

# Consumer Horticulture Benefits Housing and Residential Areas

Horticulture and plants can be a benefit to those who live in housing and residential areas by:

- Providing aesthetically pleasing and valuable landscapes that increase property value
- Providing landscape plants that improve the physical conditions and improve energy efficiency
- Improving the quality of life in residential neighborhoods



EC3051

## Plants Add Beauty and Increase Property Values

Attractive landscapes stimulate the senses of sight, smell, sound, touch, and taste. In addition to visually framing the home, a landscape can complement the home's architecture and provide outdoor living space for gardening, social gatherings and recreation.

A landscape comprised of appropriate, well-designed plantings contributes economic value through "curb appeal"— the public's view of the front yard from the street. Numerous studies conducted in the east, central, southwest, and southeast U.S. reveal that a well-designed and managed landscape contributes 5 to 12% of the perceived value of single-family homes<sup>2,6,15,16,17,22</sup>. A study on single family homes in Texas reported the combined curb appeal of a home's exterior features and surrounding landscape can contribute up to 17% of a property's value<sup>12</sup>.

Trees have consistently been shown to positively influence property values<sup>20,21</sup>. In Georgia, the sales of single-family homes with more than five trees in the front yard were associated with a 3.5-4.5% increase in sales prices compared to homes with fewer trees<sup>1</sup>. Similarly, 2% of the value of a single-family house was attributed to mature trees in a Louisiana study<sup>9</sup> while a Florida study calculated a property value increase of \$1,586 per tree<sup>13</sup>. Urban and street trees have also been shown to increase property values. Street trees in Portland contributed 3% of the median sales price to the home sales price<sup>10</sup>, while a community study in Ohio found that the urban forest contributed to nearly 11% of home sales prices<sup>7</sup>.

The positive influence on residential and community property values does not account for the total economic value provided by the urban forest. Trees within our urban or suburban living environments also provide air quality improvements, energy savings, stormwater and erosion control, aesthetics, and enhanced quality-of-urban life<sup>8</sup>.

## Plants Save Energy

Besides increasing real estate values, properly sited landscape plants can beneficially impact the physical environment around living areas<sup>19</sup>. While new construction or remodeling of an existing home can include state-of-the-art energy-efficient materials, appliances, and lighting, all residences can benefit from landscaping to make homes more energy-efficient. Tall shade trees can reduce solar heating. Shade and evapotranspiration from trees can reduce summer air temperatures by as much as 6°F while cooler shaded air near the ground level near the ground and can reduce outdoor temperatures by as much as 25° F<sup>23</sup>.

In temperate regions, tall deciduous trees on the south-facing side of homes and mid-sized trees on the western side block summer solar radiant heat. In the winter, the leafless trees allow the sun to warm the home<sup>18</sup>. Smaller trees, shrubs, and vines can also be used to lower the radiant heat exposure on the home's walls and windows to reduce energy costs<sup>23</sup>.

Plant material used well can lower the negative impacts of wind near residences. In temperate climates, deciduous and evergreen trees can block prevailing northern winter winds lowering the wind chill and reducing winter energy budgets by an average of 40 percent<sup>23</sup>.

## Additional Benefits from Plantings

- *Plants can lower utility bills.*
- *Trees reduce outdoor temperatures.*
- *Grass is cooler than streets and sidewalk.*



## Plants Save Energy Continued

Dense combinations of trees and shrubs on the windward side of a property can also create a living snow fence. Additionally, properly placed trees and shrubs can provide a path for wind that can help with cooling in warm seasons<sup>19</sup>. Vegetation in lawns can also reduce urban heat through transpiration<sup>3</sup>. Afternoon air temperatures measured 16 inches above bermudagrass have been reported 4 to 7° F cooler than temperatures above asphalt or concrete<sup>4</sup>.

## Plants in our neighborhoods improve our quality of life

Numerous research studies show that the plants in our neighborhoods have a positive impact on our physical, social, and mental health. A recent review of literature on plant-derived human benefits found over 100 articles focused on the social or psychological benefit of plants in forests, parks, home gardens, community gardens and other public spaces<sup>11</sup>. Gardening and landscaping are physical activities that can result in fresh fruits, fresh vegetables, and exercise. Outdoor activities also provide opportunity for people to meet, converse, and oversee the neighborhood. Plants in our environment also impart emotional and well-being benefits.

When taken in total, it is very clear that our landscape plants are good for us! Our landscapes and the plants they contain increase the beauty and value of our dwellings. They reduce the cost of heating and cooling our homes and make outdoor temperatures more pleasant throughout the seasons. Landscapes and plants improve our ability to cope with life's changes and challenges by improving our mental well-being. Spending time, effort, and even money in your landscape is a good financial investment and may pay dividends to your mental health as well.



This publication was written to educate residents about the beneficial roles of Consumer Horticulture. It was collaboratively developed by the Consumer Horticulture Extension, Research, and Education Coordinating Committee (SCC-85) organized through the Southern Association of Agricultural Experiment Station Directors. SCC-85 includes members from Auburn Univ., Clemson Univ., Univ. of Kentucky, Univ. of Georgia, Univ. of Hawaii, Louisiana State Univ., The Ohio State Univ., Univ. of Minnesota, Mississippi State Univ., Univ. of Nebraska, North Carolina State Univ., Univ. of Tennessee, and Virginia Tech. SCC-85 also operates as the NICH Academic/Government Council and serves to connect the academic horticulture community to NICH.

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The National Initiative for Consumer Horticulture (NICH) is a consortium of industry leaders who are promoting the benefits and value of horticulture. NICH brings together academia, government, industry, and nonprofits to cultivate the growth and development of a healthy world through landscapes, gardens and plants – indoors and out. The Mission of NICH is to grow a healthy world through plants, gardens, and landscapes.

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