



Choosing the Right Christmas Tree

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'Tis the season for seasonal holiday cheer, including live Christmas trees. Christmas trees offer consumers a chance to bring nature indoors for a few weeks each December. Whether you choose a pre-cut tree available at a local tree lot or garden center or cut your own tree from a farm, you will have several tree species to choose from.

Why choose a live Christmas tree instead of an artificial tree? There are a number of benefits of using a natural tree.

- Live trees are an environmentally friendly option compared to using an artificial tree each year. These live trees are planted specifically for harvesting 7-10 years after planting the young seedlings.
- Live trees help sequester greenhouse gases, such as carbon dioxide (CO₂). These trees can remove up to 1 ton of CO₂ from the atmosphere during its life span.
- An acre of mature holiday trees produces enough oxygen (O₂) to support 18-20 people a day.
- Fresh Christmas trees look and smell great in your home, especially true fir trees. Decorated with lights and ornaments, the trees look bright and festive in homes during the holidays.
- After the holiday season, these trees can be recycled easily or used for other purposes. Place your used tree into your yard so it can be used by birds and small mammals for shelter. Cut branches from these trees can be placed around tender shrubs or newly planted evergreens to reduce the drying winter winds and sun.
- Once fully dry outdoors, the needles will fall off adding organic matter to your soil. The soil pH will not change, but adding organic matter will improve your soil structure over time. The remaining branches can be composted, once cut into pieces or chipped and used as garden mulch around plants.
- The remaining trunk can be cut into firewood creating an aromatic, but hot, crackling fire due to the tree sap.
- If your city recycles old holiday trees, you can place your used tree at the curb or take it to the city's recycling center. The municipality will chip the tree into mulch and use it for city landscape projects, or for use on paths in parks. Please do not place your used Christmas tree into a landfill where it will not break down due to lack of oxygen.

How do I select a quality Christmas tree?

Many holiday trees are grown and harvested out west from Washington, Oregon, and western provinces of Canada. These trees are cut in fall and shipped across the country to 'big box' stores, garden centers and supermarkets. These trees are not as fresh as those harvested in Wisconsin, cut only a few weeks previously. When choosing a fresh, pre-cut tree, grab ahold of a branch end. The needles should be flexible and firmly attached to the stem. If the needles are dry and break off easily or are discolored, the tree is past its prime and will not last long indoors so, choose a different tree. The trees will naturally have some inner, brown needles. Those are shed each year and are normal. Shake the tree off to get rid of these older, dead needles before bringing the tree into your home. The freshest trees are ones you cut yourself from a local tree farm.

What type of tree species should I choose?

Commonly grown trees include Fraser, concolor, balsam, and Canaan firs, Douglas-fir (not a true fir), Scots and Eastern white pines, white, Black Hills, Norway and Colorado blue spruces and rarely junipers. Your choice depends on your personal taste, cost and the size of the tree required. The species that have the best needle retention, color and aroma are the true firs, such as balsam, Fraser, Canaan and concolor firs. Balsam fir is the most aromatic, but Fraser, concolor and Canaan firs have stiffer branches that hold heavier ornaments. Needles on firs are borne singly. Concolor fir, also known as white fir, has longer, silver-blue needles and a citrus-like smell when the needles are crushed. Fraser and Canaan fir needles are aromatic, dark green with white undersides. Balsam fir needles are more blue-green and very aromatic. The fir needles are also very soft and presumably safer around smaller children and pets. Douglas-fir is not a "true" fir species, but is used as a Christmas tree, particularly in the western states. Douglas-fir branches have soft, dark green needles, but branches are not as stiff, thus are better suited for supporting lighter or smaller ornaments than the true firs.

Scots pine needles are borne in clusters of two and can be either dark green or blue-green, depending on the seed source. The needles are not as soft as fir needles and do not retain their needles as long as true firs. Eastern white pine has very soft needles in groups of five with flexible branches, however, the branches are not strong enough to hold heavier ornaments.

The spruces can be used as Christmas trees, however, they do not retain their needles for long and for some, especially Colorado blue spruce, the needle tips are quite sharp and should not be in areas where children and pets can come in contact with them. Spruce needles are not aromatic like fir needles. Colorado blue spruce has very blue needles, while white and Black Hills spruce can be more gray-green to blue-green and are not as sharp as Colorado blue spruce needles. Norway spruce have very dark green needles and retain longer than the other spruce needles, though, not as long as fir trees.

Junipers can be used as Christmas trees, though, they are not as desirable because as the foliage dries out, it becomes very brittle and sharp to the touch. Junipers can be a blue-green to dark green color. Branches are tightly arranged making hanging ornaments more challenging. Whatever tree you choose, make sure the tree branches are stiff and symmetrically arranged around the trunk, with a nice color and conical shape.

How do I maintain my Christmas tree indoors?

- 1) Once you pick the tree you want at the garden center or tree farm, shake the tree to get rid of older, dead needles in the center of the tree. These older, brown needles normally drop off during autumn.
- 2) Measure from the top of the tree to the base to determine how tall you want your tree for the space you measured previously in your home. Once you determine how tall you want the tree, remove some of the lower limbs so that the tree's trunk base will be able to fit into the tree stand water reservoir.
- 3) For trees that were harvested and cut numerous weeks prior to being sold in the stores, the base of the tree trunk is very dry. Tree sap makes a seal at the end preventing water uptake. Water is taken up by the water conducting tissues (xylem) that is located just inside of the outer tree bark edges. Leave the bark intact and do not drill holes into it.
- 4) Provide a fresh cut of approximately 1-2" to the base of the trunk. Do not cut it on an angle. This fresh cut will greatly improve water uptake by the tree once placed into the stand indoors. The fresh cut should be done within two hours before the tree is placed into the stand.

- 5) To ease transportation of your tree on the roof of your car or in the back, thoroughly tie up the tree branches with twine starting at the bottom of the tree working your way up to the top of the tree, or if the tree farm has netting, place the tree into it and it will automatically bale the tree tightly for you. Leave all the twine or netting on until you get home and have the tree in the stand.
- 6) Once home, if you cannot put the tree up indoors right away, you can store it in an unheated garage with the trunk end placed into a bucket with water.
- 7) Once inside, leave the netting or twine material on and place the cut end of the tree trunk into the tree stand. You want the base of the tree trunk flush with the bottom of the tree stand, otherwise, the tree will not be secure and can tip over. Make sure to choose a tree stand that has a deep reservoir that can hold at least one gallon of water or more.
- 8) Once in the stand and secured by the screws or clamps that hold the tree base steady, add as much water as you can to the reservoir. During the first week in your home, the tree can uptake a lot of water daily and will need further addition of tap water. Do not let the reservoir dry out. If the tree gets too dry, needles will quickly drop.
- 9) There is no need to add anything to your water in the tree stand reservoir. Research has shown the addition of bleach, sugar, molasses, syrup, honey, aspirin, soda, salt, fertilizer, or any floral or tree preservative does not improve needle retention, freshness or water uptake and is entirely unnecessary. The tree only needs the addition of fresh tap water daily. Trees with a 4" trunk diameter at the base can imbibe a gallon of water per day.
- 10) Once the tree is upright in the stand, remove the netting or twine material that was placed around the tree for transport. Turn the tree base slightly so that the fullest side is facing outward where it will be the most visual.
- 11) Keep the tree away from any heat source such as fireplaces, space heaters, wood stoves and heat vents as the tree will dry out faster; it becomes a potential fire hazard.
- 12) Decorate with lights, ornaments, garland or whatever you choose and enjoy your Christmas tree. Make sure to turn your tree lights off each night before going to bed. Do not leave a lighted tree unattended.
- 13) Lastly, I humbly suggest recycling your tree outside for the birds and animals to enjoy too. We all need shelter from the cold.

Source

Lizotte, E., J. O'Donnell and B. Cregg. 2014. Michigan Fresh: Michigan Christmas Trees. Michigan State University Extension Bulletin E3230. 3 pgs.

https://www.canr.msu.edu/resources/michigan_fresh_michigan_christmas_trees_e3230