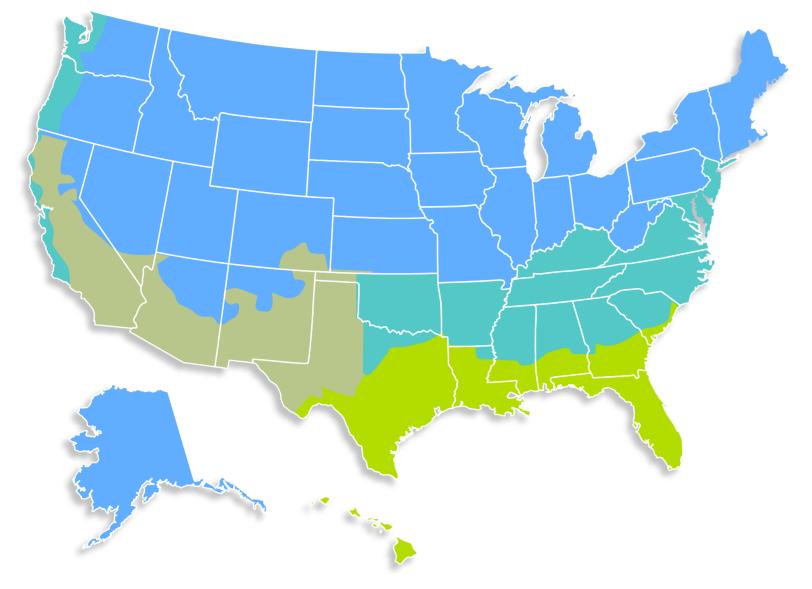


Landscaping doesn't only add beauty to your home, but it can also improve your home's comfort and **lower your energy bills.** 



## **Top 3 Landscaping Strategies by Climate**

The landscaping strategies you use depend on where you live in the U.S. and your home's microclimate.



with water restrictions!

# What's a microclimate?

A microclimate is an area where the climate differs from the surrounding area. It can be as small as a few square feet or

as large as a few square miles.

A microclimate impacts the type of plants that can grow in your landscape.

#### **Temperate Region**

Take advantage of the sun's warming effect in the winter.

Shade your home from the hot summer sun.

Deflect winter winds with windbreaks on the north and northwest sides of your house.

#### **Hot-Arid Region**

Provide shade to cool your home's walls, windows and roof.

Naturally cool your home with summer winds.

Cool the air around your home with plants.

### **Hot-Humid Region**

Channel summer breezes toward your home to cool it.

Use trees to shade your home in the summer but allow the sun to warm it in the winter.

Avoid locating planting beds that require frequent watering close to your home.

#### **Cool Region**

Use dense windbreaks to protect the home from cold winter winds.

Ensure the winter sun reaches south-facing windows.

Shade the south and west sides of your home from the summer sun, if summer heat is a problem.

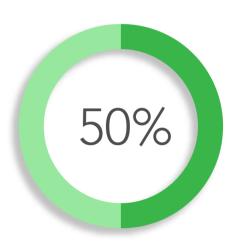
## Landscaping for Shade

**Shading** is the most cost-effective way to reduce solar heat gain in your home and **cut air conditioning costs**.

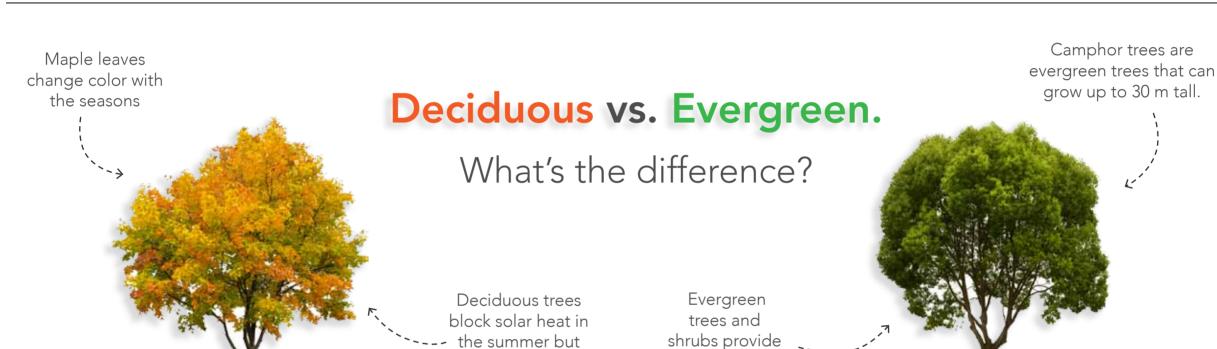
To effectively shade your home, you need to know the size, shape and location of the shadow that your shading device casts.



**FACT:** In tree-shaded neighborhoods, the summer daytime air temperature can be up to **6 degrees cooler** than in treeless areas.



**#DidYouKnow:** A well-planned landscape can reduce an unshaded home's air conditioning costs by **15-50 percent.** 





let in sunlight during the winter. continuous shade.



Maple tree - 、

## **Planting Tips**

P st

**Plant a 6-8 foot deciduous tree near your home,** and it will start shading your windows in the first year. Depending on the species and the home, it will shade the roof in **5-10 years.** 

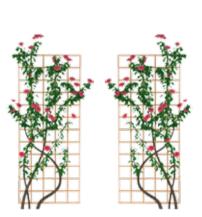




Plant deciduous trees to the south of your home -- they can screen 70-90 percent of the hot summer sun while allowing breezes through.



Plant trees with crowns lower to the ground on the west if you want to shade from lower, afternoon sun angles.



Plant bushes, shrubs or climbing vines with a trellis to shade your patio area.



Hens and chicks is

a type of succulent

To cool air before it reaches your home, plant **shrubs and groundcover plants.** 



## Landscaping for Windbreaks

A windbreak reduces heating costs by lowering the wind chill near your home. It also creates dead air space that insulates your home in the summer and winter.

# **#DidYouKnow:**

Windbreaks to the north, west and east of houses cut fuel consumption by an average of 40 percent, according to a study in South Dakota.

Plant evergreen trees and shrubs to the **north and northwest** of your home to stop wind. The distance between your home and windbreak should be **two to fives times the height of the mature tree** for maximum protection.

#### Install a fence or

wall in addition to evergreen trees to deflect the wind over your home.

If snow tends to drift in your area, **plant low shrubs on the windward side** of the windbreak to trap snow before it blows next to your home.

Plant trees on either side of your house to **direct cooling wind toward it** in the summer.

## **Landscaping for Water Conservation**

Design your landscape to not only save energy but also conserve water.



Always group plants with similar water needs together.



Reduce the use of turf and **use low-water-using types of turf grass.** 



Aerate your soil -- it improves water flow to plants' roots and reduces water runoff.



Water in the morning when it is cooler and evaporation rates are low.



Organize your turf grass in **continuous patterns** -- it's easier to maintain and uses less water.



In the summer, raise your lawn mower cutting height -- longer grass blades help shade each other & retain more water.



Use mulch to keep plant roots cool, minimize evaporation and reduce weed growth.

Sources: Energy Saver (www.energy.gov/energysaver), the Energy Department (http://www1.eere.energy.gov/library/pdfs/16632.pdf) and EPA WaterSense (http://www.epa.gov/watersense/outdoor/landscaping\_tips.html).

ENERGY.GOV