



FOR IMMEDIATE RELEASE

Trees Are Cool!

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Did you know that a single tree can produce a shaded surface that can be 20–45° F (11–25° C) cooler than surfaces in direct sun? Shading hot surfaces will help homeowners and businesses reduce summer cooling costs keeping you cooler in the summer heat. Yes...a tree planted in hot locations is really Cooler than areas not planted with trees.

Trees provide many benefits to people and the communities they live in. Trees help moderate temperatures by creating a cooling effect which can counteract the heating effect of pavement and buildings in an urban environment. Areas that are populated with trees will create environments that are more pleasant than areas without trees. Leaves of trees filter the air we breathe by removing dust and other particulates and release oxygen.

Trees mitigate heat stress in urban areas through producing shade like an umbrella and a process called evapotranspiration. Evapotranspiration is the sum of evaporation from the land surface plus transpiration from leaves of trees. When the water vapor is transpired from leaves into the atmosphere, the tree and the surrounding air is cooled down. Evapotranspiration alone can help reduce peak summer temperatures by 2–9° F (1–5° C). When sitting under the shade of a tree in the summer heat can reduce the air temperature by as much as 20–45° F cooler than if you were sitting in the sun. The shade of the tree will cool you down, and the transpiration cooling produced by the leaves will lower the air temperature even further creating a pleasant environment.

Trees are critical factors as shade makers when planted in strategic locations like around buildings or to shade pavement in parking lots and on streets. Researchers have found that planting deciduous trees near western exposures is typically most effective for cooling a building, especially if they shade windows and part of the building's roof. Trees properly sited can reduce the internal temperature of vehicles parked on driveways and parking lots.

Extra Benefits of Adding Trees to Create Shade

The proper use of trees brings benefits beyond mitigating the hot summer sun that includes:

- *Reduced energy use:* Trees and vegetation that directly shade buildings decrease demand for air conditioning.
- *Improved air quality and lower greenhouse gas emissions:* By reducing energy demand, trees and vegetation decrease the production of associated air pollution and greenhouse gas emissions. They also remove air pollutants and store and sequester carbon dioxide.
- *Enhanced stormwater management and water quality:* Vegetation reduces runoff and improves water quality by absorbing and filtering rainwater.
- *Reduced pavement maintenance:* Tree shade can slow deterioration of street pavement, decreasing the amount of maintenance needed.
- *Improved quality of life:* Trees and vegetation provide aesthetic value, habitat for many species, and can reduce noise.

So, to make Ohio a better and cooler place, plant a tree!

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ABOUT US: The mission of the Ohio Chapter International Society of Arboriculture is to advance responsible tree care practices through research, technology, and education while promoting the benefits of trees. Visit us at: www.ohiochapterisa.org.



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Over 1,000 Ohio Professionals Ready to Help!

There are over 1,000 qualified tree experts in the state of Ohio that have been designated by the International Society of Arboriculture as Certified Arborists. These tree care professionals have experienced rapid growth over the past decade and there is a significant amount of knowledge required to perform at the highest level. To find a qualified professional in your area, visit www.Trees4Ohio.org.

INTERVIEW AN ISA CERTIFIED ARBORIST: Please contact the Ohio Chapter ISA if you are interested in interviewing a local certified arborist.