



Landscape & Nursery Plants

SERA-027 has provided unbiased information on the performance and adaptation of ornamental plants across a wide geographic range, helping nurseries, landscapers, and gardeners make sustainable selections.

Who cares and why?

New plant material is regularly created through traditional breeding programs and discoveries during exploration expeditions. Demand for new ornamental plant material is high among the horticultural industry and consumers. Some nurseries are investing in the discovery and development of new plant releases and are using this technique to gain market share. Unfortunately, some new plant releases are not widely tested and most have not been independently tested in unbiased trials. In particular, plant evaluations do not often assess the adaptability of these plants to different growing conditions. Nurseries, landscapers, and gardeners need impartial information about new plant materials in order to choose plants that are economically and environmentally sustainable. Otherwise, the U.S. ornamental plant industry could lose its competitiveness and customers may not be satisfied.

What has the project done so far?

Over the past five years, SERA-027 has provided leadership that has facilitated well-coordinated plant evaluations. SERA-027 members have selected and distributed plants from 43 taxa for evaluation, including many lesser-known or less commonly used ornamental plants. Working with multistate cooperators, SERA-027 scientists have assessed the performance and adaptation of these selected plants at multiple trial locations over a five-year period. To facilitate data entry and tabulation of evaluation results, SERA-027 members have developed a web-based data entry form. Summarizing qualitative and quantitative results from these evaluations, the SERA-027 group has provided an overall rating for each plant. Using these ratings, the group has been able to identify underutilized ornamental plants that have superior qualities, especially plants that are more environmentally sustainable. Information about the cold hardiness, heat tolerance, growth rate, environmental adaptation limits, and other qualities of new plants has been shared with a wide variety of audiences. For example, SERA-027 researchers and Extension specialists have shared information via a project webpage, conferences, poster presentations, and collaborative papers. In addition, the



Many of the plants that SERA-027 has selected for evaluation, like the 'Jon Jon' magnolia, have become popular staples in the gardening community. 'Jon Jon' magnolia is a late-flowering magnolia that has been recommended for its cold hardiness.

SERA-027 group has launched a Plant Symposium, during which group members can share their expertise with the general public. The inaugural Plant Symposium was well-attended and well-received.

Impact Statements

Made up-to-date, unbiased evaluation information about ornamental plants more easily accessible for nursery workers, landscapers, gardeners, and others

Enhanced the profitability and sustainability of the ornamental plant industry by providing new staples and promoting lesser-known and underutilized plants that are worthy alternatives to traditional nursery and landscape plants

Identified ornamental plants that are more environmentally sustainable

Improved customer satisfaction by encouraging nurseries to stock higher quality ornamental plants

Shared plant recommendations and trial results with a broader audience by holding a public symposium

What research is needed?

SERA-027 researchers will continue to search for high impact plants to evaluate for potential introduction. Overall, the group's continued work must address the impact of climate change on landscape plant selection. Specific needs include sustainable landscape plants for the southeastern U.S., particularly those that are tolerant of low water and high salinity conditions, and plants that can be used in coastal developments and restoration projects to abate or remediate hurricane and tropical storm damage. In addition, evaluations are needed for ornamental plants that show promise in resisting pests and diseases as well as for plants that could potentially be invasive. More studies and evaluations are also needed to expand the range of ornamental plants that are suitable for the edible landscape.



SERA-027 researchers regularly meet with each other to discuss issues, share expertise, and brainstorm ideas. In the top photo, SERA-027 members Allen Owings and Regina Bracy listen to Bobby Green talk about plants at his nursery. The bottom photo shows the SERA-027 group at Martin's nursery during the 2012 annual meeting in Semmes, Alabama.

Want to know more?

Administrative Advisors:

Research, Regina Bracy (RBracy@agcenter.lsu.edu)

Extension, Patricia Knight (tricia@ra.msstate.edu)

Project webpage:

http://www.lsuagcenter.com/en/administration/about_us/professional_organizations/sera_ieg_27/

This project was supported, in part, through USDA's National Institute of Food and Agriculture by the Multistate Research Fund (MRF) established in 1998 by the Agricultural Research, Extension, and Education Reform Act (an amendment to the Hatch Act of 1888) to encourage and enhance multistate, multidisciplinary research on critical issues that have a national or regional priority. Additional funds were provided by contracts and grants to participating scientists. For more information, visit <http://saaesd.ncsu.edu/>.

Compiled and designed by Sara Delheimer