Healthy trees mean ...

... healthy people.[1]

One hundred trees remove
- 53 tons of carbon dioxide per year.
- 430 pounds of other air pollutants per year.

... healthy communities.[2]

Tree-filled neighborhoods
- lower levels of domestic violence.
- are safer and more sociable.

... healthy environment.[1]

One hundred mature trees catch about 139,000 gallons of rainwater per year.

... homeowner savings.[1]

- Strategically placed trees save up to 56% on annual air-conditioning costs.
- Evergreens that block winter winds can save 3% on heating.

... better business.[3]

In tree-lined commercial districts, shoppers report
- more frequent shopping.
- longer shopping trips.
- willingness to pay more for parking.
- willingness to spend 12% more for goods.

... higher property values.[4]

- Each large front yard tree adds 1% to the house sales price.
- Large specimen trees can add 10% to property value.

[1] McPherson, E.G.; Simpson, J.R.; Peper, P.J.; Maco, S.E.; Gardner, S.L.; Cozad, S.K.; Xiao, Q. 2005. Midwest community tree guide: benefits, costs, and strategic planting. NA-TP-05-06. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northeastern Area State and Private Forestry. (See the last page of this brochure for more information.)

[2] Sullivan, W.C.; Kuo, F.E. 1996. Do trees strengthen urban communities, reduce domestic violence? Arborist News 5: 33-34.

[3] Wolf, K.L. 1999. Nature and commerce: human ecology in business districts. In Kollin, C., ed. Building Cities of Green: Proceedings of the 1999 National Urban Forest Conference. Washington, DC: American Forests: 56-59.

[4] Anderson, L.M.; Cordell, H.K. 1988. Residential property values improve by landscaping with trees. Southern Journal of Applied Forestry 9: 162-166.

Neely, D., ed. 1988. Valuation of landscape trees, shrubs, and other plants, 7th ed. Urbana, IL: International Society of Arboriculture.

It pays to care for trees.

Landscape trees provide benefits that far exceed the costs of planting and care over their lifetime.

Environmental and esthetic benefits, such as energy savings, stormwater runoff reduction, cleaner air, and higher property values, are an average of three times greater than tree care costs.[1]

The greatest benefits are energy savings and higher property values.

One healthy public tree in its 20th year after planting:[1]

Benefits	$96
Costs	$36
Annual net benefit	$60

One hundred healthy trees over 40 years[1]:

	Yard trees	Public trees
Benefits	$364,000	$380,000
Costs	$92,000	$148,000
40-year net benefit	$272,000	$232,000

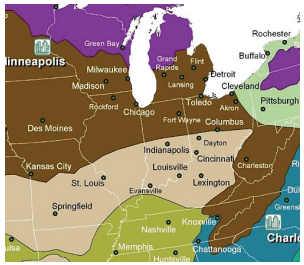
USDA Forest Service's Center for Urban Forest Research shows that … It pays to care for trees.

As a demonstration i-Tree project, base data were collected in Minneapolis, Minnesota, during the summer of 2004. To learn how to use this information to calculate costs and benefits for any community in the Midwest region (shown on map in brown), refer to the Midwest Community Tree Guide at http://cufr.ucdavis.edu. To learn more about i-Tree, visit www.itreetools.org

About the research:

Costs analyzed:

- Tree purchase and planting
- Pruning
- Irrigation
- Pest and disease prevention and control
- Removal and disposal
- Sidewalk repair
- Leaf litter clean-up
- Liability, legal aspects, administration.



Benefits analyzed:

- Energy savings (electricity and natural gas)
- Air pollution reduction (carbon dioxide, nitrogen dioxide, sulfur dioxide, ozone, airborne particles, and volatile organic compounds)
- Runoff reduction (rainfall interception)
- Property values.

Methods:

- Benefits and costs were quantified for typical large, medium, and small deciduous trees (hackberry, red oak, and crabapple).
- The analysis assumed that trees were planted in a residential yard or public area (street-side or park) with a 60% survival rate over 40 years.
- Tree care costs were based on results from a survey of municipal and commercial arborists.
- Benefits were calculated using tree growth curves and numerical models that consider regional climate, building characteristics, air-pollutant concentrations, and prices.

Project partners included the Minneapolis Park and Recreation Board, Minnesota Department of Natural Resources, Tree Trust, and Minnesota Tree Care Advisors.

Source: McPherson, E.G.; Simpson, J.R.; Peper, P.J.; Maco, S.E.; Gardner, S.L.; Cozad, S.K.; Xiao, Q. 2005. Midwest community tree guide: benefits, costs, and strategic planting. NA-TP-05-05. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northeastern Area State and Private Forestry

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Trees Pay Us Back

Properly cared for, they are valuable and growing assets worth three times the investment.