

Proper pruning techniques

The reasons for promoting proper pruning techniques are based on research, study and observation of tree response to branch removal techniques.

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When observing tree pruning, it is not uncommon to see some severe examples of the craft: trees with the tips of the branches removed either to make an artificially rounded profile or to reduce encroachment over a street, walkway or building; trees which have had the inner branches of the crown removed, leaving a shell of leaves which appear only at the end of the branches; trees which have had the branches stubbed, in extreme cases leaving an amputated skeleton of a tree. In

some cases, these situations are a result of ignorance. There are actual communities where virtually every tree has been topped—and where the residents appear to believe that this is appropriate tree care. In other cases, people may have been told by a company that their tree presents a danger to their home and must be pruned to reduce the possibility of falling limbs. Older homeowners can be particularly easy targets of such tactics. Finally, some utility companies, trying to control outages, severely prune to extend the pruning cycle and control costs, so that they do not have to return soon thereafter to

again prune around the utility lines.

The effects of these kinds of detrimental activities are extensive.

► trees are more prone to decay at these incor-

rect pruning cuts, which are not placed at points where the natural defense boundaries of the tree exist;

► open crowns are exposed to increased light and heat on branches, thus increasing the occurrence of cambium dieback and decay;

► increased sprouting of branches occurs at the pruning points, often defeating the actual reason for the pruning in the first place by vigorous regrowth;

► new sprouts are weakly attached and increase



Decay resulting from improper pruning not only affects the health of the tree but also the structural strength of the branch.



Incorrect pruning has resulted in stubbed branches which opens a tree to decay organisms.



Removing the inside branches of the crown increases light and heat which can wound the tree and open it to decay.



Sprouting at the end of a stubbed branch results in weakly attached branches and increased weight at the end of the branch.

potential for breakage and damage;

- ▶ natural tree structure, which extends the weight of branches and leaves throughout the entire tree and along the entire branches, is affected;

- ▶ increased sprouting at the ends of branches places all of the weight of the leaves and new branches at a single point, increasing the potential for breakage and damage.

- ▶ removal of large portions of the tree crown reduces the leaf area available for photosynthesis, and hampers the production of carbohydrates, which weakens the tree; more stressed trees are less able to withstand poor site conditions or additional attacks from insects and disease.

Efforts have been made by the International Society of Arboriculture, the American Society of Consulting Arborists, the National Arborists Association and many state extension offices to make information available to the public regarding the appropriate methods of pruning that will bring about the desired results and limit damage to pruned trees. This information is available in many forms: press releases, reports, standards, research, web pages, pamphlets and photographs. This information does not exist because too many people have too much

time on their hands; the effects of poor pruning on trees are exhaustively documented, as are the benefits of proper pruning.

It can be stated, in a nutshell, that all pruning cuts should be made at the branch bark ridge of the branch to be removed. This technique answers virtually every reason for pruning and every concern of pruning:

- ▶ this point is where the tree is best able to compartmentalize decay and keep it from spreading throughout the tree;

- ▶ reduced sprouting should result at the pruning points so that growth can be directed away from potential conflicts;

- ▶ remaining branches are still well attached;

- ▶ the natural wood structure which extends branch and leaf weight throughout the entire tree and along the entire branch is maintained by reducing sprouting at the ends of branches and minimizing the potential for breakage and damage.

- ▶ by removing no more than 25 percent of the tree crown at any one pruning, the tree retains a significant portion of the crown and is better able to withstand additional stresses from site conditions, insect pests or diseases.

Proper pruning techniques can be used to:

- ▶ lighten the crown of a tree;

- ▶ reduce the resistance to wind and decrease breakage;

- ▶ re-direct growth away from roads, sidewalks, wires, etc. without increased sprouting and repeated pruning treatments at a point of conflict;

- ▶ reduce tree height or raise the crown of the tree while retaining a natural form and growing pattern;

- ▶ remove branches which have increased potential for breakage due to decay, disease or poor branch attachment.

The key is 'proper pruning technique'. □



The loss of this large limb would not only cause damage to any property or person below at the time of failure but would also affect the tree form and the future of the tree on-site.