

Mississippi State University

Report for the Annual SERA-27 Meeting

May 31, 2017

University enrollment for last year set a record with 21,622 students (including a record of 3,624 first-time freshmen), with 2,440 in the College of Agriculture and Life Sciences (also an increase from the previous year.). The Department of Plant and Soil Sciences had 144 undergraduate students and 82 graduate students during the spring 2017 semester, including 9 M.S students and 4 Ph.D. students in horticulture. Full-time faculty in the state with primary emphasis on ornamental crops includes 3 in research, 4 in extension, and 2 in teaching.

At the South Mississippi Branch Experiment Station in Poplarville, Dr. Gene Blythe in continuing cool-season, spring, and summer annual variety trials, plus some perennial trials. The South Mississippi Branch Experiment Station participated in the fifth year (2016) of the National Plant Trials Database, and is continuing in 2017. Over 25 ornamentals are being evaluated under the All-American Selections trialing program. The experiment station hosted a 9-day public viewing of the rare titan arum (*Amorphophallus titanum*), nicknamed "Spike," from June 22-30, 2016. When the plant flowered on June 30, viewing hours were extended from 7:00 AM to 10:00 PM. Over 300 guests visited the experiment station during the 9-day event, and there were over 10,000 views of Spike on the live webcam broadcast. HighLights newsletter is being sent via Email to a broad clientele and all Extension personal in the state to provide quick updates on the trial gardens and horticultural research at the experiment station. Information is also being posted on the Facebook page for the MSU South Mississippi Branch Experiment Station.

Requested for results on three items previously provided by Mississippi for SERA-27 trials, *Artemisia afra*, *Eucalyptus neglecta*, and *Tagetes nelsonii*, have been sent out. *Centaurea gymnocarpa* was distributed two years ago.

At the Truck Crops Branch Experiment Station in Crystal Springs, Dr. Shaun Broderick and colleagues are continuing research on *Macrophomina phaseolina* (Mp) on impatiens and are trying to determine the point of entry for this pathogen. Although this is a soil-borne pathogen, it does not seem to be entering via roots. They hypothesize that Mp spores may be spread during dry, hot times of the year through dirt particles. They have also finished screening hollyhocks (both cultivated and GRIN-based accessions); no solid rust resistance was identified. They are in their second year partnering with Yan Chen from LSU to screen dwarf *Buddleja* for landscape performance and landscape persistence. They are also in the process of studying a gene that is important for chromosome segregation, Centromeric Histone 3, in *Penstemon*, and are looking at sequence variation of this gene to determine if it has been involved preventing interspecific crosses of *Penstemon*. Finally, they are evaluating 42 ornamental grasses for landscape performance and about 120 ornamental plants for container and/or landscape performance.

Publications:

Chater, J.M., D.J. Merhaut, J.E. Preece, and E.K. Blythe. 2017. Rooting and vegetative growth of hardwood cuttings of 12 USDA-ARS pomegranate (*Punica granatum* L.) cultivars. *Scientia Hort.* 221:68-72.

Blazek, D. and E.K. Blythe. 2015 (published 2016). All-America Selections winners for 2015: Ornamentals and edibles with proven national and regional garden performance. *Comb. Proc. Intl. Plant Prop. Soc.* 65:183-186.

Pounders, C.T., H.F. Sakhanokho, and E.K. Blythe. 2015 (published 2016). New crapemyrtles from the USDA-ARS: 'Miss Frances', 'Miss Gail', and 'Miss Sandra'. *Comb. Proc. Intl. Plant Prop. Soc.* 65:178-179.

Submitted by Gene Blythe, Associate Research Professor, Coastal Research and Extension Center