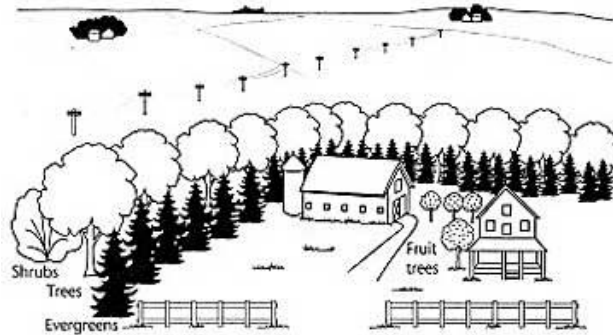


## Community Trees for Practical Use

We usually think of the trees that we plant in our yards as a means to improve the aesthetics, provide shade, a source of food, or a combination of these factors. The benefits of trees can also be looked at in terms of more practical use. "Working trees" is a term becoming more common as we learn more about the different ways trees can provide multiple benefits. To better understand the practical uses can help us choose suitable trees to plant in the right place.

### Windbreaks

The same principles that are used to plant trees to protect croplands can be applied to planting in your yard. Trees add comfort by diverting the wind. They also lower fuel bills in the winter and make turf irrigation more efficient by reducing evaporation in the summer. Windbreaks can be planned to fit the space available and a tree species that will squeeze a windbreak into narrow urban spaces.



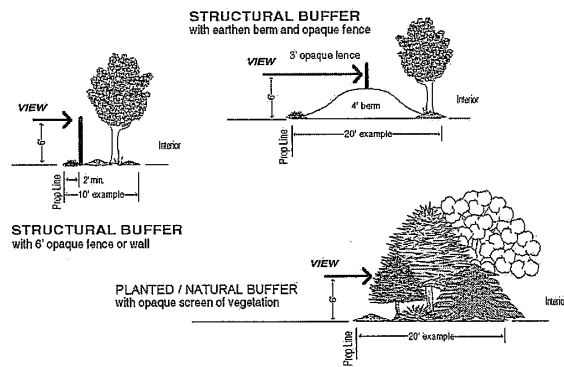
### Living Snow Fences

By strategically placing rows of trees and shrubs you can control blowing snow. This not only can contribute to public safety but it can also reduce snow removal costs. According to the Laramie County Conservation District, replacing traditional slatted fences with living snow fences has saved taxpayers up to \$4,933 per mile per year. In Laramie County alone, its 53 living snow fences are saving roughly \$74,000 tax dollars every year. By controlling where snow piles up, it is possible to increase spring soil moisture on lawns, athletic fields and other areas of grass. By using trees and shrubs preferred by birds and other desirable wildlife, yet another benefit can be added.

### Streambank Stabilization and Control of Hillside Erosion

Trees and ground covers can be planted to prevent creeks from eroding their banks. Willow and cottonwood cuttings are perhaps the fastest way to establish tree cover. If the trees are planted closely in offset rows, staggered, their branches will interlock and provide a high degree of protection from heavy rains. This kind of growth will also slow flood waters, reducing their power to erode.

On slopes and steep banks, either natural or created by development, trees have a job to do. While sod and ground cover vegetation hold topsoil in place, tree roots can penetrate deeper and anchor large blocks of soil. Just as importantly, leaves and branches break the force of falling rain, providing a first line of defense against soil erosion. Densely planted conifers or trees with thorns, like hawthorns, can do additional duty by keeping ATVs, mountain bikes, foot traffic and motorcycles off slopes that are prone to erosion.



### Buffer Strips

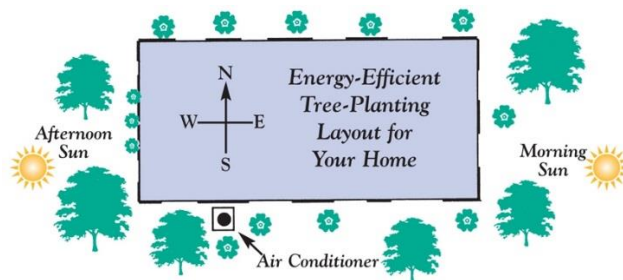
Trees adjoining farm fields have been shown to form powerful buffer strips that absorb excess agrochemicals before they can contaminate nearby waterways. This same method can be applied in urban conditions to control lawn, athletic field and golf course turf chemicals.

### Visual Screening

Trees can earn many times their cost by changing the visual qualities of a property. Whether it is improving the appearance of commercial properties or screening out an undesirable view from a residence, even a single row of conifers can make a big difference. With a little more landscaping, the view can actually be made beautiful.

### Sound Barriers

Strips or rows of densely planted trees and shrubs will not completely remove the annoyance of city noise, but they can significantly reduce it. Leaves are especially effective in absorbing high frequencies which are the sounds that human ears find most bothersome. Research has shown that even narrow belts of trees can reduce noise by 3 – 5 decibels. Combining trees with land forms such as mounds has resulted in reduction by as much as 15 decibels. When combined with solid noise barriers, trees not only help muffle objectionable sounds, they reduce the visual harshness of walls and fences. Trees also improve the sound environment by masking unpleasant noise. The rustling of aspen leaves, for example, outside a window or beside a porch can actually replace other noise and make the setting more enjoyable.



### Reducing Air Conditioning Costs

Trees can reduce both monetary and environmental costs associated with summer cooling by providing shade and reducing air conditioning bills. In some instances, savings of 58% of daytime air conditioning have been documented. In the case of mobile homes, the savings have reached 65%. Less use of air conditioning also reduces the need for additional electrical power. Where coal is burned to produce electricity, one additional pound of carbon is dumped into the air for each kilowatt-hour of electricity needed.

## Food Production

Trees' first service to humans was providing fruit for food, and it remains today as a viable use for trees even in the smallest nooks and crannies of a community. Trees for food becomes a practical idea in a city when dwarf varieties are used. Apples, cherries, plums, berries, nuts and more can be grown in spaces as small as 100 square feet. The community of Davis, California is an example of putting trees to work to produce food. They even have their street trees growing food. Years ago an agreement was made between Village Homes, a 70-acre, environmentally aware development and the City of Davis, to maintain city right-of-way trees along the edge of the enclave if homeowners would plant and use trees of their choice. They selected almond trees, and every summer the homeowner's association harvests the bounty. A commercial operator brings in a machine to shake the trees and then the members do the gathering and drying. Whoever helps has the option of purchasing quantities of almonds and the remainder are sold to a commercial processor. The profits are used to maintain the facilities in the development.



## Attracting Birds

The Garden Club of America estimates that a single Oriole can devour 17 leaf-munching caterpillars in a minute. Northern Flickers clean up ants by the thousands. Birds earn their keep. To make certain we continue to have birds, butterflies, and other desirable urban wildlife, it is essential to provide food, water, and shelter. Trees can be selected to provide these needs, including nesting areas and cover for hiding.

## Other Uses of Trees

Here are a few more suggestions on how to put trees to work for you;

- Property boundary demarcation
- Reduction of storm water runoff, snowmelt and cleansing urban waste water
- Reducing glare from buildings or other bright objects that reflect daylight
- Reducing unused lawn space to lessen mowing or make it unnecessary
- Filtering dust and absorbing air pollutants
- Improving property values for resale
- Odor modification
- Directing the flow of vehicular or pedestrian traffic
- Blocking unwanted pedestrian or bike traffic
- Visually reducing buildings
- Stress reduction in the home, workplace and at hospitals and retirement homes
- Creating a social situation by providing a pleasant place to gather
- Providing greenbelts to connect neighborhoods

Working together we can improve our community through wise tree placement and at the same time derive the benefits of putting trees to work.

Contact the City Arborist at 307-754-6971 if you have any questions.