



Christmas Trees

Christmas Tree Timeline

Origin in Germany

The Christmas tree tradition originated in Germany during the 16th century. Children were not allowed to see the tree until Christmas Eve. The children stayed in another room while the parents decorated the tree with apples, candy, nuts, cookies, cars, trains, candles or lights, along with other family treasures.

Presents were placed under the tree. Christmas trees have a special significance for Germans and are known as "trees of life." As Germans immigrated to other lands, the custom of Christmas trees spread with them.



Coming to the United States

Christmas trees gained popularity in the United States after President Franklin

Pierce brought the first Christmas tree into the White House in 1856. Christmas trees were cut from forests, roadsides and family property. President Theodore Roosevelt worried about the preservation and protection of forests and pushed the idea for intentional growth of evergreen trees as Christmas trees in 1901.

United States Forestry Service

In 1905, the United States Forestry Service was founded as an agency of the United States Department of Agriculture. In an article written by Ann Kirk Douglas she stated, "About 1912, the United States Forest Service estimated that five million Christmas trees were being cut and that every fourth family had a tree in the home" (Albers & Davis, 1996, p.6). Many people couldn't just go to the forest and cut down trees. The urban community needed a way to acquire this new product.

Christmas Tree Farms

The early Christmas tree farms were located in the Northeastern United States—Vermont, Pennsylvania, Upper New York, Maine, and New Hampshire. Later, these same northern farms began planting Balsam firs, Scotch pine, and Norway spruce.

Many people did not get their Christmas trees until Christmas Eve and removed it shortly after Christmas because the trees would dry out quickly and the needles would fall off.

In the mountains of North Carolina, eastern Tennessee, and western Virginia, growers grew the Fraser fir, an evergreen tree named for the Scottish plantsman, John Fraser.




Photo courtesy of the North Carolina Christmas Tree Association

JUST THE FACTS about Christmas Trees of North Carolina

Just **how many** Fraser fir Christmas trees are growing in **North Carolina** ?

 **50 million** trees on **25,000 acres!!**

2nd NC ranks **2nd in the nation** for Christmas tree production.

 **North Carolina** produces over **20%** of real Christmas trees in the **United States**.

1,300 Growers producing Fraser fir trees in North Carolina. 

Fraser fir represents over **99.4%** of all species grown in North Carolina. At elevations above **4,500 feet** where the climate is cooler and rainfall is plentiful, the **Fraser fir** is shade tolerant and enjoys fertile rocky soil. The Southern Appalachian Mountains located in northwestern North Carolina, provides these perfect conditions.

Want game? Scan or click here for some holiday fun and games!



Many Thanks!

A big thank you to Barbara Heufel, Alleghany and Ashe County Farm Bureaus' Kenan Fellow, for her efforts in assembling the content necessary to produce this publication.

THANK YOU!

Tree Species

Although the Fraser fir is the most popular Christmas tree, there are other trees that also share the holiday spotlight. Other species include White pine, Virginia pine, Leyland cypress, and two varieties of Arizona cypress known as ‘Blue Ice’ and ‘Carolina Sapphire.’



Tree/inset photo courtesy of the Christmas Tree Genetics Program at NCSU

Fraser Fir

The natural range of the Fraser fir (above 4,500 feet) in northwestern North Carolina, eastern Tennessee, and southwestern Virginia.



Tree/inset photo courtesy of the Christmas Tree Genetics Program at NCSU

White Pine

The White pine is native to both upper Piedmont and Mountain regions. This species has soft blue-green foliage and relatively strong branches. It is easily dug for use as a living Christmas tree.



Inset photo courtesy of the Christmas Tree Genetics Program at NCSU

Virginia Pine

The Virginia pine is the most popular species for Christmas tree growers in eastern North Carolina. It occurs naturally in North Carolina in both the Mountain and Piedmont regions.



Tree/inset photo courtesy of the Christmas Tree Genetics Program at NCSU

Leyland Cypress

The Leyland cypress is an ornamental variety and has become a popular choice for Christmas trees in recent years.



'Blue Ice'

Arizona Cypress ('Blue Ice' and 'Carolina Sapphire')

The Arizona cypress is popular with the landscape industry as an ornamental and screening tree and has become a minor Christmas tree species for Piedmont and Coastal Plain growers.



Inset photo courtesy of the Christmas Tree Genetics Program at NCSU

What a Pest!

Trees can be damaged by both insects and animals. Below are a few of the biggest threats farmers face in growing Christmas trees.



The most damaging natural enemy is the **balsam woolly adelgid** (formerly an aphid), a wingless insect. Infestation can affect appearance and growth of trees affected.



The most common effect of **elongate hemlock scale** is a white, waxy coating on the top surface of the needles secreted by males, making the trees unsellable.



Significant damage can be caused by **deer and bears** rubbing against the trees. This must have been a really big deer!



Nets are put around trees to try to discourage the animals from rubbing and damaging the branches.

The White House Christmas Tree

Since 1966, members of the National Christmas Tree Association have presented the official White House Christmas Tree for display in the Blue Room. North Carolina members have provided 13 Fraser fir trees to the White House for Presidents Richard Nixon, Gerald Ford, Ronald Reagan, George H. W. Bush, Bill Clinton, George W. Bush, Barack Obama, and Donald Trump.

- 1971 Kermit Johnson, *Ashe County*
- 1973 Homer & Bruner Sides, *Alleghany County*
- 1982 Hal & Sarah Johnson, *Ashe County*
- 1984 Hal & Sarah Johnson, *Ashe County*
- 1990 R. Bruce & Michael Lacey, *Avery County*
- 1993 Wayne Ayers, *Mitchell County*
- 1995 Ron Hudler & Danny Dollar, *Ashe County*
- 1997 Sanford Fishel, *Ashe County*
- 2005 Earl, Betsy & Buddy Deal, *Alleghany County*
- 2007 Joe Freeman, *Ashe County*
- 2008 Jessie Davis & Russell Estes, *Ashe County*
- 2012 Rusty and Beau Estes, *Ashe County*
- 2018 Larry Smith, *Avery County*



The U.S. Capitol Christmas Tree

For over 50 years, the U.S. Forest Service has provided a Christmas tree from one of its national forests to display on the west lawn of the U.S. Capitol in Washington, D.C. National forests in North Carolina have provided Fraser Firs for the U.S. Capitol Christmas Tree twice, in 1974 and 1998, and a Red Spruce in 2022.

Much more than just cutting and delivering an 80ft tall tree, this project kicks off a yearlong celebration of North Carolina and the communities that share stewardship of its public lands. Part of that celebration highlights ongoing Red Spruce and Frasier Fir restoration—the U.S. Forest Service's effort to combat the effects of unsustainable logging, wildfires, invasive insect infestation and other factors that occurred in National Forests at the turn of the 20th century.

The ceremonial tree lighting after Thanksgiving showcases the tree and thousands of handmade ornaments from North Carolina on the national stage where they represent the beauty found in national forests and serve as a symbol of what can be accomplished through shared stewardship.

To learn more, visit uscapitolchristmastree.com.

WHICH TREE IS BEST? YOU DECIDE!

Compare the pros and cons of a real tree versus a fake one.

REAL CHRISTMAS TREES	
Pros	Cons
They have a wonderful smell of fresh pine needles and a natural woody musk smell.	The trees have to be bought every year.
They are a sustainable crop and most farmers replant 2–3 trees for each one cut.	
Buying a real tree supports the local economy.	They can create a fire hazard if they are not properly maintained.
Some families have a tradition of going to a tree farm to choose and cut the perfect family tree.	A real tree requires daily maintenance of watering and sweeping up needles.
Real trees provide a natural habitat for small animals and birds while growing in the fields.	
Christmas trees support life by absorbing carbon dioxide and other gases while giving off fresh oxygen. Every acre of Christmas trees planted gives off enough oxygen to meet the needs of 18 people.	
They are biodegradable and recyclable. Live Christmas trees can be made into mulch, compost, and woodchips for use in the garden and landscape.	Using an artificial tree wouldn't require a visit to a tree farm.

FAKE CHRISTMAS TREES	
Pros	Cons
They can be used over and over year after year.	They are made of plastic, steel, and materials that are produced using more energy.
The cost is more economical if used for five years or more.	Fake trees can't be recycled and will eventually end up in a landfill indefinitely.
They can be bought with lights and decorations already on them.	Artificial Christmas trees are mass-produced and imported from other countries such as China.
They can be customized to your personal preferences and to fit in smaller areas.	Lead can sometimes be found in artificial trees. The potential for lead poisoning is great enough that fake trees made in China are required by some states to have warning labels.
	Artificial trees don't provide a natural habitat for animals living in nature.
A fake tree eliminates the hassle of watering, sweeping, trimming, and worrying about the right placement for optimal freshness.	There is no exchange of gases from an artificial tree.
They are less of a fire hazard than dried out real trees.	Artificial trees fill up the landfill.

Trees for Troops



Photo courtesy of Christmas Spirit Foundation

The National Christmas Tree Association established the Christmas Spirit Foundation in 2005. The goal of the Christmas Spirit Foundation is to spread the spirit and joy of Christmas throughout the year. The foundation created the **Trees for Troops** program to give free Christmas Trees to our military all over the world.

Since the beginning, the North Carolina Christmas Tree Association has participated in this event. This year, with the help from Ashe County and Avery County ROTC, Alleghany 4-H students, Upper Mountain Research, and Avery County Cooperative Extension, 800 Christmas trees were delivered to Fort Hood and the USCG Sector Lower Mississippi River Station.

A day in the life...

What does the life of a Christmas tree look like? The journey from seed to tree for a Fraser fir can take up to fourteen years. Click or scan below to see the stages of growth of a Fraser fir. (Hint: it's a rotating image!)



Click or scan to learn how Fraser fir trees grow or how to select the perfect Christmas tree from the North Carolina Christmas Tree Association!

Career Corner



Cline Church

Cline Church Nursery

How did you get started in the Christmas Tree industry?

In the 1950s and 1960s, the North Carolina Extension Service and the North Carolina Forestry Service encouraged mountain farmers to consider Christmas trees as an alternate crop. I was in high school in the early 1970s and a member of the Future Farmers of America (FFA). During that time, Duke Power offered a program through the North Carolina Forestry Service offering seedlings for purchase to FFA students. I purchased seedlings from the North Carolina State Nursery and Duke Power matched my purchase. It takes a few years for a seedling to grow into a full Christmas tree. By the time my trees were ready to harvest, the demand for Fraser fir trees began to grow. This cycle continues to work today.

What do you love most about your job?

I enjoy working outside, improving the environment, and still being able to farm, although in a different capacity than my father did. I'm also proud my children are here with me and taking over the business.

What would you tell someone who is first learning about your job?

The Christmas tree industry is hard work but also very rewarding. The pleasure of seeing people decorate using a real tree to celebrate Christmas is high on the list. It is a practice that can be passed down from generation to generation, and I have been blessed financially from it.

What are some challenges you face?

One challenge is a common one faced in most businesses—the issue of labor. I also have to stay current with changing rules and regulations. Also, as with any crop, weather can be an issue.



Dr. Jill Sidebottom

Extension Specialist

(Mountain Conifer IPM)

What is your job title and what do you do?

I am an Area Extension Specialist with the North Carolina Cooperative Extension and I support county extension agents with pest control information on mountain conifers—which includes Christmas trees. I provide researched-based information to agents so they can then work with growers to solve their pest control problems safely and inexpensively.

What is the relationship of your job to the Christmas Tree Industry?

I provide information, including what pests are present, how to scout for them, what impact they have on the economic value of trees, what good bugs are present that kill pests, which pesticides work, how to use them safely, how cultural practices affect pest problems, and how any pest control practices may or may not be adversely impacting the environment. Rather than regulate the use of pesticides, I educate growers in the use of all legal means of pest control so they can make an informed decision about what to use on their farm.

Pest management has changed over the years. What has impacted Christmas tree farms the most?

New government regulations made don't always account for ramifications to family farms. The changing climate impacts tree production, and new invasive pests have the potential to hurt the industry. On the upside, we have been able to reduce the use of pesticides in the industry. Also, more people have internet access, so it's easier to spread information. New technologies such as remote-sensing through drones may help growers more easily determine the impact of pest populations.



Avery Barr

Barr Evergreens

How did you get started in the Christmas Tree industry?

I am a third generation Christmas tree grower. The business was started by my grandfather in the 1960s.

What do you love most about your job?

I love having a family business where we all can work together. Also, I enjoy selling trees on Christmas tree lots during the holidays and experiencing the joy and happiness the trees bring to me and my customers.

What would you tell someone who is first learning about your job?

Christmas tree growing is a long process. A six to seven foot tree can take up to 12 years of labor before its ready for harvest. Planting needs to take place each year to account for future yearly needs.

What are some challenges you face?

Pests are a real challenge for Christmas tree growers. Damage caused by deer eating the trees and water mold such as phytophthora create many challenges for the growers. There is limited land available for planting more trees. Labor is another big issue and expense in my business.

Want to learn more about Christmas trees? Scan or click here for history, fun activities and more!



Our mission statements:

Ag in the Classroom (AIRC) is a unique educational program founded and affiliated with **North Carolina Farm Bureau (NCFB)** in 1985. **AIRC** is dedicated to promoting the importance of agriculture to all Pre-K through 12th grade public and private school teachers and students through the North Carolina Standard Course of Study-based curricula, workshops for in-service and pre-service teachers, grants, ag literacy books, and county Farm Bureau support. **NCFB** was formed in 1936 as a non-profit grassroots general farm organization and along with **Alleghany County Farm Bureau** and **Ashe County Farm Bureau**, aims to serve farmers and provide a unified voice for the interests and needs of the farming community through special projects and partnerships with **AIRC**.

The **Kenan Fellows Program for Teacher Leadership (KFP)** at **NC State** connects outstanding public-school teachers with mentors in local industry and research settings, creating opportunities that build meaningful relationships. Kenan Fellows are K-12 public school educators who spend three weeks during the summer interning at a local mentor site where they develop a deeper understanding of workforce needs, and how they can make relevant connections for students. Fellows are given unprecedented opportunities for networking, professional growth, and leadership development. **KFP** supports these exceptional teachers through its proprietary professional development that focuses on instructional leadership, project-based learning, elevating teacher voice, strengthening ties between the school and the local community, peer coaching and mentoring, and growing professional learning networks. Teachers who complete the program say they feel empowered to lead within their content-area teams, their schools, and their districts. Many become empowered to influence and lead educational innovation at state and national levels.

This Ag Mag complements and connects to the following North Carolina Standard Course of Study:

ENGLISH LANGUAGE ARTS

2nd Grade RL.2.1, RI.2.1, RI.2.2, RI.2.3, RI.2.5, RI.2.6, RI.2.8, RI.2.9
3rd Grade RL.3.1, RL.3.2, RL.3.3, RI.3.1, RI.3.2, RI.3.3, RI.3.4, RI.3.5, RI.3.8, RI.3.9
4th Grade RI.4.1, RI.4.2, RI.4.3, RI.4.4, RI.4.5, RI.4.6, RI.4.7, RI.4.8, RI.4.9
5th Grade RI.5.1, RI.5.2, RI.5.3, RI.5.4, RI.5.5, RI.5.6, RI.5.7, RI.5.8, RI.5.9

SCIENCE

3rd grade 3.L.2

SOCIAL STUDIES

3rd grade 3.H.1, 3.G.1, 3.E.1, 3.E.2, 3.C.1
4th Grade 4.H.1, 4.G.1, 4.E.1, 4.E.2
5th Grade 5.H.1, 5.G.1, 5.E.1

SOURCES

Albers, H. A. & Davis, A. K. (1997). The Wonderful World of Christmas Trees. Mid-Prairie Books. 9780931209697



This issue of the North Carolina Ag Mag has been provided by:



Design by Karen Baltimore, www.skypeak.com