

## **Topping Trees Hurts**

Topping is perhaps the most harmful pruning practice known, yet despite 25 years or more of literature and seminars detailing the harmful effects, topping continues to be a common practice. Other names for topping are “heading”, “tipping”, “hat-racking”, and “rounding over”. A common reason given for topping is to reduce the size of a tree because the owner thinks it has become too large for the property. Homeowners fear that tall trees pose a hazard. Topping, rather than solving the perceived problem, can actually make a tree more hazardous in the future.

The practice of topping trees, damages them in several ways. The first is through stress. The practice often removes 50 -100 % of the tree’s leaf bearing crown. The leaves are the tree’s food factory and without them the tree starves. Severe pruning activates a survival mechanism in trees. The trees produce a rapid growth of multiple shoots below each pruning cut. The multiple shoots below each topping cut comes at great expense to the tree. These branches develop without a strong “socket” of overlapping wood tissues. They are attached in the outmost layers of the parent branches. The new shoots grow rapidly, often as much as 20 feet in one year. These shoots are very prone to breakage in wind, ice or snow conditions. The goal to make the tree safer by reducing the height is lost and the tree becomes a greater hazard than before.

Not only does topping destroy the natural form of the tree, but it makes them more vulnerable to insect and disease. Large open pruning wounds expose sapwood and heartwood to attack. The tree may lack sufficient energy to chemically defend the wounds against invasion. Some harmful insects are actually attracted to the chemical signals given off by stressed trees. Recent studies prove there is nothing that can be applied to fresh cuts that will deter insects and disease. Pruning paints will not aid in the trees recovery.

The best way to prune a branch is to cut it off just beyond the branch collar at the branch’s point of attachment. Biologically the tree is able to close the wound at that site. Cuts made along a limb or between branches create stubs that the tree cannot close. The exposed wood begins to decay. Normally the tree can “wall off” the decay but few trees can defend against the multiple wounds caused by topping. Decay organisms are able to move freely down through the branches.

The cost of topping a tree is not limited to what the perpetrator is paid. The topped tree will need pruning again within a few years. It will need to be reduced again or storm damage will have to be cleaned up. If the tree was too weak to compensate for the topping and dies, there are removal costs to consider. Topping is a high maintenance practice.

There are hidden costs to topping. First is in reduction of property value. A healthy, well maintained tree can add 10-20% to the value of a property. A disfigured tree is considered an impending expense. Second is in potential liability. Topped tree are prone to breakage and can be hazardous. Since topping is considered to be an unacceptable pruning practice, damage caused by branch failure of a topped tree may lead to a finding of negligence in a court of law.

There are times when a tree must be reduced in height or spread, for example to provide clearance for utility lines. There are recommended techniques for doing this. If practical, remove a branch to the point of origin. If a branch has to be shortened it should be cut back to a lateral branch that is large enough to assume a terminal role. The rule of thumb is that the lateral branch should be a least 1/3 the diameter of the limb being removed. This method of branch reduction helps preserve the natural shape to the tree. If large cuts are made the tree may still not be able to close over the pruning sites. Sometimes the best solution is to remove the tree and replace it with a species more appropriate for the site.

The best way to avoid topping trees is care in the selection of species. A young tree is a pretty addition to the yard but what will that same tree look like in 15 years? In 20 years? Will it completely overwhelm the yard? Will it hang over driveways and sidewalks? Will it hang over the house? A large tree will grow into overhead power lines and, if planted too close to sidewalks and drive ways and structures, can damage those as well.

Here is a closing thought on tree topping from Nebraska’s Don’t Top Trees Campaign, “Think of it as a really bad haircut that can kill you”. Contact your local Resource Conservation and Forestry office for more information on tree pruning, planting or other questions. Our web site is [www.state.sd.us/doa/forestry/index.htm](http://www.state.sd.us/doa/forestry/index.htm).



This tree is unsuitable for the site.



Multiple shoots resulting from an old topping event.



Shoots 2-3 years after severe topping.