

Planetary Wellbeing

Cut Pollution & Toxicity

- Cleaning & Laundry
- Green Carwash
- Low-Toxin Manufacturing
- Natural Garden & Lawn Care
 - Organic & Sustainable
 - Agriculture
- Pest Control
- Plant-Based Eating
- Zero Emissions
- Zero Toxin Parenting

Ensure Animal Wellness

Guard Water Resources

Ocean Awareness

Protect Biodiversity

Reduce Resource Consumption

Save Energy & Climate

Step into Spring



[Shop all step into spring](#)



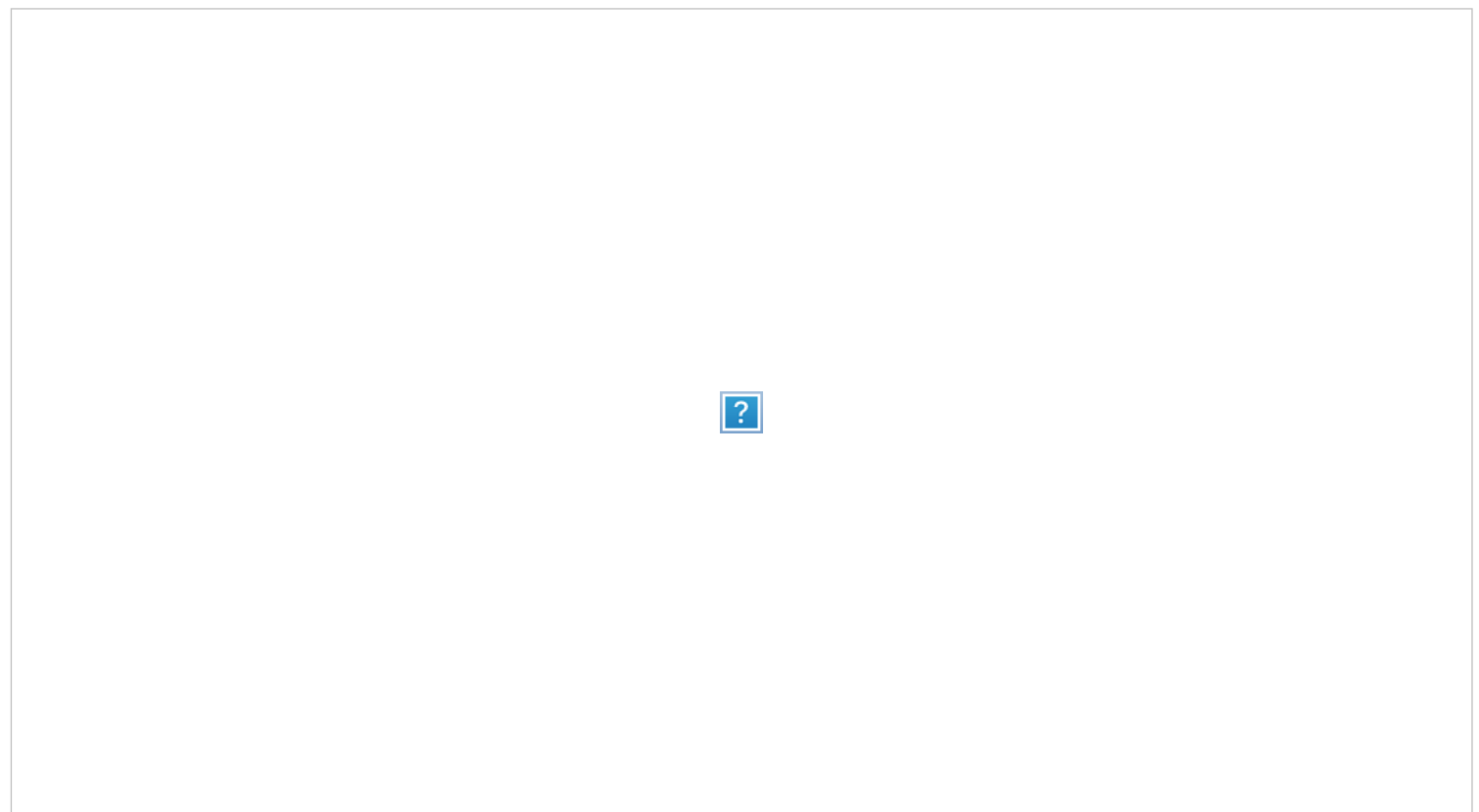
Using Trees to Save Money and Energy

Share:   Like 11 

If you are looking for a way to reduce your heating and cooling costs at home, consider investing in intelligent **landscaping**. As the sun's rays are absorbed by your rooftop and reflected by surrounding pavement through your home's walls and windows, the interior temperature will increase and cause your cooling costs to go up. Use our Hearts guide to strategically plant trees, shrubs, and vines so that you can decrease this solar heat gain by creating shade and cooling the ambient air for heating and cooling energy savings.

Quick Facts: Intelligent Landscaping to Save Money and Energy

- **24% less energy usage by reducing solar heat gain:**^[i] Solar heat gain occurs when heat from the sun is absorbed through windows and roofs^[ii] and the temperature of your house rises as a result.
- **\$200 per year in solar heat gain costs:** The average American household spends \$800 for heating and cooling, which increases by \$200 with solar heat gain.^[iii]
- **9°F ambient air temperature reduction with trees:** Tree-shaded areas are cooler by up to 6°F compared to areas without trees.^[iv] Add evapotranspiration (release of water vapor by plants) and it's 9°F cooler.^[v]
- **Trees decrease wind chill and heating costs:** That is the temperature it actually feels like outside, rather than the recorded nominal temperature. An intelligently positioned tree near your home can serve as a windbreak for an area with 30 times the radius of its height, significantly decreasing the wind chill and your heating costs will decrease as well.^[vi]



Take Action! Shade Your Home Using Trees and Save Money

1. **Plant trees to the south for shade:** When using deciduous trees with high crowns, **plant** them to the south of your house to maximize rooftop shading in the summertime. If you are using a tree with lower crowns, plant to the west of your house so that you can catch the lower angles of the sun's rays.
2. **Choosing the right tree:** Plant deciduous trees if you wish to block solar heat in the summer but allow solar heat to reach your house in the winter. If you are looking to block heavy winds or to provide year-round shade, plant evergreen trees.
3. **Choosing the right height:** A tree must be at least 6-8 feet tall in order to begin shading your windows, though the optimal height is dependent upon the height of your house. A tree must be taller than your house in order to cast shade upon the roof, so choose taller varieties of trees if you live in a multi-story home.
4. **Plant vines and ground covers:** These will shade the pavement near your house to reduce the amount of heat radiation that reaches your home. Climbing vines on a trellis will also shade a patio or outdoor seating area.^[vii]
5. **Precautions to take when shading your property:** Do not to plant trees to the south of your house if you use solar panels to power your home because you will block many of the sun's rays. Plant trees an adequate distance from your home to ensure the roots will not damage the foundation of the house as the tree grows. When planting shrubs and ground cover plants, ensure they are well-spaced, as dense foliage can enable continual moisture and humidity.^[viii]

Dig Deeper: Landscaping for Shade

- Explore the US [Department of Energy](#)'s resources on landscaping for shade.
- Read a paper on [Conserving Energy with Plants](#) from the Department of Horticultural Sciences at North Carolina State University.
- Explore the American Society of Landscape Architects' information and resources on [Maximizing the Benefits of Plants](#).

+ References

+ References

Share: [Pin it](#) [Like 0](#) [✉](#)

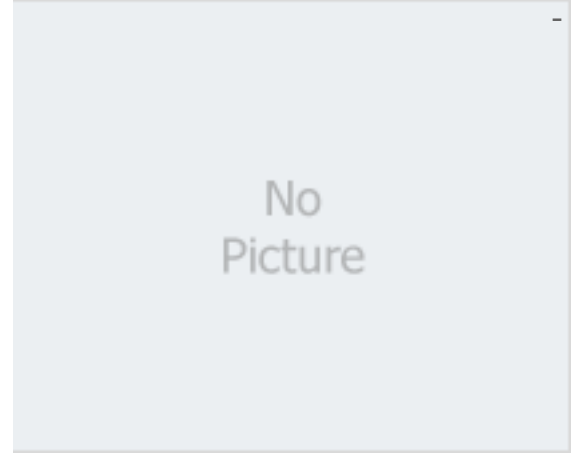
Related Articles



Regular Air Conditioner Maintenance for Saving on Home Energy Bills



Right-Sized Air Conditioners Allows for High Efficiency



Professional Home Energy Auditing

Comments

0 Comments

Sort by [Oldest](#)



Add a comment...

[f](#) Facebook Comments Plugin