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Performance Plus Plants from the Trial Gardens at UGA[®]

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INTRODUCTION

The Trial Gardens at UGA were started in 1982 and Dr. John Ruter has served as Director of the Trial Gardens since 2013. In 2017, Brandon Coker joined as manager of the Trial Gardens. The mission of the Garden includes teaching, research, and introduction of new plants to the industry. The Trial Garden is an essential testing site for heat and humidity tolerance for many of the world's breeding companies. During most summers some 56 days reach $\geq 32^{\circ}\text{C}$ ($\geq 90^{\circ}\text{F}$), while the average rainfall during the growing season (May-September) is 49cm (19.2 in.). In 2018 we had 74 days above 32°C (90°F) and 75 cm (29.7 in.) of rainfall; 47 cm (18.6 in) occurred during May and June.

Teaching in the garden focuses on two classes taught by Dr. Ruter, HORT 3500 taught during the fall semester which focuses on annuals, vines, and fall-blooming perennials, and HORT 3510, taught in the spring which focuses on bulbs, spring ephemerals, and early-blooming perennials. Both classes are taught as half-semester courses. The Trial Gardens are also utilized by classes from Agricultural Communications, Entomology, Landscape Architecture, Plant Pathology, and other departments from the Arts & Sciences.

As for research and trialing, we work with many of the major breeding companies from around the world. In 2018 we evaluated over 350 annual taxa in ground beds, hanging baskets, and containers. Trials also include numerous perennials and ~125 landscape roses. Overall there are approximately 1200 different taxa growing on less than 0.3 ha (.75 ac). Several plants have been introduced to the trade via the Trail Gardens over the past 20 years (ugatrial.hort.uga.edu). This tradition continues as Dr. Ruter releases plants from his breeding program at UGA.

TRIAL ESTABLISHMENT AND DATA COLLECTION

Seed of small seeded crops such as begonia is received and planted during the month of January. Cuttings and rooted plugs are received in February and March. Propagules are shifted into 8.3 cm (3.25 in.) containers and grown in the greenhouse using recommended protocols. Substrate is a custom mix from Old Castle Lawn & Garden. Hanging baskets made from recycled newspaper (Henry Molded Products, OR) are also planted and grown-out during this time. In-ground trial beds are rototilled in March-April and appropriate soil amendments are added based on soil tests. Outdoor beds are covered with pine straw mulch before planting. Irrigation is accomplished with overhead sprinklers and hand-watering of containers and hanging baskets. Pelargoniums and cold-tolerant annuals such as petunias and Calibrachoa's are placed out into the garden at the end of April, with all other plants going out before the 15th of May. Plants are liquid-fed during the growing season using several different fertilizer products.

Data collection begins around the end of May and is taken every two weeks until the end of September. All data is taken by Brandon Coker, Trial Garden manager. Having a single evaluator is essential for consistency of data collection. Data is entered into Excel and is downloaded to our Trial Garden web site (ugatrial.hort.uga.edu). Plants are rated on a scale of 1-5 (5 being best) on overall vigor, appearance, flower production, and disease and insect

resistance. All this data can be found on the web site and is graphically tracked for each variety being evaluated. Graphing is important as it allows for viewing of performance over time and shows how the plant performed from spring until fall. Data is also contributed to the National Trials database (www.planttrials.org).

During the first week of June each year breeders and growers are invited to attend our Industry Open House. A week or two later we hold a public open house. These events allow industry professionals as well as the gardening public to see a variety plants all growing at the same location. During each event participants are asked to select five outstanding plants in the garden. This data is collected and shared on the web site and through email communications.

Periodically throughout the growing season ~ 10 plants are selected as “Plants of Distinction” for their performance in the garden. These plants are posted on the web site and are also emailed out to all interested parties. At the end of the season the “Classic City Awards” are given to the best 10-12 plants that had excellent performance all summer. The best cultivars for each genus are also listed under the “Best of the Best” link on the web site.

CLASSIS CITY AWARD WINNERS FOR 2018

Begonia ‘Canary Wings’ - Ball Ingenuity (Fig.1). It’s refreshing to relax in the shade with a nice glass of sweet tea here in Georgia...then you spot Begonia ‘Canary Wings’ from Ball Ingenuity <http://www.ballingenuity.com/> and all the sudden you have the excitement and vigor to go forth and conquer the world! Well the plant world that is. We have been watching this novel shade begonia in the garden since day one. To our satisfaction shady areas become bright and vibrant with Canary Wing’s chartreuse leaves and bright red flowers. It is an exceptional plant for both containers and in-ground plantings.

Calibrachoa Superbells® ‘Holy Smokes!’ - Proven Winners (Fig. 2). ‘Holy Smokes!’ is what you say when you lay your eyes on this beauty from Proven Winners Superbells® Calibrachoa collection <https://www.provenwinners.com/plants/series/superbells>. Summer longevity is a must for the Southeast as we have a growing season that can be stretched out over 25 weeks. So for any plant to maintain interest over such a period of time it’s got to be a stunner and ‘Holy Smokes!’ did it like a champ. White petals with what seems to be watercolor-like purple/blue swatches and yellow centers. It maintained a mounding habit throughout spring and summer that made it without doubt one of the showiest flowering plants in the garden.

Calibrachoa Lia™ ‘White’ – Danziger (Fig. 3). Hanging baskets bring brilliant color to eye level and are a staple form of growing plants around the country. Calibrachoa Lia™ ‘White’ from Danziger sets the bar for other Calibrachoa’s with its nearly perfect shape as it has been in full bloom for months. Medium-sized pure white petals with yellow throats are anything but just another white flower in the garden. Anybody wanting to have constant color needs Lia™ ‘White’ added to their hanging baskets or mixed planter’s as white is an essential color to make all other colors pop.

Echinacea Sombrero® ‘Tres Amigos’ - Darwin Perennials (Fig. 4). Showstoppers are a must for every garden but they can be hard to find if you don’t know where to look, but look no more. Echinacea Sombrero® ‘Tres Amigos’ is going to be your new favorite perennial. Flowers transition thru three distinct colors that emerge from peachy-coral to rose and finish with a hint of burgundy. You would think these kinds of colors are only found in books and movies but they are real and this selection is a must for any perennial garden. The plants perform well in full sun and can take drier soil conditions. Leave the flowers for the goldfinches to enjoy late in the season.

Euphorbia Crystal White™ - Green Fuse Botanicals (Fig. 5). Euphorbia is a well-known landscape plant, especially in hot parts of the country where it thrives. Crystal White™ from Green Fuse Botanicals has a desirable shape that's about half the size of other popular varieties on the market. Only about a foot tall - it packs a punch with flower production and has very tight branching. The plant was blooming in April when it was planted and was still in full bloom going into September – very nice!

Gaillardia SpinTop™ 'Red Starburst' - Dummen Orange (Fig. 6). Gaillardia SpinTop™ 'Red Starburst' from Dummen Orange just makes people smile. The flowers on this plant exude color with their red centers that burst into a red/orange and finish with bright yellow tips. This plant would make an excellent border plant or container planting. This selection needs to be beside your front door so you can get a little burst of happiness whenever you walk by!

Impatiens New Guinea Harmony® Radiance™ 'Hot Pink' – Danziger (Fig. 7). Hot Pink is a vast understatement; something more like 'Hot Hot Hot Pink' is better suited to Danziger's Impatiens New Guinea Harmony® Radiance™ 'Hot Pink'! We are growing this plant in a location getting no more than 4 hours of sun in the morning and it is thriving.

Three uninterrupted months of blooming is what separates the good plants from the stellar plants. In the south, where so many of our mature landscapes need color under mature trees, this plant will light up those dark corners with exceptional color.

Pelargonium Calliope® 'Large Rose Mega Splash' - Syngenta Flowers (Fig 8.) Geraniums tend to do either great or not so good here in the south. Calliope® 'Large Rose Mega Splash' from Syngenta Flowers tops the list in the great category. Super showy pink petals with rose starbursts from the center of the flowers are sure to please in containers, hanging baskets, or in- ground plantings. Production of flowers has been non-stop. This cultivar has been

the best of all our Geraniums this year and it has maintained excellent disease resistance even with a wetter than usual summer in Athens, Georgia.

Petunia Dekko™ ‘Star Coral’ - Syngenta Flowers (Fig. 9). Picking the best Petunia each year is a challenge because Petunias produce vibrant colors and make bold statements in containers here in the South. The Dekko™ series from Syngenta Flowers had several stellar performers this year and we have chosen ‘Star Coral’ to top the list simply because it has bloomed the longest and had the best overall shape. The hot pink coral- colored blooms have a touch of white in the petals that gives them a dramatic coloration. This cultivar would lend itself well to just about any other range of colors as companion plants, not to mention how well it performed in a standalone planter.

Portulaca Hot Shots™ ‘Tangerine Glow’ - Green Fuse Botanicals (Fig. 10). The winner column this year at the UGA Trial Gardens is packed with superior plants each excelling in a particular way. Portulaca Hot Shots™ ‘Tangerine Glow’ from Green Fuse Botanicals is in a league of its own in terms of overall interest. Our planting of ‘Tangerine Glow’ took over an area 6’ long by 3’ wide and is just simply beautiful. The added interest of a flower that opens in the morning and closes in the afternoon is just too cool. Bright tangerine petals with scorching yellow centers bloom abundantly like a carpet of wonderfulness that deserves to be in every garden with full sun.

Salvia Skyscraper™ ‘Pink’ – Selecta (Fig. 11). We all know and love salvia and who would not? They attract bees, butterflies, hummingbirds, and are just down right beautiful with a plethora of colors and sizes to choose from. Selecta struck a vein with Salvia Skyscraper™ ‘Pink’ and the plant speaks for itself. We are in the business of novel plants and we are all used to blue, purple, and red salvias, but pink? The flowers burst forth with a pale magenta calyx

followed by a bright pink corolla that emerges to tower over the lush dark green foliage on this unique cultivar.

Solenostemon ColorBlaze® ‘Torchlight’ - Proven Winners (Fig. 12). The ColorBlaze® Series of Coleus from Proven Winners has been nothing short of spectacular this year so the top pick from this category had to be nearly perfect. ‘Torchlight’ has superior qualities in every way, from its lush storybook- like green with red and hot pink veined leaves to its seemingly indestructible growth habit. This plant is also very responsive to trimming. Every time we pruned the plants the new leaves came back with increased color. When 2019 comes around get this plant first and use it in multiple plantings.

BEST OF THE BEST – 2018

- Angelonia Angelface® ‘Wedgewood Blue’ - Proven Winners
- Begonia 18OS06 Trial Entry - All America Selections
- Begonia Tophat™ ‘Pink’ - Syngenta
- Caladium ‘Bottle Rocket’ - Classic Caladiums
- Capsicum ‘Onyx Red’ - American Takii (2018 AAS National Winner)
- Capsicum ‘Purple Flash’ - PanAmerican Seed
- Coreopsis ‘Super Star’ - Darwin Perennials
- Gomphrena Truffula™ ‘Pink’ - Proven Winners
- Hibiscus Hollywood™ ‘Jolly Polly’ - J. Berry Nursery
- Hibiscus moscheutos 2015-38 ‘Variegated’ - Dr. John Ruter - UGA
- Impatiens New Guinea Sun Harmony™ ‘Blushing Orchid’ - Danziger
- Leucanthemum ‘Birdy’ - Dümmer Orange
- Ocimum ‘Amazel’ - Proven Winners

- Pelargonium Calliope® ‘Large Lavender’ - Syngenta Flowers
- Pelargonium ‘Super Moon Red’ - Selecta
- Pentas BeeBright™ ‘Pink’ - Syngenta Flowers
- Salvia ‘Big Blue’ - PanAmerican Seed
- Salvia Rockin™ ‘Deep Purple’ - Proven Winners
- Solenostemon ColorBlaze® ‘Golden Dreams’ - Proven Winners
- Verbena Firehouse™ ‘Pink’ - Ball FloraPlant



Figure 1. Begonia 'Canary Wings' - Ball Ingenuity.



Figure 2. Calibrachoa Superbells® 'Holy Smokes!' - Proven Winners



Figure 3. Calibrachoa Lia™ 'White' – Danziger.



Figure 4. Echinacea Sombrero® 'Tres Amigos' - Darwin Perennials.



Figure 5. Euphorbia Crystal White™ - Green Fuse Botanicals.



Figure 6. Gaillardia SpinTop™ 'Red Starburst' - Dummen Orange.

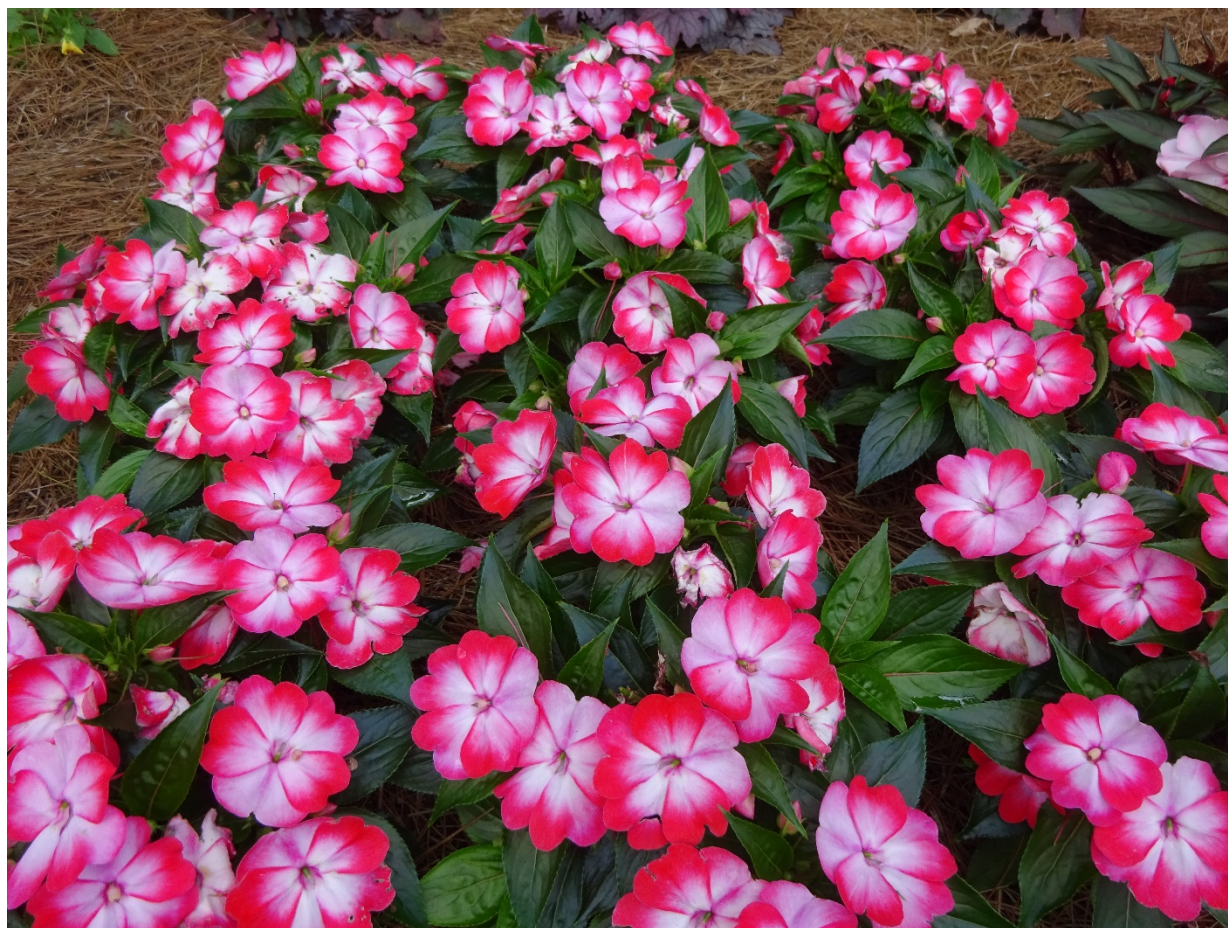


Figure 7. Impatiens New Guinea Harmony® Radiance™ 'Hot Pink' – Danziger.



Figure 8. Pelargonium Calliope® ‘Large Rose Mega Splash’ - Syngenta Flowers.



Figure 9. Petunia Dekko™ 'Star Coral' - Syngenta Flowers.



Figure 10. Portulaca Hot Shots™ 'Tangerine Glow' - Green Fuse Botanicals.



Figure 11. Salvia Skyscraper™ 'Pink' – Selecta.



Figure 12. Solenostemon ColorBlaze® 'Torchlight' - Proven Winners.