

Reid -5000 - 12-8-67

# FACT SHEET

L-722

## SAFE USE OF CHRISTMAS TREES

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The live green tree is a symbol of the beauty and joy of Christmas. But a dry tree is recognized as a fire hazard by all fire protection authorities.

Most commercial Christmas trees must be cut well in advance of use. Often they are subjected to prolonged storage. This in itself may not constitute a hazard. Recent tests by the Canadian Department of Forestry and Rural Development indicated that an unheated storage period of 6½ weeks was equivalent to about 4 to 5 days of indoor drying. However, Texas imports over 3 million Christmas trees annually, and often storage may be in boxcars that undergo extremes of temperature.

Foliage of a tree that has lost 15 to 30 percent of its moisture will continue to dry out even though it is set in water. The balsam fir and white spruce trees in the Canadian indoor drying tests reached this point in about 6 days. The Scotch pine reached this point after 10 days of indoor drying. Both freshly cut trees and trees that had undergone 6½ weeks of storage under unheated shelter dried at about the same rate.

A Christmas tree with its base immersed in water will remain safe from ignition from a point source (such as a match flame) for at least 3 weeks if installed reasonably fresh. On the other hand, trees with prior outdoor storage may become flammable to matches within 3 to 8 days if brought indoors and left dry. Immersion also preserves the fresh greenness of the foliage. White spruce in particular must be immersed to prevent needle drop, unless it is cut fresh and used less than a week.

So far, no immersion additives have been found that substantially increase the effectiveness of plain water in reducing flammability. Trees tested in a 15 percent calcium chloride solution produced an unattractive foliage discoloration. Trees immersed in a sugar-iron formula and others in a solution of diammonium phosphate maintained *lower* moisture contents than trees standing in plain water, and turned brittle sooner.

None of these additives had any noticeable effect on flammability.

Some "flame retarding" compounds have appeared on the market. So far, no such compound has been tested by a nationally recognized fire-testing laboratory and found satisfactory for use on Christmas trees in the form of a spray application.

Here are some pointers that will help to assure a fire-safe Christmas in your home:

### DO

1. Buy your tree early. This will enable you to be selective in the purchase of a reasonably fresh tree. Check for signs of needle shedding and brittleness as a sign that the tree has become too dry.
2. Store the tree outdoors in the shade until ready for use. When it is brought indoors, immediately make a diagonal cut removing 1 to 2 inches of the base. Stand the tree in water and keep it in water until you discard it.
3. Keep the tree away from all sources of heat, such as fireplace or heating unit. Use a fire screen to contain flying sparks.
4. Check the water level. You may need to add as much as a pint of water daily.
5. Keep your lighting system in good order. Inspect and discard wires with frayed insulation, broken sockets and loose connections.
6. Keep the base of the tree free from combustibles.
7. Remove combustible Christmas wrappings as soon as possible. Burn them at a safe location in an incinerator or place them in a covered metal trash can.

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### DO NOT

1. String lights on a metal tree (use indirect or external lighting).

2. Use flock (artificial snow or other decorations) on the tree unless certified as flame-retardant.

3. Set lighted candles in foamed plastic or other combustible substances.

4. Use a fireplace to burn gift wrappings and other combustibles.

