

GRASS ROOTS

A U.S. National Arboretum Initiative



United States Department of Agriculture
Agricultural Research Service
U.S. National Arboretum

Letter from the Director

Dear Colleagues and Supporters,

Grass is the single most frequently used landscape plant in the United States; yet many people harbor misperceptions about this valuable plant. Many are unaware of the choices of grasses for the landscape and the range of approaches available to maintain lawns and turf. The U.S. National Arboretum, in collaboration with the National Turfgrass Federation, is committed to helping citizens, including national decision-makers, understand new and emerging science underlying our Nation's beautiful lawns, athletic fields, and gardens.

The Arboretum proposes to focus on turfgrass for the next 4 years through an initiative called "Grass Roots." The project includes an onsite exhibit, symposia, workshops, and demonstrations, all aimed at expanding knowledge at a range of levels—from school children to policymakers—about the importance of turf and turf research on the landscape and the environment. The programs will range from scientific symposia on research related to turf breeding and management, advances in lawn care equipment and techniques, "Turf Battles" (demonstrations of sports on turf grasses), grass management in the Chesapeake Bay region and other estuaries, new watering and irrigation systems, using turf and ornamental grasses in landscapes, and grasses in environmental improvement and remediation.

An interactive outdoor exhibit will focus on new cultivars of turf developed through research programs—including the Arboretum's—and science-based management of lawns and turf. The primary message of the exhibit is that the best lawns are developed and managed with their purposes in mind, whether those purposes are golf and other sports, linking landscape elements, conserving soil, assuring water retention, or simply beautiful landscapes. The exhibit will be thematically linked to gardens and displays throughout the Arboretum's 446-acre grounds to support the message that turf and grasses are used for a wide range of functions in the environment, from soil and water retention, to activities, to aesthetic.

We are seeking your help to make "Grass Roots" a reality at the U.S. National Arboretum. We need financial support to install and maintain the exhibit over its 4-year lifespan and to create innovative programs to help visitors discover the science underlying horticulture, advances in turf choices and management, and the role of grass in our natural and cultivated systems. We want to make the experience of learning about grasses fun. After all, grass is the basis of much of the fun in our lives.

Please review the attached exhibit plan and program brochure. I and members of our planning team are eager to talk with you about "Grass Roots" and how, together, we can make this project valuable to our visitors, landscapes, and an improved understanding of plant science.

Sincerely,



Colien Hefferan
Director
U.S. National Arboretum

Why do we need Grass Roots?

Turfgrasses impact Americans in many ways on a daily basis. Millions of acres of turfgrass on home lawns, golf courses, commercial landscapes, roadsides, parks, athletic fields, and sod farms improve our quality of life by providing open space, recreational and business opportunities, enhanced property values, and the conservation of important natural resources. However, there are growing concerns about the use of water, fertilizer, pesticides, fossil fuels and machinery on turf establishment and maintenance. In addition, many Americans are uninformed or misinformed about the benefits of turfgrass to society and the environment.

The Grass Roots Initiative is a 4-year effort by the U.S. National Arboretum to provide a science-based focus on turfgrass.

What are the goals of Grass Roots?

- Increase awareness of the importance of turfgrass and lawns to society and the environment
- Demonstrate new technologies within the turfgrass industry that improve maintenance practices and efficiencies
- Review and update national research priorities for turfgrass
- Bring together policymakers and others interested in regulatory issues that impact the turfgrass industry

How will Grass Roots be implemented?

Over the 4-year period, the U.S. National Arboretum will conduct symposia, workshops, and demonstrations on various aspects of turfgrass and lawns. Some potential programs include—

- Symposia on turfgrass sustainability and resource efficiency
- Workshops on urban landscapes and their role in societal and environmental enhancement
- Public policy forums on the use of fertilizer in urban settings and impact on watersheds and groundwater
- A review and update on the National Turfgrass Research Initiative
- Demonstrations organized and conducted by industry groups (proper irrigation practices, fertilizer use, basic mowing and maintenance practices, and new technologies)

We are open to industry suggestions and needs for programs.



About the U.S. National Arboretum

The U.S. National Arboretum, part of the U.S. Department of Agriculture (USDA), is a 446-acre public garden and research and education facility located 2 miles from the U.S. Capitol in Washington, DC. The Arboretum is the home of many beautiful gardens and collections that attract over 500,000 visitors each year, including members of Congress.



About the Grass Roots Exhibit

A turfgrass exhibit at the Arboretum's DC campus is key to success for the Grass Roots Initiative, and it represents phase 1 of the project. Not only will it educate visitors but it will also serve as the locus for activities associated with the initiative. The exhibit will be located near the Administration Building and Visitors Center, the National Herb Garden, the Friendship Garden, and the Azalea Collections, all of which are near the point of arrival for visitors and among the Arboretum's most popular attractions.

Since the Arboretum is part of the Agricultural Research Service of the U.S. Department of Agriculture (USDA) and has a unique research and education mission, an outdoor turfgrass exhibit designed and established at the Arboretum will be scientifically credible, based on current, unbiased, and accurate research and analysis. It will demonstrate USDA's commitment to the importance of turf and lawns to society.

Renovations to key facilities have provided newly refurbished auditorium, classroom, and lobby space for programs associated with this initiative. These renovations, along with new leadership and a new public-private partnership model for developing future exhibits and programs, make this an exciting time for the U.S. National Arboretum. Let's make turf a part of this new beginning!



Map of the National Arboretum showing the location of the exhibit.

Target Audience

The audience for the onsite exhibit is the more than 500,000 annual Arboretum visitors, most of whom are not aware of the importance of the turf industry to society and the environment. Millions of visitors to the Arboretum's web site, which will feature the exhibit's contents as well as related supplemental information, will also have the opportunity to learn our key points about turfgrass. In addition, we envision the exhibit to be of interest to the following groups:

- Landscape architects
- Master gardeners
- Garden clubs
- Garden writers
- Native plant societies
- Members of Congress
- Government officials
- City/county planners
- Parks and recreation officials
- Gardening enthusiasts
- Homeowners
- Children



Photo credit: Jody Burchstead LaFerriere

Grass Roots Exhibit Contents

To address the most frequently misunderstood ideas about lawns and turfgrass, the exhibit will focus on three categories: People, Plants, and Environment.

Section One: People

Why do we have lawns and why are they important?

Most take lawns for granted, though they are part of their everyday lives. Lawns are a big part of physical activity, recreation, and life events. Turfgrass influences our perception of space and increases its perceived value. Lawns serve our needs in a variety of ways and are the basis for a large segment of our economy, providing jobs and entrepreneurial opportunities.

Section Two: Plants

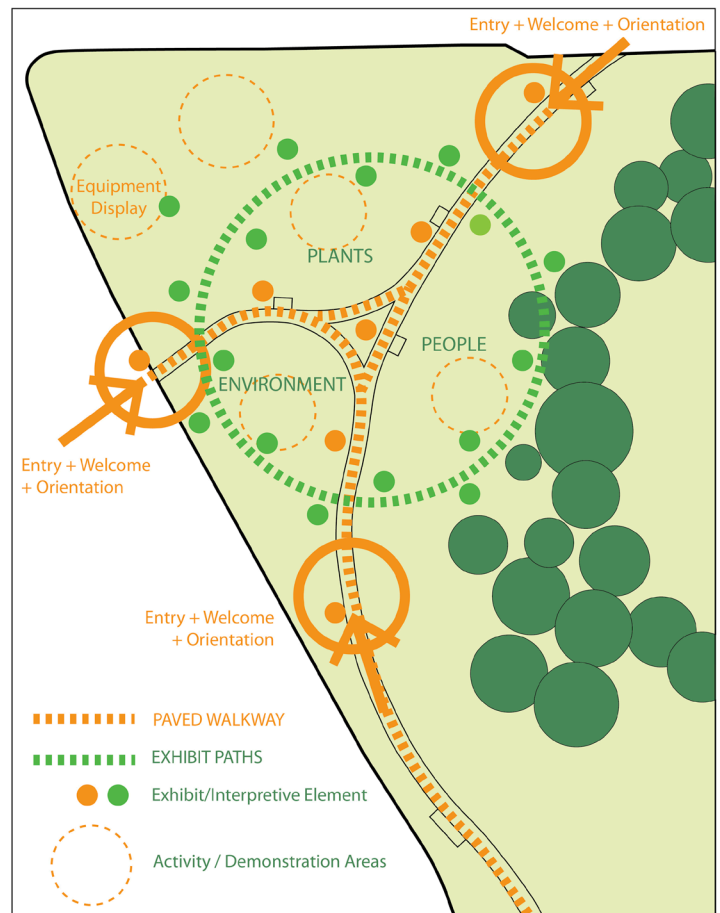
How are turfgrasses different, and how has science improved grasses and the management of lawns?

Selection of genetically superior turfgrasses and development of improved technologies for managing lawns are the key to solving most turfgrass problems. Clear and concise information will allow consumers to understand that the money they spend on turfgrass seed, sod, and lawn products and equipment are investments that bear dividends in the long run. Scientific research and development efforts are poised to make good turf better and will allow us to adapt turfgrasses to a greater variety of growing conditions and maintenance regimes.

Section Three: Environment

What impacts do lawns and turf in general have on the environment?

Turfgrass holds soil, preventing erosion, and aids in the purification of stormwater. It controls dust and creates a place where communities of beneficial organisms can thrive. Lawns absorb carbon dioxide, cool our cities, and moderate soil temperatures. More resilient than any other crop, turfgrass carries our landscapes through weather extremes. With proper management, turfgrass provides a lot of environmental services for comparatively little input.



Grass Roots Outdoor Turfgrass Exhibit Proposed Budget

The development and installation of the exhibit will be completed first to provide context and build interest for programming that is to follow. In addition to the donor opportunities listed, there will be future opportunities to contribute support for symposia, workshops, demonstrations, and other programs.

The U.S. National Arboretum will provide the budget items that are bolded.

Planning and Design

Site preparation	\$5,000
Exhibit concept design	\$8,000
Exhibit design	\$20,000
Landscape design	\$30,000
Research and writing for interpretive features	\$15,000
Brochure design and printing	\$5,000
TOTAL	\$83,000

Fabrication, Construction, and Implementation

Grading and soil preparation	\$25,000
Path construction	\$30,000
Interpretive signs	\$125,000
Props and sculptural elements	\$50,000
Pond	\$15,000
Irrigation and electrical	\$25,000
Plants, sod, and seed	\$20,000
TOTAL	\$290,000

Maintenance

Staff	\$40,000
Materials	\$30,000
Repairs and replacement	\$30,000
TOTAL	\$100,000

Exhibit Grand Total	\$473,000
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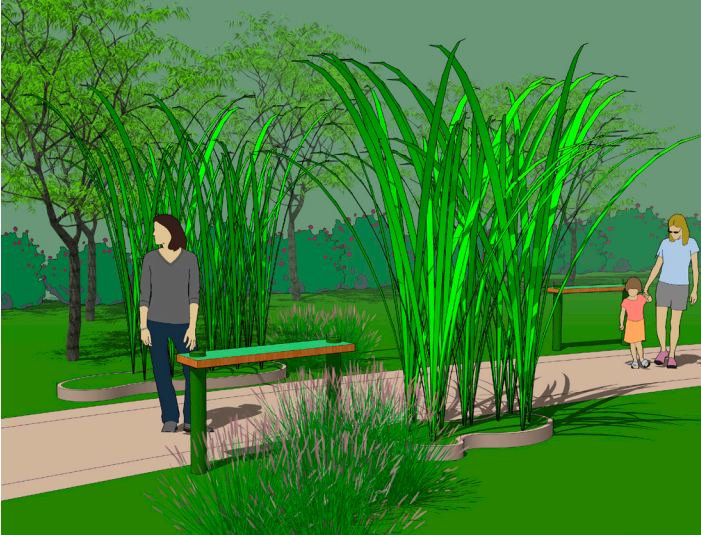
Sponsorship Opportunities

The turfgrass exhibit will provide the Arboretum and industry supporters alike a physical and metaphorical platform for launching the Grass Roots Initiative. It is so important to the objectives of the initiative that the Arboretum is committed to dedicating significant staff time to its development and project oversight. To make the exhibit a reality, however, non-appropriated funds must be contributed to accomplish the fabrication, installation, and maintenance of the exhibit. The Arboretum invites interested turfgrass industry organizations and businesses to discuss sponsorship opportunities.

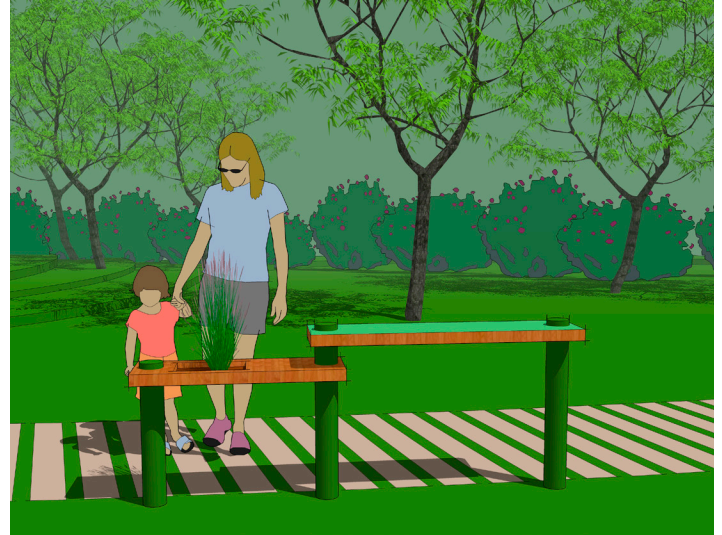
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202-245-4539



Conceptual Drawings of Proposed Exhibit Content



Visually appealing exhibit entry points will attract visitors.



Some paths in the exhibit will utilize permeable components with grass or "grass paver"-type products. Modular stands display different grasses and/or interactive elements.



Cutaway shows soil profile, soil components, and basic soil biology, with a discussion of the importance of soil to turfgrass health.



A re-circulating pond in a setting that represents a healthy ecosystem and incorporates an interpretive interactive that asks visitors to make a choice for cleaner water, where turf is clearly the better choice.



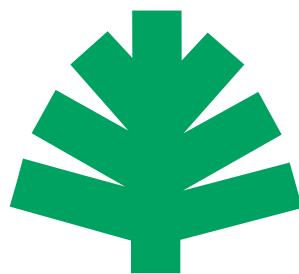
A “Lawn Club” concept may be developed where children, as well as adults and families, can participate in various games and activities on turfgrass.



Examples of turf species and a discussion of their uses



An extension of the outdoor exhibit could be signage within other Arboretum gardens and collections providing relevant turfgrass concepts and encouraging visitors to explore the main exhibit.



U.S. National Arboretum