rick explained about the annual Christmas tree cutting ceremony on "Green Friday." As in the past, he is hoping to have the new Agricultural Commissioner, John Lebeaux present at a local tree farm and Rick asked if anyone was interested in hosting the event.









2015 MCTA Annual Meeting Notes and Highlights continued

Gerry Lacasse of East Coast Commerce than spoke about the use of credit cards for the Christmas tree farm. He explained the ease of setting up a credit card processing system and offered some cost effective solutions available for seasonal Christmas tree operations. He emphasized the importance of the new EMV credit card transactions and benefit to limiting the merchant's liability for fraudulent transactions.

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 2018 – Scott Dwinell

Director 2nd term to expire 2018 – Susan Lopes

Director 1st term to expire 2018 – Jeb Brackbill

Director 1st term to expire 2018 – Bob Schrader

Since there were no nominations from the floor the president asked for a motion. Tom Cranston moved that one ballot be cast for the slate as presented. The motion was seconded by Bill Gauld and after a show of hands, the slate was elected unanimously.

There being no further business, the President asked for a motion to adjourn. Having received a motion and a second and in agreement by all, the meeting adjourned at 9:55 A.M.

Respectfully submitted,

Jim Colburn, Secretary