

# AROMAS TRI—COUNTY FIRE PROTECTION DISTRICT

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## WATER YOUR TREE

What's a holiday party or even the traditional Christmas morning scene itself without a beautifully decorated tree? If your household, as those of more than 33 million other American homes, includes a natural tree in its festivities, take to heart the sales person's suggestion—"Keep the tree watered." That's good advice and not just to create a fragrant indoor winter wonderland atmosphere. Christmas trees account for 250 fires annually, resulting in 14 deaths, 26 injuries and more than \$13.8 million in property damage.<sup>1</sup> Typically shorts in electrical lights or open flames from candles, lighters or matches start tree fires. Well-watered trees are not a problem. Dry and neglected trees can be.

The video clip below from the Building and Fire Research Laboratory of the National Institute of Standards and Technology illustrates what happens when fire touches a dry tree. Within three seconds of ignition, the dry Scotch pine is completely ablaze. At five seconds, the fire extends up the tree and black smoke with searing gases streaks across the ceiling. Fresh air near the floor feeds the fire. The sofa, coffee table and the carpet ignite prior to any flame contact. Within 40 seconds "flashover" occurs - that's when an entire room erupts into flames, oxygen is depleted and dense, deadly toxic smoke engulfs the scene.

[http://fire.nist.gov/videtest/xmasTreeVideos/tree\\_fire.mpg](http://fire.nist.gov/videtest/xmasTreeVideos/tree_fire.mpg)

Wet trees tell a different story. For comparative purposes, the NIST fire safety engineers selected a green Scotch pine, had it cut in their presence, had an additional two inches cut from the trunk's bottom, and placed the tree in a stand with at least a 7.6 liter water capacity. The researchers maintained the Scotch pine's water on a daily basis. A single match could not ignite the tree. A second attempt in which an electric current ignited an entire matchbook failed to fire the tree. Finally they applied an open flame to the tree using a propane torch. The branches ignited briefly, but self-extinguished when the researchers removed the torch from the branches. As NIST fire safety engineers say: REMEMBER, A WET TREE IS A SAFE TREE! Watch the video by clicking the link below.

[http://fire.nist.gov/videtest/xmasTreeVideos/comparison\\_wetdry.wmv](http://fire.nist.gov/videtest/xmasTreeVideos/comparison_wetdry.wmv)

Information provided by the USFA and NIST