

variety information

Rougher Droughts Dictate the Need for Tougher Plants

The top performers at the JC Raulston Arboretum Summer 2007 Bedding Plant Trials stood up to the Southeast's heat and dry conditions better than the rest.

By Dennis Werner and John Dole



Above: *Ocinum x citreodorum* 'Pesto Perpetuo'
Top: *Capsicum annuum* 'Black Pearl'

You have to love the names: cuphea 'Totally Tempted', dahlia 'Knockout' (Mystic Illusion), plectranthus 'Cerveza 'n Lime', *Salvia splendens* 'Dancing Flame'...

Each year, dozens of new plants are released with wonderfully enticing names. The challenge for trial gardens is to find out which ones live up to their names. This year the JC Raulston Arboretum trialed 565 bedding plants submitted by 17 companies. And what a challenging year it was! Record heat and drought provided a true test of performance, and because of local water use restrictions, no supplemental irrigation was provided to the trials after late July. The selections ranged from the classic petunias and geraniums to funky new juncus with many fun and interesting plants in between. The following are the JC Raulston Arboretum picks for plants to consider this upcoming year for your customers, whether they be homeowners or landscapers.

Bringing Texture Back

Texture is stronger than ever, updated with bold lines, bright colors and herby fragrance. Let's start with the latter. Basil 'Pesto Perpetuo' (*Ocinum x citreodorum*) has an Italian-sounding name that brings to mind steaming plates of pasta with spicy pesto or a rich spaghetti sauce. But this plant also makes a great garden plant, reminiscent of young Italian cypress. The sturdy, compact plants

are uniform and much more vigorous — up to 2 feet tall — than any of the older globe basil. 'Pesto Perpetuo' would bring height to mixed herb containers or would work as a formal backdrop to a flowerbed. Tall growing basil tends to be a bit rangy, but this cultivar kept its striking shape throughout the season. The interesting gray-green color would make it a nice foil for bright or dark colors. The culinary aspects shouldn't be ignored, as the foliage is large enough for easy harvest and, unlike typical culinary basil, plants did not flower by the end of the season and kept producing plenty of foliage.

Continuing with the herby theme, plectranthus 'Cerveza 'n Lime' produced a rounded mound of soft, fuzzy, wonderfully fragrant leaves. Plants were exceptionally drought tolerant and grew 12 to 18 inches tall by the end of the season. The color is not particularly noticeable, so tell customers to place plants where they can be easily touched or brushed up against to release the fragrance, such as in a mixed container by a walkway or stairs.

On the shorter side, we were impressed with the groundcover *Sedum rupestre* 'Lemon Coral' for a soft texture that made you want to touch it (or roll in it!). The bright chartreuse color was as bright as any flower and certainly a bonus. While many sedums are rather slow growing, this one was fairly vigorous and uniform, making it useful for both containers and landscape beds. ♦

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Long and Strong

For long interesting lines, three plants should be mentioned. Umbrella plant (cyperus) is already well known in some areas of the country, especially California, but little used in many other places. Typically used in wet sites or in aquatic plantings, cyperus excels in normal garden settings, and is actually quite drought tolerant. *Cyperus papyrus* 'King Tut' was a vigorous, tall plant that grew to 3 or 4 feet tall. The long, straight stems were topped with large spiky "flower" clusters, like an old-fashioned feather duster. Plants filled out a bed quickly, tolerating heat and drought with no problems. A planting of this cultivar would be great for landscapers or as a backdrop to a large home flower bed. For those with less room, one plant in a large pot would be quite striking. The smaller *Cyperus alternifolius* 'Baby Tut' was also very durable and would be good for small gardens but resembled its weedy nutsedge relative just a little too much for comfort.

Two cultivars of juncus, *Juncus inflexus* 'Blue Arrows' and *J. pallidus* 'Javelin', performed very well in the trials. Relatively similar, they had long, straight stems to about 2 feet tall. As a standalone plant, it was not particularly noticeable, but it would work well to add height to medium-size mixed containers.

Pass-Along Appeal

Acalyphas, some of which are also known as copperleaves, have been cultivated for years, often as a pass-along plant. It is time these plants get rediscovered for the garden. Their

large, brightly colored leaves offer bold textures for large flower beds and containers. In the trials this year, *Acalypha wilkesiana* 'Bronze Pink' stood out with bright, bold, pinkish-bronze leaves (yes, the name is quite accurate). Some cultivars such as *Acalypha wilkesiana* 'Firestorm' and 'Sizzle Scissors' have a profusion of long, narrow, colorful leaves. The plants tend to be tall, so use them in the back of the bed or in large containers.

Cupheas are another group of plants with many pass-along members. Commercial plant breeders have been giving them plenty of attention lately and producing some wonderful garden plants. One cultivar, 'Totally Tempted', has bright red petals with a purplish throat and great flower power. Older types were also floriferous but had smaller flowers, which resulted in a mostly green plant. These newer types show more color. Cupheas also tend to be drought and heat tolerant, and 'Totally Tempted' is no different.

Dahlias with Flower Power

Dahlias have a long history in American gardens and are so popular with home gardeners that they have their own society of devotees. In the South, however, most dahlias tend to suffer from the heat, putting on a large flush of flowers early in the season and again in late summer and early fall. Unfortunately, in the middle of the season, Southerners are left with few flowers and unsightly seed heads to remove. A number of perennial types of dahlias are available, some with beautiful bronze to purple foliage, but many are quite tall and lanky and lack flower power. ♦

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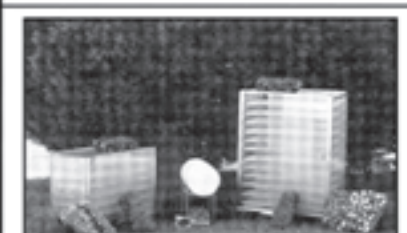
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Salvia splendens 'Dancing Flame'



Lantana 'Landmark Rose Glow Improved'



Petunia 'Supertunia Vista Bubblegum'



Dahlia 'Knockout' (Mystic Illusion)



Sedum rupestre 'Lemon Coral'

The Mystic series of dahlias is trying to change that image. One cultivar in that group, 'Knockout' (Mystic Illusion), has many bright-yellow single flowers with dark centers atop a compact mound of burgundy to black foliage. The combination is quite striking. The rate of flowering still drops during the summer, but the beautiful foliage makes up the difference and carries the plant through the summer. One feature we especially like is that the seed heads are also very dark and blend in with the foliage, making deadheading optional. The feature will be appreciated by gardeners and landscapers everywhere, even in cool areas where dahlias are most at home.

Other flower colors are available and all should be tried for flowerbeds and large containers. Landscapers will want to use them as well. Plants may be winter hardy in warmer areas or with protection.

Standout Salvias

Annual salvias are often quite a bit flashier than their perennial cousins, producing large spikes of brightly colored flowers on short plants. *Salvia splendens* 'Dancing Flame' takes the flashiness to a new extreme: bright-red spikes of flowers on a brilliant yellow and green variegated plant. This is not a plant for pastel lovers.

The flower spikes are not as large as many of the annual cultivars, but the shocking foliage makes up for any difference. Use in locations that need to be brightened up. It does well in beds or in containers.

Re-Evaluating Petunias

If you have not grown petunias for a while, it might be time to try them again. Up until recently the petunia market was dominated by cultivars with large flowers and limited durability. They performed

well in the North but tended to look quite bedraggled fairly quickly here in the South, often going green in the middle of the summer. Luckily, plant breeders have been busy working on this group and listening to comments of consumers. The breeders have incorporated fresh germplasm into hybrids that now produce smaller flowers on plants with greater durability in the landscape and vigor.

The results were evident in the JC Raulston trials. Several cultivars performed remarkably well in the absence of supplemental irrigation most of the summer, including 'Supertunia Vista Bubblegum' and 'Supertunia Vista Fuchsia', 'Surfinia Pastel Pink' and 'Suncatcher Pink Vein'. All have small- to medium-size flowers but produce them in incredible abundance. Plants are viney and tend to be moderately vigorous. One other characteristic you might have missed if you haven't grown petunias in awhile: fragrance. Tell your customers to plant them where they walk at night; the fragrance is best in the late afternoon and early evening, especially on warm, humid nights.

Diversity of Heucheras

Widely promoted and used primarily as a perennial in the past, heucheras are now being recognized for their potential as great additions to annual beds. The incredible diversity in leaf color and variegation patterns allows one to find a heuchera for almost any landscape application. Wrongly considered by many to be adapted only to shady, moist sites, many heuchera are versatile landscape plants that can tolerate full sun and drought conditions.

One of the top performers in our trials was heuchera 'Dolce Blackcurrant', with deep purple, silver-accented leaves and a bright red-purple under-

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Euphorbia 'Diamond Frost'

side. Situated in full sun, 'Dolce Blackcurrant' showed no signs of leaf burn. It can be used at the front of the bed, and it would be particularly striking paired with gray- or silver-leaved plants to accentuate its purple leaf color. The heat and drought tolerance of heuchera suggests it should be more widely promoted and used as a container plant.

Bearing Fruit

For those who like to take advantage of the impact of purple leaf color in a landscape planting, the ornamental pepper *Capsicum annuum* 'Black Pearl' is indispensable. This versatile plant shows deep purple leaf color that holds up well throughout the entire growing season, and produces deep purple to black small rounded fruit, that turn a rich red as they ripen. Highly drought tolerant, 'Black Pearl' reaches about 18 inches tall and provides both foliar and fruit interest. The fruit can be harvested and used as a seasoning, but be careful: They're hot!

Indicative of just how hot and dry it was this summer, even the lantana showed some signs of drought stress! The range of available colors in lantana seems to improve every year, and few plants perform better under conditions of high heat and drought. One couldn't go wrong with any of the selections in our trials this year, but many of our guests were particularly attracted to lantana 'Pinata', with its hot combination of red and orange flowers, and 'Landmark Rose Glow Improved', demonstrating a beautiful combination of pink, magenta and pale yellow.

Lantana are typically grown as annuals, but if a true perennial form is what you desire (Zone 7B or higher), try the new cultivar 'Ham and Eggs', showing restrained growth and a great combination of pink and pale yellow flowers. This cultivar graces a small bed adja-

cent to the JC Raulston Arboretum Visitor Center, and elicits favorable comment from all who visit. We observed significant differences in fruit set among the cultivars in our trials this year, and plan to document this more thoroughly in future years. Low fruit set is an attribute, as fruit are toxic, and lantana is potentially invasive in warmer areas of the country.

Heat-Loving Heroes

No plant in our trials took the heat and drought better than euphorbia 'Diamond Frost'. This was the plant's second year in the trials, and it is proving to be a real "attention getter". Many of our guests first ask if it is baby's breath (gypsophila), since it has that character and appearance. Any confusion is eradicated when it continues to flower nonstop through the intense heat of summer. 'Diamond Frost' flowered from late spring until frost and never showed any signs of drought or heat stress. Growing to 12-18 inches in height, with about twice the spread, 'Diamond Frost' produces a continuous cloud of small white flowers and small, delicate light-green leaves. This is a perfect plant for xeric landscapes. 'Diamond Frost' is also a great container plant, adding an air of informality as it spills down the side of any container. As a container plant, it has the added benefit of requiring little water, freeing homeowners from the need of frequent watering. 'Diamond Frost' is now being marketed as a companion plant with poinsettia.

Continuing the drought- and heat-tolerant theme, the small flowered *Zinnia maritima* 'Solcito' was a top performer in 2007. 'Solcito' has small, nickel-size yellow flowers with a dark brown cone and, like its larger brethren, is a favorite of butterflies and bees. Reaching about 12 inches in height with similar spread, 'Solcito' produces hun-



Cyperus alternifolius 'Baby Tut'

dreds of flowers all season long, a nice intermediate form between the narrow-leaved *Zinnia linearis* types and the larger and coarser *Zinnia elegans*. No mildew was observed.

Geranium Domination

The number of geraniums (pelargonium) in our trials exceeded that of any other group, confirming the continued popularity of geranium in the bedding-plant trade. Geraniums often suffer in the heat and humidity of central North Carolina, and the extreme conditions of 2007 resulted in poor performance for most of our accessions. However, two selections, 'Caliente Coral' and 'Caliente Deep Red', performed very well and stood out in our trials. Both of these cultivars are derived from interspecific hybridization of ivy geranium (*Pelargonium peltatum*) and zonal geraniums (*P. hortorum*).

Special Thanks

Of course, these results would not have been possible without the efforts of the plant breeding and

supplier companies who support the trials. We want to especially thank Bernadette Clark for coordinating and judging the trials in 2007. We also want to recognize arboretum gardeners Tim Alderton and Anthony Beck, and summer interns Jason Lattier, Molly Kosar and Laura Wright for providing excellent care at the trials. We also give special thanks to the North Carolina Commercial Flower Growers Association for their continued financial support of our student internship program. For more information on the JC Raulston Arboretum and to view the entire 2007 bedding plant trials report, visit www.ncsu.edu/jcraulstonarboretum. **GPN**

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