

PLANT LIFE COLUMN

WINDOWS CAN HELP LOWER

COOLING COST

The time change has an effect on many parts of our lives. Now that the sun is out later in the evening, we have a chance to enjoy more outdoor activities in the daylight. If you play indoors, you also may notice a change in light as rooms on the west side of the house stay brighter longer.

Have you noticed that rooms on the west side of buildings are getting warmer in the afternoon? One way to reduce the heat load and keep rooms more comfortable is to keep the heat outside. In order to reduce heat and the need for air conditioning, people install curtains, drapes or mini-blinds. Unfortunately, these keep out light and block desirable views while they reduce the heat coming inside.

It is more efficient to block the heat before it heats up walls and enters windows. Trees, awnings and shutters block heat from the outside. Energy-efficient windows are also an effective way to reduce heat entering east and west windows.

Ultraviolet (UV) rays in sunlight cause our carpets, drapes and furniture to fade. Infrared light is the heat energy that builds up inside our homes causing us to run the air conditioner in the warmer months. We get no benefit from either of these because it is not the kind of light we actually see.

If you are considering replacing old windows or building a new home, consider energy-efficient windows. While some consider energy-efficient windows too expensive to justify their cost, opponents are only considering the purchase price. The U.S. Department of Energy reports that efficient windows can reduce the heating and cooling portion of your electric bill by up to 30%. When you factor in the reduced electricity costs over the life of the home, comfort and fade resistance, better windows are worth the bucks.

Energy-efficient windows, also sold as low-E windows, are not created equal. Window manufacturers participate in voluntary rating programs to help you shop for the best deal. Ask your supplier if your windows are rated by the National Fenestration Rating Council (NFRC), a third-party rating system based on performance, not materials. NFRC labeling helps to make shopping easier, but you need to know what to look for.

Based on the NFRC rating, some windows qualify for the U.S. Environmental Protection Agency's Energy Star label. If the window is Energy Star labeled, choose windows for the southern United States where cooling is most important. The lower portion of the United States will be colored red on the label's map. Not all NFRC-rated windows meet Energy Star standards.

The NFRC label will have three sets of numbers rating heat flow, heat gain and the amount of light entering through the glazing, the glass part of the window.

The most important point for conserving energy in our climate is the solar heat gain coefficient, (SHGC). Choose windows with a low SHGC of 0.40 or less. This means the glass allows only 40% of the sun's heat to enter the house.


Low-E coatings, also called spectrally selective or soft coat, block heat but allow light in. These coatings can be almost invisible or can look like traditional gray tints. Choose higher visible transmittance or VT ratings for clearer view or lower VT if you want to reduce glare.

The U value measures heat flow through the window. It is the inverse of the R insulation value, so while higher R values mean more insulation, lower U factors mean less heat flow. Different parts of the window transmit heat differently, depending on components, so look for a whole window U factor of 0.75 or less.

Window manufacturers are using NFRC and Energy Star ratings so consumers can make good choices. If you don't see a number, you have no way of comparing various products because so many new technologies are invisible to the naked eye.

Most NFRC-rated windows you will find today are from companies outside Florida, but several Florida manufacturers have recently committed to undertake NFRC labeling to better serve their customers. Expect to see those labeled products in the market in the next three months to a year.

For more information on conservation and home improvements, call the Osceola County Extension office at (321) 697-3000 or send e-mail to me at efoe@osceola.org



National Fenestration Rating Council
CERTIFIED

ENERGY Performance

- Energy savings will depend on your specific climate, house and lifestyle
- For more information, call [manufacturer's phone number] or visit NFRC's web site at www.nfrc.org

Technical Information								
Res	U-Factor	.32	Solar Heat Gain Coefficient	.45	Visible Transmittance	.58	Air Leakage	.3
Non-Res		.31		.45		.60		.3

Manufacturer stipulates that these ratings conform to applicable NFRC procedures for determining whole product energy performance. NFRC ratings are determined for a fixed set of environmental conditions and specific product sizes.

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