

# Wildlife-Friendly Landscaping: Connecting Professionals and the Public<sup>1</sup>

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## Introduction

In the United States, the green industry is a billion-dollar sector that generates millions of employment opportunities annually (Hall & Martins, 2020). The green industry delivers varied services from the production of landscape plants and turfgrass, to landscape design, maintenance, and pest management. Thus, green industry professionals play an important role in deciding how to design and maintain urban and residential landscapes, where over 80% of US residents live. Additional key decision-makers include homeowners and renters whose properties have lawns or landscapes. Decades of research have shown a need to rethink urbanized landscape design and maintenance to accommodate wildlife and pollinator conservation efforts. Most studies have focused heavily on understanding the perceptions of wildlife-friendly landscaping among consumers and, to a lesser extent, nursery growers. In the meantime, the perceptions of green industry professionals, comprising some of the most important decision-makers involved with residential landscape management, are overlooked. The studies summarized in this publication were designed to evaluate the perceptions of green industry professionals and consumers regarding wildlife-friendly landscape maintenance practices to develop insights for future landscape conservation efforts that protect wildlife in

Florida's and the US's rapidly expanding urban areas. This publication is intended for program planners, educators, Extension agents, green industry professionals, policymakers, and researchers working to promote pollinators and biodiversity in urban and residential landscapes.

## Research Methods

Our findings and recommendations are based on two separate studies. The first study gathered green industry experts' opinions, and the next collected Florida residents' perceptions about wildlife-friendly landscape maintenance practices. Through the first study, we identified five barriers and three motivators with at least two-thirds agreement. These are summarized below and can also be accessed in further detail in Kalauni, Warner, Silvert, et al. (2023).

Next, we conducted a consumer study to understand Florida residents' demand, knowledge, and perceived barriers regarding wildlife-friendly landscape maintenance practices (Kalauni, Warner, Diaz, et al., 2023). We surveyed 1053 residents who indicated they hired green industry professionals and assessed their perceived barriers as described below.

1. This document is AEC789, one of a series of the Department of Agricultural Education and Communication, UF/IFAS Extension. Original publication date January 2024. Visit the EDIS website at <https://edis.ifas.ufl.edu> for the currently supported version of this publication.
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# Key Findings and Recommendations Were Drawn From the Two Studies.

## Homeowner Association (HOA) as a Barrier

**HOA restrictions** were reported as the primary perceived barrier to implementing wildlife-friendly landscape maintenance practices by consumers who lived in these types of communities ( $n = 554$ ). This finding is consistent with the green industry professionals' opinions as it was one of five reported barriers that they agreed has hindered their engagement in wildlife-friendly landscape maintenance (see Table 2). Other recent research in the context of pollinator gardening (rather than landscape maintenance) supports this finding, reporting that consumers consider homeowner associations as a barrier (Silvert et al., 2023; Warner et al., 2023). The following are some of our recommendations to combat this barrier:

- There is a huge opportunity for homeowner associations to better communicate current HOA regulations that already allow for wildlife-friendly landscape maintenance or to make changes by developing favorable codes and regulations that support planting native and wildlife-friendly plants to promote biodiversity. For instance, HOAs in Florida can adopt the Florida-Friendly Landscaping™ principles into their covenants.
- Extension professionals should work with homeowner associations to inform and educate about the opportunity to shift from traditional landscapes (e.g., dominated by formal, manicured turfgrass lawns) to alternative landscaping (e.g., more diverse, flowering, and native plant species). It is important to help the homeowner association leadership recognize the greater rewards of adopting wildlife-friendly landscape maintenance.
- It might be helpful to encourage homeowner associations by asking for community-level pledges to engage in sustainable landscaping and by giving them an opportunity to distinguish themselves from other associations with respect to their contribution and care for wildlife and the environment. For example, Extension agents can encourage individual households and broader HOAs to pursue Florida-Friendly Landscaping™ certification. Finding ways to empower association leaders to advocate for more naturalistic, wildlife-friendly landscape maintenance is an important current need. Also, efforts geared toward developing a social norm related to wildlife-friendly landscaping may contribute to increased engagement.

Additional research is needed to identify other potential ways to engage consumers within the confinement of homeowner associations.

## Lack of Awareness and Knowledge as a Barrier

**Lack of public awareness and knowledge about** wildlife-friendly landscape maintenance practices is perceived as an important barrier among both key stakeholders. Consumers reported that their lack of awareness and knowledge of wildlife-friendly landscape maintenance practices and how landscape maintenance decisions can support wildlife were both barriers that hindered their engagement in wildlife-friendly maintenance approaches (see Table 1). Green industry professionals also reported that clients lack awareness about wildlife-friendly landscape maintenance practices and the associated ecological and environmental benefits, resulting in low consumer demand and, ultimately, preventing engagement in wildlife-friendly landscape maintenance (see Table 2). These complementary findings demonstrate the need to raise awareness of how landscape maintenance activities could support or harm wildlife. In addition to raising awareness, it is important to increase people's knowledge and confidence about practical skills in addition to theoretical understanding of wildlife conservation. Below are some potential ways to educate the public:

- Training and demonstrations geared toward designing and maintaining wildlife-friendly landscapes could help raise awareness of the connections between green space maintenance and wildlife and biodiversity conservation.
- There is an opportunity for educators to provide easily accessible information about wildlife-friendly plant selection resources and service providers. For example, the Florida-Friendly Landscaping™ program offers resources that help people select the right plant for the right place. In addition, Extension professionals should focus on bringing consumers and green industry professionals together in developing ideas to increase their engagement in wildlife-friendly landscape maintenance. One strategy, for instance, could be organizing workshops or initiating conversations on this topic during holidays such as pollinator week, Arbor Day, or Earth Day.
- Adequate knowledge among consumers and professionals about wildlife-friendly landscape maintenance is essential in enhancing its demand. Green industry professionals could educate their clients about existing landscape design and management options, as well as their associated benefits to humans and wildlife. Extension professionals should especially emphasize the multiple benefits (e.g., pollinator conservation, improvements in human

health) of wildlife-friendly landscape maintenance to consumers. Promoting the use of interpretive signage, or helping to design them, is recommended to educate and inform others on practices that are being implemented in communal areas.

- Extension can establish a strong presence in landscape-related discussions surrounding new building and development by engaging with development professionals, landscape architects, and city review and by permitting personnel, real estate agents, and community managers to provide valuable expertise and guidance. Extension could play a role in encouraging wildlife-friendly landscape design and setting the stage for maintenance activities that support rather than harm wildlife.
- Landscape site visits to residences in local communities by Extension agents and/or trained Master Gardener Volunteers would help initiate a two-way dialogue and build trust among homeowners, homeowner associations, and Extension, thus providing more room to communicate the importance of wildlife-friendly landscape maintenance services effectively.

## Financial Barriers

**Financial barriers** also emerged as impediments to implementing wildlife-friendly maintenance practices in both studies. A study with Florida residents found the cost associated with wildlife-friendly landscaping is a perceived barrier to consumers' engagement in wildlife-friendly landscape maintenance (see Table 1). The expert panel consisting of green industry professionals showed more than two-thirds agreement (consensus) that they hold "a focus on profit over proper site-specific maintenance" (Kalauni, Warner, Silvert, et al., 2023, p.121.). This indicates that they believe some of their fellow professionals, and possibly even themselves, are concentrated on traditional landscape maintenance practices that prioritize profitability over landscape maintenance tailored to specific conditions in each landscape. These findings suggest the need to examine the benefits/cost ratio from both consumer and business standpoints to clarify existing perceptions and potential misunderstandings. Green industry professionals also reported that clients' demand was a major motivator for them to engage in such landscaping. Per the principle of economics, demand drives supply, so it is important to find ways to increase the demand for landscape maintenance practices that support wildlife.

While some disconnect exists about the pricing of wildlife-friendly landscape maintenance, our findings revealed other opportunities to educate people. For example, Extension and green industry professionals could make

people aware of the tradeoff between the price of native and wildlife-friendly plants and rewards (e.g., less maintenance and less input requirements over time). Also, native plants are not necessarily more expensive than non-native plants. Being landscape maintenance providers, green industry professionals have one of the best opportunities to market wildlife-friendly landscape maintenance services. Another strategy to communicate the value of planting native and wildlife-friendly plants or engaging in wildlife-friendly landscape maintenance might include recognizing consumers who do adopt such practices, either by providing them with a pledge or a special discount on services or products. Local government might be instrumental in promoting such alternative landscape maintenance practices among residents by offering financial benefits, like exempting tax percentages to the homeowners or homeowner associations who are engaging in wildlife-friendly landscape maintenance. Similarly, local institutions like homeowner associations can develop policies to ensure residents who engage in wildlife-friendly landscape maintenance are not penalized (e.g., fined).

## Conflicting Perceptions of Barriers

Green industry professionals reported that **clients' desire for manicured landscapes** is a barrier to engaging in wildlife-friendly landscape maintenance (see Table 2). However, consumers neither agreed nor disagreed that a preference for manicured landscapes was a barrier to their engagement in this type of landscape maintenance (see Table 1). Thus, there seems to be some disconnect between the perception of green industry professionals and consumers in this regard. Given the importance of green industry professionals in decision-making about landscape maintenance, it is important for them to understand not all residents are interested in a traditional lawn or landscape maintenance approach, which provides industry professionals with an opportunity to present clients with a suite of service options, from conventional practices to more wildlife-friendly programs. Some green industry professionals are engaged in developing and implementing new landscape designs that are more naturalistic and beneficial to humans and wildlife.

At the county level, Extension professionals should work to bring green industry professionals, consumers, and homeowner associations together to discuss sustainable landscape options and clarify the existing misconceptions. We recommend educating both audiences (professionals & consumers) independently and encourage them to educate one another in their services. For example, organize training programs where green industry professionals can learn

to educate their clients about wildlife-friendly landscape maintenance practices. Likewise, educate consumers about how to ask for wildlife-friendly landscape maintenance.

While consumers in the present study indicated that **lack of awareness** about wildlife-friendly landscape maintenance is a barrier, consumers disagree with green industry professionals that a **lack of interest** is a barrier to their engagement in wildlife-friendly landscape maintenance. Other research showed that consumers are unaware of wildlife-friendly practices, but they are interested when they become aware of such practices (Behe et al., 2010; Grebitus et al., 2017; van Heezik et al., 2020) and are even willing to pay more for such landscapes (Campbell et al., 2017; Yue et al., 2012).

### Lack of Labeling Plants as a Barrier

Lack of labeling plants and unclear labeling of products used for landscape maintenance are other barriers reported by consumers that affect wildlife. Improved labeling of plants and products like pesticides and fertilizers, informing of their harm or benefit to wildlife, could be a strategy in marketing wildlife-friendly landscape maintenance practices. This strategy is recommended for retailers and those involved in providing/selling these types of plants and products. Additionally, the green industry should consider labeling plants or any other products, explaining their value to wildlife, which will help clarify and inform consumers about their choice of landscape and its effect on wildlife. These kinds of labeling might influence consumer purchasing decisions and may benefit plant suppliers by encouraging consumers to purchase wildlife-friendly plants. So, we recommend that green industry professionals use educational materials such as plant guides or visual displays to facilitate the flow of information to their clients about plant options. Extension could play an important role in providing these types of materials and helping green industry professionals in developing such educational and marketing tools.

### Conclusions

The two studies presented here were conducted to help increase our understanding of the use and perceptions of wildlife-friendly landscape maintenance practices amongst green industry professionals and consumers. The consistencies and discrepancies we identified between the two groups may provide insights for program planners, educators, Extension and green industry professionals, policymakers, and researchers as they inform future conservation efforts

to protect and promote wildlife in urban and residential landscapes.

### Acknowledgment

Studies discussed in this paper were supported by Florida Wildflower Foundation and the Center for Land Use Efficiency at the University of Florida.

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**Table 1. Perceived Barriers Among Florida Residents Pertaining to Wildlife-Friendly Landscaping.**

<b>Most important barriers</b>	Homeowner association restrictions. Lack of knowledge about landscape maintenance practices that support wildlife. Lack of awareness about wildlife-friendly landscape maintenance practices. Lack of labeling plants indicating their wildlife value. The cost associated with wildlife-friendly landscape maintenance practices. Lack of awareness about landscape maintenance decisions and how they may affect wildlife. Lack of labeling products about their affects to wildlife.
<b>Moderately important barriers</b>	Difficulty accessing reliable sources of information about wildlife-friendly landscape maintenance. The time required for landscape maintenance practices that support wildlife. Concerns about the way the yard will look with wildlife-friendly landscape maintenance. Preferences for manicured landscape. Lack of interest in wildlife-friendly landscape maintenance practices. Wanting to take care of my yard the way others do.
<b>Not important barrier</b>	Concerns over what neighbors might think.

**Table 2. Perceived Barriers Among Green Industry Professionals in Florida.**

<b>Very important</b>	Lack of public awareness about landscape plants and maintenance practices that support wildlife. Lack of awareness among clients about benefits of wildlife-friendly landscape maintenance practices. A focus on profit over proper site-specific maintenance.
<b>Important</b>	Homeowner association regulations. Clients’ preference for manicured landscapes.