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Selection and Care of your Christmas Tree

Selecting a Tree:

One of the joys of the yuletide season can be selecting and cutting a tree. Many Christmas tree growers in New York State are willing to let the purchaser do so himself. Also, Christmas tree growers usually have a good selection of freshly-cut trees at roadside stands. Such facilities assure you of fresh trees rather than trees that were cut some time ago and shipped long distances. "Freshness", however, relates to a tree's moisture content. With favorable storage and atmospheric conditions, a tree can still contain adequate moisture many weeks after harvest. Some growers control moisture loss from their products by applying a plastic anti-transpirant spray to the growing trees just prior to harvest.

In New York, Christmas trees can be divided into two main groups; the short-needled spruces and firs and the long-needled pines. Both are common. In general however, the ideal Christmas tree must have good needle-holding ability, attractive color, a full or bushy appearance, a conical symmetrical shape, a pleasing fragrance, branches sturdy enough to hold ornaments and gifts, and reasonable fire resistance. While spruces drop their needles readily when dry, pines do not. Thus, in the case of pines, needle retention alone cannot serve as an index of good fire resistance. Of the conifers native to New York, hemlock is unsuitable for Christmas use. The needles drop almost as soon as the tree is cut, and the branches are much too limber to hold ornaments or lights.

Be sure to select a tree that is fresh and green. To test for freshness, bend a needle and check its resilience. Bump the base of the tree hard on the ground to be sure the needles won't fall. (Some species -- spruce, for example, do not retain their needles very well. This is characteristic of the tree and does not necessarily reflect a lack of freshness.) Finally, feel the bottom of the stump to make certain it feels sappy and moist.

Care of the Tree:

Here are a few simple practices that help to maintain tree color, reduce needle fall, and keep the tree moist and fire resistant.

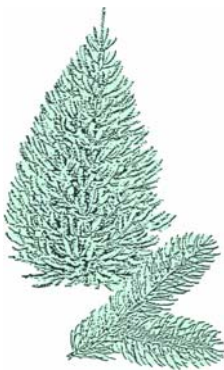
When you bring your tree home, stand it in a bucket of water outdoors or in a cool place inside. Be sure it is protected from sun and drying winds. Snow and rain will not harm the tree, but heat will cause the needles of some conifers to drop quickly.

Your experience with a natural tree will be most successful if you obtain one that is fresh (at least 80% moisture content) and set it up for storage or use so that the lost moisture can be replaced. When you bring the tree inside for decoration, make a fresh cut across the trunk at least one inch above the old cut. The smoother and cleaner the cut is, the better the tree can absorb water. Place the tree in a container of water, or in a Christmas tree stand that has a

reservoir for water. Lukewarm water is taken up more readily than cold. A tree in a warm room will absorb up to a quart of water a day. Keep the reservoir filled above the base of the tree at all times. Sterilization of the stand and tree base with boiling water before the tree is set up may also be beneficial in retarding the plugging of the tree's pores that can ultimately reduce water uptake. Christmas trees can be a fire hazard when they are allowed to dry below certain levels of contained moisture. Matches will ignite foliage with a moisture content of less than 50%. When foliage has dried to below the 20% level it will burn violently. Place your tree in the coolest part of the room away from the fireplace, radiators, air duct and TV sets, all of which can dry the needles.

Some proprietary chemicals that can be added to the water in a Christmas tree stand are now available at garden centers. These help the tree take up water and so enhance freshness and fire resistance. But Cornell research indicates the best way to reduce the fire hazard in Christmas trees is to keep the tree standing in water.

BLUE SPRUCE (*Picea pungens*): Needles are about 1 inch long, four-sided, silvery green to blue green, stout, rigid, short-pointed, and extended at right angles from nearly all sides of the twigs. The twigs are straight and dark yellow brown. Fair needle retention without water and in water. Firm branches. Fair fragrance.

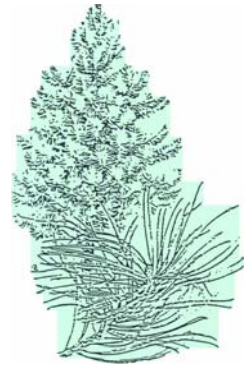


NORWAY SPRUCE (*Picea abies*): The branches are spreading, branchlets are pendulous. Needles are quadrangular, spiraled, crowded forward, acute, dark green, 1/2 to 3/4 inches long, and usually shiny. Very poor needle retention in and out of water. Firmness at branches, fair; fragrance, fair.



SCOTCH PINE (*Pinus sylvestris*): In young trees, branches are regularly whorled. Needles occur in clusters of two and are usually twisted. 1½ to 3 inches long, bluish or grayish green. Good needle retention in and out of water. Very firm branches. Fair fragrance.

AUSTRIAN PINE (*Pinus nigra*): Branches are smooth and light brown. Needles occur in clusters of two. They are 3 to 7 inches long, stiff, and dark green. Good needle retention both in and out of water. Firm branches. Fair fragrance.



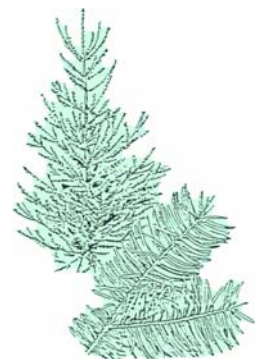
WHITE PINE (*Pinus strobus*): Its branches are dense and horizontal. Needles occur in clusters of five and are soft, slender, bluish green, 2 to 5 inches long. Good needle retention in and out of water.

RED PINE (*Pinus resinosa*): The branches are spreading and hanging. Needles are in groups of two, 5 to 7 inches long, slender, flexible, shiny, sharply pointed and dark green. Excellent needle retention both in and out of water. Very firm branches. Fair fragrance.



DOUGLAS FIR (*pseudotsuga menziesii*): It has horizontal branches with pendulous branchlets. Needles are flat short, 3/4 to 1 1/4 inch, and dark yellow green to blue green. Good needle retention both in and out of water. Firmness of branches – fair. Excellent fragrance.

BALSAM FIR (*Abies balsamea*): Its twigs grow out almost perpendicularly to the branches. Needles are usually flattened, short - 1/2 to 1 1/4 inch long - dark green, rounded and notched at the tip. (Similar to Fraser Fir *Abies fraseri*). Good needle retention both in and out of water. Firmness of branches - fair. Excellent fragrance.



Tips that will help keep your tree fresh and safe:

1. Buy the freshest tree you can. If possible, choose one that has been cut for no more than a week. A freshly cut tree is by far the safest and most attractive. For a family fun project, visit a farm where you can cut your own.

2. Remove at least an inch of the trunk with a diagonal cut. Place the tree in water and keep it watered while it is in the house.
3. Use a tree stand that holds water and is large enough to hold the tree securely.
4. Keep the tree in the coolest part of the room. If possible, keep it away from fireplaces, radiators, TV sets, and anything that would dry the needles.
5. Keep candles away from trees.
6. Check all Christmas tree lights for loose connections or bare wires before use.
7. Use fireproof decorations and light reflectors, and keep tinsel out of light sockets.
8. Avoid overloading light circuits.
9. Unplug lights when leaving the room, even for a few minutes.

Tree Diagrams and descriptions courtesy of U.S. Forest Service, U.S. Dept. of Agriculture and Northeastern Forest experiment station.

Source: Cornell Cooperative Extension of Schenectady County.
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