

LEWIS GINTER BOTANICAL GARDEN

LIVING COLLECTIONS POLICY



Lewis Ginter Botanical Garden (hereafter referred to as the Garden) is the vision of its first benefactor, Grace Arents, who willed the property with the specific intent that the land be developed into a “public park and botanical garden” named in honor of her beloved uncle Lewis Ginter. The 82-acre Garden was organized and chartered in 1984 as Lewis Ginter Botanical Garden. In 2016, the Cosby family gifted the Garden their 79-acre property and its significant rhododendron and azalea collection under the name Lewis Ginter Nature Reserve (hereafter referred to as the Reserve).

I. Purpose of a Living Collection

The Living Collections exist to honor the wishes of Grace Arents and the Cosby family and also to support and advance the Garden’s **mission** to connect people through plants to improve communities and the Garden’s **vision** of revealing the unity and integration of human and plant life, celebrating the fundamental significance of the natural world, and enriching communities through horticultural and educational excellence and innovative outreach initiatives. The Garden aims to become a national place of horticultural and educational excellence through the development of Living Collections that embody its core values – responsibility, integrity, hospitality, inspiration and innovation. ([Unearthing Our Potential 2019-2024 Strategic Plan](#) December 5, 2018). The Garden and the Reserve serve as a place for visitors to view, enjoy and learn about plants in a beautiful, creative, and sustainably-managed garden setting.

II. Purpose of Living Collection Policy

The purpose of this Living Collections Policy is to guide, manage, and focus the acquisition of plant material so that the Garden’s resources are used efficiently to develop Living Collections that will serve as a world-class primary resource for learning about the botanical world – its beauty, heritage, and significance to the web of life. The Living Collections Policy applies to all accessioned and/or recorded plant material at both the Garden and the Reserve; it does not apply to natural, unmanaged areas at either location. This policy outlines protocols for plant acquisition, plant propagation, collections management, plant records administration, and plant labeling.

The Garden’s Living Collections should be built with the legal, ethical, mindful acquisition of plant material that fulfills one or more of the following: holds historic significance, models stewardship practices, provides exemplar display value, illustrates economic botany, demonstrates natural areas, are included in taxa of focus, and/or preserves certain breeding or hybridizing legacies. Plant material for these purposes should be selected with attention to horticultural value, ecosystem services, tolerance to Conservatory conditions, and educational/interpretative possibilities.

III. Governance

The Living Collections Policy is approved by the President and CEO and the Board of Directors. The Director of Horticulture is responsible for implementation of the policy and biannual review of the policy.



IV. Legal and Ethical Considerations

Activity related to the development, management, and use of the Garden's living collections will comply with all relevant local, state, federal, and international laws. This includes compliance with all necessary documentation and phytosanitary requirements during plant acquisition and distribution activities. The Garden will follow all international trade agreements that relate to plant collecting, including the [Convention on International Trade in Endangered Species](#) (CITES) and the [Convention on Biological Diversity](#) (CBD). Plants must come from reputable vendor, be from nursery propagated material, or be collected with the permission of the owner or government.

V. Invasive Plant Considerations

The Garden is committed to preventing the introduction and spread of invasive plant species, both native and exotic. The Garden strives to adhere to the [Invasive Plant Species Voluntary Codes of Conduct for Botanic Gardens & Arboreta](#), endorsed by American Public Gardens Association in 2002 (see Appendix A for full text). If invasive tendencies are observed in plant material, the Garden will conduct a thorough evaluation and consider removal of the plant(s). If said evaluation results in the plant being deemed invasive, it will be removed from the Garden as soon as practicable and de-accessioned from the plant records database with a note as to the purpose of removal.

Before potentially invasive plants are added to or removed from the Garden, Horticulture staff will consult up-to-date invasive species lists and resources, including:

- Virginia Department of Conservation and Recreation (DCR) [Virginia Invasive Plant Species List](#)
- National Park Service (NPS) [Mid-Atlantic Exotic Pest Plant Council Plant List](#), [Invasive Plant Atlas of the United States](#)
- [National Association of Invasive Plant Councils](#) (NAIPC)
- United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) [Introduced, Invasive, and Noxious Plants](#)

VI. Policy Implementation

The Director of Horticulture, at the direction of the President and CEO, shall be responsible for implementing this policy. He/she may utilize the Horticulture, Education, and Engagement Committee of the Board of Directors, Horticulture staff, other staff members, and various experts as appropriate.

All plant acquisitions will be made mindfully; plants should be purchased or accepted with purposeful, specific goals for collection-building, aesthetic display, conservation, and/or interpretation. Display and interpretive goals should be established prior to plant acquisition. The design, context and use of the plants within a garden area must be decided prior to the plant's arrival.

From time to time, the Garden may be offered collections of plant materials from private sources. In addition to meeting the requirements of this policy, a proposed collection must be evaluated pursuant to criteria appearing in the [Unearthing Our Potential 2019-2024 Strategic Plan](#) (December 5, 2018). Any significant or unusual acquisition must also meet such criteria.



VII. Scope of Living Collections

Core Plant Collections. The following are categories of the Garden's core collections. Individual accessions can fit into one or more than one category.

A. Display Collections

- **Demonstration Collections:** Plants that serve the purpose of demonstrating horticultural best practices, new horticultural techniques, or specific growing methods. This can include plants that are part of research trials and demonstration vegetable gardens, as well as other demonstration purposes.
- **Hardy Display Collections:** Plants of cultivated origin, particularly cultivars selected for unique traits, serve important research and education roles. These can include both perennials and woody plants. Examples include plants with exceptional ornamental qualities, landscape plants particularly well-suited to the central Virginia climate, and plants still under evaluation.
- **Non-Hardy Display Collections:** Non-hardy plant material will be maintained in the Conservatory and Greenhouse for educational and display purposes. This plant material will be used in different formats in containers and temporary displays around the garden, but overwintered each year.

B. Stewardship Collections

- **Water-wise Collections:** The Garden is committed to responsible and sustainable management of our water resources. Plants in the Water-wise Collection should be drought-tolerant and adapted to the climate, rainfall, and soils of central Virginia. This collection will demonstrate water conservation plants and strategies (including xeriscaping) in ornamental landscapes.
- **Regional Native Plant Collections:** The Garden is committed to improving its native plant collection. *The Flora of Virginia*, published in 2012, will be the guiding text for a synoptic, comprehensive collection that will provide a thematic overview of plants native to central Virginia and surrounding regions.

C. Plant Taxa of Focus

The Garden will dedicate resources towards the following plant taxa of focus: azaleas, magnolias, pitcher plants, Virginia native plants, conifers, aroids, palms, and orchids, as described in the [Unearthing Our Potential 2018-2023 Strategic Plan](#) (November 27, 2017).

D. Legacy Collections

The garden will use its resources to preserve the work of local, Virginia-based plant breeders and breeding programs in taxa of focus, including the William (Bill) Smith magnolia hybrids and the Azalea Society of America (ASA) [Legacy Project](#) plantings at the Reserve.

E. Economic Botany Collections

This collection will encompass plants that have provided important medicinal, nutritional, or economic benefits to society and/or plants that provide crucial nourishment, healing, or practical benefits to humans.

F. Historic Collections

In honor of the property's early beginnings as Grace Arents' home garden, accessions original to the site will be preserved and maintained. This collection will not be actively developed with the exception of replacing deceased plants or replacement with superior cultivars for pest and disease resistance.



G. Natural Areas

The uncultivated grounds of the Garden serve as potential area for garden expansion and contain flora representative of central Virginia. These areas are subject to spontaneous generation of both native and exotic plants. These areas are maintained by natural regeneration of the present vegetation; however development may occur in the future. As resources allow, some of the plants will be removed due to their noxious characteristics, some will remain in place, and some will be accessioned as an official part of the Garden's Living Collection.

VIII. Collection Development and Management

A. Specimen Acquisition

The Director of Horticulture is responsible for initiating acquisitions to the collection. Horticulturists with acquisition suggestions or requests are encouraged to submit suggestions or requests to the Director of Horticulture for consideration. Specimens may be obtained through legal and ethical field collection, nursery stock, exchange, purchase, gift, or loan. As acquisitions or collections are contemplated, plants should exhibit traits in one or more of the following criteria categories:

1. Horticultural Criteria

- Adapted to or tolerant of central Virginia growing conditions
- Adapted to or tolerant of anticipated future growing conditions in light of climate change
- Be a new and desirable cultivar or nativar
- Possess some cultural resonance (i.e., evoke stories and anecdotes, demonstrate historical use/value, be of cultural significance, etc.)
- Have an outstanding desirable characteristic, i.e. hardiness, pest or disease resistance, drought tolerance, etc.
- Demonstrate unique qualities of flowering, form, and fruiting, etc. and demonstrate overall superior landscape effect
- Possess superior visual appeal in color, texture or contrast within a planting

2. Ecosystem Services Criteria

- Provide provisioning services for animals via seeds, nectar, nest-building materials, etc.
- Serve as animal habitats for a diverse wildlife population
- Improve soil structure, stabilization, biota, etc.
- Compete with invasive plants to improve or restore the ecological function of an area
- Provide stormwater services, such as filtration, retention, etc.

3. Conservatory Criteria

- Be adaptable to an interior growing environment including pest resistance and tolerance to varied light levels and temperatures in the Conservatory
- Meet forcing requirements for timing and reliability
- Support design intent of a thematic display, permanent collections and/or rotational plantings
- Possess long lasting display qualities
- Provide interest via color, foliage, flowers, fruit or fragrance
- Offer unique flowers not available to the consumer
- Support an educational goal
- Be non-hardy to the area or is it forced to bloom out of season for display purposes



4. Educational Criteria
 - Demonstrate interdependence of plants, people, and the environment
 - Have existing or potential teaching/educational value
 - Showcase or enhance a Garden exhibition
 - Support existing or future educational programs
 - Display rare or endangered species for educational purposes
5. Collaborative Criteria
 - Serve a test and evaluation function for inter-institutional collaborations or partnerships
 - Contribute to plant trials, botanical or ecological research
 - Further a germplasm curatorial initiative or program

B. Donations

Individual plant donations are accepted when they are appropriate for the existing or anticipated collections of the Garden. All donation requests are evaluated by the Director of Horticulture and will be coordinated with the Advancement Department, as appropriate, to choose and select plant donations for the gardens and collections. When the collection or donation departs from established agreements or guidelines, the President and CEO shall provide approval. In those situations involving the donation of large collection or of funds with which to procure specified, large or new collections, the President and CEO shall provide guidance and direction. Donations will be appraised by the donor via Gift-in-Kind form. The donor will be informed that the Garden retains the right to administer the plant material according to the Living Collections Policy (this includes both accessioning plant material into the Living Collection and selling de-accessioned plant material in plant sales). In addition to meeting the requirements contained in this policy, proposed donations shall satisfy criteria set forth in the [*Unearthing Our Potential 2019-2024 Strategic Plan*](#) (December 5, 2018).

C. Specimen Removal

Plants should be removed when they are determined to be inappropriate to the scope of each collection or if they are dead, unsightly, hazardous, infected with disease or insects, poor performers, replaceable with superior taxa, or prove to be weedy or invasive. Plants may also be removed to manage competition with other plants; thinning out of some plants may be necessary to allow other, more desirable specimens to thrive. All such determinations should be suggested by a Horticulturist, approved by the Director of Horticulture and recorded by the Plant Records Curator. The Horticulturist is responsible for reporting plant removals to the Plant Records Curator in a timely fashion.

D. Staff Plant Collections and Breeding Programs

Plant selection and plant breeding programs must be decided and approved by the President and CEO and the Director of Horticulture. Proposals must be submitted in writing and should define the plant group and establish parameters of the breeding program (including anticipated costs, length of program and expected results). Personal plant collections of staff members or volunteers are not allowed to be maintained anywhere in the Garden, including any greenhouse facilities or in the Conservatory.

E. Plant Assessment

Horticulture staff is committed to regular evaluation of the collections and aims to conduct collection inspections at the appropriate season every other year (biannually). Plants that are not performing or are deemed inappropriate by this Living Collections Policy should be removed; these decisions are made by the Horticulturist and the Director of Horticulture. As



practical, Horticulturists shall endeavor to evaluate plants for adaptability to central Virginia, horticultural merit (including flowering time, foliage quality, hardiness etc.), and any other unique or outstanding qualities. The information thus obtained should be recorded and disseminated to appropriate audiences as determined by the Horticulturist's yearly plan of work.

F. Collection Preservation

The Garden recognizes the importance and value of its Living Collections; preparing for natural disasters including hurricanes, storms, floods, fires, and climate change disruption is an essential part of preserving the plant material in its collections. Detailed resource lists, disaster-related personnel assignments, risk assessments, loss mitigation plans and salvage priorities will be addressed further in a forthcoming *Natural Disaster Plan* (to be drafted and submitted for review by 6/2021).

IX. Collections Documentation

The Garden is dedicated to documenting, labeling, and maintaining updated information about the Living Plant Collections. The Director of Horticulture is ultimately responsible for the supervision of this process, which will include tasks performed by the Plant Records Curator, Horticulture staff, volunteers, and other Garden staff as directed. Intricacies of database management and detailed procedures for collections documentation will be outlined further in a forthcoming *Living Collections Procedural Manual* (to be drafted and submitted for review by 9/2021). Efforts will be made to continually upgrade hardware and software relating plant records management, labeling, and mapping the Garden's Living Collections.

All qualifying plant acquisitions shall be accessioned into the plant collections database (currently IrisBG). When plant material is removed, dead, lost, stolen, destroyed, or given away, it will be de-accessioned in the plant collections database and its accompanying accession record will be updated in a timely manner. Note: the process of "de-accessioning" plant material from the plant records database is only an adjustment to the record's status from "existing" to "not existing;" it is not a deletion of that record from the database. Data pertaining to all accessioned plant material shall be maintained in perpetuity.

A. Plant Records

The following are general guidelines for documentation:

- All plant material intended to remain in the collection for one year or more shall be accessioned.
- Each individual plant or group of plants from the same source, purchased at the same time, with the same identification will be given a single accession number.
- The staff member bringing in or receiving plants for Garden collections shall submit the following to the Plant Records Curator at the time of receipt:
 - Source information via a vendor/donor invoice or other documentation
 - An Accession Creation Request form
- Plant source information, including vendor, nursery, donor, etc., and nomenclature shall accompany specimens. Source information is particularly important for native herbaceous plants and seeds. Both primary and secondary (source of plant material prior to the primary source) will be included if known.
- Plants without nomenclature may be refused.
- The Plant Record Curator will verify nomenclature using approved sources during the accessioning process. Nomenclature changes will be accompanied by written documentation, justification, and the source of the information. All name changes must



be supported with appropriate scientific documentation. Labels and records will be updated.

- Seasonal plant material will not be accessioned to the plant records database. The Plant Records Curator will keep an accurate record of all annual display material. The Plant Records Curator will review and verify scientific nomenclature at the time of ordering and will provide display labels or plant identification signage as appropriate at the time of installation.
- If seasonal plant material is retained in the collection, held over, grown as a perennial or utilized in the greenhouse as stock plant for propagation, it will be accessioned into the plant records database. In this case, the Horticulturist who originally purchased the plant material is responsible for submitting accession information to the Plant Records Curator.

B. Labels and Accession Tags

- All plants will be labeled with accession number during production or holding.
- All accessions require both a display label and an accession tag upon planting. For ease of access and location, both accession tag and display label will be installed together in the ground at approximately the center front of the plant or planting. As appropriate, a display label that includes an accession number is also acceptable.
- Individual specimen trees, shrubs and perennials will each be given individual display labels and accession tags. However, plants that are a part of hedges or mass plantings will share a common display label and accession tag.
- Verification of unknown plants or plants with missing labels can be identified using Garden Herbarium, professional staff at other gardens, nurseries and plant societies. If a plant's identity cannot be verified, removal and de-accessioning may be considered, with approved by the Director of Horticulture.

C. Mapping

Mapping of the collection is an important part of plant recordkeeping and collection interpretation. The Garden will work towards having all collections and garden areas mapped, using current landscape architectural drawings, field inspections, GIS maps or other available and accurate resources. New Gardens will have as-built drawings provided by the contractor and/or landscape architect. Electronic copies of as-built drawings will be provided to the Plant Records Curator.

D. Photo Documentation

The Garden is committed to working towards expanding plant documentation and increasing access to collection information. As possible, this will include photographing all specimens and uploading photographs to the plant records database.

E. References

All paid and unpaid staff of the Garden will consistently use approved reference material when verifying scientific plant names, common plant names and botanical nomenclature. Reference Appendix B for a full listing of Garden-approved resources and references.



X. Access to Collections & Propagation Guidelines

A. General Access

The Garden will encourage the use of its living collections to the greatest extent possible. Access to view collections from paths, lawns, and boardwalks is unrestricted in cultivated garden areas during open hours to Garden visitors, staff, and volunteers. The Reserve is private property of the Cosby family; access to the private collections at that location should be requested through the Director of Horticulture or the President and CEO.

Detailed information and records relating to the living collections will typically be freely available to those with appropriate interest or professional activities. Garden staff and volunteers will continue their ongoing work with populating and promoting the online Garden Explorer module of IrisBG.

B. Collecting for Garden Purposes

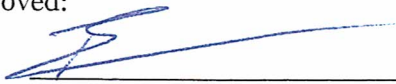
Plant material will be made available for in-house educational programs and mission related purposes. The material must only be collected with approval from the Director of Horticulture and under the supervision of a staff Horticulturist. Requests for collected plant material must be sent in writing to the Director of Horticulture at least one week prior to the date needed. Under no circumstances will plant material be collected if it will harm the aesthetic or biological functions of the specimen, as could happen if a specimen was pruned at an inappropriate time of year. Following a written approval, an appointment must be made with a staff Horticulturist to collect material from the Garden. Plant displays and aesthetics are to be considered when material is collected.

Internal propagation requests must be submitted in writing to the Horticulturist responsible for plant propagation.

C. Collecting for Non Garden Purposes

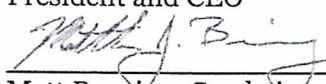
Plants, cuttings, seed, or division of plants in the Garden are made available to qualified individuals (nurseries, public gardens, and plant collectors) only for plants that are otherwise unavailable in the trade or where mutual exchange has been agreed upon with the permission of the Director of Horticulture. Materials are not available as a source of stock plants for nurseries and private collectors. All propagation requests from outside of the Garden must be submitted in writing to the Director of Horticulture.

Approved:



Brian Trader, PhD
President and CEO

May 7, 2021
Date



Matt Bruning, Co-chair
Horticulture, Education and Engagement Committee

May 5, 2021
Date



Invasive Plant Species

Voluntary Codes of Conduct for Botanic Gardens & Arboreta

Endorsed by American Public Gardens Association, February 2002

- Conduct an institution-wide review examining all departments and activities that provide opportunities to stem the proliferation of invasive species and inform visitors. For example, review or write a collections policy that addresses this issue; examine such activities as seed sales, plant sales, book store offerings, wreath-making workshops, etc.
- Avoid introducing invasive plants by establishing an invasive plant assessment procedure. Predictive risk assessments are desirable, and should also include responsible monitoring on the garden site or through partnerships with other institutions. Institutions should be aware of both direct and indirect effects of plant introduction, such as biological interference in gene flow, disruption of pollinator relationships, etc.
- Consider removing invasive species from plant collections. If a decision is made to retain an invasive plant, ensure its control and provide strong interpretation to the public explaining the risk and its function in the garden.
- Seek to control harmful invasive species in natural areas managed by the garden and assist others in controlling them on their property, when possible.
- Promote non-invasive alternative plants or, when possible, help develop non-invasive alternatives through plant selection or breeding.
- If your institution participates in seed or plant distribution, including through Index Seminum, do not distribute known invasive plants except for bona-fide research purposes, and consider the consequences of distribution outside your biogeographic region. Consider a statement of caution attached to species that appear to be potentially invasive but have not been fully evaluated.
- Increase public awareness about invasive plants. Inform why they are a problem, including the origin, mechanisms of harm, and need for prevention and control. Work with the local nursery and seed industries to assist the public in environmentally safe gardening and sales. Horticulture education programs, such as those at universities, should also be included in education and outreach efforts. Encourage the public to evaluate what they do in their own practices and gardens.
- Participate in developing, implementing, or supporting national, regional, or local early warning systems for immediate reporting and control. Participate also in the creation of regional lists of concern.
- Botanical gardens should try to become informed about invasiveness of their species in other biogeographic regions, and this information should be compiled and shared in a manner accessible to all.
- Become partners with other organizations in the management of harmful invasive species. Follow all laws on importation, exportation, quarantine, and distribution of plant materials across political boundaries, including foreign countries. Be sensitive to conventions and treaties that deal with this issue, and encourage affiliated organizations (plant societies, garden clubs, etc.) to do the same.



Approved Resources For Verifying Plant Nomenclature and Common Names

The following are approved resources, references, and plant index guides approved for Garden use in verifying scientific names:

- Royal Botanic Gardens Plants of the World Online www.plantsoftheworldonline.org
- Royal Horticultural Society Plant Finder <http://apps.rhs.org.uk/rhsplantfinder/>
- Kew Gardens The Plant List <http://www.theplantlist.org/>
- Germplasm Resources Information Network (GRIN) <https://www.ars-grin.gov/>
- Integrated Taxonomic Information System (ITIS) www.itis.gov
- Tropicos <https://www.tropicos.org/home>
- International Plant Names Index www.ipni.org
- Royal Horticultural Society International Orchid Register
<http://apps.rhs.org.uk/horticulturaldatabase/orchidregister/orchidregister.asp>
- Royal Botanical Gardens Edinburgh Multisite Search online database
<http://rbg-web2.rbge.org.uk/multisite/multisite3.php>
- Printed plant encyclopedias or texts, such as the Royal Horticultural Society *Encyclopedia of Gardening*
- OrchidWiz orchid encyclopedia
- Nursery website or breeder responsible for plant hybridization or patents (i.e. Star Roses and Plants for Knock Out® Roses)
- [International Cultivar Registration Authorities](#) (ICRAs), as designated by the International Society for Horticulture Science (ISHS) (i.e. [Magnolia Society International](#) for *Magnoliaceae*, [American Rose Society](#) for *Rosa*, etc.)

In addition to the references above, the following resources are approved for Garden use in the verification of common names:

- Missouri Botanical Garden Plant Finder
<https://www.missouribotanicalgarden.org/plantfinder/plantfindersearch.aspx>
- Lady Bird Johnson Wildflower Center www.wildflower.org
- USDA NRCS Plants Database www.plants.usda.gov
- Nursery website or breeder that patented the plant (i.e. Star Roses and Plants for Knock Out® Roses)
- *Dirr's Encyclopedia of Trees and Shrubs*
- *American Horticultural Society A-Z Encyclopedia of Garden Plants*

Where less well-known plants are cited, other source material may be used including national floras, monographs, plant society publications, and scientific papers. These materials must be cited and should be acquired for our reference library.

For standard abbreviations of authors, the approved source is the Royal Botanical Gardens, Kew Science Plants of the World Online <http://www.plantsoftheworldonline.org/>