



A Plant Introduction Program for Virginia, Mid-Atlantic, and Beyond...

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Vision: Expanding opportunities for the Virginia green industry through the development and promotion of superior plants for Beautiful Gardens™.

Mission: To strengthen the Virginia green industry through coordinated research, evaluation, production and marketing in order to increase the quality and diversity of ornamental plants.

Goal: To boost Virginia Green Industry by implementation of a multi-facet strategy for:

- High value ornamental plant breeding;
- Germplasm and propagation research;
- Rigorous plant evaluation, environmental & invasiveness testing;
- In-program IPR protection and further in-state liner production;
- Branding and aggressive promotion and marketing campaigns.

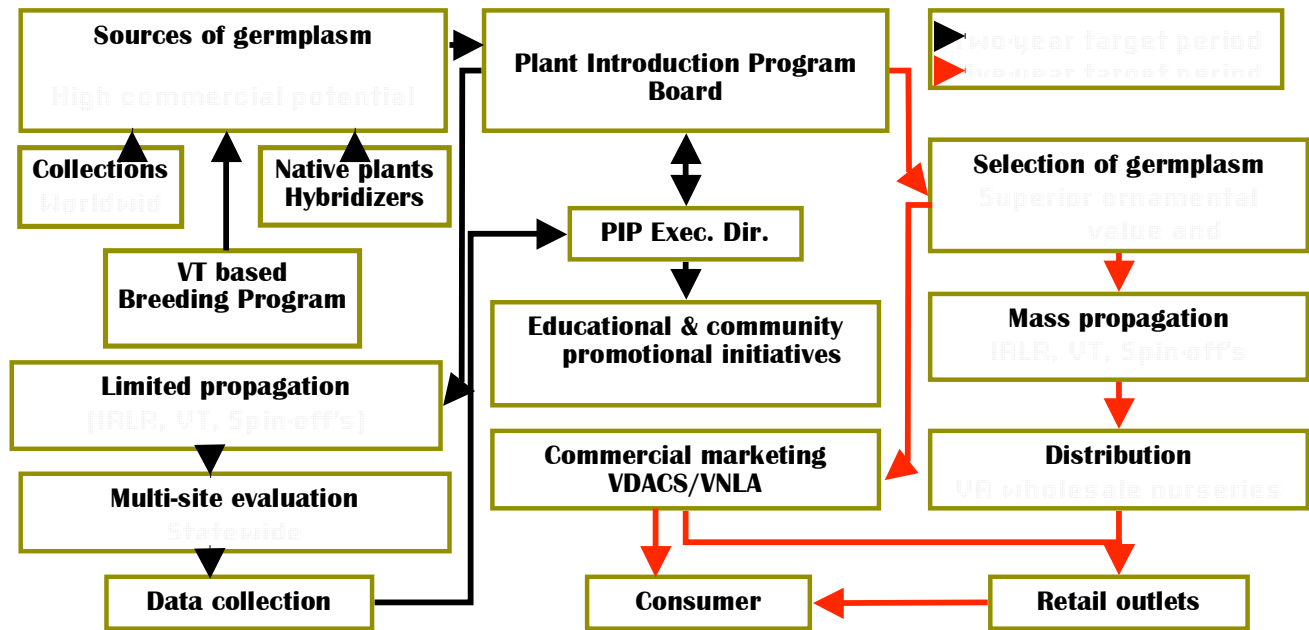
Statistics:

Official start - Nov 2004, Start-up financing - \$526,000 total contributions, incl. \$291,000 in-cash; Current budget - \$649,000 total contributions, incl. \$221,000 in-cash; Site maintenance and data collection - nearly 100 Master Gardeners involved statewide; Plant evaluation - from USDA zones 6a to 8a, Test plots - 6 one-acre sites with deer-proof fencing, shade structures, Internet linked weather stations, and drip irrigation systems.

Horizontal Integration:

- Virginia Nursery and Landscape Association (VNLA);
- Dept. of Horticulture, Virginia Polytechnic Institute & State University (VA Tech);
- The Institute for Sustainable and Renewable Resources (ISRR), at the Institute for Advanced Learning and Research (IALR)/ Danville, VA;
- Virginia Master Gardeners Association (VMGA);
- Virginia Cooperative Extension (VCE);
- Norfolk Botanical Garden (NBG);
- Virginia Department of Agriculture and Consumer Services (VDACS);
- Claytor Nature Study Center at Lynchburg College;
- Virginia Tobacco Indemnification and Community Revitalization Commission (VTICRC) - the major financial contributor during the start-up period.

Conceptual Framework:



Infrastructure and human resources development:

The plant evaluation sites are on one-acre plots; those with high animal pressure are deer-proof fenced. All sites have shade structures built and are supplied with conventional and digital equipment for taking biometric records of plants under evaluation. Five of the sites are equipped with VT maintained weather stations linked to a web based network. Two of the sites have operational drip irrigation systems in place and four more will be provided with micro-irrigation by the end of 2006. Nearly 100 Master Gardiners are involved in collecting data and site management. The Master Gardiners' teams are delivered comprehensive in-class seminars, followed by hands-on training for biometric, phenological and other data gathering. The planting beds are prepared and first 44 genotypes are planted for evaluation in the fall of 2005.

Evaluation forms and protocols:

A set of 10 original custom-designed and user-friendly evaluation forms and protocols are developed. The leading philosophy is to create forms comprehensive enough to include data for all major plant characteristics, flexible to fit to all types of plants under evaluation - from trees to herbaceous perennials, yet simplified to be used by non-professionals. Our approach is to separate data collection for genotype-specific plant traits from the characteristics which are subject to annual variations due to the unique weather conditions each year.

Plant selection:

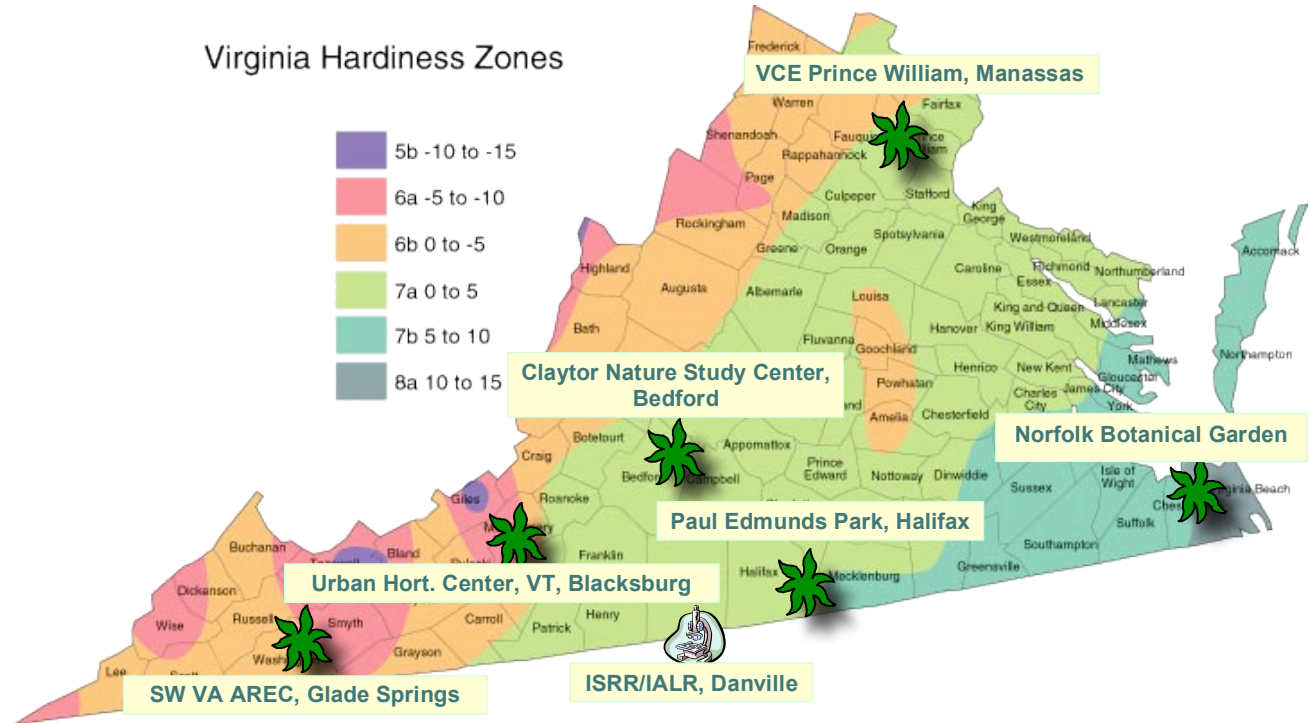
The Plant selection committee in concert with the Program Director and the Advisory Committee is working towards identification and location of new and

underutilized plants with high potential, and for acquisition and limited propagation of new and promising germplasm for testing. Two plant lists are being developed each year: Plant Promotion list - which consists of plants tested adequately and ready for commercialization, and Plant Evaluation list - new plants with unknown performance to enter in the pipeline. In Feb 2006 a list of plants to be promoted on a “fast track” was also created, which would enable a promotion campaign to be initiated in 2007 followed by a marketing campaign in 2008.

Strategic Partnerships

The Plant Introduction Program has established an Advisory Committee which main purpose is to advise the Beautiful Gardens™ Plant Selection Committee on the availability of new plants with high aesthetic value and commercial potential, as well as to provide professional opinion on preparation of annual evaluation and promotion plant lists. Current members of the Advisory committee are Dr. Margaret Pooler, Research Geneticist, US National Arboretum, DC; Dr. Todd Lasseigne, Executive Director, Paul J. Ciener Botanical Garden, NC; and Dr. David Tay, Director, Ornamental Plant Germplasm Center, OH. Many other connections are established: from federal germplasm repositories and nationally recognized university breeding programs, to regional nurseries and garden centers, to plant enthusiasts, hobbyists, back-yard hybridizers and private collectors.

Evaluation sites:



Promotion and marketing:

Beautiful Gardens™ has developed a logo (® applied for), a full color 3-fold brochure, promotional apparel, and two-sided 6'x3' banner being exhibited at all regional events like MANTS, MAHSC, SNA, etc. Most importantly - a set of 9 plants is already selected and Beautiful Gardens™ first marketing campaign is scheduled for 2008.

Research and development

Four projects closely associated with and funded by the VNA-HRF are being developed. One of the projects is to support the ongoing collection and propagation work at Lewis Ginter Botanical Garden, and three projects are underway at the Institute for Sustainable and Renewable Resources in Danville. They are focused on developing high throughput tissue culture propagation protocols for native azaleas and hellebores, as well as on continuing the very encouraging work for developing sterile triploid daylilies.

Germplasm acquisition:

Beautiful Gardens™ is very successful in establishing fair and transparent connections with potential donors of new and unique plants which in return secure the base for success in future marketing and promotion. Several Plant Transfer Agreements are achieved so far, among which for donation of an exceptional fasciated multi-flower hybrid lily developed by a VA master gardener, a pool of triploid daylily germplasm, a very attractive and presumably disease resistant dogwood, numerous native azaleas, a cherry which is presumably tent-caterpillar resistant, 6 new oleander cultivars, just to name a few.

SUMMARY: Virginia Plant Introduction Program Beautiful Gardens™ has:

- **Clear vision on the big picture and well developed strategic plan;**
- **Capable and devoted people on board;**
- **6 one-acre sites with comprehensive infrastructure built;**
- **Strong research support from VT and ISRR/IALR, Danville;**
- **High intellectual potential utilized - top expert advisors;**
- **Thorough plant evaluation methodology based on scientific approaches, uniform evaluation forms and protocols, and tangible meteorological data;**

Acknowledgements:

Beautiful Gardens™ is appreciative for the substantial financial support provided by TICRC, as well as by VNLA, VNAHRF, ISRR, and VDACS.

Special thank you also goes to:

ISRR/IALR - for providing the program's headquarter and research collaboration;

Department of Horticulture at VT and VCE - for their invaluable ongoing support;

Norfolk Botanical Garden - for providing facilities, land, staff, and expertise;

Halifax County Board of Supervisors and administration - for their close involvement;

and last but not least, to all **PIP Committees' Members, Site Managers, and Master Gardeners** involved in planning, site maintenance and data collection - for their volunteerism & devotion;