MONTANA STATE UNIVERSITY EXTENSION

COOLING YOUR HOME NATURALLY

In the Northern States summer days are usually just right, but we do get a few "cookers" from time to time. Fortunately, you can beat the heat without spending much money or using much energy. These low-cost/no-cost strategies are sure to please!

Weatherization

Sealing air passages and insulating your home may not seem like cooling strategies, but they are. The same weatherization methods that keep heat in during winter keep it out during summer. Attic insulation, especially, provides strong protection from the hot sun beating down on your roof each day. Attic ventilation is important, too. Make sure you have both eave and ridge vents. Together, they provide a pathway for heat to rise up and out. Look for the Power Bill brochures on insulation (four of them) and air-sealing for further details.

Ventilation

Here in Montana, we can pretty much count on enjoying a refreshing, cool breeze in the early mornings and late evenings. To make the most of these cooler times, open windows and doors on opposite sides of your house to let the breeze flow through. Openings at the highest and lowest points (such as a front door and a back upstairs window) are particularly good natural ventilators. Don't leave your house open all day though. Once the morning coolness is gone, close it up until evening.

Use fans if needed to create even more air flow through your house during these cooler periods. Whole-house fans mounted in the attic work best. They pull warm air out of your living space through ceiling vents and blow it outside through the attic vents. Other options include ceiling-mounted paddle fans and portable box fans. A box fan mounted in an upstairs window will also blow warm air outside, prompting more cool air flow into main-floor windows and doors.

Window Shading

Houses warm up fast with direct sunlight pouring through the windows. We welcome it in winter, but during summer it's best to keep the sunshine out. Start in the morning by leaving east-side curtains or shades pulled until the sun climbs higher in the sky. Later on, shade south and west-facing windows to block that hot sun throughout the day. The most effective interior sun blocks are curtains and shades with light colors facing outside. Light colors reflect, rather than absorb, the heat. You can also buy special solar screens made of densely woven fiberglass or aluminum. They block out up to 75 percent of sunlight. Even more effective are exterior shutters or shades because they keep the sun outside entirely. They're less convenient, however.

An option for windows is reflective plastic film applied directly to the glass. As an option to permanently applied film, when winter comes, some brands allow you to peel the film off and put it away till next year. Film are also available on pull-down retractable roller shades. Window awnings are yet another choice that lets you block the sun while keeping the curtains open. Make sure the awnings extend at least halfway down the window on all three sides. You can buy or make them out of canvas or nylon. Just remember to take them down on south windows in the fall so you can catch that winter sun.

Inside your Home

You'd be surprised at how much heat major appliances add to the heat of your house. As an example, the refrigerator/freezer spills heat into the kitchen as its motor works to keep food cold. Open the doors as little as possible during the summer to keep it from working overtime. Also, cook outside on the barbecue whenever possible to avoid generating heat from the oven and burners. Run other appliances such as washers, dryers, and dishwashers at night or early in the morning when it's cooler. And use lights sparingly, for they generate heat as well. You'll also stay cooler if you keep humidity levels down. Moist air will make your home seem even hotter than it is. For help, see the Power Bill brochure called Controlling Condensation in the Home. Dress appropriately, too, by wearing

loose-fitting, lightweight shorts and short-sleeve shirts. Every little step helps!

Landscaping
Landscaping is a more long-term cooling option, but it's never too late to start planting! Actually, it's more important to landscape for winter than for summer in our cold climate. A thick line of evergreens to block the cold northwesterly winds will surely trim your heating costs. For a summer cooling aid, your best bet is to plant small- to medium-height deciduous shade trees near the east- and west-facing walls of your house. During summer, they'll block your windows from the morning and evening sun, and in the winter they'll shed their leaves to let the sun in. To shade your roof, you could plant taller deciduous trees in the southwest and southeast corners of your yard, but keep the true south side of your house tree-free. You need all the southern exposure you can get during the winter.

Visit a local nursery or call your cooperative extension office to find out what tree varieties grow best in your area and how to care for them. Also be sure to plant away from overhead power lines and underground water, sewer, and utility lines.

Architectural Elements
You don't have to wait around for the trees to grow to enjoy shade and wind protection in your yard. Tall fences will also block the north winds, and trellises (vine-covered if you'd like) can shade your windows and provide a nice cool spot for summer lounging.
Evaporative Coolers

If you're still too hot after trying all of the above strategies, you may be tempted to buy an air conditioner as a last resort. Wait! There's one more option called an evaporative cooler that uses considerably less energy than a conventional air conditioner. Evaporative coolers are simple devices that deliver cool, damp air to your living space. They work well in arid climates such as ours. Check them out at your local hardware or building store before buying an air conditioner – they may be just the cool solution you seek!

For More Information
For more information about energy-saving tips, contact your local utility, the Community Action Agency/Human Resources Development Council, the tribal weatherization office or the Extension office in your county.