Incorporating Native Plant Selections to Beautify and Enhance Ecosystem Services in an Underserved Community

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Introduction

In late 2023, a grant was secured to fund the purchase of 22 plant species, 60% of which were visually striking Florida natives. Guided by the Florida-Friendly Landscaping (FFL) principle of "Right Plant, Right Place," the project reduced the cost of additional inputs while incorporating native plants to promote sustainability, biodiversity, soil health, water management, and pest control.

This initiative focused on implementing FFL practices to address inequities in ecosystem services within an underserved community. By emphasizing sustainable landscaping techniques that are environmentally beneficial, economically viable, and socially inclusive, the project aimed to improve access to essential ecosystem services such as clean air, water quality, and green spaces.

Fig. 1 and 2 : Community members installing plants in grouping named “Fireworks.” Red salvia (native) are mixed in with several low maintenance non-natives.

Objectives

Evaluate Ecosystem Services: Assess the impact of incorporating native plants on critical ecosystem services through ecological surveys, garden management logs, and feedback from community members.

Promote Biodiversity and Resilience: Enhance garden biodiversity and support ecological health by increasing native plant species and populations in urban gardening areas, creating resilient and sustainable green spaces.

Foster Community Engagement and Empowerment: Encourage active participation and increased knowledge of sustainable gardening practices, empowering community members to adopt Florida-Friendly Landscaping (FFL) principles.

Transform the Learning Garden: Rejuvenate a neighborhood learning garden in an underserved community, using FFL principles to guide plant selection, watering practices, fertilization, and pest control, making it an educational hub for sustainable landscaping and environmental stewardship.

Advance Environmental and Human Well-being: Create enjoyable green spaces that promote ecological balance and improve the quality of life for residents by integrating environmentally sound gardening practices into the community.

Figs. 3, 4, and 5: Bee on a Stokes Aster (native) flower. Native brown lizard sunning on retaining blocks. Bee on orange sunflower.

Methods

Florida-Friendly Landscaping (FFL) Framework: Applied FFL principles to guide all aspects of garden design and management, including plant selection, watering practices, fertilization, and pest control. Focus was placed on the "Right Plant, Right Place" principle to maximize ecological and economic benefits.

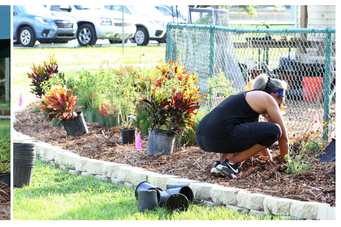
Native Plant Integration: Selected a diverse palette of 22 plant species, 60% of which were Florida natives, and strategically incorporated them throughout the garden to support biodiversity, soil health, water management, and pest control.

Learning Garden Transformation: Rejuvenated a neighborhood learning garden in an underserved community, transforming it into an educational hub showcasing sustainable gardening techniques, environmentally sound practices, and the aesthetic value of native plants.

Volunteer Engagement: Master Gardener Volunteers maintained the garden daily, providing hands-on demonstrations, answering visitor questions, sharing materials, and teaching practical, cost-effective gardening techniques.

Community Involvement: Facilitated active community participation through workshops, informal conversations, and feedback sessions to promote engagement and knowledge-sharing about best landscaping practices.

Data Collection: Conducted ecological surveys to assess biodiversity improvements, maintained garden management logs to document activities, and gathered feedback from community members to evaluate the project’s impact on ecological health and human well-being.



Figs. 6, 7, and 8: Community members, extension faculty, and Master Gardeners installing plants. Two community members taking a quick break. The horticulture agent planting rudbeckia (native).

Figs. 9, 10, and 11: Coreopsis (native) flowers. Extension staff and master gardener volunteers installing native plants in the “Birdbrains,” section filled with: firebush, beautyberry, wild coffee, and coreopsis. Red salvia (native) flowers.

Results

Enhanced Ecosystem Services: Adoption of Florida-Friendly Landscaping (FFL) techniques resulted in significant improvements in plant diversity, soil health, water management, and aesthetic appeal. The incorporation of visually striking native plants contributed to increased ecological balance and sustainability.

Economic Feasibility: By applying the FFL principle of "Right Plant, Right Place," the project reduced costs associated with inputs and maintenance, demonstrating that similar initiatives can be both environmentally impactful and economically viable.

Community Impact: The revitalization initiative fostered community engagement, empowerment, and increased knowledge of sustainable landscaping practices. Residents and visitors gained practical skills and understanding of how to create resilient, enjoyable green spaces using FFL techniques.

Scalable Model: By addressing the successes and challenges of emphasizing native plants in an underserved community, the project provides a replicable framework for other communities aiming to enhance ecosystem services equitably and advance environmental justice.

Aesthetic and Functional Value: The selected native plants not only added beauty to the garden but also delivered critical ecosystem services, making them an essential component of sustainable urban gardening projects.

Figs. 12 and 13: Members of the community stopped by to find out what was happening. Mature bed, “Purple Haze,” with muhly grass (native), Stokes’ Aster (native), porterweed (native), and lavender pentas.

Conclusion

This study highlights the potential of Florida-Friendly Landscaping (FFL) methods as a powerful tool for transforming green spaces in underserved communities while promoting environmental education, community engagement, and ecological resilience. By integrating native plants, sustainable practices, and community involvement, this initiative has demonstrated that small, targeted efforts can generate substantial environmental and social benefits.

To scale similar projects and ensure long-term success, we offer the following recommendations:

Start Small and Build Momentum: Focus on mastering a single space or initiative. Successful results will naturally attract interest and support from the broader community. For instance, our efforts have led to requests for assistance in revitalizing other community spaces.

Foster Partnerships through Communication: Open and ongoing dialogue with stakeholders is essential for planning and implementation. Strong partnerships between local organizations, volunteers, and community members ensure shared vision and sustained impact.

Engage the Community: Make your intentions and needs known. Offering hands-on gardening opportunities has not only enhanced the project’s visibility but also attracted a consistent group of community helpers dedicated to its success.

By emphasizing collaboration, clear communication, and incremental progress, FFL methods can be scaled to create more equitable, sustainable, and resilient green spaces across diverse communities.