

Breeding New Plants for Modern Landscapes[®]

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INTRODUCTION

Breeding new plants is an adventure. There is a lot to consider and learn, from the objective to the subjective. There are, of course, issues of genetics, reproductive biology, adaptability, and disease and insect resistance. Production considerations are important as well. Does it root easily, is it fast in production, does it look good in a container, etc.? And then there are consumer and marketing issues. Does it have sales appeal, will it be in bloom during spring sales, does it re-bloom, is the color right, is it fragrant, will it get too big, etc.? Ultimately, we want it to perform in the landscape with little care and maintenance. We want it all!

Breeding landscape plants is like being a kid in a candy store. So many genera and species to work with, and unlike many other crops, our customers typically value diversity and novelty and like to try something new. This provides endless opportunities for plant breeders and, as a result, we are always on the lookout for new plants with unusual and desirable traits that become our genetic building blocks. Thus, plant exploring, collecting, trading, evaluating, and breeding all go hand-in-hand. As part of our adventure, here are a few new plants, some from the wild and some from the lab, and the background behind them.

A FEW NEW PLANTS

× *Gordlinia grandiflora* 'Sweet Tea' — **Mountain Gordlinia**. As if × *G. grandiflora* (a rare intergeneric hybrid between *Franklinia* and *Gordonia* (Ranney and Fantz, 2006) was not unusual enough, 'Sweet Tea' is a polyploidy form with extra sets of chromosomes. The result is huge 13-cm (5-in.) diameter, showy flowers that look like big fried eggs. Semievergreen foliage with large, single, camellia-like flowers from July through September. Why 'Sweet Tea'? Well, it is a member of the tea family, the flowers have a light sweet fragrance, and it comes from the South where sweet tea runs in our veins. Okay, it is not the toughest tree on the planet, so give it a good site. More resistant to *Phytophthora* than *Franklinia* (Meyer et al., 2009), but it is still a bit finicky. Best in full sun or a little afternoon shade as long as it's not too dry. Roots readily from stem cuttings, then takes off growing. Mature height is estimated to be 6 to 9 m (20 to 30 ft). It is adapted to Zones 7–10, developed at North Carolina (NC) State University, and neither patented nor trademarked.

Clethra alnifolia 'Crystalina' PPAF — **Summersweet Clethra**. The late Fred Galle hit on something with his selection of a compact form of *C. alnifolia* named 'Hummingbird'. Reining in the height of summersweet greatly expands the potential of this native shrub in modern landscapes. Although 'Hummingbird' was a breakthrough, it does tend to mature with a floppy habit and spreads by rather vigorous rhizomes. Selected here at NC State University from a population of seedlings derived from an open pollinated 'Ruby Spice', 'Crystalina' provides a

handsome improvement with a compact, round form maturing at around 0.9 m (3 ft) high. It is somewhat taller in shade. Flowers are particularly showy with long, floriferous racemes.

***Illicium floridanum* ‘Swamp Hobbit’ — Florida Anise.** Discovered by the intrepid plantsman, Dr. Ron Miller of Pensacola, Florida, ‘Swamp Hobbit’ is an incredible dwarf *I. floridanum* that Ron discovered in Coosa County, Alabama. It reaches 15 to 20 cm (6 to 8 in.) in height and around 30 cm (1 ft) in breadth within 5 years. The original plant is about 0.6 m (2 ft) tall, surrounded by a 1.5 m (5 ft) circle of offsets. Leaves and flowers are of normal size; it just has particularly short internodes. The plant benefits from some shade. It is a native, shade-tolerant, ever-green ground cover with showy flowers and good deer resistance, which are characteristics that few plants have. It has proven hardy in Delaware, so should be good in Zones (6?) 7–10. It roots readily from stem cuttings, but is somewhat slow in production. It has no patent or trademark.

***Hypericum androsaemum* ‘Pollock’, ‘Matisse’, and ‘Picasso’ — Tutsan.** In some parts of the world, tutsan can be a bit weedy, even invasive. These three cultivars were bred and evaluated at NC State University as part of our efforts to develop new, non-invasive nursery crops. All three are triploid, seedless, non-invasive forms of tutsan (Olsen et al., 2006; Trueblood et al., 2010). Special credit goes to Richard Olsen (former Ph.D. student, now at the U.S. National Arboretum) and Clara Trueblood (former M.S. student, now at the Phipps Conservatory and Botanical Gardens) for their efforts on this project. These new abstract/expressionistic tutsans include: ‘Pollock’ — dripped and splattered with green and white variegation; ‘Matisse’ — infused with a bold purple blush; and ‘Picasso’ — a neo-expressionistic integration of surreal colors and abstract patterns. Other characteristics are typical of the species. They are neither patented nor trademarked.

***Rhododendron minus* var. *minus* ‘Southern Cerise’ — Piedmont Rhododendron.** Selected by Ron Miller, Clarence Towe, and Tom Ranney along the shore of Gantt Lake in southeastern Alabama. An exceptional southern form of *R. minus* with vivid pinkish-red (i.e., cerise) flower buds and tubes that open with bright, pinkish-violet petals. Compared with *R. minus* var. *chapmanii*, another southern form of *R. minus*, ‘Southern Cerise’ has much showier flowers, lusher foliage, and a less rangy habit. Heat tolerance is a given based on its provenance [within 48 km (30 mi) of the Florida border]. Definite potential for breeding programs. No patent or trademark.

***Weigela florida* ‘Sunset’ PPAF — Weigela.** Developed at NC State University, ‘Sunset’ provides unique variegated foliage with green centers and multicolored margins ranging from and including ivory yellow, yellow, yellow-green, green, and red depending on age of foliage and time of year. The habit is compact and reaches approximately 38 cm (15 in.) high and 64 cm (25 in.) wide. Flowers are a light pink. Good in full sun to part shade with adequate water. Other than that, it is what you would expect from a weigela.

***Exochorda* ‘Blizzard’ PPAF — Pearlbush.** Considered old-fashioned by some, Pearlbushes are tough, dependable plants that explode with pearl-like buds and frilly petals at the hint of spring, giving forsythias a good run for their money. ‘Blizzard’ takes pearlbush to a new level — a tetraploid hybrid that combines *E. ser-*

ratifolia, *E. racemosa*, and *E. korolkowii* in its pedigree. Unlike many pearlbushes (e.g., ‘The Bride’) that can resemble a tangled cascading brush pile, ‘Blizzard’ has a distinct upright to rounded form with a mature height and width of 0.9 to 1.2 m (3 to 4 ft) that makes a refined shrub or small tree. ‘Blizzard’ is extremely floriferous with flowers that can be twice as large as other pearlbushes. It was developed at North Carolina State University.

***Clerodendrum trichotomum* ‘Betty Stiles’ — Harlequin Glorybower.** As a species, *Clerodendrum trichotomum* has a lot going for it — tough and adaptable with exceptional showy, fragrant flowers that bloom throughout the summer followed by showy metallic-looking blue fruit. It is also one of the best trees for attracting butterflies. However, as Mike Dirr mentions, harlequin glorybower often has the appearance of “an overturned Dempster Dumpster” and it’s rare to find good, cold-hardy tree forms. ‘Betty Stiles’ fits the bill. Hollis Wild of Appalachian Trees shared this plant with us and recommended naming the tree after her neighbor, Betty Stiles, who first recognized the merits of this tree and started sharing it with her friends and neighbors. One additional bit of advice, if you know *C. trichotomum*, you are probably aware that it can sucker from the roots much like a *Rhus*. A good way to prevent this is to plant it in a lawn area where any suckers are mowed off or use it in a planter. It is neither patented nor trademarked.

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