



WASHINGTON STATE DEPARTMENT OF
Natural Resources

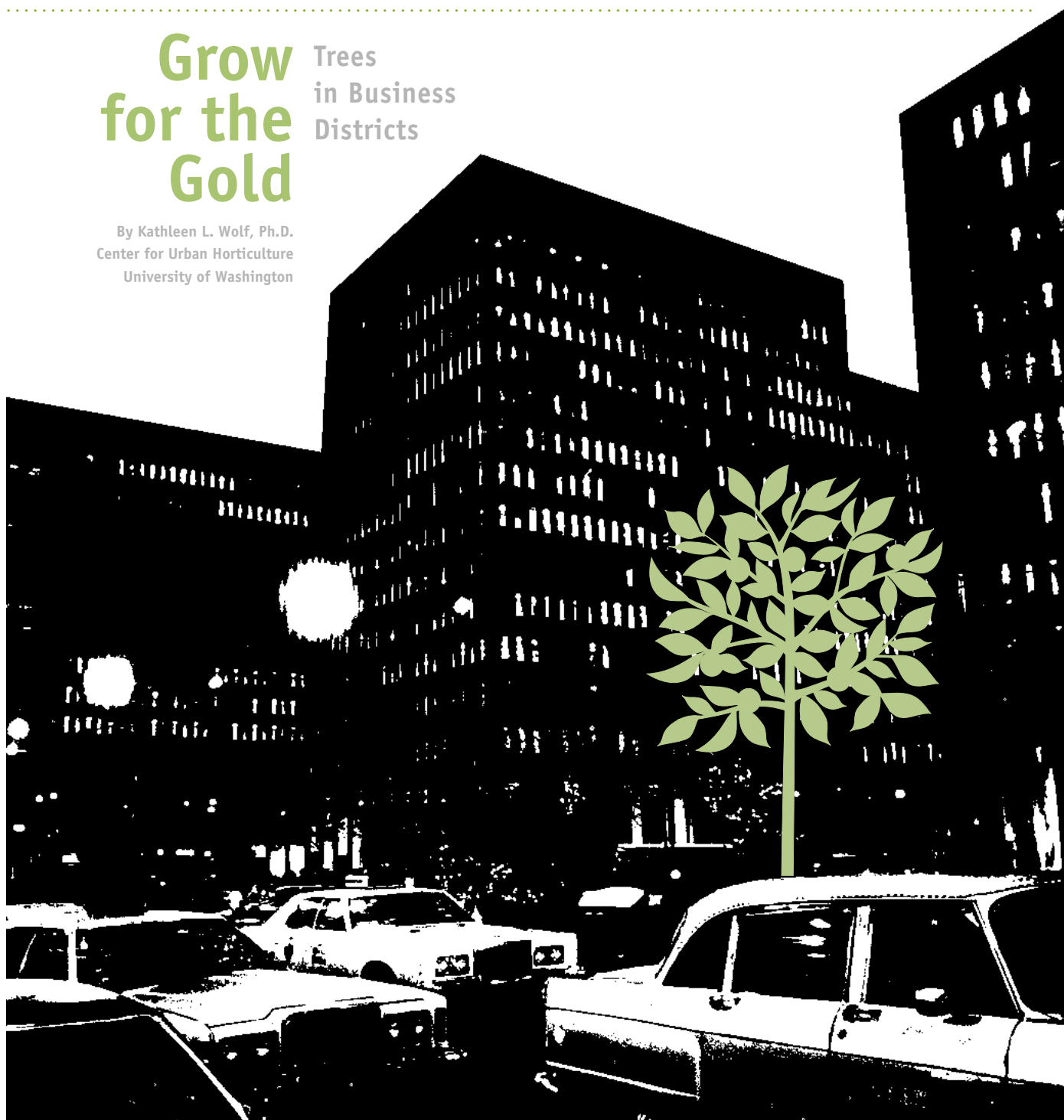
TreeLink

D N R C O M M U N I T Y F O R E S T R Y P R O G R A M ♦ N U M B E R 1 4 ♦ S P R I N G 1 9 9 9

Grow for the Gold

Trees
in Business
Districts

By Kathleen L. Wolf, Ph.D.
Center for Urban Horticulture
University of Washington



Consumers said they would be willing



Category A. Little / No Vegetation



Category B. Naturalistic



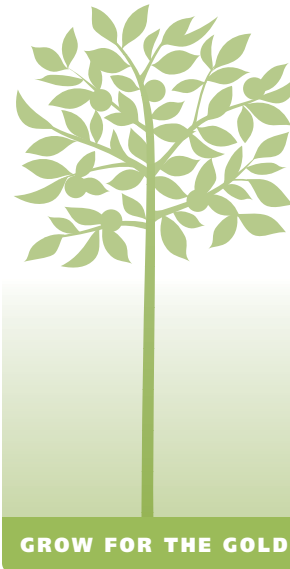
Category C. High, Open Canopy



Category D. Low, Dense Canopy



Category E. Formal Foliage



Trees and business — it's a love-hate relationship! There are certainly costs that come with having trees on streets. Yet, a new study provides evidence that trees have positive effects on consumers. Despite their

costs, trees do provide indirect benefits to businesses.

About 70% of America's gross domestic product is attributed to purchases of individuals. Consumers consider many factors when deciding on what products and services to buy. Value, quality and convenience are major messages that marketers communicate about their products. Often overlooked is the importance of the retail place on shopping decisions. A pleasant, welcoming retail environment is important to consumers.

How does the community forest influence consumers? A national study, conducted by social scientists at the University of Washington, used survey questionnaires to investigate public perceptions about the role of trees in revitalizing business districts. Surveys were sent to selected districts in cities of the Pacific Northwest, Austin, Los Angeles, Chicago, Pittsburgh and Washington DC.

The project outcomes can help us plan and manage urban forests to better meet business needs. They also will help businesses focus their green investment for highest returns. Here are highlights of the research results.

to pay, on average, 12% higher for products in districts with trees.

Exploring Public Preferences

Preference surveys are a proven tool used to assess public values. The survey showed retail settings with different amounts and arrangements of vegetation. People were asked to rate scenes on how much they liked them (1 = not at all, to 5 = very much). The ratings do express an aesthetic judgment, but the basis of the judgment is very important — the capacity of a place to meet the needs and concerns of a person.

Low and High Ratings

Ratings were averaged for each of 32 scenes. Scenes with the lowest and highest mean ratings differ significantly in visual content. Highly valued scenes contain trees and accessory vegetation, including light and shade patterns associated with the plants. This result is consistent with preference evaluations of many landscape settings; the presence of trees generally enhances public judgment of visual quality. In this case a three point difference in means between the highest and lowest rated scenes is a striking example of how plants can affect consumers' judgments of place.

Perception Categories


Analysis also reveals categories of images based on similar patterns of response. Typically, differences in the categories can be attributed to both the content of the images and how the image elements are arranged. Five visual categories were identified (see photos at left).

Mean Ratings

Preference ratings increase with the presence of trees in the streetscape. Category "A" was rated lower, by far, than the other categories even though its images contain some vegetation. Category "B" images contain the most complex landscape plant blend, yet were valued least of the image categories con-

taining trees. Meanwhile, larger trees are associated with higher preference, as in Categories "C", "D" and "E." Both open and dense canopied trees are valued. Finally, the latter three categories also appear more ordered; both trees and accessory vegetation are placed and managed to create distinct visual patterns.



 *Ratings of business people and the general public were statistically compared to better understand how their values for the urban forest may differ.*

Comparing Business and Visitors

Both business and consumer survey groups gave higher ratings to scenes with trees. Yet, within all but one category (Category "E") business respondents significantly differed from visitors in their assessment of visual quality. Business ratings of Category "A" scenes were higher than visitor ratings, despite the grim, hard-featured character of the street setting. Meanwhile, business people consistently rated landscaped scenes on Categories "B" through "D" lower than visitors, suggesting that merchants have less appreciation for trees than the people they wish to welcome to their shops.

ALL PHOTOS BY KATHLEEN L. WOLF

Research support provided by the USDA Forest Service and National Urban and Community Forestry Advisory Council.

TreeLink, Spring 1999

Consumer Perceptions and Behavior

Often taken for granted, our surroundings, both outdoor and indoor, affect the course of our daily lives. Physical features define how we move and get around in any space. In addition, elements of an environment send cues that can influence our attitudes and behavior within a place. The study evaluated how the character of a place influences shoppers' behavior in a business district. People were asked a series of questions about three hypothetical business districts. What do consumers read from the visual cues of a place? Here are some of the results.

Place Perceptions

Four perception categories emerged from participants' ratings of the three business districts:

- amenity and comfort,
- interaction with merchants,
- quality of product,
- maintenance and upkeep

Consumers' ratings for each of the categories were significantly higher for districts that had street trees and other landscape improvements. For instance, *amenity and comfort* ratings were about 80% higher for a tree lined sidewalk compared to a non-shaded street. Also, *quality of product* ratings were 30% higher in districts having trees over those with barren sidewalks.

Interaction with merchants items included customer service issues; ratings were about 15% higher for districts with trees.

Patronage Behavior

Actions follow our impressions of a place. Respondents were asked to give opinions of their behavior within the three shopping districts, including travel time, travel distance, duration of a visit, frequency of visits and willingness-to-pay for parking. Again, trees make a difference. Considering all

behaviors, higher measures were reported in the districts having trees. For instance, respondents claimed they would be willing to pay more for parking in a well landscaped business district. This suggests greater revenues from shaded parking could offset the costs of parking space loss, a frequent objection to trees by merchants.

Pricing Patterns

Do trees influence how much people are willing to pay for goods? Contingent valuation methods were used to assess how amenity values relate to customers' price valuations. Survey respondents were asked to specify a price for each of 15 items in a basket of goods in the business districts. The survey participants consistently priced goods significantly higher in landscaped districts. Prices were, on average, about 12% higher for products in the landscaped district compared to the no-tree district. This was true of low-price, impulse-buy convenience goods (e.g. lunch sandwich, flower bouquet), as well as bigger ticket, comparison-shopped items (e.g. sports shoes, new glasses). Given the low profit margins of most retail businesses, trees appear to provide a significant amenity margin.

Growing Trees and Revenue for Business



A goal of 15% tree canopy cover is recommended by American Forests for business districts;

most American retail environments have 5% or less. How can we encourage business leaders to become advocates for trees? While there are few direct cost benefits, support of the urban and community forest provides other indirect returns. A healthy, vital urban forest sends messages that welcome shoppers. Other studies confirm that the presence of trees may boost worker productivity and that trees boost property values. The community forest is an asset for entire retail communities, as well as individual business owners. A tree program should be a part of any business improvements campaign.



The Washington Community Forestry Council was organized by the Washington State Department of Natural Resources (DNR) in 1991. Its goal is to provide leadership and vision to help citizens preserve, plant and maintain community trees and forests. The Council consists of a general membership and an Executive Advisory Committee to the State Forester. Join by calling **1-800-523-TREE**.

"TreeLink" is a quarterly publication of the DNR Community Forestry Program. The goal of the program is to assist communities in building self-sustaining urban forestry and tree care programs with strong local support.

Editor: Kevin LeClair, Resource Protection, DNR.

Graphic Design: Luis Prado, Communications Product Development, DNR. Funding provided by DNR and the USDA-Forest Service.



WASHINGTON STATE DEPARTMENT OF
Natural Resources

WASHINGTON COMMUNITY FORESTRY COUNCIL
C/O DEPARTMENT OF NATURAL RESOURCES
P.O. BOX 47037
OLYMPIA, WA 98504-7037

ADDRESS SERVICE REQUESTED

BULK RATE
U.S. POSTAGE
PAID
OLYMPIA, WA
Permit No. 263