President's Message

Chris Nicholson

What a winter it has been. The brutally cold January and mild February lulled me into a sense that winter was over. Just last week I was pruning in short sleeves on a sunny day, and the next day we faced the first of two very severe winter storms. The older I get the more I don't like winter.

Our winter meeting was great, and if you attended I hope that you enjoyed it. We received many compliments and are already planning on next year's event. It takes lots of planning to host a meeting and our team of Donna Cole and Tim Dunne seem to pull it off every year. It may just be my perspective as the President, but it seems as though our members enjoy the company of one another very much. Perhaps it is because we all have so much in common but are all so different. For me, speaking with and maintaining friendships with our members is the very best part of our little organization.

Our membership numbers remain strong and our finances are strong. This is not the case for other organizations in other states. We have not only stabilized our organization, but proper management has allowed us the be a role model for other state organizations to follow. You can't spend money that you don't have. For the last few years our board of governors has closely scrutinized every expenditure and made sure that our members got the most bang for their buck. Our dues remain relatively inexpensive for what your membership benefits offer to you in comparison to other state organizations. We continue to look for ways to raise money to keep our membership fees down and offer great value to you.

Christmas Tree Fertility

by Jill Sidebottom, Extension Specialist (Mountain Conifer IPM), Forestry and Environmental Resources, North Carolina State University

Optimum fertilization promotes quality growth and gives trees luxuriant foliage with a deep, rich color. Trees with balanced nutrients are more resistant to pest problems and environmental stresses. The amount of fertilizer or lime needed to achieve optimum nutrient levels in the tree will vary with different soils and sites or even different land use history. Too much of a nutrient is often as harmful to Christmas trees as too little. The only way to optimize tree growth is to follow through with site-specific fertilizer applications based on the results of timely soil and tissue analysis. Effective fertilizer management is an ongoing process that succeeds best when carefully planned and maintained throughout the crop rotation.

Soil samples should be taken regularly throughout the course of growing Christmas trees. The first soil samples should be taken during initial site evaluation. If the pH or nutrients such as phosphorus or calcium are low, materials can be tilled into the soil before tree planting with greater success than later top dressing of fertilizers or lime. Subsequent soil samples should be collected at least every other year, and many growers choose to take annual samples. Time invested in careful collection of soil samples will increase effectiveness of any following fertilizer applications. In North Carolina, soil

sample boxes can be obtained and samples sent from any North Carolina Cooperative Extension Service County Center. The North Carolina Department of Agriculture provides soil and plant tissue analysis as well as other diagnostic services to in-state residents.

Once the trees in a field are well established, plant tissue samples should periodically be collected along with regular soil samples. Tissue analysis provides the status of 11 nutrients inside the plant (four more than reported in soil analysis). Tissue sampling also reflects what a plant is actually able to obtain from the soil, not just what is available. Under normal growing conditions, tissue samples should accompany the soil samples at about the middle of the rotation and then again the year before harvest. Usually about two shoots are collected from the same five to 10 trees from which soil is sampled. Tissue sampling is a necessary tool for evaluating and fine-tuning fertility management.

When fertility problems occur in a field, additional sampling can be useful. Problem areas should be sampled (and managed) separately from normal areas of a field. The contrast between normal and problem samples can often pinpoint the cause of a fertility problem. Often multiple-depth soil

Christmas Tree Fertility *continued from page 1*

sampling can provide greater insight than a single topsoil sample. When nutritional problems occur, matching tissue samples should accompany any special soil sampling. It may take several seasons to correct a fertility problem.

Fertilizer materials should be targeted to the recommendations and deficiencies identified by soil and tissue analysis for each field, without applying a single blended material across the board. Annual applications of nitrogen per acre are recommended based on the requirements of the crop and the age and size of the trees. Different amounts of a nitrogen fertilizer will be needed depending on the percentage of actual nitrogen contained in it. Different nitrogen sources have varying effect on pH, soluble salt index, and leaching and should be selected accordingly. Different blends can also satisfy the need for certain amounts of phosphorous, potassium, or other nutrients and should be selected to fulfill the ratio of requirements for each nutrient. See Table 4 for a list of commonly used fertilizers and their characteristics.

Name	Percent N-P-K	Lb Lime Neutralized by 100Lb of N	Additional Comments
Ammonium Nitrate	33-0-0	180	High soluble salt content, can leach
Ammonium Sulfate	21-0-0	38	Used to lower pH
Calcium Nitrate	16-0-0	0	Source of soluble calcium
Urea	46-0-0	180	Concentrated form of N, leaches slowly
Diammonium Phosphate	18-46-0	180	Most available source of P
Potassium Nitrate	13-0-44	0	
Balanced Blends	10-10-10 17-17-17 19-19-19	variable	Can be high insoluble salts and leach readily
Concentrated Super Phosphate	0-46-0	0	Best when incorporated
Murate of Potash	0-0-60	0	High soluble salts, best used in dormant season
Potassium Sulfate	0-0-50	0	Lower soluble salts, best used in growing season
Potassium Magnesium Sulfate	0-0-22	0	Good where Mg and K both needed

Table 4. Common fertilizer choices for Christmas trees

Both the timing and method of fertilizer application are critical to successful nutrient management. Different nutrients have their own requirements for timing. Materials with a high soluble salt content containing nitrogen or potassium should not be applied during the heat of summer or during a drought. Large applications should be split between two timings. Phosphorus should be built up early in a crop rotation rather than adding an incremental amount each season. Early in a rotation, many growers band fertilizer outside the dripline of small trees to maximize availability, but after trees are about 2 years old, broadcast applications are most effective. Where growers mechanize their fertilization, they are often able to achieve a more uniform broadcast application. While ground-applied fertilization is the primary method of nutrient delivery, it occasionally must be supplemented with foliar-applied liquid sprays particularly where micronutrients are deficient or tied up in the soil.

For a fertility program to succeed, a variety of tools and methods must be used, usually in different combinations from season to season.

Welcome New Members!

Lewis Hart
Lew's Farm Market
Moorestown, Burlington County

Craig Johnson
Viking Farms
Skillman, Somerset County

Walter Matuch
High Iron Farm
Bloomsbury, Warren County

Elmer Platz
Mount Vernon Farms
Vernon, Sussex County

Daniel Skidmore
Griffin Christmas Trees
Monroe, Middlesex County

Welcome Returning Member!

James Allen
Allen Farm
Hackettstown, Warren County

Grower's Spotlight:

FAIRVIEW FARM
Long Valley, Morris County

By: Tim Dunne

Tim Dunne

Fairview Farm is aptly named because when you visit the upper fields of Christmas Trees, and look back down the long slope you just climbed, you have a great view into Long Valley. The valley includes the South Branch of the Raritan River, many preserved farms (including Fairview) and many historic farm houses and farm buildings. The farm has been owned by Sam and Laurie Akin for more than 20 years and for about 11 years they have been growing Christmas trees. Fairview Farm includes land rented to a local vegetable farmer who also sells pre-cut Christmas trees in December. That neighbor and the Akins cooperate completely during the Christmas season to meet the needs of both farms' customers.

Sam Akin in field of Fraser fir on a snowy day in March 2018.

This past December was only the fourth year Sam and Laurie have been selling trees, so they are relatively new at it and are still "learning the ropes". Their sales have been increasing every year as customers are returning ea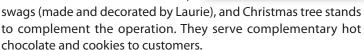ch year, and word of mouth is bringing in new customers. Sam subscribes to the NJCTGA Choose & Cut Guide each year and feels that his web site and that guide are very important to sales. "Almost all the new customers have found us on the web," reports Sam. You can view their website at www.fairviewfarmchristmastrees.com

Heavy March 2018 snow blankets trees at Fairview Farm.

The 8 acres of trees on Fairview Farm are overwhelmingly Fraser fir as the north facing slope they have in northern Morris County has been a good site for Frasers. They have some Cannan fir and a few concolor fir also. Recently Sam began experimenting with some Fraser/balsam fir crosses that look promising. Sam uses few pesticides and has seen very few pest problems to date.

After customers find a tree, often up on the steep hill, trees are hauled back to the parking lot by a couple of four wheelers and small trailers adapted to carry 4-5 trees each. The Akins sell wreaths, swags (made and decorated by Laurie), and Christmas tree stands to complement the operation. They serve complementary hot chocolate and cookies to customers.

Scenic view from upper fields, looking over Long Valley.

Sam has been a member of NJCTGA since 2007 when he started planting trees and has "seen a lot of benefits from the association since then". He particularly enjoys socializing with other growers at meetings, and picking their brains for helpful information. He feels the meeting topics are great and have helped him in his new venture.

Sam's advice for new growers:
- Join the NJCTGA.
- Make sure you have a web site for your farm.
- Use a bigger spacing between trees, especially if you have the room. Some of his first trees planted have grown so big they are too close to work.
- Plan out your parking and traffic flow from day one, and plan on a lot more cars then you ever expected.
- Do not over plant in the first few years. It takes a while to develop a customer base.

At the end of my visit, and after a lovely lunch provided by Laurie on a cold snowy day in March, we chatted about growing trees. Laurie stressed the sense of pride in their Christmas tree operation. Do not underestimate what it takes to be a Christmas tree farmer, not everyone can grow a nice Christmas tree. Be proud of your skills and show them off. Growing Christmas trees can be very rewarding. I agree with Sam and Laurie and saw the results at Fairview Farm.
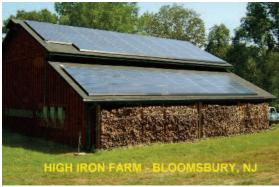

Customer with a Model T Ford all decked out.

Tim Dunne, owner of Woodsedge Farm, Belvidere, Warren County, visits farms throughout the state and writes the Grower's Spotlight.

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President's Message *continued from page 1*

We still have not had a farm come forward to offer to host our twilight meeting in June or Summer meeting in August or September. Please consider hosting. We do most of the heavy lifting and arrange food and other incidentals. You need to just share your farm with the members. Remember, every farm is different. Some are large and some are small. Every farm offers new ideas and new perspectives as to how to grow and sell a tree. Don't be afraid, we will help you showcase your farm and business.

In closing, I wish you all the very best of luck this season. I hope you all plant lots of trees and our weather is perfect. Planting a tree means that you have hope. If you have hope you have all that you need in life. Take it from me, every day is a gift.

Cheers!

– Chris

2016 New Jersey Christmas Tree Growers Survey Results

The results of the 2016 Christmas tree survey are tabulated below and include results from over 60% of member farms. Of the eight-three survey forms returned, 70% of the farms were located in the northern section of the state (Mercer, Monmouth counties and north) while 30% were located in the south (Burlington, Ocean counties and south). A summary of the results includes:

- 63% of the Christmas tree farms have 10 acres or less in Christmas trees

- 74% of the responding members have been growing Christmas trees for 20 years or more

- 95% of the farms sold trees in 2016. The farms not selling trees reported that their trees were too small to sell.

- The survey showed that 47% of the farms planted 500 or more trees with Blue Spruce being the most popular tree planted followed by Norway Spruce, Douglas Fir and Canaan Fir. In 2015, the survey results noted Douglas Fir as the most popular being planted.

- Most farms (74%) reported tree losses at less than 25%.

- Only 28% of the farms reported that they irrigate

- An almost an equal number of farms fertilize (49%) vs not fertilizing (51%).

- All farms reported using mowing as their primary means of controlling weeds, 47% of the responding farms also used herbicides.

- Over 60% of farms used pesticides/fungicides to control insects and disease, others used a combination of methods and 22% reported that they did not use chemicals.

- Thirteen farms reported using full time workers and 54 farms reported using 1 or more part-time workers.

- Trees were sheared by manual knife/shears or mechanical cutters.

- For the responding farm, 56% reported selling as many trees as they want to sell while 32% sold less than they expected.

- 24% of the farms raised their prices in 2016 while 75% or the farms kept prices the same as the previous year.

- There were several different methods for pricing trees. Some farms charged by tree type, other farms charged based on tree height, while other farms charged a set price per tree.

- For farms charging based on tree height, the price ranged from $6.00 to $10 per foot. Thirteen farms reported that they priced their trees based on tree height.

- 46 farms reported that they sold their trees at a set price. This price ranged from $25 to $100 per tree with the average price at $48 per tree. Note that 24 farms did not report on the survey how they priced their trees.

- The best-selling tree species: Douglas fir, Norway Spruce, Blue Spruce, Concolor Fir, and Fraser Fir

- 71 farms reported selling a total of 28,214 cut trees grown on their farms. Eighteen farms reported selling 3458 purchased cut trees.

- 11 farms reported selling a total of 313 dug trees from their farms. One farm reported selling 1000 purchased dug trees.

- 72 farms reported that an average of 83% of their farm sales came from Christmas trees. Other agricultural crops sold on members' farms included: vegetables, hay, wheat, strawberries, hops, boxwoods, honey, mushrooms, timber, cordwood, gourds, pumpkins, Indian corn, garlic, cattle, blueberries, asparagus, soybeans, firewood, rabbits, and nursery stock.

Results compiled by Anne Edwards, Edwards Christmas Tree Farm, Wrightstown, Burlington County

(left) Grand Champion 2017 winners John and Karyn Benton at the winter meeting with their tree contest awards.

(below) Farmers Against Hunger came to the Tree Cutting Ceremony in November 2017 to celebrate the start of the Christmas season.

(above) New Jersey Secretary of Agriculture Douglas H. Fisher along with John and Karyn Benton officially kicked off the choose and cut Christmas tree season during the 2017 ceremonial cutting of a Christmas tree, held at Bentons' Spruce Goose Christmas Tree Farm in Burlington County.

Christmas Tree Promotion Board Reports to the Industry

by Marsha Gray, Industry Communication and Program Director
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Highlights of the 2017 promotional campaign were presented to Christmas tree producers across the country via a campaign summary video.

"The video provides highlights and reach numbers for the campaign in an entertaining fashion," comments 2017 Promotion Committee Chairperson, Mark Arkills. "Although plenty of growers engaged in the campaign during the season, but we know that many were too busy to watch the campaign in real time. This video helps to demonstrate how we reached consumers this past season."

The video was presented at more than 20 state and regional Christmas tree meetings between January and March, reaching growers in at least 23 states. CTPB Industry Communication and Program Director, Marsha Gray, participated in question and answer sessions at these events to provide more details and to insure growers had accurate information about the campaign.

"The campaign was a tremendous success" states CTPB Executive Director, Tim O'Connor. "With more than 260 million impressions between on-line reach, television advertising and media coverage, this was a homerun."

In preparing for the campaign, the team developed and agreed on an overarching statement and three key messages that would be included in all campaign materials: **A real Christmas tree is a choice you can be proud of.**

- Growing, using, and recycling real Christmas trees is good for the environment.
- Buying real Christmas trees provides business for farmers.
- Selecting a real Christmas tree makes memories for families and friends.

These messages were shared via a series of grower videos on social media, through more traditional media outlets (including a satellite media tour) and by engaging with social influencers. Our messages were expanded through a limited run of advertisements on the Hallmark Channel and a partnership with "The Real" television talk show. Partnerships at Christmas tree lighting ceremonies in four major markets provided an opportunity to share the campaign messaging with the media. The campaign summary video is available to view on the organization's website: www.christmastreepromotionboard.org/2017-campaign/

Christmas Tree Pruning Services Offered to Christmas Tree growers of New Jersey

Please Contact Michael Martin for information @(518) 335 - 7512

Christmas Tree Promotion Board Report

Consumer Research Provides Insights

As a part of the promotional budget, CTPB funds consumer research to learn more about consumers' attitudes about real Christmas trees, what motivates them to choose a real Christmas tree and the barriers that stand in the way of converting them to become real Christmas tree customers. Additionally, CTPB measures the effectiveness of its ad campaign and the specific messages used in the campaign to improve its results each year from these learnings. Consumer research is conducted in January immediately following the Christmas season and the ad campaign. In the January 2017 consumer survey, following the first ad campaign, CTPB learned some very important things that the January 2018 survey confirmed also held true for the 2017 Christmas season:

- The type of tree young adults grew up with as a child is highly correlated to the type of tree they choose for their own families today. Unfortunately, most young adults today grew up with an artificial tree resulting in 64% of US consumers having had an artificial Christmas tree in 2017.

- The majority of consumers believe an artificial tree is better for the environment than a real tree. This belief is also highly correlated with the type of tree they had as a child and is reinforced by environmental education that cutting down trees is bad for the environment. Young adults today want to do what is best for the environment when they can, overcoming this barrier will require delivering strong messages about the sustainability of real Christmas trees and reversing these beliefs.

CTPB's ad campaign was targeted at Millennial and Gen X families to deliver messages proven to be effective at overcoming these barriers (see the messages above). Our 2018 consumer research confirmed all three messages were highly effective in improving our target consumers' attitudes about real Christmas trees and increasing their interest in having a real Christmas tree for 2018.

Research a Focus for CTPB

The CTPB has firmed its commitment to Christmas tree production research by funding research projects and committing approximately $250,000 in funding thus far.

The first research project that is being funded by the CTPB is a continuation of the CoFirGE (Cooperative Fir Germplasm Evaluation project). Researchers from six universities are cooperating on evaluating performance of Turkish and Trojan Fir.

European fir species are emerging nationally as new and popular alternatives to traditional regional species due to their disease and insect resistance, acceptance in the marketplace and growth habits. The CoFirGE project is one of the most extensive research initiatives ever to be done in the US with a Christmas tree species - over 30,000 trees are being evaluated on sites in Pennsylvania, North Carolina, Connecticut, Michigan, New York, Oregon, Washington and Denmark.

The CTPB has also provided funding for the "Development of IPM Strategies for Management of Slugs on Christmas Trees". Slugs are one of the most important pests of Christmas trees grown in the Pacific Northwest relative to load rejections in Mexico, Japan, Hawaii and other Pacific Rim destinations. In order to develop effective tools for controlling these pests it is critical to know what species are infesting the target crop. Surprisingly this information is currently lacking for slugs in Christmas trees thereby making it very difficult to design effective approaches for their management. The plan is to sample in plantations for 12 months to determine the seasonal abundance of pest species and in year two, use this information to develop effective tools for both pre and post-harvest management with the ultimate goal of minimizing slug contamination of exported trees.

Two other research projects being funded by the CTPB tackle the extremely costly issue of cone removal. These projects strive to reduce production costs, reduce time to market and increase tree value.

"Cultural Options for Reducing Coning of Fir Christmas Trees NCSU" is focused on herbicide application techniques to remove emerging cones. Recent research in NC has identified herbicides with the potential to selectively kill cones without damaging the rest of the tree. An application study will be conducted using backpack, hydraulic and mist blower sprayers to identify optimum equipment and application techniques.

The other coning project, "Cultural Options for Reducing Coning of Fraser fir Christmas Trees Michigan" focuses on two approaches; pro-active cone control (is it possible to keep the trees from coning) and re-active cone control (post-emergent treatment). This project evaluates coning and growth responses of Fraser fir trees treated with a plant growth regulator. It also initiates a new round of trials to further evaluate the utility of applying herbicides to developing Fraser fir cones to prevent cone development. This research project revealed an added bonus: Plant growth regulators (PGR) treatments reduced shoot growth and increased bud density in Fraser fir.

An immediate needs research project being funded by the CTPB is "Determining the Impact of Elongate Hemlock Scale on Shipped Christmas Trees into Florida." This pest has been a leading cause of load rejections of cut Christmas trees from NC into Florida. In 2012, the Florida Department of Agriculture and Consumer Services reported EHS entering Florida on cut Fraser fir. As incidence reports continued to increase, FDACS-DPI requested a robust host study of trees in the families *Cupressaceae, Pinaceae,* and *Taxaceae* to alleviate regulatory and environmental concerns associated with EHS being shipped into Florida where it is not established. This study strives to determine the susceptibility of important Florida conifer species as potential hosts of EHS.