

Landscaping for the Future

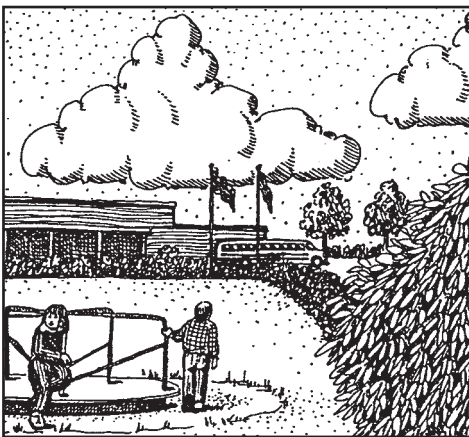
Landscaping is an integral part of our culture and plays an essential role in the quality of our environment, affecting our economic well-being and our physical and psychological health.

If we are to keep our communities strong and prosperous, we must take responsibility for our environment. Environmental responsibility is a step beyond awareness, developed only through experience. Through our gardens and landscapes, we acquire a personal awareness and responsibility for the environment while we relieve the tensions and frustrations of everyday life.

Landscaping offers many opportunities for the encouragement and education of responsible, productive citizens. School grounds represent the world environment of a child and should be designed and integrated into the curriculum to instill responsibility, knowledge, and experience in caring for the environment, while teaching the math, science, and art associated with the cultivation of plants.

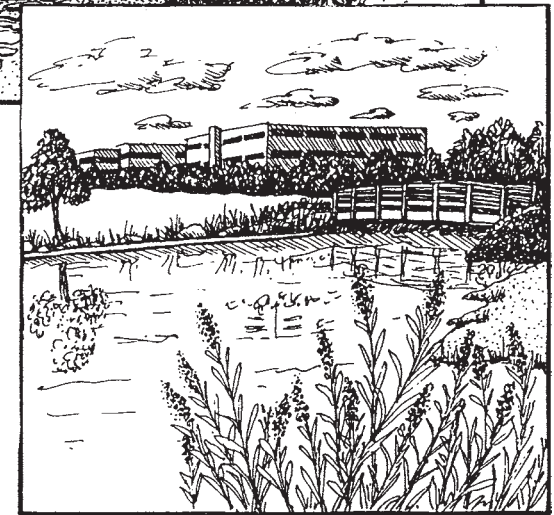
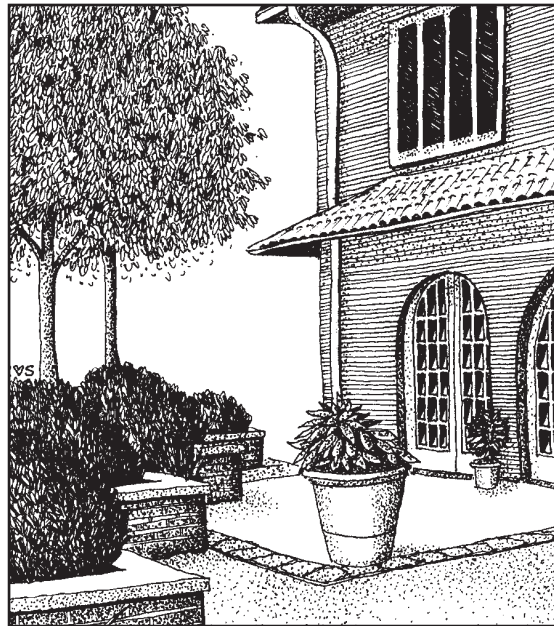
Public and commercial landscapes have a major influence on our environment, and on peoples actions and attitudes. Sustainable landscape maintenance techniques can be used to protect the environment while enhancing economic development and improving worker productivity.

Landscaping is one of the most cost effective tools for improving and sustaining the quality of life, whether in the city, the suburbs, or the country.



For more information on selection, planting, cultural practices, and environmental quality, contact your local Virginia Cooperative Extension Office. If you want to learn more about horticulture through training and volunteer work, ask your Extension agent about becoming an Extension Master Gardener. For monthly gardening information, subscribe to *The Virginia Gardener Newsletter* by sending your name and address and a check for \$5.00 made out to "Treasurer, Va. Tech" to The Virginia Gardener, Department of Horticulture, Virginia Tech, Blacksburg, VA 24061-0349. Horticultural information is also now available on the Internet by connecting with Virginia Cooperative Extension's server at <http://www.ext.vt.edu>

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Virginia
Gardener

The Value of Landscaping

Virginia Cooperative Extension

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Enhancing our Environment

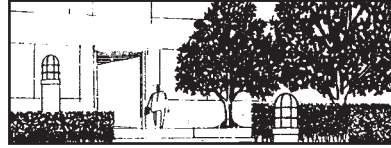
- **Plants protect water quality.** Proper landscaping reduces nitrate leaching from the soil into the water supply. Plants also reduce surface water runoff, keeping phosphorus and other pollutants out of our waterways and preventing septic system overload.
- **Proper landscaping reduces soil erosion.** A dense cover of plants and mulch holds soil in place, keeping sediment out of lakes, streams, stormdrains, and roads; and reducing flooding, mudslides, and duststorms.
- **Plants improve air quality.** One tree can remove 26 pounds of carbon dioxide from the atmosphere annually, equaling 11,000 miles of car emissions. Landscape plants, including shrubs and turf, remove smoke, dust, and other pollutants from the air. One study showed that 1 acre of trees has the ability to remove 13 tons of particles and gases annually.
- **Landscaping lowers summer air temperatures.** According to the EPA, urban forests reduce urban air temperatures significantly by shading heat sinks such as buildings and concrete, and returning humidity to the air through evaporative cooling. Trees shading homes can reduce attic temperatures as much as 40 degrees.



- **Landscaping conserves natural resources.** Properly placed deciduous trees reduce house temperatures in the summer, allowing air conditioning units to run 2 to 4 percent more efficiently, but allow the sun to warm the house in the winter. Homes sheltered by evergreen windbreaks can reduce winter heat loss and are generally warmer than homes without such protection. By using trees to modify temperatures and protect against wind, the amount of fossil fuels used for cooling and heating is reduced.
- **Landscaping screens busy streets.** Well-placed plantings offer privacy and tranquility by screening out busy street noises and reducing glare from headlights.

Promoting Economic Development

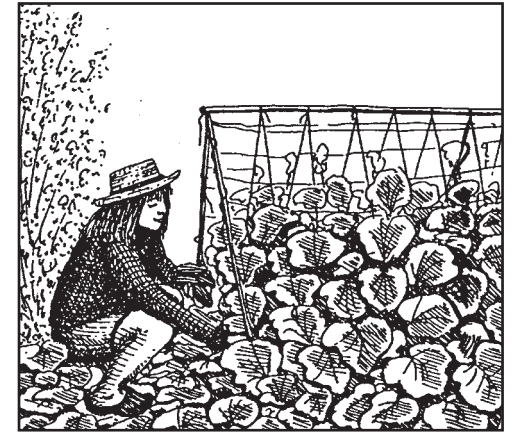
- **Landscaping increases property market value** A 1991 study estimates that an attractive landscape increase the value of a home by an average of 7.5 percent, and reduces the time on the market by five to six weeks. *The Wall Street Journal* reported that landscape investments are recovered fully, and sometimes doubled, by the increased home value.



- **Good landscaping increases community appeal** Parks and street trees have been found to be second only to education in residents' perceived value of municipal services offered. Psychologist Rachel Kaplan found trees, well-landscaped grounds, and places for taking walks to be among the most important factors considered when individuals chose a place to live.
- **Landscaping reduces crime.** In a California study, landscaped areas were relatively graffiti-free, while open, nonlandscaped areas were graffiti targets. Well planned and maintained landscapes are seen as safer than unmaintained plantings.
- **Plants increase tourism revenues.** Interior landscaping at the Opryland Hotel in Nashville, Tennessee, is credited for an unusually high (85 percent) occupancy rate. Guests willingly pay an extra \$30 per night for rooms overlooking the jungle-like display, netting \$7 million a year in additional room revenues. The city of Virginia Beach attributes, in part, their \$52 million in convention revenue for 1994 to the landscaping efforts of recent years.
- **Views of plants increase job satisfaction.** Employees with an outside view of plants experience less job pressure and greater job satisfaction than workers viewing man-made objects or having no outside view. They also report fewer headaches and other ailments than workers without the view.
- **Nature increases worker productivity.** Psychologists have found that plants and green spaces provide a sense of rest that allows workers with access to plants and nature to be more productive.
- **Landscaping renews business districts.** Greening of business districts increases community pride and positive perception of an area, drawing customers to the businesses.

Improving Human Health

- **Gardening is excellent physical exercise.** Routine gardening tasks such as shoveling, rototilling, and even mowing grass with a push-type, reel lawn mower can measure up to the exertion rates of jogging, bicycling, or aerobics. Studies have shown that one hour of weeding burns 300 calories - the same as walking or bicycling at a moderate pace.



- **Gardens produce healthy food.** Fresh food from the garden can have up to three times as many vitamins and minerals as canned or frozen food. Community garden plots have become a valuable means of providing food for the homeless.
- **Horticulture is therapeutic** Horticultural therapy is a treatment for a variety of diagnoses. Working with and around plants improves quality of life through psychological and physical changes. Nurturing a plant into maturity from seed is rewarding and builds self-confidence. Various horticulture-related tasks such as carrying plants, planting trees, or arranging flowers are used to improve coordination and motor control of injured or disabled individuals.
- **Landscapes heal.** Restorative gardens offer an environment for people who are sick, injured, and under stress to recover and regain confidence in themselves. Such landscapes are also currently used by hospices in treatment of Alzheimer and AIDS patients. Roger Ulrich showed through a study of hospital patients that those whose rooms overlooked vegetation recovered faster and required less pain medication than did patients without a view of nature.