

# Objectives of pruning

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There are three main consequences of not conducting a regular pruning program. The consequences are **1)** development of low aggressive limbs, **2)** formation of co-dominant stems, and **3)** development of defects such as included bark and dead branches. Low limbs that are allowed to grow for some time often become large. They often over-extend or may droop under their own weight and have to be removed latter leaving a large pruning wound. Removal of large branches and those more than about half the trunk diameter is more likely to initiate decay than removal of smaller branches. Formation of co-dominant stems and defects such as included bark can lead to increased risk of failure. Pruning can help treat and avoid some of these problems.

It is important to establish the objectives for pruning before starting. Seven main objectives are described below along with pruning types that help meet those objectives. These are presented as examples and can be expanded or shortened to meet site conditions and customer expectations.

- 1) Reduce risk of failure:** Reduce risk by establishing a structural pruning program that begins at planting and carries through the first 25 years. This program should be designed to create structurally sound tree architecture that will sustain the tree for a long period. Medium-aged and mature trees can be cleaned, thinned, reduced, raised, or restored to manage risk. Some structural pruning can be conducted on these older trees as well. The choice among these pruning types depends on the tree and the situation.
- 2) Provide clearance:** Growth can be directed away from an object such as a building, security light, or power line by reducing or removing limbs on that side of the tree. Regular pruning is required to maintain the artificial clearance. Canopy reduction or pollarding helps maintain a tree smaller than it would be without pruning. Utility pruning keeps limbs clear of overhead wires and other utility structures. The crown can be raised to provide clearance by shortening low branches so those toward the middle and top of the tree are encouraged to grow.
- 3) Reduce shade and wind resistance:** A lawn, ground covers or shrubs can receive more sunlight when live foliage is removed from the canopy. Thinning, reducing and pollarding can be used to accomplish this.
- 4) Maintain health:** Maintain health by cleaning the canopy, especially in medium-aged and mature trees. Removing dead, diseased, and rubbing branches in the canopy of young trees may be a lesser priority. Root pruning can also be used to reduce the rate of spread of certain vascular diseases, such as oak wilt and Dutch elm disease.
- 5) Influence flower or fruit production:** The number and/or size of flowers or fruit can be influenced by pruning. Fruit size can be increased on certain plants such as peaches by removing some of the developing fruit or flowers. Flower cluster size can be increased on crapemrytle and some other trees by making heading cuts on many branches. Fruit production can be eliminated by removing flowers.
- 6) Improve a view:** A view can be enhanced or opened by removing live branches. This pruning can include thinning, reducing, pollarding, and raising.
- 7) Improve aesthetics:** A tree can be pruned to make its looks more appealing. Cleaning, reducing (shaping), thinning, pollarding, and restoring can be used to meet this objective.

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