

What is the Value of a tree?

Exploring the potential economic, aesthetic, & ecological value of a single seedling.

Trees hold obvious timber harvest value for fuel and wood products of all kinds.



As much as we want to protect trees, we must understand that trees need to be harvested. Beyond the use of wood as a fuel source, trees provide us with an innumerable number of wood products... wood floors, houses, furniture, books, napkins, etc... The best part is, the resource (when managed properly) is a sustainable and renewable!

A single mature pine tree can be worth \$60 to \$100.

Better with age?

Trees grow indeterminately, meaning that with the right conditions, they can grow and grow and grow, with only the laws of physics limiting their height. At a certain point, a tree cannot send enough water from the roots to the top layer of leaves, preventing adequate photosynthesis. Once a tree hits its maximum height, instead of growing taller, it grows wider! And it does so at an ever-increasing rate! Trees actually grow faster as they age.

The balsam bough industry in Minnesota.

As a home business, families can earn up to \$20,000 a year harvesting and assembling basic wreaths. Each year about 750,000 pounds of balsam boughs are harvested from state forests between late September and early December. A good day's picking can yield up to 1,000 pounds of boughs-enough to make 200 wreaths, each 25 inches in diameter.

Over a 50-year lifespan...

It is estimated by the U.S. Forest Service that over a 50-year lifespan, a tree generates almost \$32,000 worth of oxygen, providing \$62,000 worth of air pollution control. This tree would also be responsible for recycling \$37,500 worth of water and controlling \$31,000 worth of soil erosion.

Trees absorb CO2 and produce oxygen.



Trees absorb CO₂, removing and storing the carbon while releasing oxygen back into the air.

A tree can absorb as much as 48 pounds of carbon dioxide each year and can sequester one ton of carbon dioxide by the time it reaches 40 years of age.

Burl wood is prized by craftsmen and artists. A burl is a cool-looking, extraneous growth on a tree. Ugly on the outside, but magnificent on the inside, it can form on any type of tree! A burl usually grows when the tree is undergoing some stress, whether it be an injury, virus, or fungal infection. Burl wood can become beautiful tables, benches or interesting carvings.

Maple trees support a thriving syrup industry in Minnesota. Depending on the time of season and the sap's sugar content, it can take from 28 to 80 gallons of sap to produce a single gallon of syrup.

Maple syrup is an all-natural sweetener, and can be used as more than just pancake topping.

Trees cool a landscape and provide shade.

Three trees placed strategically around a single-family home can cut summer air conditioning needs by up to 50 percent. Also, shade from trees slows water evaporation from thirsty lawns.

Deer go nuts for acorns!

White and red oak trees are deer magnets because their acorns provide a food source for the herd well past fall and into the difficult winter months. For this reason, oaks, among other trees are a great tree to plant for those who manage their woodland properties for wildlife habitat, particularly deer.



Acorns are sometimes affectionately called buck candy!

Trees add beauty to their surroundings

Trees add color to an area, softening harsh lines of buildings, screening unsightly views and contributing to the character of their environment. Trees have also proven to contribute to a community's economy and way of life. Depending on species, maturity, quantity and location, property values increase 5 to 15 percent when compared to properties without trees.

A tree top home

Trees of all kinds provide shelter and a home for mammals both small and large. From lumbering black bear to tiny red squirrel the list of tree dwellers is long. Raccoon, fishers, martens, bobcats, porcupines, flying squirrels, all use the tree canopy for one thing or another. Nests and dwelling places are made in branches, holes, or in the hollows of dead branches.

Birds need trees and trees need birds

Minnesota is home to 246 species of birds, (Minnesota Biological Survey) many of which also breed in our state. Trees provide shelter food or homes in some way to most bird species. In turn, birds often help spread seeds of trees to other parts of a region.

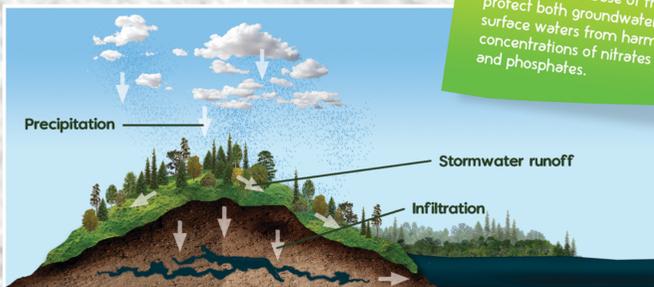


Evergreens are a constant, reliable shelter for birds. This is especially critical in northern areas where birds can roost in thick pines and other evergreens for shelter from winter storms and from predators.

Trees prevent soil erosion.

Trees reduce topsoil erosion by catching precipitation with their leaf canopies. This lessens the force of storms and slows down water runoff which in turn ensures that our groundwater supplies are continually being replenished. Research has indicated that 1 mature tree can intercept approximately 100 gallons of rainfall per year and for every 5 percent of tree cover added to a community, storm water runoff is reduced by approximately 2 percent. Along with breaking the fall of rainwater, tree roots remove nutrients that are harmful to water ecology and quality. Leaves and needles that have fallen from the trees and begun to decay form an organic layer that allows water to percolate into the soil which also aids in the reduction of runoff and soil erosion.

Forests and well vegetated lands serve as a giant natural sponge, filtering and retaining storm water. The root system and vegetative base of trees protect both groundwater and surface waters from harmful concentrations of nitrates and phosphates.



An apple a day...

If you are patient, an apple orchard can begin to produce fruit in the fifth year. Yields from dwarf trees planted at a density of 300 to 400 trees per acre in Minnesota range from about 300 bushels per acre to 500 or more bushels per acre. Figuring that a bushel of apples weighs about 40 pounds, an acre of trees at this density should produce at least 16,000 pounds of fruit, and on a good site, with favorable climatic conditions and excellent management, as much as 20,000 pounds.

Giving back to the soil.



At the end of their life cycle, trees give back to the soil. The decay of leaves, and rotting trees increases soil fertility. A fallen tree becomes home to hosts of insects, reptiles, some mammals and other plant life. The presence of insects particularly helps the soil as they are constantly mixing the soil with the nutrients from the decaying tree by their burrowing activities.

Many inconspicuous plants, fungus, and mosses depend on the moist, sheltered habitat of a rotting log. One tree can host whole plant communities on the forest floor.



CLEARWATER
Soil & Water Conservation District

Contact Clearwater SWCD for information on our annual tree sale. 218-694-6845