



Tree Line

A publication of the Kentucky Division of Forestry's Urban and Community Forestry Program
Sarah C. Gracey, Editor

Tree Line

December 2008

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American Chestnut Legacy



Sarah C. Gracey, Urban Forestry Coordinator

"Chestnuts roasting on an open fire..." may be a line popular in Christmas carols, and the thought of chestnut trees returning to eastern forests in great numbers is a hope of many tree enthusiasts. The story of the American Chestnut is well known, and fortunately, its final chapter is far from being written. Giant chestnut trees dominated eastern hardwood forests and was one of the most important trees of its range. At one time, there were estimated to be 4 billion chestnut trees stretching from Georgia to Maine. The trees were huge, and a reliable source of nuts on which wildlife, livestock and humans feasted. Chestnut was a reliable staple for the timber industry. Not only did the tree resist rot, it was easy to work with and used in products from fine furniture to telegraph poles as well as numerous other products. Chestnut trees were also found in urban areas such as city squares.

Chestnut blight was introduced to North America after a discovery in the New York Zoological Garden in 1904. The blight is caused by a fungus, and it was accidentally introduced through nursery stock imported from Asia. Once the disease began to spread outside of the zoo, it spread like wildfire. The fungus causes cankers on the limbs and trunks of the tree and slowly girdles the tree. Chestnut trees typically die two to 20 years after infection.

As awareness of the impact of these valuable trees increased, people were moved to action. In 1911, funds were appropriated by Congress to study and combat the blight. Federal and state agencies began various research strategies. Methods tested included quarantine, tree injections, sprays and pruning. However, none of these methods proved successful. Funding decreased with the start of World War I and the disease ravaged the hardwood forests of the eastern United States.



Photo 1 - Adair County Chestnut

Chestnut trees still exist in our forests, but there are only a handful that are above a few inches in their diameter size. Most of these sprouts are less than 8 inches in diameter. There are exceptions, however, like this tree in Adair County (Photo 1). This tree is being hand-pollinated because it is incapable of (*continued*

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Social Services of Trees

Peter Barber, Partnership Coordinator, KDF



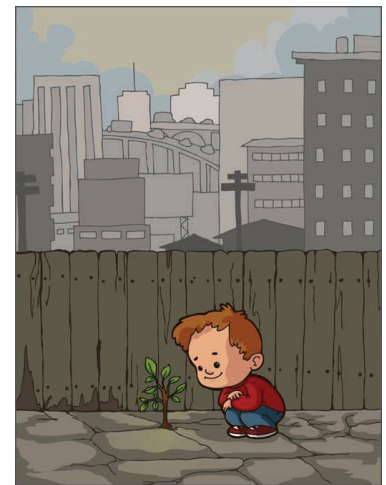
Part 2 - Series on the benefits of trees. In Part 1 of my series, I discussed environmental services our community trees provide. Their leaves capture harmful air pollutants while their roots filter sediment from storm water, and allow water to soak slowly into the ground. Trees provide habitat for a myriad of other species, and the wood they grow sequesters carbon dioxide, a greenhouse gas largely responsible for the current climate change.



Photo 1 - Trees add life to our parks

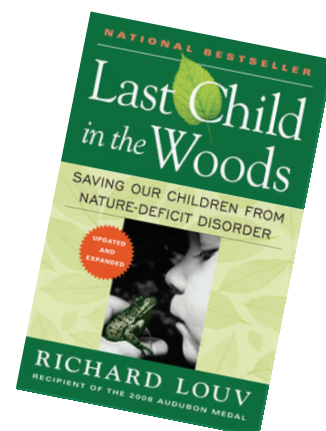
Trees affect every part of our environment, from the air we breathe, the water we drink and the soil we till. It only makes sense that our social fabric is also affected by trees. People respond to the presence of trees in many ways. For the most part, trees have positive influences on people's lives. Most people have fond childhood memories of walks in the woods with a relative, fishing and hunting trips, canoeing and camping trips, all of which took place in and around trees (photo 1). All of these activities are done not just for leisure and play, but also serve to connect us with the powerful forces of nature that brought us all here to begin with. Trees are therefore life-affirming. They mark the passage of time, enduring in one spot for decades, even centuries, affirming that life is resilient and graceful. Standing under an ancient oak, a person can find humility and reverence for the life that has withstood the ravages of time. This humility, reverence, resilience and grace are human qualities that all cultures agree are good for all of humanity. It is no surprise to learn that people, when in the presence of trees, act differently than they otherwise would. Let's look at some specific examples of how human behavior changes when in the presence of trees.

Recent studies conducted in the Chicago public housing system showed surprising results. Female residents reported less aggression and domestic violence in buildings with greenery and trees, as opposed to identical buildings with no greenery or trees. The crime rate for buildings with trees and greenery was also significantly less than identical buildings with no trees. Young girls living in the buildings with trees reported more self confidence, higher test scores and a greater ability to cope with stress. Additionally, residents of buildings close to green common areas reported a greater sense of safety, knew their neighbors better and reported less crime in the area. All of these effects were present even with minimal landscaping. A patch of grass and a single tree can make all the difference in the world. For more information on this research, visit the Landscape and Human Health Laboratory at <http://www.lhhl.uiuc.edu/>.

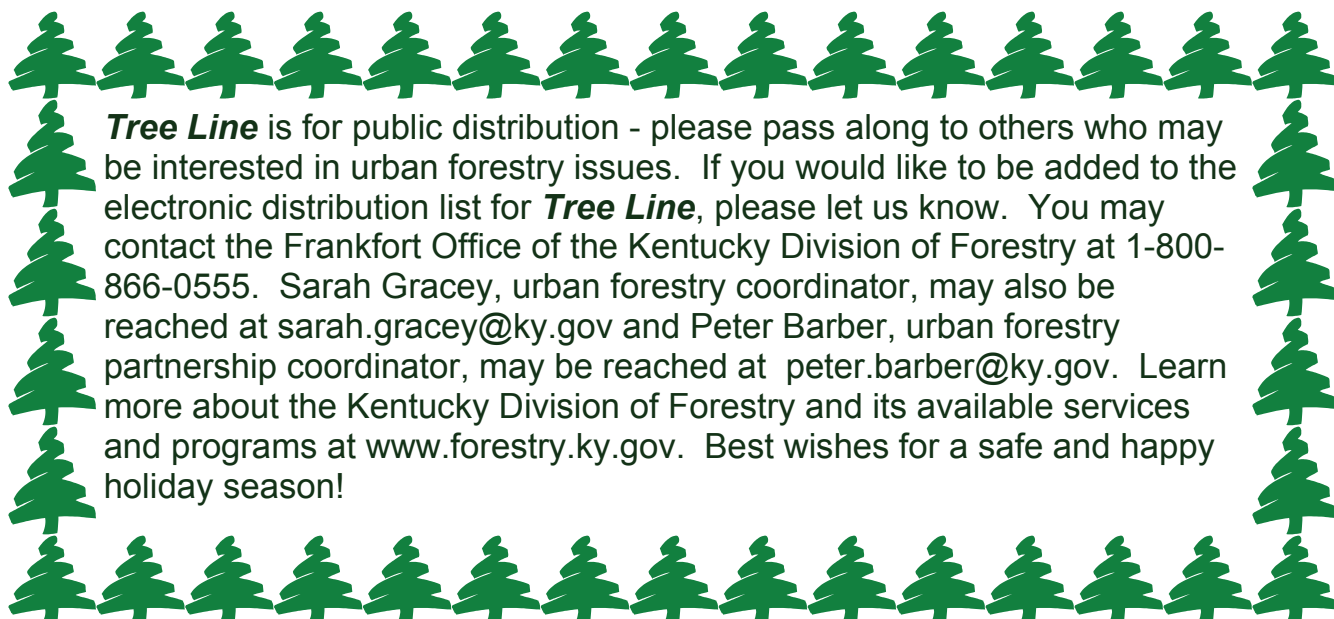


Trees affect us everywhere we go, including behind the wheel! A recent study conducted by the College of Forest Resources, University of Washington, demonstrated lower accident rates along streets lined with trees as opposed to streets with barren rights of way. Other research shows a generalized reduction in stress after viewing a natural setting. These effects are even greater if the person can interact with the natural setting. Hospital patients are reported to spend less time in recovery if their rooms overlook trees and landscaped areas. For a good synopsis of the research into social benefits of trees, visit the Web site “Human Dimensions of Urban Forestry and Urban Greening” at <http://www.cfr.washington.edu/research.envmind/index.html>.

The symptoms of attention deficit/hyperactivity disorder are greatly reduced in children who simply play outdoors, and the effects are greater for those children playing in natural settings versus a concrete playground. A great work on children and nature is Richard Louv’s national bestseller “Last Child in the Woods.” Louv is the recipient of the 2008 Audubon Medal for his work in which he identified the phenomenon of nature-deficit disorder. “Last Child” explores the increasing disconnect that children have from the natural world. They not only spend less time outdoors, many have less access to nature. Louv explains that nature can teach kids science as well as nurture their creativity. In fact, Mother Nature may need children as much as children need her; who else will be the future stewards of the natural environment?



We know trees can provide a healthy environment for us to live, work and play, but can they help our economic prosperity? They can, and the next article will discuss how. The proper care and management of our community trees is more important now than ever before. Remember to do your part - plant a tree, take care of the trees you have, and please, take the kids outside to play!



Tree Line is for public distribution - please pass along to others who may be interested in urban forestry issues. If you would like to be added to the electronic distribution list for **Tree Line**, please let us know. You may contact the Frankfort Office of the Kentucky Division of Forestry at 1-800-866-0555. Sarah Gracey, urban forestry coordinator, may also be reached at sarah.gracey@ky.gov and Peter Barber, urban forestry partnership coordinator, may be reached at peter.barber@ky.gov. Learn more about the Kentucky Division of Forestry and its available services and programs at www.forestry.ky.gov. Best wishes for a safe and happy holiday season!

NKU: Tree Campus USA



The Arbor Day Foundation has recognized Northern Kentucky University (NKU) for its best practices in campus community forestry through its new Tree Campus USA program. To celebrate this achievement, the Arbor Day Foundation and Toyota Motor Corporation (TMC) held a tree-planting event October 16 on the campus in Highland Heights. This event was the official kickoff for the national Tree Campus USA program. Eight other college campuses across the U.S. will be recognized this fall for their efforts. A total of nearly 1,000 trees will be planted during the Tree Campus USA events.

Tree Campus USA honors colleges and the leaders of their surrounding communities for promoting healthy urban forest management and engaging the campus community in environmental stewardship. The program is supported by a \$750,000 grant from TMC.

Northern Kentucky University met the required five core standards of tree care and community engagement in order to receive Tree Campus USA status. Those standards include the establishment of a campus tree advisory committee; evidence of a campus tree care plan; verification of dedicated annual expenditures on the campus tree care plan; involvement in an Arbor Day observance; and the institution of a service learning project aimed at engaging the student body. The University of Kentucky is in the process of applying for status as well.

“The Tree Campus USA program will have a lasting effect at Northern Kentucky University and throughout the country because it will engage students and local citizens to plant trees and create healthier communities for people to enjoy for generations to come,” said John Rosenow, chief executive of the Arbor Day Foundation. “Northern Kentucky University will benefit from better tree-care practices on campus, and it will help connect the university with tree-care professionals in their community to improve the tree canopy in Highland Heights.”



Photo 1 - Division of Forestry director Leah W. MacSwords (third from right) and others plant a tree at NKU.

A total of 100 trees were planted on campus during the tree-planting event (photo 1). The trees planted near the Welcome Center during the Tree City USA Campus Tour will add much-needed shade and beauty to this area of the campus. The Welcome Center is located between the school’s arboretum and the new Bank of Kentucky Arena, and the trees planted there will be enjoyed by thousands of visitors each year.

“The additional trees provided by Toyota and the Arbor Day Foundation will provide a great transition from the arboretum through the Welcome Center and over to the arena,” said James C. Votruba, president of NKU. “These trees will fill this wide open gap in our campus.”

"We are so proud to support Tree Campus USA on both a national and local level," said Steve St. Angelo, executive vice president of Toyota Motor Engineering & Manufacturing North America. "Toyota's operations throughout the northern Kentucky and Cincinnati region have a number of graduates from Northern Kentucky University and we are glad that the Arbor Day Foundation has recognized this fine member of our community."

"I am honored that Northern Kentucky University is being recognized today as the first Tree Campus USA, not only in Kentucky but in the United States," said Leah W. MacSwords, Kentucky Division of Forestry director and National Association of State Foresters president. "It is critical that young people today recognize the impact that healthy urban forests have in our environmental and social well-being. Students, faculty, citizens and industry have come together to partner and make this campus a green place in which to live, work and play. I commend the university for taking the steps necessary to become a Tree Campus USA, and look forward to working with them in the future."

Arbor Day Foundation sources including photo: Arborday.org and press release

4th Annual Kentucky Tree Board Seminar

Sarah C. Gracey, Urban Forestry Coordinator



The Bowling Green Tree Advisory Board is busy planning next year's Kentucky Tree Board Seminar. This seminar will be the 4th in a series that was started in Frankfort and has since been held in Southgate and Lexington. The tree board is pleased to host the event in the southcentral portion of the state. The seminar will be held on Saturday, March 7, with a reception the evening before.

"We are really excited about the opportunity to host the seminar in Bowling Green," said city arborist Jared Weaver. "The board has been working hard to put together an agenda that should be very beneficial to tree boards, no matter what size community they represent."

To help shape the seminar to attendees needs, an online survey is being conducted online at: bgky.org/tree/treeboardseminar.php. If you plan to attend, please plan take the survey soon.

The seminar will open on Friday with a reception at Baker Arboretum. There will be a walking tour of the arboretum, followed by a wine and cheese reception. Baker Arboretum boasts an impressive collection of

over 70 Japanese Maple cultivars, as well as an impressive conifer collection. The reception promises to be a special treat, not to be missed!

Kentucky is fortunate to have Charlotte King, of Snowden & King Marketing Communications firm from Atlanta, as the featured speaker. Charlotte will talk with the group about new trends in forestry marketing and will lead a small group activity in developing a marketing plan. Successful marketing is key for tree groups; it enables them to better sell their programs to the general public as well as local politicians. Jennifer Gulick, senior urban forestry consultant of Davey Resource Group, and Perry Odom, utility forester for the city of Tallahassee, are also featured speakers.

This year's seminar is once again available at no cost to attendees, but advance registration is required. Participants will soon be able to register for the seminar through the previously mentioned Web site, and through regular mail. We look forward to seeing you there!

(continued from Page 1) fertilizing itself. Pollinating this tree is a project of the Kentucky Chapter of The American Chestnut Foundation. They are dedicated to locating the remaining blooming American chestnut trees in Kentucky and breeding blight-resistant trees from these "Mother Trees." The chapter also participates in a chestnut and surface mining forest restoration project. There are a variety of other local chestnut projects as well.

The Kentucky Division of Forestry has two American chestnut plantations started at its Morgan County Nursery. The first is a mother tree orchard. This orchard is made up of 100 percent American chestnut trees that were harvested in southeastern Kentucky. When these trees start flowering, they will be cross-pollinated with a hybrid chestnut. Also, some flowers will be collected to cross-pollinate other trees in Kentucky. The second plantation is made up of 15/16th American chestnut with Japanese and Chinese chestnuts planted as control species. This plantation will help determine which 15/16th variety has the most American chestnut characteristics. These trees will then be inoculated with the blight to ensure their ability to survive. The goal is to have an American chestnut back in the forests of Kentucky.



Photo 2 - Planting chestnuts on capitol grounds

Dr. James Hill Craddock, a professor at the University of Tennessee Chattanooga, has worked for years to breed a blight-resistant chestnut. He is working with the Chattanooga Chestnut Tree Project whose goal is the restoration of the American chestnut to the Southern Appalachian and Cumberland Plateau regions. Part of the project is to breed disease-resistant trees. Dr. Craddock's latest trees are B3 F2 hybrids that are at least 15/16th American chestnut, and 1/16th Chinese chestnut. Division Forest Ranger Technician Terry Stamper recently attended the annual meeting of the American Chestnut Foundation in Chattanooga. He was fortunate to be able to bring back a few of these B3 F2 seedlings to Kentucky. Three young trees were planted by Terry on the capitol grounds in early November (photo 2). Hopefully these trees are truly resistant to the blight and will be an addition to enjoy for many years to come.

A common saying is that there is "no greater optimist than he who plants a tree that he will never sit under." I think I will have to disagree. I feel that the biggest optimists are the dedicated group working on the comeback of the American chestnut, considering that they have never sat under the magnificent beauties. If you are interested in becoming part of such a group, consider joining the Kentucky Chapter of the American Chestnut Foundation. For more information, visit these Web sites:

Kentucky Chapter of the American Chestnut Foundation: kychestnut.org

American Chestnut Foundation: afc.org

Dr. James Hill Craddock: utc.edu/Faculty/Hill-Craddock/index.html

Photo Credits: 1 - Kentucky Chapter of the American Chestnut Foundation, 2 - Sarah Gracey

End of First Year EAB Trapping - Janet Lensing, State Survey Coordinator, University of Kentucky

In 2008, trappers set 3,066 purple prism traps around Kentucky, primarily north of I-64, but also throughout the state in high-risk areas such as campgrounds, state parks and nurseries. The color of the traps and the lure, which smells like ash tree volatiles, are both attractive to emerald ash borer (EAB). Traps were in place from May through August and the lure was changed in July to ensure that the traps were still attractive to the beetles. Personnel from the Department of Entomology at the University of Kentucky and USDA APHIS screened these traps for EAB. We did not find emerald ash borer on any of the purple traps. Many beetles in the same family (*Buprestidae*) were captured as well as a wide variety of other beetles and insects, but no EAB.

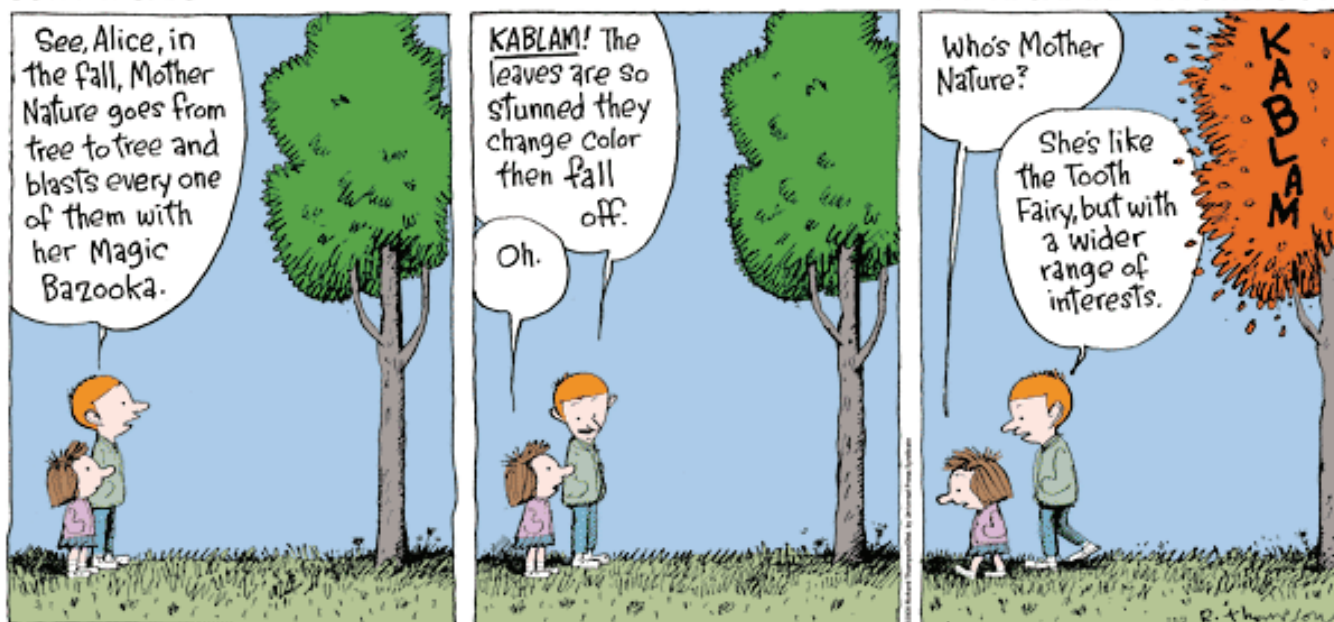


There are several known infested sites close to Kentucky's borders including a site in eastern Missouri, one in southern Indiana and several sites in Cincinnati. Our office at UK is planning to work with the USDA on this trapping program again in 2009 with nearly double the number of traps (6,000) to be placed throughout the state. We will hire temporary surveyors to identify ash trees for the survey, set the traps, change the lure and remove the traps. In 2008 we hired several certified arborists to assist with the trapping program and paid them a fixed amount per trap. In 2009 we will again be looking to hire certified arborists that can identify ash trees and devote time to the trapping program. If you are interested, contact Joe Collins, Carl Harper or Janet Lensing at 859-257-5838 or e-mail Joe.Collins@uky.edu.

Please visit www.emeraldashborer.info for the latest information about this beetle. If you suspect emerald ash borer in your ash trees, call the USDA EAB hotline at 1-866-EAB-4512.

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BY RICHARD THOMPSON





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

- Linus van Pelt of "Peanuts"

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Upcoming Events

- ◆ Dec. 6, Holly Days - Series of three workshops at Yew Dell Gardens, LaGrange
- ◆ Dec. 12-13, Invasive Species Conference, www.ca.uky.edu/invasives, Lexington
- ◆ Dec. 15, Forestry Webinar Series: Forest-based Bioenergy - A national perspective, 12 - 1 p.m., forestrywebinar.net
- ◆ Dec. 15, Friends of Boone County Monthly Meeting, 6 - 8 p.m., Union
- ◆ Dec. 20, Forest Explorers - To Hibernate or Not To Hibernate, 9 a.m. - 12 p.m., \$10, Jefferson Memorial Forest, Louisville Parks
- ◆ Dec. 20, Olmstead Parks Conservancy's Cherokee Park Champions volunteer opportunity, 9 a.m. - 12 p.m., Louisville Parks
- ◆ Dec. 21, Winter Solstice Night Hike at Bernheim Arboretum, 5:30 p.m., Clermont
- ◆ Dec. 22 - 24, Little Elves Day Camp, 9 a.m. - 12 p.m., The Arboretum, Lexington
- ◆ Jan. 13-14, Mid-States Horticultural Expo, Kentucky Exposition Center, Louisville
- ◆ Feb. 12-13, Southern Nursery Association Green Industry Trade Show, Atlanta, Ga
- ◆ Feb. 27 - March 27, "Glories in the Garden" art exhibit, Dorthea Smith Oatts Visitor Center, The Arboretum, Lexington
- ◆ March 6-7, 4th Annual Kentucky Tree Board Seminar, Details TBA, Bowling Green
- ◆ March 12, NKUCFC's Annual Public Workers Tree Seminar, Southgate
- ◆ March 25-26, Greenprints Conference and Trade Show, greenprints.org, Atlanta, Ga

To find out more information about the organizations and events listed above, please visit their Web sites:

- * Bernheim Arboretum - bernheim.org
- * Boone County Arboretum - bcarboretum.org
- * Louisville Parks - louisvilleky.gov/MetroParks
- * Mid-States Horticulture Expo - mshe.org
- * Northern Kentucky Urban and Community Forestry Council (NKUCFC) - nkyurbanforestry.org
- * National Arbor Day Foundation (NADF) - arborday.org
- * Southern Nursery Association - sna.org
- * The Arboretum, State Botanical Garden of Kentucky - ca.uky.edu/arboretum
- * Yew Dell Gardens - yewdellgardens.org

Christmas Tree Factoids Source: christmastree.org

- ⇒ Real trees are a renewable, recyclable natural resource
- ⇒ Christmas trees are grown on farms, just like any other crop
- ⇒ Artificial trees contain non-biodegradable materials
- ⇒ Real trees are a wise environmental choice
- ⇒ Over 25 million real Christmas trees are sold in the U.S./year
- ⇒ A half billion real trees are currently growing on farms
- ⇒ North American real Christmas trees are grown in all 50 states
- ⇒ Eighty percent of artificial trees are manufactured in China
- ⇒ There are more than 4,000 real tree recycling programs in the U.S. - contact your city for information
- ⇒ 50,000 acres are planted as real Christmas tree farms
- ⇒ There are 21,000 real Christmas tree farmers in America
- ⇒ 100,000 people are employed either full or part time in the real Christmas tree industry
- ⇒ The average growing time for most trees is seven years (can be as little as four to as many as 15)
- ⇒ Top Christmas tree producing states are Oregon, North Carolina, Michigan and Pennsylvania.
- ⇒ Kentucky grows over 56,000 Christmas trees/year
- ⇒ Top selling species are Balsam Fir, Douglas Fir, Fraser Fir, Noble Fir, Scotch Pine, Virginia Pine and White Pine.