

Why Topping Hurts Trees

Topping is perhaps the most harmful tree pruning practice known. Yet despite its harmful effects, topping remains a common practice. Let's take a look at what is meant by topping, why topping hurt trees, and what are some better pruning alternatives.

What Is Topping?



Topping is the cutting back of tree branches to stubs or lateral branches that are not large enough to assume the terminal role. The most common reason given for topping is to reduce the size of the tree. Topping, however, is not a viable method for height reduction, and will make a tree more hazardous in the long term.

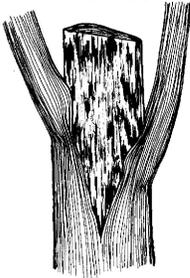
Topping Stresses Trees

Since the leaves are the “food factories” of the tree, and topping often removes 50-100% of the leaf-bearing crown of a tree, this can temporarily starve a tree. The severity of the pruning triggers a sort of survival mechanism. The tree needs to put out a new crop of leaves as soon as possible, and latent buds along the branch are activated forcing rapid growth of multiple shoots below each cut. If a tree does not have the stored energy reserves to do this, it will be seriously weakened and may die. A stressed tree is more vulnerable to insect and disease infestations. Large, open pruning wounds expose the tree to attack. The tree may lack sufficient energy to

chemically defend the wounds against invasion. Some insects are attracted to stressed trees by chemical signals.

Topping Causes Decay

Cuts made along a limb, between lateral branches, create stubs with wounds that the tree may not be able to close. The exposed wood tissues begin to decay. And few trees can defend the multiple severe wounds caused by topping.



The preferred location to make a pruning cut is just beyond the branch bark collar at the branch's point of attachment. The tree is biologically equipped to close such a wound provided the tree is healthy enough and the wound is not too large.

Topping Creates Hazards

The survival mechanism that causes a tree to produce multiple shoots below each topping cut comes at a great expense to the tree. These shoots develop from buds near the surface of the old branches. Unlike normal branches that develop in a “socket” of overlapping wood tissues, these new shoots are only anchored in the outermost layers of parent branches.

Topping is Expensive

There are hidden costs to topping. One is the reduction in property value. Healthy, well-maintained trees can add 10-20% to the value of the property. Disfigured topped trees are considered an impending expense. And with topped trees there is potential liability. Topped trees are prone to breaking and can be hazardous. Since topping is considered to be an unacceptable pruning practice, any damage caused by branch failure may lead to a finding of negligence in a court of law.



Alternatives to Topping

There are recommended techniques for reducing a tree in height or spread. If practical, branches should be removed back to their point of origin. If a branch must be shortened, it should be cut back to a lateral that is large enough to assume the terminal role. A rule of thumb for this is to cut back to a lateral that is at least 1/3 the diameter of the limb being removed. This method of branch reduction helps to preserve the natural form of the tree.

Maintaining City Street Trees

The City of Milpitas Public Works Department maintains city street trees in sidewalk tree wells, median islands and in tree planting easements in residential neighborhoods. As professional arborists, the Tree Crew determines what type of pruning is necessary to improve the health, appearance and safety of the trees in our community.

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