



Selecting and caring for a Christmas tree

For many people, the holiday season wouldn't be complete without a decorated tree in their homes. While some opt for an artificial tree, nothing compares to the look, feel and smell of a real tree.

Selecting a tree is based on more than just appearance; although buyers must decide on color, branch size and length, tree height and fullness of the crown, they should also consider needle retention and tree safety when buying and decorating a holiday tree. Tree needle retention in the home can be influenced by temperatures that the tree had been subjected to on its journey to Alaska and your home and tree dryness.

Needle Retention

The ability of a tree to retain its needles after cutting is based on environmental factors and tree species characteristics. Trees sold in Alaska typically are harvested in October in the Pacific Northwest. Field conditions around the time of harvesting will influence the tree's ability to retain its needles. Although harvested trees are usually somewhat dormant, their ability to resist cold temperature damage (accelerated needle loss due to exposure to cold temperatures below 0 degrees F) is limited by the prevailing field temperatures prior to and at the time of harvest. Delivered trees usually have not been hardened off to be able to withstand cold temperatures such as those found in late November and December in Interior Alaska. A tree taken from a showroom (delivered to Alaska unfrozen and kept above freezing) and driven in temperatures below 0 degrees will likely experience temperature-induced needle loss in the home. If at all possible, avoid transporting the tree outside, even if the tree is wrapped in plastic.

Trees that are stored outside in below 0 conditions will likely have shorter needle retention in the home compared to trees that were provided for sale in above 0 conditions, but this response will vary by species.

Tree dryness can also influence needle retention. The dryness of the trees at the time of harvesting and the amount of moisture loss the tree encounters during transport to Alaska and while being stored for sale can have dramatic impact on



needle retention. Each tree has an internal moisture stress threshold beyond which it cannot recover even if it is given an ample supply of water. Unfortunately, some trees tested in the past years on sale lots in Fairbanks have been beyond their moisture stress threshold. Dry trees can be detected by bending a needle in your finger to see if it bends or breaks. A fresh, moist tree will have pliable needles which do not break when bent. You can also test the tree by holding the stem and lightly bouncing the tree on the floor to see if any needles fall. Be wary of trees that exhibit more than 50 needles dropping in such a test.

It is important to look at different tree species when considering needle retention, as there are considerable differences between species. Noble, Frazier and balsam firs are very resistant to needle loss, even when the trees become totally dry. Grand and Douglas firs as well as Scotch and lodgepole pines are more susceptible to needle loss and are influenced by temperature and dryness. Most spruce trees are very susceptible to needle loss.

Caring for your tree

After selecting a tree and transporting it home, owners will need to make efforts to keep the tree healthy through the holiday season. Many products on the market claim to prolong tree life or prevent needle loss

when added to the water in the tree stand. Common additives include aspirin, soda, honey, floral additives and Karo syrup. Testing has show that these products have no more success than plain water.

Purchase the correct tree stand for your tree and check the water levels often. A general rule of thumb is that trees will need about one quart of water per day per inch of trunk diameter.

Before placing the tree in water, cut about 1/4 inch off the base and keep this surface in water. The wood tissues that conduct moisture to needles are located underneath the bark, but surface blemishes on the bark will not affect water intake.

The use of IV-type watering devices, holes, anti-transpirants, water additives and flame retardants are less effective in keeping trees fresh and safe than diligent watering.

Trees need to be removed once they have dried out. A dried tree is a fire hazard because it can easily ignite.

Tree safety

- Always inspect the Christmas tree's base. Make sure the "handle" (the first eight inches of trunk) of the tree is relatively straight. This part of the tree is extremely important when securing the tree in a stand. Make sure removing any limbs attached to the "handle" won't hurt the tree shape.
- When decorating Christmas trees, always use safe tree lights. (Some lights are designed only for indoor or outdoor use, but not both.) Larger tree lights should also have some type of reflector rather than a bare bulb and all lights should be listed by a testing laboratory.
- Follow the manufacturer's instructions on how to use tree lights. Any string of lights with worn, frayed or broken cords or loose bulb connections should not be used.

Tree Species and Needle Loss

Best	Noble, Frazier and balsam firs	Very resistant to needle loss
Good	Grand and Douglas firs, Scotch and lodgepole pines	More susceptible to needle loss
Poor	Spruce	Very susceptible to needle loss

- Check the strands of lights to determine the number of strands that may be connected. Connect no more than three strands of push-in bulbs and a maximum of 50 bulbs for screw-in bulbs.
- Always unplug Christmas tree lights before leaving home or going to bed.
- Make sure the tree is at least three feet away from any heat source, such as fireplaces and radiators. Try to position the tree near an outlet so that cords are not running long distances. Do not place the tree where it may block exits.
- Secure the tree with wire to keep it from tipping.
- Extension cords should be placed against the wall to avoid tripping hazards, but do not run cords under rugs.

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