PRESS RELEASE

Stacy Wemhoff
Communications Coordinator
swemhoff@loup.com
(402) 562-5711

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EnergyWise[SM] Tip: Cool Windows

By Energy Efficiency Program Manager Cory Fuehrer

As Nebraska switches from heating to cooling season, we usually enjoy a few short weeks without continuously hearing our home's HVAC system running. But it won't be long until the rising mercury has our air conditioning systems buzzing. Stay cool, and manage your costs for doing so, by first reducing the amount of infrared heat entering your home. When outdoor temperatures exceed your thermostat setting for cooling, energy savings from the sun's "free lighting" is rapidly offset by air conditioning costs. How can you regulate this unwanted heat?

Shades
When properly installed, window shades can be a simple and effective way to save energy. Shades should be mounted as close to the glass as possible with the sides of the shade held close to the wall to establish a sealed air space.

Quilted roller shades, some types of Roman shades, and pleated shades feature several layers of material and sealed edges. These shades act as both insulation and a barrier to control air infiltration more effectively than other soft window treatments. For even more efficiency, use dual-sided shades that are reflective (white) on one side and heat absorbing (dark) on the other. These can be reversed with the seasons. The reflective surface should always face the warmest side — outward during the cooling season and inward during the heating season.

Blinds
Because of their operating slats, blinds offer flexibility in the summer. Unlike shades, you can adjust the slats to control light and ventilation. When completely closed and lowered on a sunny window, highly reflective blinds can reduce heat gain by around 45 percent. They can also be adjusted to block and reflect direct sunlight onto a light-colored ceiling to provide additional lighting.

Drapery
A drapery's ability to reduce heat loss and gain depends on several factors, including fabric type (closed or open weave) and color. With such a wide variety of drapery available, it is difficult to generalize their energy performance.

During summer days, you should close drapery on windows receiving direct sunlight to prevent heat gain. Studies demonstrate medium-colored drapery with white, plastic backings can reduce heat gains by 33 percent. To reduce heat exchange between the glass and window treatments, drapery should be hung as close to windows as possible.

High-Reflectivity Films
High-reflectivity window films help block summer heat gain. They are best used in climates with long cooling seasons because they also block winter thermal heat. Silver, mirror-like films typically are more effective as a heat gain deterrent than colored, more transparent films. Covering east- and west-facing windows can produce the greatest benefit.

Note that window films do have some disadvantages, too. They can significantly reduce the level of interior light or visible transmittance. They may also impair outside visibility. Some films require extra care when cleaning, and exterior reflections could pose a problem.

Mesh Window Screens
Mesh window screens can diffuse solar radiation, reducing summertime heat gain. Screens should be mounted in an exterior frame and should cover entire windows. They are particularly effective on east- and west-facing windows.

Overhangs
Properly sized and installed roof overhangs can most effectively shade south-facing windows from summer heat. If oriented properly, overhangs will allow sunlight in through the windows during winter, providing more warmth to a house.

It is easy to incorporate overhangs into a home design before or while it's under construction. Adding an overhang to an existing home, however, can be quite difficult and sometimes impossible. Window awnings, louvered patio covers, or lattice-type panels can be considered as alternatives for existing homes.

Shutters
Both interior and exterior shutters can reduce summertime heat gain in your home. Remember that interior shutters need a clear space to the side of the window when opened. They also require hardware fastened to the window jams or trim. Properly designed exterior shutters may provide the best possible window insulation system. They also offer advantages of weather protection, added security, and no use of interior space.

Awnings
With their recent rise in popularity, the U.S. Department of Energy calculates window awnings can reduce solar heat gain in the summer by up to 65 percent on south-facing windows and 77 percent on west-facing windows. Today, awnings are made from synthetic fabrics that are water-repellent and treated to resist mildew and fading. You should choose one that is opaque and tightly woven. And be aware that a light-colored awning will reflect more sunlight than a darker awning.

For additional information on how to make your home, business or school EnergyWise℠, contact Loup Power District, Cornhusker Public Power District, Nebraska Public Power District, or your local public power utility. While you're at it, check out the EnergyWise℠ programs designed to help you save money. Find energy efficiency information online at **www.loup.com**, **www.cornhusker-power.com**, and **www.nppd.com/save-energy**.

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