SUSTAINABLE HORTICULTURE

EDUCATION AND OUTREACH



Phipps recognizes that leadership by example is essential to promoting human and environmental well-being. Through docent-led tours, interpretive signage and education programs, the value of these sustainable practices is shared with the public.



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From integrated pest management and organic practices, to sustainable environments and community engagement, Phipps is dedicated to a holistic approach to its plant collection and exhibit development.

Responsible, Sustainable Planting

- Sustainable plant beds, green roof and organically- managed lawn surround the Welcome Center
- · Drought-resistant and endophytic-enhanced grasses eliminate the need for watering
- Front lawn is under planted with Geoblock® to create a recycled plastic permeable parking grid
- · Organic fertilizers instead of synthetics
- · Pots and seeding trays are reused, recycled or composted
- Recycled peat moss alternative is used in bog gardens

Water Management

· High efficiency fixtures, recirculating ponds, drip irrigation and water metering programs have enabled a 42% reduction in potable water use in two years

Integrated Pest Management

 Integrated Pest Management (IPM) program combines an array of methods, including natural predators, parasites, pest-resistant plant varieties, cultural practices, biological controls, physical technique, and the infrequent, strategic use of least toxic pesticides as a last resort.

Energy Efficiency

 LEED® Platinum EBOM certified Production Greenhouse — the first and only LEED® certified greenhouse in the world — maintains 16 different growing environments through computer-controlled temperature, light levels and humidity

Reuse and Recycling

· All plant material from flower shows and landscape is reused, composted or donated to other nonprofits



© Matthew Quenaudon

The popularity and accessibility of home gardening positions Phipps as a uniquely authoritative voice on the subject of sustainable horticulture for its guests and the broader community. With this important distinction in mind, Phipps education and outreach programming extends beyond our displays to enrich people's lives with the beauty and importance of plants.



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Formal and Informal Education

- More than 100 formal adult education courses are offered each year
- Certificate programs offered in sustainable horticulture, landscape and garden design, native plant landscapes and permaculture
- College internships help to shape the next generation of horticulturists, landscape architects and environmental educators
- More than 100 seasonal camp programs for children are offered annually, highlighting hands-on horticultural experiences, ecology, conservation and healthy living, with home school, field trip and in-the-classroom adaptations available
- · Annual summer internships for youth in underserved communities give hands-on experience with plant display and maintenance, vegetable gardening and more
- Informal gardening programs for all age groups are held every Saturday and Sunday year-round
- · Pot-a-Plant programs and Story Times are held weekly to introduce our youngest guests to the wonder of plants

Community Outreach

- · Homegrown program installs raised-bed vegetable gardens at private homes in food desert areas in underserved neighborhoods
- Top 10 Sustainable Plants program connects the public with local nurseries to find sustainable plant options for home gardens
- · Ask Dr. Phipps, a free telephone and web-based question-and-answer service, helps home gardeners with plant identification, garden maintenance and more, and is supplemented on the Phipps website by a calendar of gardening tips, blogs, short how-to videos and Smart Seed Shopping directory

Residential and Commercial Application

- Sustainable Landcare Accreditation Program provides a professional standard of sustainable excellence to regional landscapers affording Phipps-approved services to anyone interested in modeling our standard in their own gardens
- · Studio Phipps Sustainable Design Group partners with commercial clients to find ways to integrate the beauty of nature and sustainable horticultural practices into buildings and green spaces and find feasible solutions to sustainability challenges

Special Events

- Annual May Market, Great Plant Auction and Gifts and Greens Market make exceptional, sustainable and less-common plants available to the public
- · Free annual Tomato and Garlic Festival collects community donations of thousands of pounds of fresh produce for distribution by the Greater Pittsburgh Community Food Bank



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BEAUTY AND INSPIRATION

A Tradition of Horticultural Excellence

Phipps combines world-class displays, designs and programming with cutting edge sustainable practices to inspire a deeper understanding and appreciation of nature in hundreds of thousands of guests each year.



Blockbuster Exhibits

© Brian Cohen

A dynamic combination of seasonal, annual and multi-year themed shows, supported by public education programs, ensures there's always something blooming at Phipps.

Seasonal Flower Shows

- One of the few remaining glasshouse conservatories in the U.S. still producing full-scale seasonal flower shows yearround, Phipps continues a tradition more than 120 years strong
- Spring Flower Show displays over 69,000 bulbs
- Summer Flower Show incorporates dynamic props, exotic specimens, guest artists and exciting themes
- Fall Flower Show highlights the iconic chrysanthemum, including single-stems, cascades and spiders
- Winter Flower Show and Light Garden enhances a magnificent horticultural display with more than 62,000 square feet of LED-illuminated outdoor gardens
- New creative themes for each show keep the guest experience fresh and exciting
- Each show is meticulously designed over a year-long cross-department planning process
- · Seasonal conservatory displays are installed in up to nine rooms with remarkable efficiency

Tropical Forest

- Constructed in 2006, our state-of-theart Tropical Forest Conservatory — the only changing tropical forest exhibit space in a public garden — undergoes major redesigns every three years to showcase the ecology of forest regions across the tropics
- A three-year planning and design process includes staff research trips around the world
- The exhibit is Phipps' largest interior show space, with 12,000 square feet of display area
- Geographic highlights to date include Thailand, the headwaters of the Amazon, India, the Congo River Basin and Cuba (forthcoming)

More Amazing Shows

- Butterfly Forest showcases colorful native pollinators and their favorite blooms
- · Garden Railroad, a miniature landscape brought to life with real plants, features new themes, tracks and planting designs each year
- Orchid and Tropical Bonsai Show pairs two of Phipps' finest permanent collections, complemented by public educational programs
- Popular collaborative shows with glass artists Dale Chihuly, Hans Godo Fräbel, and Jason Gamrath (forthcoming) expose horticultural display to an expanded audience and connect art and nature



© Paul g.Wiegman

Permanent Collections

- find in virtually any public garden Slipper orchid collection, accredited by North American Plant Collections Consortium. contains nearly 500 species and hybrids
- Orchid Room is artistically arranged as a natural setting with changes occurring daily from our collection of over 1,800 blooming specimens
- · Bonsai collection includes more than 100 temperate and tropical specimens in all five major styles formal upright, informal upright, slanting, cascade and semi-cascade — including creations from internationally respected artists John Naka and Keith Scott
- Desert, fruit and spice collections contain seldom-seen plants from Central and South America, Asia, Australia and Africa

Demonstration and Interactive Gardens

- than 100 native plants
- Three green roof gardens feature vegetables, for our climate
- conservation
- other ornamentals
- Children's Discovery Garden offers hands-on fun to young explorers, including bird, bee and butterfly gardens, and a nature play garden
- · Organic Edible Rooftop Garden, edible wall and hydroponic beds provide produce for events and Café Phipps, and are supported by interpretive signage
- Free-to-the-public Outdoor Garden and Aquatic Gardens demonstrate climate appropriate combinations of natives and exotics in beautiful designs

The Green Heart of Pittsburgh

Fostering Connections to Nature





• Within its 15-acre urban oasis, Phipps packs more biodiversity per square foot than you'll



- Palm and fern collections include vulnerable, threatened and critically endangered specimens
- Use of Iris BG software allows complete collection data management and information sharing
- · Phipps' demonstration gardens educate and inspire guests with concepts suited to home application • Center for Sustainable Landscapes features more
- permaculture and sustainable plant recommendations
- Rain gardens demonstrate residential water
- Welcome Center beds feature sustainable, perennial, low-maintenance plants accented with tropicals and

