https://www.arborday.org/trees/index-

benefits.cfm?utm\_source=Arborday.org&utm\_medium=Top\_Menu&utm\_campaign=Dropdown\_Menu &utm\_term=Trees&utm\_content=Tree\_Benefits



Climate change is the biggest challenge facing the health of our planet. And while it will take many solutions working together to make a difference, trees are the proven, affordable, natural way that can be implemented quickly to pull carbon dioxide out of the atmosphere today. Every tree planted is a step in the right direction.

#### PLANT TREES NOW



## TREES AND COMMUNITIES

Trees play a critical role in creating healthier, safer, and more connected communities. They clean our air, filter our water, and even slow storm surge and flooding in our cities. Trees also provide shade and cool our cities by up to 10 degrees, which can help prevent heat-related deaths in urban areas.

Even as social and economic issues fracture our society, trees continue to connect communities, cultures, and generations. Neighborhood trees have shown the ability to reduce stress, improve overall health and development in children, and encourage physical activity. And a healthy communitywide tree canopy fosters <u>economic advantages</u> as well as an increase in civic pride among residents.



## TREES AND BIODIVERSITY

Healthy forests, whether in natural or urban spaces, are key to the health of some of the most biodiverse ecosystems in the world. Trees support wildlife and aquatic life by providing habitat and helping to keep waterways healthy. This ensures that ecosystem balance can be maintained and biodiversity can thrive.

Forests rich in biodiversity benefit the human population, too. Trees and other forest life work together to ensure a clean source of drinking water, buffer against extreme weather, provide medicines, offer outdoor recreation, and enrich human culture



**TREE FACTS** 



**OUR MISSION AT WORK** 



TAKE ACTION

## **Benefits of Urban Trees**

# Urban trees are a critical asset to cities. (excerpt from an article published in Boston)

Trees reduce energy usage, remove air pollutants, filter storm water, and cool hot city streets by providing shade and releasing water vapor.



The mental and physical benefits of trees for residents are numerous. A growing body of evidence links exposure to trees with reduced rates of mortality, cardiovascular disease, stress, and depression. Living in greener areas is associated with higher levels of happiness, cognitive development, and learning outcomes. These benefits are related to a decrease in exposure to air pollution, noise, and heat, increased contact with nature, and strengthened social cohesion.

## **Further Reading**

#### American Forests: Tree Equity in America's Cities

Use this resource to learn more about Tree Equity is why it is so important to create in all cities, including Boston.

#### Washington Post Article: <u>Deadly air pollutant 'disproportionately and</u> systematically' harms Americans of color, study finds

Read this article to learn more about a recently published study on environmental racism with regards to people of color being exposed to higher levels of air pollution than average. (Read the full scientific article here: <u>PM2.5 polluters disproportionately and systemically affect people of color in the United States</u>)

#### The tree cover and temperature disparity in US urbanized areas: Quantifying the association with income across 5,723 communities

Learn more about the relationship between income and temperature in cities across the United States in this recently published study.

#### **Urban Trees and Human Health: A Scoping Review**

Use this literature review to learn more about how tree cover is associated with improved human health in multiple capacities, especially with proper tree selection.

## Environmental justice and tree equity in the City of Boston



Fruit tree giveaway event. Photo: SFTTB

Beginning in the 1930s, redlining divided urban areas by socioeconomic class, resulting today in the unequal distribution of tree canopy in Boston. These red lines have resulted in natural "green lines" today. For example, while neighborhoods such as East Boston have less than 10% canopy coverage, the coverage in Jamaica Plain and West Roxbury nears 50%. Knowing the benefits of trees, it's no surprise that communities lacking them face hotter summers, poorer air quality, and less livable neighborhoods. Learn more about the distribution of trees and its relationship to people and environment at our <u>Tree Equity map</u>.

### **Further Resources**

To learn more about the benefits of urban trees, we've collected our favorite resources below.

#### Vibrant City Labs

Vibrant Cities Lab houses various resources about urban forestry and the benefits urban trees provide. You can access case studies, research articles, and different guides to name a few of the resources.

#### Boston Public Library's "LibGuide": <u>Exploring Trees and Equity in Boston</u> through Literature

Learn about tree and nature equity in Boston and trees in literature and art. Developed in partnership with Speak for the Trees.

#### Arbor Day Foundation: Benefits of Trees

Learn more about the various benefits of trees in urban environments, such as fighting climate change and saving energy.

## Planting Trees Can Increase Your Home's Value by Thousands

In this case, money really does grow on trees!

#### BY <u>ARRICCA ELIN SANSONE</u> PUBLISHED: SEP 25, 2023

Whether you have a small suburban lot or a big, rambling yard, a <u>big, shady tree</u> offers an indefinable attraction and beauty. "There's no question that mature, well-placed trees hold an allure most people cannot deny," says landscape designer Kat Aul Cervoni, founder of <u>Staghorn</u> <u>NYC</u> landscaping firm and <u>The Cultivation by Kat</u>, an online gardening resource. "Aesthetically, they give a property depth and dimension that varies throughout the season. And <u>flowering</u> <u>trees</u> can take center stage and be a show-stopping part of your landscape."

In fact, many builders now incorporate both new and mature trees as part of their overall plan. "We're seeing a shift toward master planned communities with an emphasis on nature," says Christopher Janson, principal and architect at <u>LRK</u> architecture firm. "There's a transition toward nature being thought of as an amenity. For example, instead of offering fitness centers, communities are marketing their connections to an outdoor trail system. We're seeing a more holistic approach as people have become aware of the need to engage with nature."

It's impossible to quantify all the benefits a tree can offer—and how much trees raise the value of a property. But that hasn't stopped people from trying! Several recent studies show that large, mature trees add significant value to a property—to the tune of thousands of dollars. Not to mention all the enjoyment they give homeowners who live on site. Read on to learn everything you need to know about choosing the right trees to add value to your home.

## How Much Value Do Trees Add to Your Property?

A <u>recent study</u> by the University of Nebraska evaluated the economic and quality-of-life benefits trees provide. "It found that well-tended trees may impact the selling price of a home, as well as the number of days it remains on the market," says Pete Smith, urban forest program manager and arborist at the <u>Arbor Day Foundation</u>.

#### Advertisement - Continue Reading Below

Although it's difficult to pin down a specific dollar figure nationwide, yard trees in good condition may add 10 to 20 percent to the value of your home. One study in Portland, Oregon found that trees near a home added an average of <u>\$8,870</u> to sale prices, and reduced the amount of time a home spent on the market.

Other benefits large trees offer that are harder to put a dollar figure on include maintaining property values overall in neighborhoods, providing windbreaks and shade, protecting against erosion, and absorbing stormwater runoff and the traffic noise. These are all good reasons to save and plant trees in your yard, says Smith.

If your property does not have trees, planting a tree can yield big returns in the long-run. "In terms of landscaping, it may be the single biggest improvement you can make because it has the longest lifespan," says Smith. "There's also the experience of watching it grow and the emotional connection with trees, not just the financial benefits."

If you're building new, it's worth discussing whether or not any existing trees are good candidates to preserve on your building site, says Janson. This may require consultation with a <u>certified</u> <u>arborist</u>, but it's certainly worth bringing up before any mature trees are removed from the site.



A homeowner's guide to planning for, assessing, and reducing possible financial losses on trees, specimen shrubs, and evergreens.

#### What Are Your Trees Worth?

Almost everyone understands that trees and other living plants are valuable. They beautify our surroundings, purify our air, manufacture precious oxygen, act as sound barriers, and help us save energy through their cooling shade in summer and their wind reduction in winter.

Many people don't realize, however, that plants have a dollar value of their own that can be measured by competent plant appraisers. If your trees or shrubs are damaged or destroyed, you may be able to recapture your loss through an insurance claim or as a deduction from your federal income tax.

#### Practical Advice

Here is some practical advice that may help you find out what your trees and plants are worth — a process known as valuation.

#### Planning for Highest Value

A professional in the tree, nursery, or landscape industry can help you plan, develop, install, and care for all of your trees and plants so that each of them will be worth more to you.

#### How Your Trees and Shrubs Are Valuated

Seek the advice of professionals in this industry who have developed a set of guidelines for valuation. Such guidelines have been widely adopted in the field and are recognized by insurance companies, the courts, and in some cases, the Internal Revenue Service (IRS).

There are several valuation methods that can be used for tree appraisal. The most appropriate method will vary based on the situation and type of loss. Using an inappropriate method can result in an appraised value that does not make logical sense and will not be accepted. This is why seeking advice from an experienced appraiser is very important.

#### What to Do if You Suffer Loss or Damage to Your Landscape Plants

A casualty loss is defined by the IRS as "... a loss resulting from an identifiable event of sudden, unexpected, or unusual nature." This definition applies to loss resulting from events, such as vehicular accidents, storms, floods, lightning, vandalism, or even air and soil pollution.

If you suffer damage to trees or landscaping, first consult your homeowner's insurance policy to determine the amount and type of coverage you have. Contact the insurance company to have an appraisal made by a competent tree and landscape professional who is experienced in plant appraisal. Have the appraisal made as soon as possible after your loss or damage.

The tree and landscape appraiser accomplishes many things for you. The professional can see things you might miss, help correct damage, and prescribe remedies you may be able to do yourself. The appraiser will establish the amount of your loss in financial terms, including the cost of removing debris and making repairs and replacements. All of these steps are wise investments and well worth the cost you may incur for the inspection.

#### Four Potential Factors in Professional Valuation of Trees and Other Plants

- 1) Size. Sometimes the size and age of a tree are such that it cannot be replaced. Trees that are too large to be replaced should be assessed by professionals who use a specialized appraisal formula.
- 2) Species or classification. Trees that are hardy, durable, highly adaptable, and free from objectionable characteristics are most valuable. They require less maintenance; they have sturdy, well-shaped branches, and pleasing foliage. Tree values vary according to your region, the "hardiness" zone, and even local conditions. If you are not familiar with these variables, be sure your advice comes from a competent source.







- 3) Condition. The professional will also consider the condition of the plant. Obviously, a healthy, well-maintained plant has a higher value. Roots, trunk, branches, and buds need to be inspected.
- 4) Location. Functional considerations are important. A tree in your yard may be worth more than one growing in the woods. A tree standing alone often has a higher value than one in a group. A tree near your house or one that is a focal point in your landscape tends to have greater value. The site, placement, and contribution of a tree to the overall landscape help determine the overall value of the plant attributable to location.

All of these factors may be measurable in dollars and cents. They can determine the value of a tree, specimen shrubs, or evergreens, whether for insurance purposes, court testimony in lawsuits, or tax deductions.

#### Checklist

These steps should be taken before and after any casualty loss to your trees and landscape. Taking them can improve the value of your investment in nature's green, growing gifts and prevent financial loss should they be damaged or destroyed.

- Plan your landscaping for both beauty and functional value.
- · Protect and preserve to maintain value.
- Take pictures of trees and other landscape plants now while they are healthy and vigorous. Pictures make "before and after" comparisons easier and expedite the processing of insurance claims or deductions for losses on federal tax forms.
- Check your insurance. In most cases, the amount of an allowable claim for any one tree or shrub is a maximum of \$500 USD.
- · For insurance, legal, and income tax purposes, keep accurate records of your landscape and real estate appraisals on any losses.
- Consult your local Plant Health Care professional at every stage in the life cycle of your landscape (planning, planting, care), and to make sure you do not suffer needless financial loss when a casualty strikes.

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 is 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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**Contact:** Press Office (202) 205-1134

# USDA Forest Service research helps quantify the value of trees in communities across the nation

**WASHINGTON, November 29, 2010** -- New research from the U.S. Forest Service demonstrates that among their many benefits, trees increase home prices, improve air quality, reduce household energy use and the effects of climate change.

"Trees in urban areas beautify neighborhoods and provide great economic benefits," said Forest Service Chief Tom Tidwell. "Aside from enhancing neighborhood aesthetics they filter the air, reduce storm runoff and absorb carbon dioxide."

Reports issued by the Forest Service Northern and Pacific Northwest Research Stations focused on specific cities - Chicago, Portland and Sacramento. The studies detailed the following findings:

- Chicago's 3.6 million trees annually reduce air pollution by about 890 tons, a \$6.4 million benefit per year.
- In Sacramento, trees planted on the south and west sides of houses reduced summertime electricity bills by an average of \$25.16.
- In Portland the study found that street trees growing in front of or near a house added an average \$8,870 to its sale price and reduced time on the market by nearly two days.

These economic benefits spilled over to neighboring properties as well. For instance, a neighborhood tree growing along the public right-of-way added an average of \$12,828 to the combined value of all houses within 100 feet.

Nationally, benefits from the estimated 3.8 billion urban trees are significant. These trees are estimated to have a structural value of over \$2 trillion, and store carbon valued at over \$14 billion. Urban trees also annually remove air pollution valued at \$4 billion and remove carbon dioxide, a dominant greenhouse gas, valued at around \$460 million per year.

For more information go to Urban Forest Data website: <u>www.nrs.fs.fed.us/data/urban/</u> or Science Findings, issue 125, September, 2010.

The Forest Service developed software tool that produced the Chicago results, called i-Tree (<u>www.itreetools.org</u>) is applicable to any community's trees. To date, over 6,000 copies of this software have been distributed in more than 80 countries.

The mission of the <u>USDA Forest Service</u> is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations. The agency manages 193 million acres of public land, provides assistance to State and private landowners, and maintains the largest forestry research organization in the world.