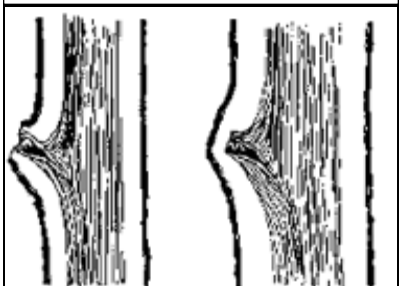
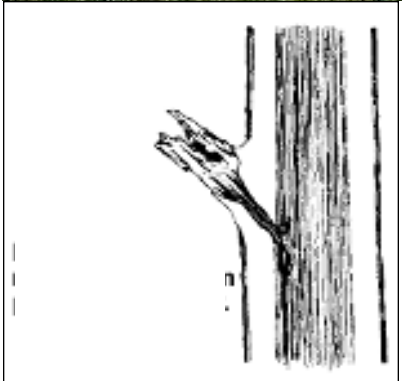
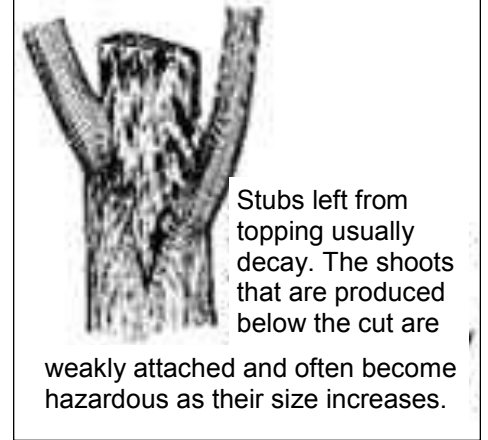


Topping Trees Creates Hazards



Topping prunes branches indiscriminately, leaving stubs or lateral branches too small to assume the terminal role. The most common reason given for topping is to reduce the size of the tree to make it “safe.” Topping, however, is not a viable method of size reduction and, in fact, makes trees more hazardous in the long term.

Leaves produce food for the tree. Topping often removes as much as 75 percent of the leaf-bearing crown of a tree. Reducing the leaf surface area cuts off food supplies, resulting in stress. A stressed tree is more vulnerable to insect and disease infestation and large open wounds characteristic of topping expose the wood to decay. Stressed trees may lack sufficient energy to chemically defend the wounds against decay pathogens. To counter this stress the tree activates latent buds, forcing the rapid growth of multiple shoots to produce more leaves as soon as possible. This response may be successful in



The tree will close a well-positioned cut as new wood is produced. Normally, it will compartmentalize and restrict decay spreading internally.

countering the initial stress, but this type of growth is structurally weak. The new shoots develop from buds near the surface of the remaining branches. Unlike normal branches that develop within a socket of overlapping wood tissues, these new shoots are anchored only in the outer layer of wood. Unfortunately, these shoots are prone to breaking in wind or under ice or snow loads. The irony is that while the goal was to reduce the tree’s height to make it safer, topping has resulted in a more hazardous situation than existed before.

Tree structure is, to a great extent, self-correcting. Wood develops in reaction to weight distribution throughout the tree, increasing strength where it is needed to counteract forces impacting roots, trunk, and branches. This is not to say that damage will not occur. But, in the absence of obvious defects, many of which can be the result of poor pruning practices leading to decay and

structural weaknesses in the tree, trees are usually better equipped naturally to withstand the forces of nature than we can make them. If a tree is in a condition that would warrant drastic crown reduction, then removal of the entire tree should be seriously considered. This is less expensive in the long term, both from the perspective of the work involved and in the increased risk of property damage and potential injury. A replacement tree can be planted, possibly one that reaches a more appropriate ultimate size for the location. Early pruning can be done to facilitate proper structural development of the new tree, avoiding problems that might develop in the future that could be more expensive and less effectively addressed later in the tree’s life.

