

# About Vincent Verweij

Vincent Verweij has been an urban forester with the Department of Parks and Recreation for three years. He has experience in topics beyond urban forestry, with geographic information systems (GIS), stormwater, flood management and engineering. His current work with Arlington ranges from tree inspections to plan review to restoration of natural areas. One of the goals of Vincent's work is to maintain the County's 40 percent tree canopy target in the long term.

Previously, Vincent worked with a federal contractor, performing tree canopy assessments and creating flood maps with GIS. Prior to that he worked at an arboretum mapping trees, and he has a long history working with nonprofit tree planting organizations. Vincent has an undergraduate degree in geography from The Ohio State University and a master's degree in natural resources management from Virginia Tech.

## For Your Health: How Trees Can Save Your Life

---

August 8, 2017

By [Vincent Verweij](#)

## Health benefits of trees

Recent studies have shown that sometimes, going to a park, or even looking a single tree can significantly improve a person's health and stress levels. Some doctors have started [prescribing parks as a remedy to patients' health](#) issues, and our tree values have been expanded to include mental and physical health benefits. While this is intuitive to tree lovers, seeing these studies can help us communicate the value of trees more.

## Air quality and climate mitigation

Our trees are critical in filtering our air, removing harmful pollutants, such as Carbon Monoxide (toxic at high levels), particulate matter (causes asthma), and Ground-level Ozone (various respiratory impacts). See the image on the right.

## Water quality

As previously discussed in our [stormwater post](#), trees filter drinking water for us and the creatures with which we share the world.

## Mental health

A less-reported value of trees are their mental health benefits, but these can outweigh many

of the others, shown through many studies (links below):

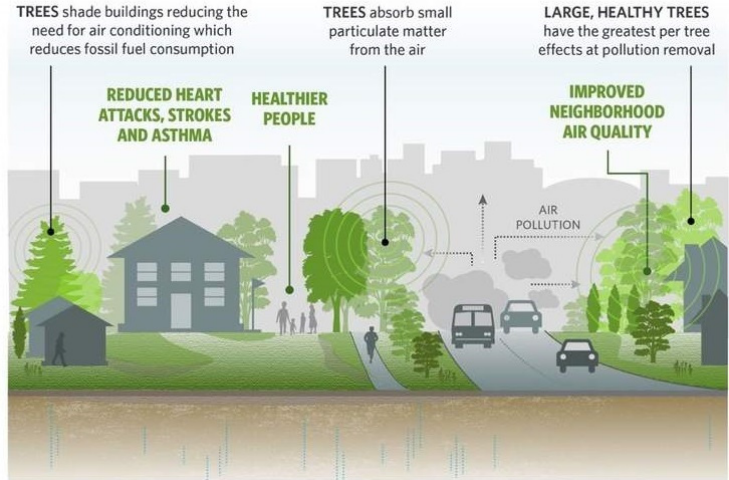
- Improved memory
- Reduced hospital time and improved recovery, from a view of green or treed space
- Increased attention level in children
- Increase social cohesion of communities

## Shade

Heat is one of the greatest impact on urban health,

## URBAN TREES, BETTER AIR QUALITY

Trees in cities can remove up to a quarter of the particulate matter pollution in their immediate vicinity. And when planted between a source of pollution and an apartment building, school or hospital, urban trees can help protect human health.



Trees Improve Air Quality (Source: Nature Conservancy)

## Trees and Human Health



Trees and Green Space improve physical and mental health:

- Stress
- Recovery
- Attention disorders
- Asthma
- Obesity
- Exercise
- Birth outcomes

Trees and health (Source: ACTrees)

and trees, through shade and transpiration, can greatly reduce heat-related illness and comfort. Trees can reduce ambient heat by up to 9 degrees Fahrenheit, compared to exposed areas.

## Crime

The folklore of trees providing hiding spots for crime is largely negated by modern research, which shows trees

can greatly improve crime statistics in neighborhoods. Controlled for social background, areas with vegetation and healthy trees performed much better than unvegetated areas. In

one study, vegetated areas had 7 to 8 percent less gun-related incidents than the control area. This most likely links with the mental health benefits of trees, but is good to take into account when planning a city.


## Our community's trees overall health benefits

Our [i-Tree study](#) provides us with actual number values of some of these benefits, and in Arlington, our trees provide us with the following health benefits:

- Number of trees: **755,400 (45 trees/acre, a healthy natural forest has 40-60 trees/acre)**
- Pollution removal: **235 tons/year (\$3.59 million/year)**
- Carbon storage: **204,000 tons (\$27.1 million)**
- Carbon sequestration: **9,630 tons/year (\$1.28 million/year)**
- Avoided stormwater runoff: **10,730,168 cubic feet/year (\$717 thousand/year)**
- Building energy savings: **\$1,020,000/year**
- Avoided carbon emissions: **2,210 tons/year ( \$294,000/year)**

These numbers take into account avoided hospital visits, illness, and death, and show how trees can really improve ourselves and our community!

## Links

- Prescribing a trip to the park instead of the pharmacy (Washington Post Article): [https://www.washingtonpost.com/national/health-science/why-one-dc-doctor-is-prescribing-walks-in-the-park-instead-of-pills/2015/05/28/03a54004-fb45-11e4-9ef4-1bb7ce3b3fb7\\_story.html](https://www.washingtonpost.com/national/health-science/why-one-dc-doctor-is-prescribing-walks-in-the-park-instead-of-pills/2015/05/28/03a54004-fb45-11e4-9ef4-1bb7ce3b3fb7_story.html)
- Trees are good for your health (Washington Post Article): <https://www.washingtonpost.com/news/energy-environment/wp/2015/07/09/scientists-have-discovered-that-living-near-trees-is-good-for-your-health/>
- Scientific American report on trees and mental health: <https://www.scientificamerican.com/article/does-being-around-trees-help-people-feel-good/>
- EPA guidance on reducing heat island effect in urban areas with trees: <https://www.epa.gov/heat-islands/using-trees-and-vegetation-reduce-heat-islands>
- Forest Service research on trees and air quality: [https://www.nrs.fs.fed.us/units/urban/local-resources/downloads/Tree\\_Air\\_Qual.pdf](https://www.nrs.fs.fed.us/units/urban/local-resources/downloads/Tree_Air_Qual.pdf) 
- Yale study on crime reduction and trees: <http://environment.yale.edu/envy/stories>

Categories: [Natural Arlington](#) Tags: [air quality](#), [crime](#), [environment](#), [Forestry](#), [health](#), [tree](#), [Trees](#), [Urban Forestry](#), [water quality](#)

## How Our Trees Clean Our Water

---

July 14, 2017

By [Vincent Verweij](#)

### Trees as a Filter

Arlington County recently installed its first forest buffer as a stormwater Best Management Practice (BMP) at Bluemont Park's new baseball field.

This forest buffer not only looks great, but also serves an important function for this park and our community.

[Bluemont Forest Buffer](#)  
Bluemont Forest Buffer

To help improve the Chesapeake Bay Watershed, and the water we depend on, trees are being used on larger projects that allow water to flow into a forest or forest buffer. The trees improve our water in many ways, along with providing other benefits of air pollution control, shade, beauty and wildlife benefit.

### The First Rain: Interception and Evaporation

Every tree catches the rain as it comes down, but did you know a mature White Oak (*Quercus alba*) can intercept up to 12,010 Gallons of water every year? That's just a single tree! This water stays in the leaves until it's absorbed by the tree or evaporates to cool our air. This is the first line of defense, as this prevents this water from needing to be piped or treated by other stormwater infrastructure. According to our [i-Tree Eco study](#), our trees in Arlington alone capture 80,267,230 gallons every year!

[Stormwater Benefits of Trees](#)  
Stormwater Benefits of Trees: Source:  
Deeproot

### Keeping it in the Soil and Filtering: Infiltration and Storage

Trees are designed by evolution to make the best use of every drop that falls on their canopy. Their leaves and branches act like a giant capturing device to get precious water to the tree's roots. This helps trees provide one of the greatest stormwater benefits: infiltration and storage. Through filtering the water with their roots and soil, pollutants get trapped and diluted which reduces the impact of water pollution.

Additionally, storing all this water makes it available for the tree and other plants around it.

This stored water can then be used to grow the tree and evaporate this water back into the air, once more preventing it from impacting our stormwater system.

## Forest Buffers as a Stormwater Device

In the case of Bluemont's baseball field, there were some restrictions to using this tool, but it was perfect for this project. These are some of the restrictions to using forest buffers for stormwater credit:

- You need a fairly flat slope and space to accommodate the water to slowly flow through
  - Very flat slopes (1-4%) can use a 35 ft buffer
  - Moderately flat slopes (4-6%) need 50 ft
  - Steeper slopes (6-8%) need 65 ft
- Soils must be able to drain and store the water

## Wider Benefits


These solutions can have a great positive impact on our community and has many benefits over traditional stormwater infrastructure:

- This technique is a non-engineered, nature-based solution to stormwater
- Near streamsides, forest buffers can significantly improve tree canopy and our natural habitat
- Lower cost than engineered solutions, in most cases

## Learn More

[How Trees Tame Stormwater](#) by the Arbor Day Foundation

[Benefits of Forest Buffers](#) by the Chesapeake Bay Foundation

[Forest Buffers presentation](#)  to the [Urban Forestry Commission](#):

Categories: [Natural Arlington](#) Tags: [environment](#), [Forestry](#), [Pollution](#), [Stormwater](#), [Trees](#), [Urban Forestry](#), [Water](#)

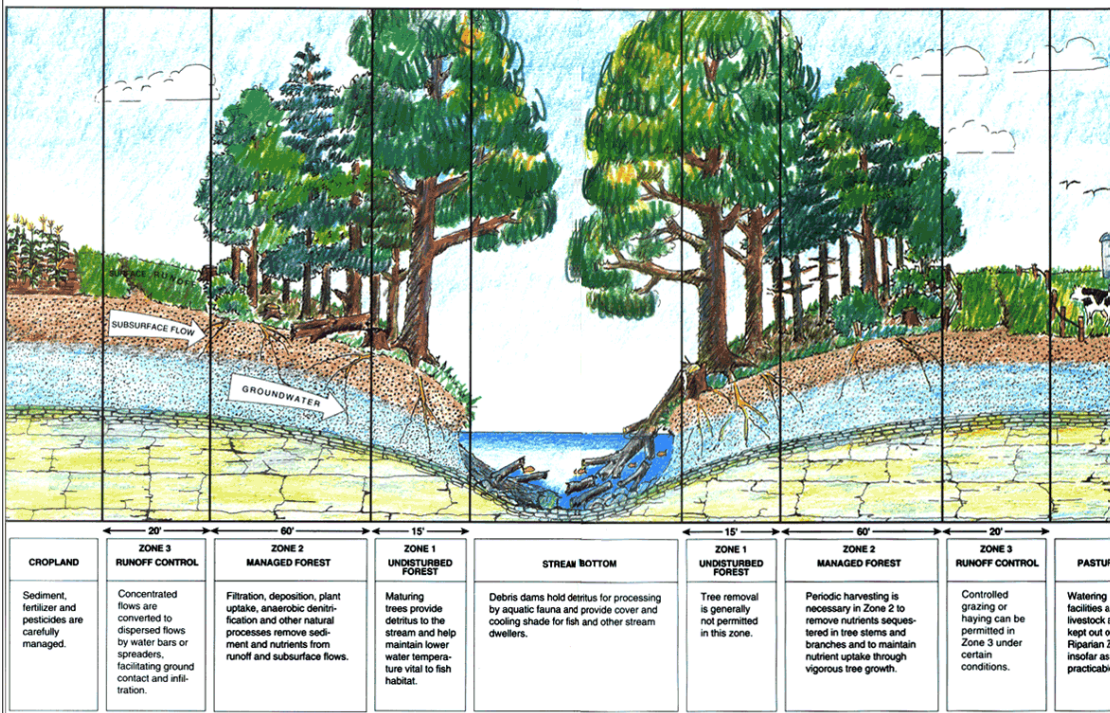
## Arbor Day: A yearly celebration

---

May 17, 2017

By [Vincent Verweij](#)

## THE STREAMSIDE FOREST BUFFER



The Streamside Forest Buffer. Source: USFS

## A short history of Arbor Day

Arbor day was founded by J. Sterling Morton, in Nebraska, to spread the value of trees to all communities. On the first arbor day, over a million trees were planted. It continues today as one of the few holidays that looks optimistically towards the future, and over 3,400 communities have become Tree City USA, a recognition bestowed on communities supporting trees and forestry. Arlington is one of these communities, and we recently celebrated our 21st Arbor Day, and 13th year of the Arbor Day Growth Award.

## Arlington is a Tree City USA

Every year, we apply to stay recognized as a Tree City USA. This requires us to:

- Have a tree board and department in charge of taking care of our urban forest. This is met by our Urban Forestry Commission, and our Urban forestry unit

### Tree City USA flag

2017 Tree city USA celebration with County Board member Libby Garvey, Schools Superintendent Patrick Murphy, Urban Forestry Commission member Kit Norland, and Virginia Department of Forestry representative Jim McGlone

- Enforce a tree care ordinance, to take care of and protect our public trees.
- An annual forestry budget of at least \$2 per capita per year.
- An arbor day proclamation and observance

The arbor day celebration is always one of the most fun part of the forester's jobs, as it is usually held at a school, with music, poetry, and a tree planting, with support from our landscape unit.

Tree City USA sign on Columbia Pike

## Growth Award

It is optional to apply for an additional recognition of the Growth award. This award is given to communities who go beyond the call of duty to improve their programs, through expanded education, partnerships, increased planning efforts, or additional tree planting and maintenance funding.

Arlington has received the growth award for 13 years, and will continue to seek this award, as one of the leading communities in urban forestry in the region. Last year, we added an urban forestry manager position, and completed the [i-Tree Eco study](#).

## More information

- [The Arbor Day Foundation](#)
- [Full history of Arbor Day \(PDF\)](#) 
- [Tree City USA](#)
- [Growth Award](#)

Categories: [Natural Arlington](#)

## How many trees do we have in Arlington?

March 27, 2017

By [Vincent Verweij](#)

Figuring out where all the trees in Arlington are, and what species they all are sounds like a daunting task. Luckily, Urban Forestry got help from the U.S. Forest Service, with i-Tree Eco. This free program uses statistical sampling to understand the composition and value of a community's Urban forest. Check out what we found out about Arlington's impressive tree canopy!

## How many trees?

Let's get right to the point. Through a statistical plot measurement program, we estimate Arlington

[Tree species Distribution](#)  
Tree species Distribution

County is home to **755,400 trees**. That's about 45 trees per acre. To compare this to a natural forest, a healthy forest has about 40-60 trees. This is why we call the forest in Arlington County an urban forest. We found 122 species of trees, most of them native to Arlington.. Our state tree, the Flowering dogwood, was the most common tree found, with the Tuliptree covering the most of our overall tree canopy.

## What are the environmental benefits of all these trees?

[Environmental Benefits of Arlington trees](#)  
Environmental Benefits of Arlington trees

While the beauty of trees is one of the more obvious values of our urban forest, trees provide a wide range of ecosystem services. From stormwater

reduction, reducing the chance of flooding, to improving our health, through filtering air pollutants and slowing down the effects of climate change through carbon sequestration and shading, these benefits were quantified by the i-Tree Eco study.

Did you know that, every year, our trees prevent 10,730,168 Cubic feet of water from flooding our community? That's about 122 Olympic-sized swimming pools every year! That's just one of the benefits included in the almost \$7 million yearly benefits we get from trees. Check out more of them on the left.

## How did we do this?

Throughout 2016, Urban Forestry staff worked with volunteers from the Tree Stewards and Master Naturalists, looking at 201 1/10 Acre plots throughout the county. We recorded information on the plot characteristics, species in the plot, sizes of trees, and their effect on the direct environment. This information was processed by the US Forest Service servers, and put in context.

Urban forestry is still analyzing much of the results, but these preliminary results are exciting for use in managing our urban forest to ensure high diversity of tree species, manage for tree care budget needs, and help communicate the value of our urban forest.

## Find out more

Our full report (PDF): <https://arlingtonva.s3.dualstack.us-east-1.amazonaws.com/wp-content/uploads/sites/13/2017/02/iTree-2016-Written-report.pdf> 

Arlington i-Tree Eco official page: <https://environment.arlingtonva.us/trees/2016-itree-eco-study/>

US Forest Service page: <https://www.itreetools.org/eco/>

Categories: [Natural Arlington](#)





We Can do it! (image source: Cornell Extension)

Categories: [Natural Arlington](#) Tags: [environment](#), [Food](#), [Fruit](#), [Gardening](#), [green](#), [Green Home](#), [natural arlington](#), [Trees](#), [Urban agriculture](#)

## Watering trees in Arlington County

August 5, 2016

By [Vincent Verweij](#)

When trees get transplanted, they lose significant portions of their roots, and need time to get used to their new planting location. Below are some guidelines on what to do to establish new trees in Arlington County's climate, and when you should think of watering older trees:

### Watering new trees

During the growing season, newly planted landscape-size trees (usually 1-2 inches in diameter at the trunk, or about 8 ft high), prefer to get watered about **25 gallons every week**. Of

course when we have heavy rains, this is less necessary, but Arlington often has periods of relative drought, in the later summer, when watering becomes crucial for trees.

Unlike grass or other smaller plants, trees prefer slower watering, over a longer period of time. Here are some options for watering:

1. Use a watering bag (see image on the right), and follow the directions on the bag to

[Watering bag on tree](#)  
Watering bag on tree

make sure it drains properly. Remove the bags over the winter.

2. Lay a hose at the base of the tree, and let it flow at a low volume for about 30 minutes, before turning it off.
3. Use surface irrigation, around the base of the tree. Be careful to remove irrigation after the tree is established.

For a video on watering, check out Casey Trees' watering video:

## How to Water a Tree



## Watering older trees

Older trees may have established roots, and good access to water, but in cases of extreme drought, they can really benefit from extra water. Here are some options that work:

1. Lay a hose at the base of the tree, and water at low pressure for up to 1 hour.
2. Combine watering bags around the trunk of the tree, and fill these with water. Be sure to remove these after the dry season, as they can introduce decay in the trunk, if left on.

## When do I water?

It is generally recommended that if less than 1 inch of rain has been recorded locally in a whole week, to water your trees. You can use the National Weather Service website to track

precipitation:

<http://w1.weather.gov/data/obhistory/KDCA.html>

Another great resource are the Casey Trees watering alerts, which are posted on their website every week: <http://caseytrees.org/>

## More information

[Arlington County standards on watering](#)

[Casey Trees watering page](#)

[Watering Drought-stressed Trees](#)

Categories: [Natural Arlington](#) Tags: [environment](#), [Trees](#), [Water](#)

## Before the Fall: Appreciating Tree Leaves

---

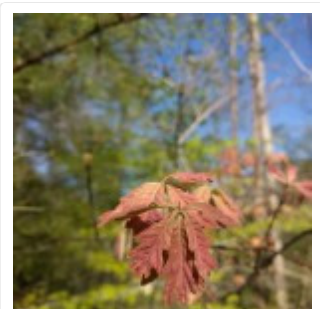
June 8, 2016

By [Vincent Verweij](#)

After the explosion of the cherry blossoms, magnolias, serviceberries, catalpas, and other showy flowers, summer often feels like an aesthetic drought because most of the trees are done blooming. But there is a subtle beauty that will never leave you once you notice it. Young leaves coming through in mid to late spring, throughout the summer, with second flushes, and the fully formed leaves are a wonder to behold. Green is a deceptive color, as it often blends with its surroundings, but the shapes of leaves are just as diverse as flowers in their creativity.

### Young leaves

Early emerging leaves, and leaves that come to trees as they go through multiple flushes of leaves (like black cherry (*Prunus serotina*), for example, whose early leaves are often defoliated by tent caterpillars) are little works of art. Oak leaves in large masses are impressive on the tree, but every large oak leaf starts out as an intense concentrated red (see the young white oak (*Quercus alba*) leaves on the right). These leaves have significant amounts of [anthocyanins](#), natural chemicals that act as sunscreen, giving it the color. These colors dominate before the green [chlorophyll](#), the pigments that help in converting sunlight into food, takes over.



Young white oak leaves

Other leaves are fascinating for how they unfold. The cat-face-shaped Tuliptree (*Liriodendron tulipifera*, on the left) leaves are folded up in a tiny package,

released with the early flowers, and unfolding over several weeks in spring, before starting to develop. This efficiency in packaging is unrivaled in even the most efficient engineered electronics packaging, and surpasses it in elegance.



Young tuliptree leaves

## Nature keeps it weird

Even after the young leaves unfold acrobatically, they remain their mysterious shapes and continue to astound us in their diversity. One of my favorites remains the versatile *Sassafras*

(*Sassafras albidum*). A tree historically used to create flavors in root beer, as well as medicinal applications, the leaves have a variety of mitten and heart shapes. The picture on the right shows some of the red the leaves also hold onto throughout the season, and the more regular shape they hold.



Sassafras leaves

One of the most recognizable leaf shapes is the non-native Ginkgo (*Ginkgo biloba*, on the left). This leaf shape often shows up in fashion patterns, jewelry designs, and more. While the tree is considered to be a living fossil (with no real wildlife value or typical ecological niche), it's a great ornamental tree that is urban hardy, with fascinating leaf shapes, and an amazing fall color display. This tree is a conifer although it looks like a broadleaf tree. The conifer aspect is best displayed when it drops all of its leaves at the same time in the fall (common with deciduous conifers). Although it's spindly branch shape, and elegant fan-shaped leaves remain throughout the year.



Ginkgo Leaf

## More on leaves.

This just highlights a handful of trees of the hundreds of trees native and planted in our area. Here are some great resources

for exploring our tree diversity:

[I've got my leaf, let's go!](#) – An online guide to find out what species of tree your leaf goes to

[Leafsnap](#) – A great local resource and free app for identifying leaves. The app does not always work, but the reference guide is impeccable.

[Why leaves change color](#) – learn about the colors hidden underneath the green.

[Trees up close](#) – A great book on appreciating the complexity of leaves and seeds

but there are limitations to mulching. It is ultimately a solution for a problem we've created, and this post goes through whether you need mulch, and, if so, how to best use it.

## Do I need to apply mulch to my trees?

In a natural setting, trees provide their own moisture retention and weed control through the leaves they drop. Even evergreen trees lose their needles, and provide a bed of leaves underneath their canopy, closing the circle for the nutrients lost creating those leaves, and providing that extra layer of protection for the trees. Here are some steps to take to decide if you need mulch:

Natural settings provide their own mulch with leaves and groundcovers  
Natural settings provide their own mulch with leaves and groundcovers

1. If the tree is in a natural area, and has a healthy leaf layer underneath it, mulch is not needed
2. If the tree has significant space without lawn underneath its canopy, and leaves are recycled into the soil, mulch is probably not needed.
3. If the landscape asks for a very manicured look, with leaves removed, and the tree has limited growing space, it may be beneficial to apply mulch, to simulate the natural setting of nutrient regeneration.

## What kind of mulch should I use?

Different trees have different preferences for soil nutrients, acidity, and other soil characteristics. This makes proper mulch selection dependent on the soil needs and tree species.



A wide selection of mulches are available. Source: Greenscapes Austin

### Leaf mulch

Trees evolved with leaves under their canopies, and while different leaves decompose at different rates, this is a great mulch to use for tree health. Using a mulching mower on the leaves already there or buying leaf mulch of similar species can be a great way to improve the soil health. If you are using a non-specific source of leaf mulch, be aware that this may not always be compatible with the tree you are trying to help out. Oak leaves, for example, can be very acidic, and if applied repeatedly, may alter soil pH. This is one of the cheapest and best solutions for tree health, but regular application is needed, and without maintenance, the leaves may spread beyond the landscaped area. This can be prevented by combining leaf mulch with other types of heavier mulch, or expanding landscape areas.



Leaf Mulcher. Source: MSU

## Pine straw mulch

An option in between the natural look of leaf mulch, and the more manicured look of wood mulch is pine straw. While this is essentially similar to leaf mulch in quality, it provides a different look to the landscape. Applied in the right amounts, it lasts for a long time, with little need to reapply.

## Shredded wood mulch

Shredded wood mulch typically comes in hardwood and pine bark mulch. Both have their value, and stay around for a long time. However, wood mulch can often leach nitrogen and other nutrients from the soil, so take care with applying this. If the tree is already struggling because of nutrient deficiencies, this may not be appropriate. Combining wood mulch with compost or leaf mulch may alleviate some of this, but unless you require the look of wood mulch, applying leaf mulch might be more appropriate. It is more readily available, so in the absence of the other solutions, this may work.

[Living Mulch. Source: Tenth Acre Farm](#)

Living Mulch. Source: Tenth Acre Farm

## Living mulch

While technically all mulch is “alive” with bacterial activity, planting non-

invasive groundcovers underneath trees can be the best solution to your landscape, while also enhancing its aesthetics and function. Ferns and low running plants are common in trees’ natural settings, as well, and provide the same values of mulch, without the need for constant reapplication. Be careful installing plants around trees, however, as you may damage root systems.

# Compost

While not necessary a traditional mulch, compost can be used with the other mulches, or by itself, to reintroduce lost nutrients from lost leaf cover, or other sources of stress.

## How to apply mulch

One great way to remember how to apply mulch is the 3-3-3 rule, popularized by Casey Trees. Apply a ring 3 feet in radius, 3 inches away from the trunk, no more than 3 inches high.

[Proper and improper mulch application. Source: Morton Arboretum](#)

Proper and improper mulch application. Source: Morton Arboretum

## Common problems

Unfortunately, some practices have gotten ingrained in the landscape industry that will harm mulch. Aside from applying mulch when not necessary, and excessively removing leaves, which are often driving by aesthetic preference, there is also a strong tendency to hide the roots of trees. This creates a practice known as volcano mulching, and can cause trunk infections, unstable trees, and ultimately the premature death of trees. Following proper mulch application guidelines can help prevent this problem. One example is shown on the right, where urban foresters recently found a newly planted tree, which had had mulch applied for 4 inches above grade, already showing signs of fungal growth.

[Mulch causing fungal infection](#)  
Mulch causing fungal infection

## More resources

Rage against the Mulch volcano:

<http://caseytrees.org/blog/casey-trees-versus-the-volcano/>

On leaf mulching:

[http://www.leaveleavesalone.org/Leaf\\_Mulching\\_Tips.html](http://www.leaveleavesalone.org/Leaf_Mulching_Tips.html)

Information on other types of mulch and groundcover and their benefits and drawbacks:

<http://www.homesteadandgardens.com/mulches-types-uses/>

Find where to get mulch for pickup and delivery at the Arlington County Trades center:

<https://environment.arlingtonva.us/2016/05/benefits-of-mulch-and-composting-in->

Categories: [Natural Arlington](#) Tags: [environment](#), [Trees](#)

## How Old Is That Tree?

---

March 8, 2016

By [Vincent Verweij](#)

We often hear claims about 200, 300-year old trees being removed or preserved in Arlington County, and, while we do have a handful of those, most trees are not that old. When aging or dating a tree, you have to take to take three major things into account: History, Site characteristics, and Species.

## History

Urban foresters do informal tree ring counts on removed trees, and have employed outside support on comparing these ring counts to climate and other events. Rings will tell you the most information on the age of the tree, and you can often get within a decade of the tree's birth.

That being said, doing some digging in the library can often get you a better idea of when a tree started growing. Here are some major aspects of Arlington County and events that strongly influenced trees in the area:

### Civil War

While disturbance before the Civil war definitely happened, finding information on this is difficult. The war itself has sparse information, but one thing is common knowledge in aging trees. Sight lines for artillery and resource needs cause the removal of almost all trees in Arlington County. This means most of our trees are not likely to be older than 150 years. Where trees were preserved for shade for soldier, there is a chance for older-aged trees, and one of the two remaining old growth forests, on Arlington Cemetery, behind the Lee House, was preserved. This forest appears to have been unlogged since before the late 1700s, but is a striking exception to the rule.

### Farming

Much of Arlington county was farmed, in the 1800s, and we have records of dairy farms in the county until the 1990s. These areas typically had very little trees, except as hedgerows or trees near the homes. Checking old maps, like the one on the right, from 1934, can tell you whether the land was used for forest or not. If the land use was farmland, you can exclude most ages

[1934 Historic map](#)



beyond that date. We are blessed with an abundance of historical data, being in the DC region, and this can aide in this research.

Many digital scans of these maps are available on our website, as well, in our GIS Gallery: <http://gis.arlingtonva.us/gallery/index.html>

Fairlington then (1940s)  
Fairlington then (1940s)

Fairlington Now (2010s)  
Fairlington Now (2010s)

## Post-World War 2 development

The rush to build housing for new federal employees, and the new Pentagon brought with it large subdivisions in Arlington County. The Fairlington community was built

during the war, to house thousands of new employees. If you drive through the community now, there are sizeable willow oaks and Darlington oaks gracing the streets. These trees were mere sprigs when this development was completed, but can only be 70-80 years old by now, despite their current size (see images on the left).

## Recent disturbance

Home redevelopment, street projects, and other disturbance happens all the time in this busy county. Finding out from locals about projects can tell you whether a tree was removed and replaced. Neighborhood conservation projects and county tree planting programs have not always been around, and this information can often be gathered from neighbors around the tree.

## Site characteristics

The site in which a tree grows up greatly influences the speed of its growth. Poor sun exposure, scarce access to water and oxygen, nutrients, and other limiting factors can slow down the growth of a tree drastically. While a tree of the same species in the middle of a forest may only grow a conservative 0.2 inches a year in diameter, in an open field it may shoot up at 1 inch annually. This means street trees, which often do have restrictions, but more access to light, can often be much younger at the same size as forest-grown trees.

## Species

One of the oldest broadleaf trees in the Eastern United States is a Black Tupelo (*Nyssa sylvatica*) in New England ([News link](#)) It's almost 600

Young American Elm  
Young American Elm

years old, but it's only 30 inches in diameter. This species grows so slowly that one could not guess its age by looking at it. On the other side of the spectrum, the elm tree on the right, which was removed last year, at 40 inches in diameter, only has rings for 40 years of age.

Some species will not get very large. Finding a dogwood with a diameter larger than 15 inches is a rarity, and can indicate good growing conditions and old age. Knowing your species, and their biological characteristics can help greatly in providing estimates.

## Tools for dating trees

All of this information will give you an idea of the age of the tree. If you are doing in-depth research, you will need more information, so ring counts (the field of dendrochronology, for those Scrabble fans out there) are often the best approach. If removing the tree is not an option (which it often isn't), coring a tree, or drilling a small hole to extract a rod, can be a great way to get an idea of its age. This technique extracts a sample of the tree rings, usually not harming the tree, which can then be analyzed. Many trees are hollow, however, and estimates are typically the only approach, along with the other tools above.




Tree core extraction. Source: International Environmental Data Rescue Organization

## More information:

About Tree Rings, University of Arizona: <http://ltrr.arizona.edu/about/treerings>

What tree rings tell us about our environment: <http://www.environmentalscience.org/dendrochronology-tree-rings-tell-us>

Morton Arboretum worksheet to age a tree (PDF): <https://www.mortonarb.org/files/Find%20the%20Age%20of%20a%20Tree%20-%20middle%20school.pdf> 

Categories: [Natural Arlington](#)

[Next Page »](#)

## Contact Us

**Environmental Services General Inquiries**