

Pruning Mature Landscape Trees: How To Save \$ and Create a Safer Environment

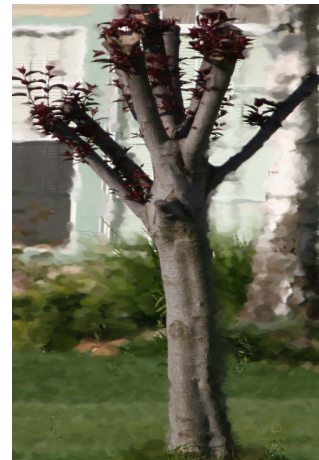
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The right tree in the right place can do more than enhance your property. It can increase the value of the home and also provide certain energy saving features. However the right tree, if pruned improperly, can be harmful. It can directly threaten your safety, the safety of your home, and consequently, the value of your property.

There are many benefits to having trees in your landscape. A cost savings benefit is reducing your home's energy needs in both summer and winter. Evergreen trees make good wind barriers and provide shade all year; deciduous trees shade the house in summer while allowing warm sunshine in during winter. Trees in full leaf improve air quality around your home by releasing oxygen and moisture. Another benefit is aesthetic-the beauty of a mature flowering tree. Why would anyone want to eliminate these benefits and devalue their property by cutting a mature tree like this flowering plum down to bare branches?



Topped flowering plum

The flowering plum tree pictured at the right has been "topped". That is, the primary scaffold limbs have been cut back to stubs, many at a uniform height. This tree will not provide shade or produce blossoms for a long time. Instead, the few remaining stumps will produce several dense, unattractive and poorly-attached upright branches called epicormic branches, or "water sprouts"

below the pruning cuts. Trees require large leaf surface areas to provide food for maintenance and growth and “topping” removes the major portion of a tree’s food-making potential and also depletes its stored reserves. Repeated removal



Deciduous trees such as flowering plum need only some thinning of main branches

of limbs and leaves starve and weaken the tree, making it more vulnerable to insect attacks and fungal decay. Invasions by these pests can spread into the trunk, killing the tree. Topping creates a hazard. Weakened stubs generally begin to die back or decay, and epicormic branches are more prone to wind and storm breakage because they are poorly attached to the trunk.

A tree’s height can be reduced while preserving its natural shape using a thinning cut called “drop-crotching”. To drop-crotch, select and cut higher branches back to laterals at least one-third the diameter of the limbs being removed. This type of thinning cut stimulates growth throughout the tree and discourages water sprout development. Cut *OUTSIDE* the branch collar at a 45 to 60 degree angle to the

branch bark ridge. Leave the collar intact to help prevent decay from entering the trunk.¹ There are chemicals in a tree’s collar that seal the wound and hasten wound closure. The practice of putting sealant on pruned limbs is not recommended as it can seal in bacteria.

Certified arborists are trained in the proper care of mature trees. They can be found in the yellow pages and will assist you in the proper care of mature trees.

¹French, Susan C. and Bonnie Lee Appleton. 2001. A guide to successful pruning, Stop topping trees! Virginia Coop. Ext., pub 430-458.

Most trees can live for a very long time so selecting a landscape tree can be one of the most important investment decisions a homeowner will make. By planting the proper tree in the allotted space, homeowners will save money in the future. Before deciding what tree to plant, consider the following questions.

- Why is the tree being planted? Is it for shade, or windbreak, or is it for fruit or flowers, or just its ornamental value? Some trees serve multiple functions and there are many to choose from.
- How much space do you have for your tree? Large trees, such as sycamore, should be at least 15 feet away from the house; small trees like Japanese maples can be as close as eight feet. When mature, is your tree going to interfere with overhead utility power lines? A typical reason why trees are being topped in our area is because tree branches are touching overhead wires. Before buying a tree, find out how tall and wide it will be at maturity.
- Topping won't keep trees small. In fact, after a deciduous tree is topped its growth rate increases. Within a few years, it'll be back to the height where it was topped, but with weakly attached limbs and an unnatural form. You can't 'stop' a tree by topping, as it will grow to the height its genes have programmed it to grow.
- The birch tree (right) has been topped. It will no longer have the graceful look that we love birch trees for, and the wounded area is more vulnerable to attack by birch borers.



Central leader trees like these birch, or evergreen conifers like pines, need only deadwood removal.

- Correcting topping is costly and takes years. A certified professional arborist can improve the conditions of a tree even if it has been severely topped and has heavy water sprout re-growth. As the water sprouts begin to gain caliper, they can be selectively 'thinned out' using properly placed branch collar cuts. New growth can be directed outward to expand and round out the crown. This process will need repeating for a few years and will be quite costly. ¹The alternative is to remove the tree and start again with careful selection and training of a young tree.



A topped evergreen
Magnolia



Evergreen broadleaf trees
such as this Southern
Magnolia tree need only
deadwood removed

¹French, Susan C. and Bonnie Lee Appleton. 2001. A Guide to Successful Pruning, Stop Topping Trees! Virginia Coop. Ext., pub 430-458.

For more pruning information, consult the ANR UCCE Master Gardener Tree Cards: Tree Pruning, Tree Selection, Tree Planting, Tree Staking, Trees and Utilities, Tree Pest and Disease.