

## Nature's Air Conditioners

If you have ever escaped from blazing hot sun in a shady spot under a tree, you know how these natural air conditioners make you feel more comfortable. In fact, trees in a parking lot can reduce air temperatures by up to 25 degrees compared to the nearby blacktop.

But beyond comfort, planting trees around your home is a great way to lower summer energy bills, beautify your yard and increase your home's value. According to the Department of Energy, adding three trees in the proper spots west, north and east of your house can save the average household up to \$250 a year. Add a full landscape of trees and shrubs, and you can cut your utility bills 25 to 50 percent. Trees cool in summer and protect from harsh winds in winter – and their photosynthesis releases beneficial water vapor into the air.

Before designing an energy-efficient landscape, the Solar Energy Research and Education Foundation says you need to know your home's orientation to the sun as well as the intensity and common direction of the wind around your property. The Foundation recommends planting trees and shrubs that shade as much roof, walls and windows as possible on the east and west sides of your home. Deciduous trees, which lose their leaves in the autumn, offer the double benefit of allowing warming sunlight into your home in the colder months.

When picking out shade trees, the California Energy Commission (CEC) suggests selecting those with the height, growth rate and shape that will provide the shade you need. A less dense tree that shades a larger area is better than a denser tree with smaller shade.

In addition to large shade trees, the CEC advises planting smaller trees and shrubs a few feet from your home to direct cooling summer breezes indoors. Put shrubbery next to your foundation to reduce soil and wall temperatures. Since gravel and paved areas store and reflect heat, place shrubs and grass around your patio and driveway to offset the hotspots.

Trees don't just make a difference in the summer. To cut winter energy costs, the most common approach is to plant evergreen trees and shrubs on the north and northwest side of the your property. These wind barriers can dramatically channel winds away from your house and cut the cold. In addition, shrubs, bushes and vines planted next to a house can help insulate the home in winter and summer.

Beyond energy savings and beauty, homeowners who take care of their trees and keep manicured yards find the value of their properties increase. A research study by Clemson University lists maintaining beautiful landscaping as a cost-efficient way to increase the value of a home. In a comparison of house prices to house characteristics, location and landscape quality, the study showed houses which obtained an "excellent" landscaping rating from a local landscaping professional could expect to sell at a price six to seven percent higher than equivalent houses with a "good" landscaping rating. Improving landscaping from "average" to "good" resulted in a home premium about five percent.

Homeowners who are looking for someone to assess their landscape and make recommendations for energy savings should call Pardoe's Lawn & Tree Service, Inc. a 38- year old arboricultural firm.

