<u>James Farmer, PhD Indiana U. "Ideas for Research Project"</u>. [Worked on Christmas tree farms before going into park management, forest resource management, etc.]

Basically a social scientist of people doing agriculture, parks, and Christmas Tree Farms serving as a resource coordinator. Q: is there a way to combat the misinformation from media about the fire danger of Christmas Trees? ///How do we channel our businesses into electronic media? How do we coordinate tour trees with agritourism and electronic media? We do realize we are selling an experience. ////How do we increase our perceived value? Trees are close to market gardening in labor intensity. How do we guide people back to the trees we can grow well? ///We need to learn a wide range of subjects/fields/schemes to sell our products to the public. /// Key Words: Memories, traditions, experiences. Some words need to be avoided like a shortage in one area that has not had a local effect, and words like spray, bug, allergen, pesticide, and herbicide. /// How do we get the correct information and present it truthfully but without scare tactics or without being saccharin.

Mark Sybouts, Advanced Turf Solutions, Fishers, IN. "Punching up Plant Nutrition"

"Good judgement comes from experience. Experience? Well, that comes from poor judgement."

First test the soil—much easier before planting. After planting, segregated species are easiest. Tag trees chosen randomly all over the land. Take samples at the drip line of these chosen trees. [Speaker did not mention taking tissue samples of the plant.] Need pH, which can be adjusted to suit the plants with lime or sulphur. Analytic Labs has a good site for soil requirement for Christmas Trees. C.E.C is the cation exchange. Changing the pH is not that easy and takes time. You're probably best off to apply small amount of lime or sulphur over several years.

Phosphate may also need to be raised. Can be done even for existing trees, but, again, gaining the ideal amount for trees will take time—several applications. Sample yearly

Base saturation—what is the available nutrient in the soil. Ca, Mg, K, Na, active hydrogen (determined by pH) (2 X ppm = lb. per acre) Soil tests do not help with N. N is applied 2 weeks before bud break; stop by August 1. For trees ammonium sulfate helps maintain pH needed by trees. 1 oz. N/tree =4.75 oz.NH<sub>3</sub>sulfate.

New technologies for bio nutrients in trees and ornamental plants. Healthy soils produce the best plants. Water-stable aggregates, good soil moisture potential, surface hardness, organic matter, active carbon, balanced minerals. Plants are supported by good roots. Nutrients are available at different pH levels. All nutrients interact, and are important. Amino acids (chlorophyll, roots) seaweed extracts (humic acid, long chain charged polymers (mimics humic acid), micronutrients, and biologics

New Products Holganix Pb1 includes soil biologics, vitamins, amino acids, humic acid, seaweed, molasses, sugar alcohols of micronutrients. Armamant ZNB mimics humic acid, buffered. Liquid nutrient is Bio 12-6-6. Chelated foliarpack chloroburs (???) with PB1 LTO. Reduces "leggedness".

Buck Wagoner, Lafayette, IN "Growing Fir Trees" 4 keys to grow fir trees in high pH soils

Grows Canaans on his 1-acre operation. FIRST: join a growers association for access to experts and the expertise of "other amateurs".

SECOND: choose species of trees to grow. The soil and water conservation districts are the best place to start. When Buck started he found a newspaper article titled "Think about drainage First". He wanted to learn about soil types and local drainage because he wanted to build a new home. Because of contact with the SWCD and literature from there he had an idea of how to start with his trees. Soil color can indicate drainage. Choose your best soil for planting. Even one acre can have more than one soil type. He showed images of trees from various areas of his planting. Of course another important soil characteristic is pH. He broadcast Sulphur every year before planting. The rate was 50 lbs. per  $^{1}/_{8}$  acre. His pH meter can be purchased at any garden store and provides "an educated guess" which can indicate whether more sophisticated analysis is necessary. In 2004 he planted Douglas fir (and had some late frost disasters). Needlecast fungal

disease damaged the Douglas fir.

THREE: FERTILIZING. He concentrates on fertilizing with nitrogen in the form of ammonium sulfate at low rate—about 45 lb. for about  $^2/_3$  acre placed by hand at the drip line of the trees in one application. Weed control has been with glyphosate. Now he uses an herbicide call Section 2EC. Another idea was "chemical mowing" with very low rates of glyphosate., but was not pleased with the results. Even herbicides give uneven results. He is trying to preserve the clovers over the grasses, especially white clover (Dutch white). The clover is planted where trees have been harvested. Wagoner has worked with foliar sprays but found the results inconclusive.

FOUR: Wagoner plants with an auger, keeping the root collar above the ground. At planting the root collar may be slightly below the soil, but the soil settles and exposes the collar. He had better results with transplants which seem to have better root structure. He can irrigate on his small operation. He irrigates only when soil water is extremely low. Minimal irrigation is used to help prevent rise in pH with hard water. What indicates the need for water? The grass over the top of his household septic tank turns brown because of the shallow soil under sod over the top of the tank. His small area lets him handle all hose by hand, and pick up the hose for storage when it is not needed. He can re-use the irrigation tubing because he cleans away the mineral scale from the hard water.

- Q. What do you mean by 3 years of needles? Firs can retain needles for 5 years [what does literature say?].
- Q. Have you had your soil re-tested? No, not yet.

NCTA UPDATE---Tim O'Connor head of Tim O'Connor & Assoc. who manage NCTA, Christmas Spirit Foundation, and Christmas Tree Promotion Board.

"It's Christmas: Keep It Real" is the 2016 campaign slogan for the promotion board. High-profile efforts included live trees in backpacks at Macy' Thanksgiving Day Parade. The video included a sampler of the CTPB pre-Christmas Advent-style calendar. Neil Patrick Harris was the spokesman. Social media played a major role in keeping the message about real trees before the public. The first year campaign was an amazing success with the Millennials

Approximately \$70,000 goes into research on the trees themselves. There will be money budgeted every year in coordination with member states on tree improvement.

We were reminded this is the first year the CTPB has put forward a promotion campaign.

Aug 16-19 will be the CTPB/NCTA will meet in conjunction with the Wisconsin growers will meet in a national convention. Following that will be webinars and other sharing of information with growers. Of course, all of us were urged to attend the meeting in Green Bay, WI.

NCTA is the advocacy organization for real trees. The annual presentation of a real tree to the White House (Presidential Residence) and to Blair House (Vice Presidential Residence) is the iconic "tip of the pyramid" for real trees. Individual state present trees to state houses, governors' mansions and other public sites. NCTA is working—nationally—with fire marshals to update fire codes.

Websites for NCTA and CTPB have webinars and videos available to growers. At the national meeting in August there will be a workshop/webinar on the use of Facebook to promote real trees.

EXOTIC CONIFERS—Itasca Greenhous has a Korean X Balsam cross and Korean X Vetch (yes, Google Vetch fir). Specimen trees of each cross were on display at the meeting. Handsome trees.

MACT is in early July (7 & 8) this year. The Ohio farm had those dates available and Ohio CTA was agreeable.

CLIFF SADOFF, Purdue University. "New Tools Make It Easier to Save the Good Guys" Cleaning up borer problems without killing the host. Agricultural oils are used for this.

White pine decline occurs in heavy soils. Bark beetles can attack white pine as well. Try to remove damaged trees before the pupae emerge as adults. Leaving cut, dying trees in autumn attracts adult beetles. The trees can be burned/deep buried before March 1. Spray the stump with insecticide with a pyrethroid or cut below ground level and

bury the remainder of the stump.

Zimmerman pine moth prefers stressed trees, and those near it. There is better insecticide coverage with younger trees because the trees are less dense. Chlorantraniprole is and insecticide for Zimmerman moth. Acelepryn is a brand name [?]. This does not kill beneficial insects.

White pine weevil is a snout weevil that is attached to stumps. When the larvae are inside the stems/branches cut off the affected branch well below the damage. Burn the branch.

Sadoff went over several of the pests and control. He advocated the use of agricultural oils over actual insecticides in many cases. And the use of soaps (surfactants) because changes in the surface tension of water is also effective is control.

"Conserve" is a product that will control bagworm as long as the bagworms are in an active feeding stage.

## **ROUNDTABLE 2016 YEAR IN REVIEW**

For Winter Meeting 2018: Everyone bring images of your farm through the year for virtual tours of farms.

Fewer or more trees sold? Why?

People—millennials—seem to be returning to tradition. Farms are closing and customers are looking for new sources. Recommendation: stay with NCTA AND CTPB to help our industry. There is also environmental awareness, local homegrown movements, a seemingly slower pace of life and solidity. "Fresh is better." Social media and internet technology and, of course, word-of-mouth bring farms into the public eye—sometimes when the farms don't realize they are "out there".

Do we have enough trees?

One farm closed a week early because of heavily increased business. One farm interplants; the public can see there are more trees coming. Some farms have pre-cuts that customers can re-cut at ground level. One farm limits the number of trees marketed this way. Facebook helped some farms, for others negative reviews were very negative. Dry Trees? Not all trees will take water. Very often the trees were not re-cut just before being stood in the house or were allowed to go dry.

Do you tie trees on cars/in trucks? Yes, to more customers through loading. Yes, it seems safer for further transport. One gives the customer a choice. New growers were warned to make the choice and stick to it. Personable people are considered a must.

Tips and how they are handled varied from farm to farm. One farm leaves a tips box that provides for a local food pantry. Tips varied from farm to farm.

One new grower asked about used equipment Growers organizations, MACT meeting, Christmas Trees Magazine.

Rooted trees were in bags. Those trees had been "bagged" as seedlings and sold a 6 ft. trees. What happens to the trees after the customer has them was discussed in some detail. Most growers refused to dig/sell a living tree over 6 ft. tall. Exotic Conifers Assoc. would like to see some of living trees tracked to their "new homes" and records kept. Later those trees could serve as a seed source.

For the 2 part tags the customers' names were also put on the part of the tag that stays on the tree.

Wage—Even for H.S. students, many of the growers pay more than minimum wage.