



## Trees Can Offset Your Carbon Footprint and Make You Greener!

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Trees function as natural recycling machines. Tree leaf surfaces take in carbon dioxide from the air and absorb heat from the sun to make food in a process called photosynthesis. The leaves also respire to cool themselves, releasing into the air some of the moisture their roots absorb from the soil. For the homeowner, this process means improved air quality around the home. Not only do trees absorb carbon dioxide and give off oxygen, but the presence of trees in your landscape is like a natural air conditioner.

Heat from hot air passing over and under leaf surfaces is partially absorbed by evaporation of surface moisture. The process cools the air surrounding leaves and lowers air temperatures by as much as 9°F. The more leaf surface in an area, the cooler the surrounding air temperatures.

Planting trees on your property can also save dollars. Proper placement of trees around your home or business landscape can reduce cooling costs by 30 percent or more. Plant trees to shade west-facing walls and windows to avoid heat buildup from the afternoon sunshine. Tall trees strategically placed in the landscape will eventually shade the roof from mid-day heat.

Trees should be planted no closer than 15 feet from the foundation of a house to avoid damage from root systems. Locations close to power lines should not have trees or shrubs that will reach above 30 feet tall at maturity. You

don't want your shade trees to interfere with safe, reliable electrical service.

Every year in November on Arbor Day, Hawaiian Electric Company, along with its partners, gives away native and introduced trees and shrubs at various sites around the state. Visit [www.arbordayhawaii.org](http://www.arbordayhawaii.org) to find dates and locations.

### See also . . .

Using trees to save energy

<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/L-5.pdf>

Planting a tree

<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/L-4.pdf>

Staking and guying newly planted trees

<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/L-7.pdf>

Watering trees

<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/L-2.pdf>

\*CTAHR Popular Press articles were written to appear as newspaper columns and therefore are of necessity brief and sometimes simplified treatments of their subjects. For more detailed information resources, visit [www.ctahr.hawaii.edu](http://www.ctahr.hawaii.edu).

### Do you have a gardening question?

Contact a CTAHR Cooperative Extension Service or Master Gardener program resource.

**East Hawai'i:** (9 a.m.–noon, Tu, Th) 981-5199, [himga@hawaii.edu](mailto:himga@hawaii.edu)

**Kaua'i:** (1–4:30 p.m., M–F) 274-3475, [rebesu@hawaii.edu](mailto:rebesu@hawaii.edu)

**Maui:** (9 a.m.–noon, M, Tu, Th) 244-3242 ext. 228, [MauiMG@ctahr.hawaii.edu](mailto:MauiMG@ctahr.hawaii.edu)

**Moloka'i:** (9 a.m.–noon, M–F) 567-6935, [arcer@ctahr.hawaii.edu](mailto:arcer@ctahr.hawaii.edu)

**O'ahu:** (9 a.m.–noon, M–F) 453-6055, [OahuMG@ctahr.hawaii.edu](mailto:OahuMG@ctahr.hawaii.edu)

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