INFORMATION & RESOURCES

Emerald Ash Borer

www.emeraldashborer.nj.gov

New State Law for Tree Services

" Tree Experts & Tree Care Operators Lic. Act"

* a consumer protection act

* tree operations safety act

For a list of licensed & registered tree companies :

N.J. Board of Tree Experts
www.njtreeexperts.org
(732) 534-0982

Note: non lic. landscape firms can only perform ground based trimming of small trees & shrubbery

Jeff Cramer
Tree Expert for South Brunswick Twp.
jeffctree@comcast.net
(C) (609) 955-0800
OR
SB Township: SBTrees@sbtnj.net
(732) 329-4000 X 7278

Homeowners: Don't Get Hurt!

Leave Tree Work to the Professionals

Laurence Rice, First Look Media

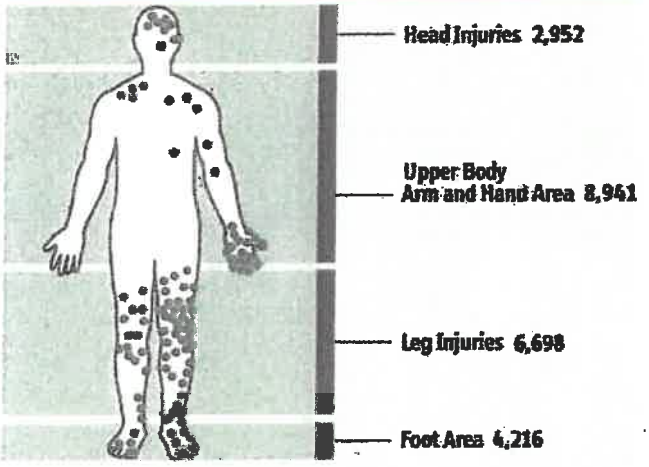
Serious injuries can occur during tree work. Especially dangerous are working with/near:

- ✓ Power lines
- ✓ Chainsaws
- ✓ Wood chippers
- ✓ Dead and diseased trees
- ✓ Storm-downed or damaged trees

Why Be Concerned?

- Seasonal storms are becoming more frequent leaving trees and branches damaged and downed by ice or high winds
- Diseased trees, particularly ash trees infested with the Emerald Ash Borer (EAB), can pose a safety risk since affected branches break very easily
- Post-storm cleanup and property maintenance can lead to injuries even from commonly used equipment like chainsaws (see graph below)

Avg. No. of Chainsaw Injuries Per Year, U.S., 2009-2013



Graphic: Adapted from U.S. Product Safety Commission; Data: http://bit.ly/2Fdtreh

EAB-damaged Ash Tree

Learn about EAB at http://bit.ly/2GX98nG

Why Hire a Licensed Tree Care Professional?

- They are trained to conduct tree work safely
- They know what to do in hazardous situations
- They handle and maintain equipment correctly

Find a New Jersey Licensed Tree Care Expert or Business in your County. Check before you hire to make sure that the business or individual is in compliance with the law.

Go to the NJ Board of Tree Experts website at: http://njtreeexperts.org

Division of Epidemiology, Environmental and Occupational Health
Consumer, Environmental and Occupational Health Service
Environmental and Occupational Health Surveillance Program
https://www.nj.gov/health/ceohs/documents/treework_homeowners.pdf

NJ Pest Alert

Emerald Ash Borer

Agrilus planipennis

The exotic emerald ash borer (EAB) has been killing ash trees across North America. Native to China, eastern Russia, Japan, and Korea, it was first discovered near Detroit in 2002 and has since spread to 30 states, including New Jersey.

Damage

This metallic green insect infests and kills ash trees—all ash species are susceptible, with the exception of mountain ash. EAB larvae feed on the inner bark and disrupt the movement of water and nutrients, essentially girdling the tree. This insect often infests the upper branches of the tree first and may affect branches as small as 1" in diameter. It takes 2-4 years for infested trees to die, but mortality is imminent.

Images by David Cappaert

Adult beetle

D-shaped exit hole

Larva

Woodpecker damage on an EAB infested tree

Signs and symptoms

Often the first sign that a tree is infested is woodpecker damage. When feeding on EAB, woodpeckers scrape off outer bark, leaving smooth, light colored patches. Under the bark of an infested tree, you can often see S-shaped galleries weaving back and forth on the surface of the wood. The beetles also leave 1/8" D-shaped exit holes. Between May and August, you may find the ½" long metallic green adult beetles which have a copper color abdomen under the wing covers.

Emerald Ash Borer in New Jersey

Since its discovery in North America, EAB has spread rapidly. It occurs in 30 states and 2 Canadian provinces. It was first discovered in NJ in 2014. The greatest impact will be for community trees and privately owned trees.

The beetles are strong fliers, and good at finding ash trees. When the beetle first arrived in Maryland, the infested area expanded about ½ mile per year.

Often people unintentionally spread this insect when they move firewood from an infested area to a new location. Beetles and larvae also hitchhike to a new area in nursery trees and saw logs.

Over the next few years, 99% of NJ ash trees will die due to emerald ash borer infestations

Ash in New Jersey Facts

- Forests contain 24.7 million ash trees
- 24% of all forested land contains ash
- Ash is found in forests throughout the state, but concentrated in northern New Jersey
- Ash has been commonly planted as a street and landscape tree throughout the state

Why Topping Hurts Trees

Learn why topping is not an acceptable pruning technique and discover recommended alternatives.

Topping is perhaps the most harmful tree pruning practice known. Yet, despite more than 25 years of literature and seminars explaining its harmful effects, topping remains a common practice.

What is Topping?

Topping is the indiscriminate cutting of tree branches to stubs or to lateral branches that are not large enough to assume the terminal role. Other names for topping include "heading," "tipping," "hat-racking," and "rounding over."

Topping is often used to reduce the size of a tree. A homeowner may feel that a tree has become too large for his or her property, or that tall trees may pose an unacceptable risk. Topping, however, is not a viable method of height reduction and certainly does not reduce future risk. In fact, topping will increase risk in the long term.

Topping Stresses Trees

Topping can remove 50 to 100 percent of a tree's leaf-bearing crown. Leaves are the food factories of a tree. Removing them can temporarily starve a tree and trigger various survival mechanisms. Dormant buds are activated, forcing the rapid growth of multiple shoots below each cut. The tree needs to put out a new crop of leaves as soon as possible. If a tree does not have the stored energy reserves to do so, it will be seriously weakened and may die.

A stressed tree with large, open pruning wounds is more vulnerable to insect and disease infestations. The tree may lack sufficient energy to chemically defend the wounds against invasion, and some insects are actually attracted to the chemical signals trees release.

Topping Leads to Decay

Correct pruning cuts are made just beyond the branch collar at the point of attachment. The tree is biologically equipped to close such a wound, provided the tree is healthy enough and the wound is not too large. Cuts made along a limb between lateral branches create stubs with wounds that the tree may not be able to close. The exposed wood tissues begin to decay. Normally, a tree will "wall off," or compartmentalize, the decaying tissues, but few trees can defend the multiple severe wounds caused by topping. The decay organisms are given a free path to move down through the branches.

Topping Can Lead to Sunburn

Branches within a tree's crown produce thousands of leaves to absorb sunlight. When the leaves are removed, the remaining branches and trunk are suddenly exposed to high levels of light and heat. The result may be sunburn of the tissues beneath the bark, which can lead to cankers, bark splitting, and death of some branches.

Topping Can Lead to Unacceptable Risk

The survival mechanism that causes a tree to produce multiple shoots below each topping cut comes at great expense to the tree. These shoots develop from buds near the surface of the old branches. Unlike normal branches that develop in a socket of overlapping wood tissues, these new shoots are anchored only in the outermost layers of the parent branches and are weakly attached.

The new shoots grow quickly, as much as 20 feet (6 m)in one year in some species. Unfortunately, the shoots are prone to breaking, especially during windy or icy conditions. While the original goal was to reduce risk by reducing height, risk of limb failure has now increased.

Topping Makes Trees Ugly

The natural branching structure of a tree is a biological wonder. Trees form a variety of shapes and growth habits, all with the same goal of presenting their leaves to the sun. Topping removes the ends of the branches, often leaving ugly stubs. Topping destroys the natural form of a tree. Without leaves (for up to six months of the year in temperate climates), a topped tree appears disfigured and mutilated. With leaves, it is a dense ball of foliage, lacking its simple grace. A tree that has been topped can never fully regain its natural form.

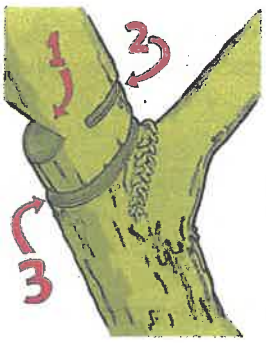
Topping Is Expensive

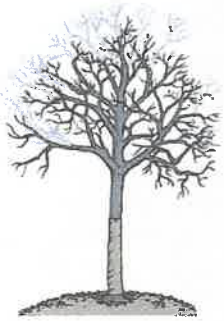
The cost of topping a tree is not limited to only the job cost. Some hidden costs of topping include:

- Increased maintenance costs. If the tree survives, it will likely require corrective pruning within a few years (e.g., crown reduction or storm damage repair). If the tree dies, it will have to be removed.
- Reduced property value. Healthy, well-maintained trees can add 10 to 20 percent to the value of a property. Disfigured, topped trees are considered an impending expense.
- Increased liability potential. Topped trees may pose an unacceptable level of risk. Because topping is considered an unacceptable pruning practice, any damage caused by branch failure of a topped tree may lead to a finding of negligence in a court of law.

Alternatives to Topping

Sometimes a tree must be reduced in height or spread, such as for providing utility line clearance. There are recommended techniques for doing so. Small branches should be removed back to their point of origin. If a larger limb must be shortened, it should be pruned back to a lateral branch that is large enough (at least one-third the diameter of the limb being removed) to assume the terminal role. This method of branch reduction helps to preserve the natural form of the tree. However, if large cuts are involved, the tree may not be able to close over and compartmentalize the wounds. Sometimes the best solution is to remove the tree and replace it with a species that is more appropriate for the site.





Proper branch reduction preserves natural form.

This brochure is one in a series published by the International Society of Arboriculture as part of its Consumer Information Program. You may have additional interest in the following titles currently in the series:

- Avoiding Tree and Utility Conflicts
- Avoiding Tree Damage During Construction
- Benefits of Trees
- Buying High-Quality Trees
- Insect and Disease Problems
- Mature Tree Care
- New Tree Planting
- Plant Health Care
- Proper Mulching Techniques
- Palms
- Pruning Mature Trees
- Pruning Young Trees
- Recognizing Tree Risk
- Treatment of Trees Damaged by Construction
- Tree Selection and Placement
- Trees and Turf
- Tree Values
- Why Hire an Arborist
- Why Topping Hurts Trees

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Developed by the International Society of Arboriculture (ISA), a non-profit organization supporting tree care research around the world and dedicated to the care and preservation of shade and ornamental trees. For further information, contact: ISA, P.O. Box 3129, Champaign, IL 61826-3129, USA.

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