What Benefits Do People Want from Their Yards?

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Have you ever stopped to admire or question your neighbor's yard? We may not think about it much, but a variety of factors play into our landscaping choices and design. Perhaps our yards contain the landscaping installed by previous owners, or perhaps we make choices to deliberately design them. Or, maybe pressures from our neighbors or friends influence our landscaping choices. Whatever the case, the ins and outs of residential yard design can have broader effects on our neighbors and the environment.

This is why we led a team of ecologists and social scientists to study why people maintain their yards in certain ways. We sought to understand: what are homowners' priorities for managing their yards, and what are the implications for designing yards that benefit people and the environment? To answer this question, we surveyed residents in three warm, Sunbelt cities (Los Angeles, Phoenix, and Miami) and three cooler, northerly cities (Baltimore, Boston, Minneapolis-St. Paul).

Although we found homeowners' priorities depend somewhat on location and lifestyle, people overwhelmingly want a landscape that simply looks nice and is easy to maintain. The traditional neat, weed-free aesthetic—often associated with a green carpet of lawn—continues to be a staple for a majority of U.S. residents, regardless of where they live. This set of priorities may pose a challenge for establishing more natural residential ecosystems that may appear "messy" but require less water and inputs such as fertilizers and pesticides.

We did, however, find that many residents do value biodiversity in their yards. People especially want a variety of plants and flowers. They also value plants that support birds and wildlife habitat. However, we also found people do not prioritize plants that are native to local ecosystems, which are precisely the plants most likely to support local wildlife.

Unfortunately, people also do not recognize or value the environmental "services" that yards can provide. These services, or benefits, include reduced flooding or stormwater runoff, which can be achieved by reducing hard patios and increasing vegetation in yards. Yet because people do not prioritize capturing rainwater in their landscapes, residents' preferred landscapes may worsen flooding of streets during storm events.

More stormwater runoff can also lead to more pollution—in the form of eroded soil and runoff of fertilizers or pesticides—entering water bodies. Nevertheless, residents generally disregard the importance of managing their yards to reduce water pollution. And despite the potential of vegetation in yards to capture and store carbon dioxide, this also is not an outcome that people think about.

In recent years, many organizations have promoted alternatives to tidy, well-kept lawns. These alternatives can support stormwater and nutrient reduction as well as wildlife habitat. But while people may care about these goals, our study found most people across the U. S. do not currently incorporate these environmental considerations into their yard management. Our findings also suggest that any changes in yard management to increase ecosystem services will be most likely to happen if they are designed to meet peoples' top priorities for neat, visually appealing and low-maintenance landscapes.

Based on: Larson, K.L., Nelson, K., Samples, S., Hall, S., Bettez, N., Cavender-Bares, J., . . .

Trammell, T. (2016). Ecosystem services in managing residential landscapes: Priorities, value

dimensions, and cross-regional patterns. *Urban Ecosystems, 19*(1), 95-113.

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Our Synthesis

Summary: A team of ecologists and social scientists surveyed homeowners in six U.S. cities to

examine their priorities for managing their yards and the implications for designing yards that

benefit people and the environment. The researchers found that regardless of where they live,

people overwhelmingly prefer the tidy, weed-free aesthetic of a carpet of lawn. Some people

also said they valued biodiversity and wildlife in their yards, but they did not prioritize native

plants, which best support these attributes. Homeowners also did not recognize other

environmental services, or benefits, a lawn-alternative yard can provide, such as capturing

carbon dioxide, creating wildlife habitat, and absorbing stormwater. If people can be persuaded

to consider environmental factors in designing their yards, the appearance must conform with

the strong preference for neatness.

Why it matters: Through features such as rain gardens (planted swales) and abundant

plantings of native shrubs, trees, and herbaceous species, lawn-alternative yards can reduce

stormwater runoff that sweeps soil, fertilizers, and pesticides into water bodies. Most lawns,

usually composed of nonnative grasses, require fertilizers and pesticides to thrive, and both

harm the environment—fertilizers by feeding algae growth that consumes oxygen needed by

aquatic life, and pesticides by damaging organisms of all types. Lawns also offer sparse habitat for animals, whereas a diverse assortment of native trees, shrubs, grasses, and perennials creates food and shelter for insects, birds, and mammals.

What you can do: If you have a lawn, consider reducing it by replacing areas of turfgrass with native trees, shrubs, grasses, and perennials. The articles on this page—especially the one at the bottom—will get you started in considering where to replace turfgrass with other plants. As for which native plants to choose for the color and texture you want to achieve in your yard, the wildlife you want to attract, as well as your site conditions—sun/shade? wet/dry? soil types?—our free Garden Plant Finder can guide your choices. We also offer several classes in native plant garden design and related horticulture topics. Finally, our book *Native Plants for New England Gardens*, illustrated with color photos of all the plants, is a ready reference for decision making as you continue to expand your lawn-alternative yard.

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