

QUALITY LANDSCAPING

Can Add Value to

TENNESSEE HOMES

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Homeowners have several motivations for improving the landscape around their home. For buyers of newly constructed homes, exterior landscaping helps “frame” the home, enhancing aesthetics. For home sellers, landscaping could enhance market value. In *Remodeling Online*, real-estate agents showed that home value is enhanced with kitchen, bath or bedroom renovations, or with the addition of a deck or patio. Though little research has been published to document the effects, landscaping is expected yield similar added value.

Accordingly, three components of landscape design were examined for their influence on perceived home value. Our results will be useful for lawn and landscape service firms that market their services to clients and to real-estate agents and homeowners who must assess fair home values. Our objectives were to provide consumer perspectives on the value of “good” landscape components and to determine which attributes of a landscape that consumers valued most.

How the study was conducted

A two-story, newly built suburban home was photographed and used as the test home (see Figure 1). A commercially

employed landscape architect prepared 16 design plans. The designer was given parameters and definitions for each plan and received a set of guidelines for incorporating only plants common through USDA Plant Hardiness Zones 4–7. Computer-generated color images of the home and landscaping, prepared using Adobe PhotoShop, depicted the home and landscaping as viewed from the street.

Plant size, diversity of plant material (type) and design-sophistication characteristics were chosen to most comprehensively describe attributes of a landscape. Thus, in this model, preference for large, medium or small plant sizes, combined with the preference for design sophistication and for the type of plant material used, yielded an overall preference (measured in dollars) for a particular landscape.

Design-sophistication levels were: (1) foundation planting only, (2) foundation planting with one large, oblong island planting and one or two single specimen or shade trees in the lawn or (3) a foundation planting with adjoining beds and two or three large island plantings, all incorporating curved bedlines. Plant material types were: (1) evergreen only, (2) evergreen and deciduous plants, (3) evergreen and deciduous plants with 20% of visual area of landscape beds



planted in annual or perennial color or (4) evergreen and deciduous plants, 20% annual or perennial color and addition of a colored brick sidewalk entrance.

While all 36 possible combinations of factor levels (3 size x 3 design x 4 material levels) could have been used for full-profile conjoint analysis, researchers chose to reduce respondent fatigue by minimizing the number of photographs evaluated. A partial factorial design was used to reduce the number of photographs from 36 to 16, a much more manageable number.

Personal surveys were administered in seven markets throughout the eastern and central U.S. including Delaware, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina and Texas. Approximately 160 responses from each state were collected at consumer home-and-garden shows, with a target sample-size target of at least 10 responses per photograph.

Visitors were recruited to participate in the survey as they passed the display table of 16 photographs. Participants examined a photograph of the survey home with only a lawn and a straight poured-cement walk and driveway. They were told: the home value as estimated by local real-estate agents in each market; the county in which the home was hypothetically located; that the home was in a subdivision

with similar new homes; and that the home was a 4-bedroom, 2-1/2 bathroom two-story structure located on a half-acre lot (approximately 100 ft. by 200 ft.).

Participants then reviewed the 16 additional photographs and re-assigned values to each home. Respondents then provided demographic information about themselves, their family and home, landscape and landscape service usage.

So what did the study reveal?

Demographic profile of respondents

Our survey participants closely paralleled mean responses given for a “typical” U.S. gardener by the National Gardening Survey in 2003. About 84 million households participated in lawn and gardening activities in 2003. Those more likely to participate in lawn and gardening activities were married, ages 35-54 years, parents of children, college educated and employed full-time with an annual income of over \$35,000.

Time and money expenditures on lawn and garden

Excluding extreme gardening enthusiasts, the median hours that our respondents worked in their landscapes ranged from 2.0 hours per week in Delaware to 9.8 hours in Mississippi. For the remaining states (KY, LA, NC, SC,



Figure 1.
Original two-story house used for base comparisons for each landscape configuration.



Figure 2.
The optimal 3x3x3 landscape configuration model (foundation planting with adjoining beds and two or three large island plantings, all incorporating curved bedlines, large evergreen and deciduous plants, and 20% of the visual area of the landscape beds planted in annual or perennial color).

TX) time spent on lawn and garden maintenance ranged from 5 to 6 hours. Respondents to our study spent a broad range in their landscapes from \$445 (Mississippi) to \$2,327 (Kentucky), but respondents were not statistically significant between states.

Relative importance of attributes

Models for each of the seven states used in our study explained at least 94% of the variance in respondent answers. This means that [in the context presented] **plant size, design sophistication and type of plant material were good indicators of perceived change in home value.** For each of the seven states, relative importance of factors increased from plant-material type to plant size to design sophistication.

Design sophistication was the most important landscape factor in these seven states, accounting for 40% to 45% of the value added to the home. Louisiana respondents valued sophistication less than those in North Carolina, but there were no significant differences between any other pairs of states for design sophistication.

Relative importance of plant size was of intermediate importance between design sophistication and plant material, and ranged from 39% in Texas to 31% in the Delaware sample. Generally, the importance of plant size appeared to decrease as the plant-growing zone number increased. For respondents from all states, **diversity of installed plant materials contributed least to additional home-landscape value.** In all states, type of plant material contributed 16% to 22% less to additional home value than design sophistication.

Changes in perceived home value

Across all states, smaller plant sizes reduced perceived home values, while larger plant sizes increased perceived home values. Medium-sized plants produced virtually no change to existing home values.



- Our model accounted for 94% of variance in home values, so our hypothetical variables captured the vast majority of differences in responses.
- Design sophistication accounted for 42% of the value added to the home. Installing more than foundation plantings clearly yields a greater return.
- Plant size accounted for 36% of the value added to the home: larger plants mean greater value.
- Different types of plant material accounted for 22% of value of added home value: great diversity in plant materials was not the most important characteristic for “value.”
- Just adding one or two island beds (increasing design sophistication) can add 2% to perceived home value.
- An investment of less than \$250 for colorful annuals and perennials added nearly \$1,000 to home value, returning 400% on the initial expense.
- Moving from the least-valued landscape to the most-valued landscape, perceived home value increased, on average, 8.6% across all states included in the study.
- Landscaping is a good investment, yielding more than \$1 return in perceived home value for every \$1 invested in the landscape.
- Increases in plant size are correlated with value.
- Landscapes are one of the only home improvements that increase in value (and size) over time. Other renovations (e.g. bathroom, kitchen) typically yield less return than the amount invested.
- Clearly, installing more than foundation plantings yields a greater return for consumers. Curvilinear beds are effective design elements in adding value to the home.

When the smallest plants were used, perceived home values in North Carolina, where the base home value was \$220,000, decreased by 2.3%. When the largest plant sizes were used, perceived home value increased by 2.8%.

Louisiana showed the smallest difference in perceived home value due to plant size. The estimated home value for Louisiana was \$176,000. When small plants were used, perceived home value decreased 1.2%, while the use of the largest plant sizes increased values by 0.6%. *This is geographically relevant for Southern growers because in Northern climates, plant size increases at a slower rate than in Southern climates.*

For respondents across all states, **the simplest design (foundation-only plantings) decreased perceived home value by an average of 2.1%**, while the most sophisticated landscape design increased home values by an average of 1.9%. Island plantings added to foundation-only beds had virtually no effect on perceived home value.

Texas showed the greatest range in perceived home value due to design sophistication. The estimated base home value for Texas was \$125,000. Foundation-only plantings decreased perceived home value by 3.3%, while sophisticated designs increased perceived home values by 2.6%. Louisiana had the smallest variation between foundation and sophisticated plantings. Foundation plantings decreased home values by

0.9%, while sophisticated plantings increased home values by 0.8%.

Generally, the additional diversity of plant material increased perceived home value. Data from respondents across all states found that material levels 1 and 2 decreased home values, while material level 3 increased perceived home values somewhat. The use of materials described in level 4 increased perceived home values most.

Mississippi, with a base home value of \$150,000, showed the largest fluctuation between material levels 1 and 2, when compared to designs containing all four material levels. Material levels 1 and 2 decreased home values by 1.0%, while levels 3 and 4 increased perceived home values by 1.7%.

Louisiana showed the smallest variation in perceived home value; material levels 1 and 2 decreased home value by 0.7%, while the addition of all four levels increased perceived home value by 0.1%. For Louisiana and Texas, the addition of material levels 3 and 4 to existing levels 1 and 2 increased perceived value by 1.0% and 1.5% respectively. In these locations, addition of material level 4 decreased home values in comparison to landscapes containing only material levels 1, 2 and 3. However, addition of material level 4 to existing material levels 1-3 in remaining states (DE, KY, MS, NC and SC) increased base home values by an average of 1.2%.

BBH018

Overall preference

All states shared the same most-preferred landscape: a sophisticated design incorporating large deciduous, evergreen and annual-color plants and colored hardscape. The percent increase in home value from least valued to most valued varied among states from 5.5% in South Carolina to 11.4% in Mississippi. Additionally, the order of state rankings of percent increase (from least favored to most favored) bore no resemblance to rank order of house base prices. In other words, large percent increases in home value were not associated with larger base prices.

We speculate that in colder hardiness zones, where plants grow more slowly, gardeners likely place greater value on plant size and perceive that colorful plants add greater value to home landscapes. Respondents from warmer hardiness zones, where plant material has a longer growing season and grows more quickly, may value landscape design sophistication more than plant size. Respondents from all venues agreed that diversity of plant material used in landscapes was *relatively* the least important factor.

In all markets, consumers preferred the largest, most sophisticated and colorful landscape design. The sophisticated planting category consisting of a foundation planting with adjoining beds and two or three large island plantings, all incorporating curved bedlines, increased home values by an average of 1.8%. Consumers in tested states could increase home values by \$2,375 to \$3,648, depending upon initial base home value and cost of plants materials and installation.

Conclusions

Table 1 provides a summary of the study's major findings. Depending on region of the country, a "good" landscape adds about 6% to 11% to a home's base value. **Landscape attributes contributing most to increased perception of home value were** (in order of importance) *design sophistication, plant size and type of plant materials.* Clearly, investment in a "good" landscape can be recovered and increase a home's perceived value.

HRR088

Minimalist landscapes with small plant size and little sophistication actually detracted from perceived value of the home.

A landscape-company manager now has concrete data to show that quality landscaping adds value to a home. Landscaping is a home improvement that will increase perceived home value and, unlike most home improvements, appreciates with time. 🌿

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