

DOES MONEY GROW ON TREES?

Time spent amongst trees is never wasted time.

-Katrina Mayer

[The Tree Committee of Churchill is an official ad hoc committee of Churchill Borough Council's Zoning Committee. It was formed at the request of concerned and dedicated residents who wanted to act to preserve the beautiful trees throughout our borough. The Committee has had two productive meetings, and as a result of their discussions and research, they have written an informative report, "Does Money Grow on Trees?" for the benefit of our citizens.]

Trees give us the necessities of life itself: clean air and clean drinking water. Can you put a price tag on these benefits? Yes, if you sell timber for making paper and other products or for giving us food and medicine. Yes, if you consider the financial sum of environmental and aesthetic benefits. However, when you add up all the benefits that trees provide, the price becomes incalculable. Trees are one of the greatest resources on earth.

Take a drive through Churchill and one of the first things you will notice is the abundance of trees. These trees are an important contributor to our community image, inspiring a sense of beauty and a welcoming atmosphere for both residents and visitors alike. If you ask borough residents why they chose to live in Churchill, many of them will say it was the trees that influenced their decision. It is important to preserve this strong tie between people and trees in our community to enhance our own quality of life and to continue projecting an image of Churchill as being a desirable place to live.

In recent years, numerous trees in our community have been cut down for various reasons. Removing a tree on your property affects not only you, but also your neighbors and the beauty of the entire community. Obviously, if a tree is decayed, diseased, or poses a safety hazard, it is prudent to remove the tree. However, before removing a tree just for personal preference or to make yard maintenance easier, consider the benefits that trees provide and consider the consequences to your neighbors and community. Consider your neighbor's privacy, view, and especially, stormwater run-off. Tree removal disrupts the absorption of rain water and alters the flow of storm water run-off. Several homes in our borough have flooded for the first time in recent years, some of which can be traced to tree removal on nearby properties. Removing a tree that is a little inconvenient to you could result in a lot of inconvenience for your neighbors. If it does become necessary to remove a tree on your property, consider planting another tree in its place to preserve the balance of the ecosystem and the beauty of our community.

Benefits of Trees

Personal / Social Benefits

1. Mental health – trees have a calming effect, thus reducing stress levels which in turn reduces blood pressure.
2. Physical health – trees encourage people to go to parks to walk, jog, or bike which helps reduce obesity.
3. Promote healing – studies have shown that people who are exposed to trees during the healing process heal faster than those who are not.
4. Shield ultra-violet rays – trees help protect from skin cancer by reducing UV-B exposure by about 50%
5. Provide food for humans – fruit trees can yield up to 15-20 bushels per year.

Community Benefits

1. Increase property values – a mature tree can have an appraised value of between \$1,000 and \$10,000 – *Council of Tree and Landscape Appraisers*; healthy, mature trees add an average of 10% to a property's value – *USDA Forest Service*
2. Serve several property functions – trees provide privacy, emphasize or obscure views, act as a barrier to noise, perform as a windbreak, become a sun blocking canopy, and complement or enhance architecture
3. Enhance community economic stability – wooded settings attract new business, retail areas are more attractive to shoppers, and apartments rent more quickly – *the Arbor Day Foundation*
4. Reduce crime - researchers attribute this to people being outside more and aware of what is going on in their community.
5. Promote community pride – trees make communities more livable by encouraging outdoor activities and interaction with neighbors.

Environmental Benefits

1. Provide oxygen – trees are referred to as the “lungs of the planet” because they provide oxygen to all living things; one acre of forest puts out four tons of oxygen –*U.S. Dept of Agriculture*
2. Sequester carbon dioxide – trees reduce the “greenhouse effect” process of putting heat trapping carbon dioxide into the atmosphere by absorbing and storing as much as 48 pounds of carbon dioxide per year per tree; one acre of forest absorbs six tons of carbon dioxide from the air – *U.S. Dept of Agriculture*
3. Clean the water – trees are a natural filtration mechanism helping to purify the water we drink
4. Flood control – trees are an integral part of storm water management by storing rainwater; a mature tree can absorb as much as 100 gallons of water; root systems help to prevent landslides on slopes and hillsides
5. Provide cooling effect – trees act as a natural air conditioner with a single young, healthy tree producing the cooling effect of 10 room size air conditioners operating 20 hours a day – *U.S. Dept of Agriculture*
6. Promote wildlife diversity – trees provide food and habitat for birds, beneficial insects, and other wildlife

Planting New Trees

Before planting a new tree, do some research to determine the best type of tree for your landscape. Some things to consider are the climactic area (Zone 5-6), soil composition (many nurseries provide soil testing kits), size of mature tree, deciduous vs. evergreen, flowering vs. non-flowering, and desired functionality in your landscape. Local nurseries and websites can offer information, suggestions, and tips for maintenance and care.

How to Care for Trees

In spring, inspect your trees for winter storm damage by checking branches, leaves, roots, and trunks. Look for broken or dangling branches. Branches that are missing bark or growing fungus can be a sign of decaying

wood. Trees should leaf out evenly with healthy looking foliage. Large roots with fungus or mushroom growth can indicate decay. Trunk cavities can also indicate decay and/or weakness.

Mature trees grow more slowly than young trees but still need regular attention. If older trees are damaged or pruned extensively, they are more susceptible to disease. If exposed to drought or poor soil conditions, the tree's health will slowly decline. The tree may be stressed for a long period of time before symptoms of decline appear. Watch for foliage changes as well as leaf and/or branch drop which possibly could indicate a need for special care or treatment.

Water – most important for tree health and especially important for newly planted trees - trees need approximately 1.5 inches of rainfall per week; during droughts you can turn a hose on low for about 30 minutes at the base of the tree

Fertilize – feed in the spring when buds are just opening (April – May) with an all-purpose fertilizer

Mulch – mulch each season using 3-3-3 rule: 3 inches of mulch in a 3-foot ring with a 3-inch space around the base of the tree; shredded bark or compost is best; avoid mulching in the shape of a volcano

Protect – keep weed whackers and lawn mowers away from tree and roots; place a protective netting around young trees to protect from wildlife

Pruning – trees should be pruned regularly to keep them healthy; remove dead or diseased wood and remove excess weight from ends of branches; cut to a bud, lateral branch, or main trunk; the best time to prune is November through March; flowering trees should be pruned right after flowering. Prune tree branches that touch your house to prevent insect infestation. Prune tree branches that overhang your roof to prevent a personal and structural safety liability.

Note: Oak trees should never be pruned during the summer months due to the possibility of oak wilt, a devastating disease that kills the infected tree and spreads through the root system to neighboring trees.

Avoid “topping” the tree – this destroys the tree's natural structure, starves the tree by removing a large percentage of food-producing leaves, and creates openings for disease. This practice usually initiates the tree's eventual demise.

Removal – sometimes it is necessary to remove a tree due to disease, decay, or safety issues; if removal is necessary, it is advantageous to replace it with another tree

Before removing a tree, or altering your landscape in any manner, consider the effect it will have on your neighbors. Will it enhance or destroy a view? Will it add or destroy a windbreak? Will it provide or remove shade? Will it change the flow of stormwater runoff? If necessary, discuss the potential landscape alterations with your neighbors to avoid any conflicts.

Insects and Diseases

There are a few insects and diseases that have caused defoliation and mortality during recent years in our area. Proper care and maintenance of trees helps to prevent the possibility of damaging infestation. As trees age or are stressed, they become less able to fight off pathogens, leading to declining health or mortality.

Local nurseries and tree services can provide information, prevention advice, and treatment for infestation. The following insects and diseases are a current threat to trees in our area:

Emerald Ash Borer – a beetle native to northeastern Asia that attacks ash species. Females lay eggs in bark crevices. The larva feed underneath the bark and emerge as adults in 1-2 years. This invasive species is highly destructive to ash trees.

Gypsy Moth – the caterpillar feeds on tree foliage, possible defoliating the entire tree. Several successive defoliations usually result in tree mortality. In our area, oak trees are the favored species. Several years ago, a gypsy moth outbreak threatened our borough oak trees, but diligent preventive action by our residents thwarted any major damage to the trees.

Hemlock Woolly Adelgid - the insect causes damage to hemlock species by sucking the sap from the trees. Prolonged infestation can be fatal.

Beech Bark Disease – the insect causes defects and mortality in the tree by causing cankers to form on the bark. Continuous formation of these lesions results in canopy death.

Oak Wilt – a devastating fungal disease resulting in leaf discoloration, wilt, defoliation, and death. The disease spreads by insects or connections through tree roots. Preventive treatments are available, however; an infected tree usually must be removed to prevent spread of the disease to neighboring trees through the root system. This disease has already resulted in the demise of trees in our borough and remains a real threat to all remaining oak trees. One infected tree on your property can cause your neighbors significant expenses for preventive treatment.

Resources

Many resources are available to residents to provide guidance and information concerning the trees in our yards and in the borough. In addition to the internet, local nurseries and duly licensed and bonded tree service companies can provide information and/or advice for your concerns. Taking advantage of these resources will ensure that our borough retains its beauty and retains its image as a desirable community to live in for years to come.

Two informational pamphlets published by the Churchill Area Environmental Council are available through the borough office (412-241-7113).

1. Proper Trees for Small Properties
2. Trees and Shrubs for Your Yard

Website Resources

www.arborday.org

www.canopy.org/tree-info/caring-for-trees/mature-trees/

www.caseytrees.org/resources-list/how-to-care-for-trees/

www.treesaregood.org

www.treepittsburgh.org