

KUNI Radio Series “Unplugged”
Show #19: Energy Planting Tips 1

From the Center for Energy & Environmental Education at the University of Northern Iowa, this is Pat Higby with a series of programs on KUNI to help you save energy.

As the days lengthen and the weather warms our thoughts turn to spring and our lawns and gardens. In addition to adding beauty to your home, a well-designed landscape can reduce your heating and cooling costs. The U.S. Department of Energy’s website has lots of information on this topic. I’ll summarize the key points for you, but you’ll want to visit their website for more details.

The first consideration when landscaping your area is the **regional climate**. Iowa is in the **temperate** zone, so we have two basic goals. First, we want to maximize the warming effect of the **sun** in the winter, yet maximize **shade** during the summer. Second, we want to **deflect** winter winds away from buildings, yet **funnel** summer breezes toward the home. In both cases, we’re dealing with contradictions! It appears you’ll have to choose one season over another, but fortunately Mother Nature provides a wide variety of selections to help us achieve these goals.

Before accepting any **general** suggestions, however, you need to consider your home’s **microclimate**. Because of your building’s **specific** location you may receive more sun, shade, wind, or snow than the average home in a temperate region. For instance, if your home is located on a sunny southern slope, it may have a **warm** microclimate and you’ll want to concentrate more on staying cool in the summer. If your home sits on the **north** side of a hill, you’ll be more concerned with windbreaks and protecting your home from winter storms.

A windbreak planted north or northwest of your house can **reduce heating costs** by lowering the wind chill near your home. For example, a wind speed of 20 miles per hour can make a temperature of **10** degrees feel like **24 below zero**! A windbreak will reduce wind speed for a distance as much as 30 times the windbreak’s height. For best protection, plant your windbreak at a distance from your home of two to five times the mature height of the trees you select.

A combination of trees, bushes, and shrubs most effectively blocks the wind from ground level to treetop. Evergreen trees combined with a wall, fence, or earth berm can deflect or lift the wind over a building. If snow drifts are a problem around your home, plant low shrubs on the windward side of your windbreak to trap snow **before** it blows next to your house. Shrubs or bushes can also be planted next to your house to create dead air spaces that insulate your home in both summer and winter. Plant so there is at least a foot of space between the full-grown plants and the wall to prevent moisture problems.

I’m Pat Higby, Energy Educator at the Center for Energy and Environmental Education at the University of Northern Iowa.