



## Selecting an Indiana-Grown Christmas Tree

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### Introduction

So you are off to select a real Indiana-grown Christmas tree this year! Many families just want the experience of cutting their own tree. In that case, any appropriately priced and correctly sized tree will do. However, some families are particular and base their buying decisions on specific tree characteristics, which often are based on memories of Christmases past.

If you are looking for that perfect tree, this publication is for you. In the following pages, we describe various tree species and the characteristics that most tree-shoppers ask about. These include fragrance of the tree, the shape of the tree (cone or more globose), needle length, expected needle retention, color, branch stiffness, and cost. Some people want a “native” tree. These factors can all come into play—whether the purchaser is aware of them or not—to define the perfect Christmas tree. Think about what’s important to you as you prepare for your purchase.

Only a few evergreen species are native to Indiana. The most common and wide-spread species, eastern red cedar, has been used as a Christmas tree because of its local availability. Other native species include Virginia pine, eastern hemlock, jack pine, eastern white pine, and northern white cedar. Originally, these species were found as remnants in isolated ecological areas in Indiana. With the exception of eastern white pine, most of these native species are not acceptable as Christmas trees in Indiana, mostly due to type and amount of foliage, and especially poor color in eastern red cedar. In the past, these had limited use as Christmas trees, but as transportation improved, many Hoosiers turned toward shipped-in trees.

In the 1950s the Purdue Cooperative Extension Service and other groups encouraged the production of Scotch pine for Christmas trees as an alternative to the few native trees and to species of trees (such as balsam fir) shipped into the state. Today about 200 real Christmas Tree Farms produce trees on over 3,000 acres in Indiana.



Norway Spruce



Fraser Fir



Douglas Fir



Canaan Fir

Each year, about 200,000 Christmas trees are harvested in Indiana. Based on number of trees harvested, Indiana ranks eleventh among all states. Most of the farms are choose-and-cut operations, but some wholesale farms also exist, particularly in Northern Indiana. Real Christmas trees are also sold at retail outlets.

Scotch pine, consisting of several varieties, remains the most commonly grown Christmas tree in Indiana. However, as transportation and communication improved, the desire for other species such as the firs and spruces increased. Because climate and soil conditions vary



Blue Spruce



Scotch Pine



White Pine



White or Concolor Fir

substantially from one end of the state to the other, not all species are found in one area, and probably not all on one farm. However, most Indiana farms will have three or four species available.

Scotch pine and white pine are usually the least expensive trees, whereas the true firs are the most expensive. Douglas fir (not a true fir) and spruce are usually intermediate in cost. The pines grow on most soils in Indiana and do not require fertilization. Fraser fir and Canaan fir only grow on well-drained to moderately well-drained soils, require fertilization, and are in relatively short supply as choose-and-cut trees, especially in southern Indiana. Some farms do not have true firs available in the field. Douglas fir and spruce trees are intermediate in the care they require and, thus, usually intermediate in price. However, growers may have a surplus of a certain species and reduce the price to assure that the trees will be sold.

In addition to the most commonly produced Indiana species described in this publication, other species may be available. Noble fir and grand fir are shipped in from the West coast and balsam fir from the Lake States and Canada. Balsam fir has been a fairly popular species in the past. Some growers are experimenting with other species such as Korean fir, Turkish fir, and Nordman fir.

These are beautiful trees. However, it can take at least seven years for these trees to reach Christmas-tree size, so don't expect to find many of those available as choose-and-cut trees.

## Care of Your Real Christmas Tree

A fresh-cut, real Christmas tree is generally serviceable from just after Thanksgiving to somewhat after Christmas, if it is fresh when set up and then well cared for.

If the tree will not be set up for a few days or longer, it should be stored in a cool location out of the wind and sun. Trees can dry out rapidly on warm, windy days with direct sunlight on them. Cutting a half-inch from the end of the trunk and placing the tree in a container of cool water will help it stay fresh. Trees which have been cut for more than 6 to 8 hours will not be able to absorb water, because the exposed cells become blocked. If a fresh, half-inch-long cross cut is made at the butt of the tree, water will again be able to move upwards.

When setting up the tree, keep it away from any direct sources of heat such as warm air floor vents, operating wood stoves and fireplaces, hot lights, etc. Heat will make the tree dry faster than normal. Use only approved ornamental lights, which produce low heat.

Select a stand that can hold an ample supply of water—at least one quart for each inch of stem diameter. Larger trees obviously can take more water and require a large, heavy-duty stand. A seven-foot tree may easily take two quarts of water a day for the first week. Some trees typically take a lot of water the first week or two, then slow down. Be sure to use cool water; additives probably do not add to the tree's life once it is cut.

If the tree runs out of water, it loses its ability to take up any water provided later and starts to dry out, so make a fresh cut on the base of the stem. Check the tree every day. Be sure to allow extra water for the family dog and cat.

## Care of a Living Christmas Tree

The use of a live tree is becoming more popular, since it not only keeps family memories, but also continues to absorb CO<sub>2</sub> and provide oxygen to the atmosphere. However, some precautions must be taken. The most common live Christmas tree is in the 4- to 7-foot range and is dug, with the dirt ball tightly wrapped in burlap and wire. These trees are called "ball and burlap" or "B and B" stock. For large trees, the dirt ball may weigh 200 pounds or more, so handling can be difficult. Smaller trees are easier to handle, and some are grown in containers using a light-weight planting medium.



Scotch Pine



Eastern White Pine



Douglas Fir



Fraser Fir



Canaan Fir



Concolor Fir (White Fir)



Blue Spruce



Norway Spruce as a live balled tree

Table 1. Characteristics of Indiana-Grown Real Trees.

Species	Fragrance	Popularity in Indiana	Form	Needle Length	Needle Retention	Color	Branch Stiffness	Comments
Scotch Pine	Pine-like	Most common tree	Cone-shaped to globose depending on shearing techniques	Moderately short to long 1.5”–3”	Excellent	A few varieties have good natural winter color, while most trees sold wholesale are colored.	Good	Many different varieties are available.
Eastern White Pine	Pine-like	Popular tree	Cone- or pyramidal-shaped; elegant, symmetrical shape	Long, soft 2.5”–5”	Excellent	Natural color is a light green and acceptable, but most trees sold wholesale are colored.	Not stiff	These are beautiful Christmas and landscape trees (soft to the touch, not heavy trees), but will not hold heavy ornaments.
Douglas Fir	Fragrant	Popular tree	Cone-shaped to globose depending on shearing practice, can be heavy	Short 1”	Good	Natural color is often acceptable but most trees sold wholesale are colored.	Moderately stiff	This is a popular tree in some areas but subject to Swiss needle cast and other diseases. (not a true fir species)
Fraser Fir	Fragrant	Increasingly popular tree, but produced mostly in northern Indiana or other Northern and Eastern states	Can be a perfect cone shape and, depending on shearing technique, can be very steep and narrow	Short 1”	Excellent	Beautiful, dark green needles with silvery underside	Stiff	True fir species are distinctively different from the pines and spruce. The trees can be extremely full but still have stiff branch tips available for easy decorating.
Canaan Fir	Fragrant	Increasingly popular tree for choose-and-cut farms throughout Indiana except the southwestern portion	Can be a perfect cone shape and, depending on shearing technique, can be very steep and narrow	Short 1”	Excellent	Beautiful, dark green needles	Moderately stiff	Canaan fir is so similar to Fraser and balsam fir that many consumers will not notice the difference. This species is more adaptable to Indiana conditions and is being used as an alternative for Fraser fir.
Concolor Fir (White Fir)	Smells like citrus	Not a common tree, but becoming more available as consumers learn about it	Somewhat more globose than Fraser and Canaan fir; can be heavy	Intermediate 2”	Excellent	Some varieties have a beautiful, silver, soft needle with an upright sweeping manner	Stiff	Characteristics depend on the variety, with some trees that have an absolutely outstanding silver-blue color.
Blue Spruce	Pungent	Common landscape tree, but also used for Christmas trees in some areas	Pyramid-shaped, often stocky and heavy	Short 1.5”	Fair	Noted for its distinctive blue color, which fades in fall and winter but is most conspicuous on new growth in the spring; some varieties have a large percent of trees with blue color, while others are more green	Stiff	This is a beautiful tree, but is bulky with very sharp needles. It’s common as a living Christmas tree. Trees should be fresh-cut and placed in water as soon as possible. The best blue color is on new needles in the spring.
Norway Spruce	Pungent	Common landscape and windbreak tree, but also used for Christmas trees	Pyramid-shaped, older trees have pendulate foliage	Short 1.5”	Fair	Beautiful, lighter green color	Stiff	This beautiful tree should be fresh-cut and placed in water as soon as possible.

The easiest species to transplant and most suitable for landscapes are white pine and spruce, followed by concolor fir and Douglas fir. Canaan fir is sometimes transplanted, as well. Fraser firs are particularly difficult to raise, and Scotch pines are prone to insect and disease problems, and develop poor form as they age.

Live trees purchased in late November or December are dormant. They should not be brought into a warm house for more than about ten days. With more time, the trees will start to break dormancy and when planted outside will likely die. Or, the trees can be placed on cool porches or front steps for the season. In this case, breaking dormancy is not an issue. Keep the dirt ball or potting medium moist, but do not overwater. Also, do not remove the tree from a warm home directly to the cold outdoors. Allow it to transition from warm to cool to cold conditions a few days at a time. Use Christmas lights sparingly, as the heat can kill living cells in the needles and bark.

Weather conditions vary from year to year and can change rapidly in late November and December. It is a good idea to prepare a planting hole before the soil starts to freeze. Fill the hole and cover the excess soil with

leaves and plywood or other cover. Weight the cover down. When you are ready to plant the tree, the hole can be uncovered and the tree properly planted. Plant the tree at the same level as it was before, and try to pack as much dirt around the root ball as possible. Roots cannot survive in dead air spaces. Also, the hole should not fill with water.

If ground is frozen and the hole cannot be prepared, place the tree in a sheltered area away from direct sunlight and wind. Keep the tree watered, and do not remove it from its container.

## Summary

Christmas is about families getting together and making memories that will last a lifetime. Selecting and setting up a real Christmas tree has been part of the memory-making process ever since 1842, when Charles Minnegerode set up the first real tree in Williamsburg, Va. A real tree takes a little more effort than pulling an artificial tree out of the attic, but it's an effort that often becomes the foundation for a unifying family tradition. You make memories that outlast even an artificial tree.

### Contact Information for Foresters

#### Indiana Division of Forestry

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#### Directory of Professional Foresters:

##### Indiana Forestry & Woodland Owners Assoc.

1011 North 725 West

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[www.findindianaforester.org](http://www.findindianaforester.org)

#### Purdue Extension Foresters

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