

UNDER-UTILIZED BEDDING PLANTS FOR THE NORTH CAROLINA LANDSCAPE

Douglas A. Bailey, Professor



There are a number of popular bedding plants used in the landscape today; some deserving the attention they get, others not-so-deserving. A good example of a successful landscape annual is wax begonia. It is popular because plants bloom all season long, do not require much maintenance, and are relatively tolerant of climatic extremes.

One goal of the NCSU annual trial program is evaluation and promotion of new or under-utilized bedding plants for the Southern landscape. We attempt to use the following criteria when rating the landscape performance of the annuals in our trials:

❶ Full-Season Color. Landscapers are looking for plants with dependable landscape performance; full-season color is a definite advantage over short-season impact plants. Nicotiana always has a short period of fantastic color in our trials, but doesn't maintain color for the extent of the summer season, whereas gomphrena continues to bloom and rebloom all summer long.

❷ Low-Maintenance Plants. Low-input bedding plants are sometimes preferable over annuals requiring routine care in the landscape. Maintenance such as dead heading or pruning increases labor demands and costs, and some landscapers are willing to trade off some color show for less labor requirements. A good example would be substituting melampodium for marigolds to eliminate

the need to continuously remove dead and dying flowers. An ever increasing concern with respect to maintenance in the landscape is disease and pest tolerance. For example, *Phytophthora* blight is becoming a prevalent disease in many Southern color beds.

❸ Tolerance of Extremes. North Carolina weather is consistent--consistently unpredictable. The past four years are good examples. The 1995 bedding plant season offered us torrential rains in June then a drought until September; temperatures were normal. In 1996, we again experienced "normal" temperatures, but received 35.3 inches of rainfall during the 5-month trial period (including 10 inches on 5 September due to Hurricane Fran). The 1997 trial period started with a very cool May and June, and the rainfall total for the season was below average. In 1998, temperatures averaged above normal and we were once again below average rainfall. Tolerance of temperature extremes, drought, even of humidity and excessive rainfall are crucial characteristics that dependable landscape bedding plants should possess.

❹ Uniqueness. Colorscape is becoming more and more competitive, and many firms have capitalized on the concept, "novelty sells." Novelty can be expressed in unusual flower shapes, colors, fragrances, plant growth habits, or

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Under-Utilized Bedding Plants for the North Carolina Landscape

Common name(s)	Botanical name (as per Hortus III)	Cultivars	Flower color(s)	Temperature preferences	Light preferences	Moisture preferences	Mature size (ht x diam)	Comments
Abelmoschus, Musk Mallow	<i>Abelmoschus moschatus</i>	Oriental Red, Pacific Light Pink, Pacific Orange Scarlet, Pink	Red, red/white	Very heat tolerant	Full sun	Drought tolerant	22" x 20"	Low growing; avoid water-soaked soils; individual flowers last about 2 days each
Calendula, Pot Marigold	<i>Calendula officinalis</i>	Bon Bon, Dwarf Double Gem, Gitanta, and Touch Of series	Orange, red/orange, yellow	Prefers cool temperatures	Full sun		12" x 14"	Will go into mid-summer decline in hot climates; will tolerate frost and even light snow/freezes (to ~27°F)
Brazilian Coleus	<i>Plectranthus argentea</i>	From cuttings	Silver to gray foliage	Heat tolerant	Full sun to partial shade		14" x 16"	Interesting large silver leaves with gray tones; good contrast plant for shade plants such as pink impatiens or begonias; does develop undesirable flower stalks as do most coleus
Dahlberg Daisy	<i>Dyssodia tenuiloba</i>	Golden Fleece, species from seed	Yellow	Very heat tolerant	Full sun	Drought tolerant	6" x 15"	Low growing; prefers well-drained soils; fine-textured foliage
Dianthus	<i>Dianthus</i> hybrids of <i>D. barbatus</i> , <i>D. chinensis</i> , and <i>D. deltoides</i>	Too many to list all; Color Magician, Princess and Telstar series do very well for us as a winter annual--Parfait is best series for summer	White, pink, red, violet	Prefers cool temperatures	Full sun to partial shade		16" x 16"	Prefers well-drained soils; will go into mid-summer decline in hot climates; in the South, best used as an over-wintered spring annual--more heat tolerant than pansies
Dusty Miller	<i>Senecio cineraria</i>	Too many to list; Cirrus and New Look do well for us	Gray/silver foliage	Heat and frost tolerant	Full sun to partial shade		10" x 12"	Excellent cool season source of color; will tolerate frost and freezes (to ~20°F) and usually over-winters in the Southeast
Evolvulus	<i>Evolvulus glomeratus</i> subsp. <i>grandiflorus</i>	Blue Daze--from cuttings	Blue	Very heat tolerant	Full sun	Drought tolerant	12" x 36"	Low growing and spreading; small blue flowers and gray/green foliage offer a nice color contrast; will continue blooming through the worst summer heat

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Gaillardia, Blanket Flower	<i>Gaillardia pulchella</i>	Red Plume, Yellow Plume, Yellow Sun	Red, yellow	Heat tolerant	Full sun	Drought tolerant	14" x 22"	Forms a full clump by mid-summer; not the showiest of annuals, but a consistent source of color for dry, hot conditions; very frost sensitive
Globe Amaranth, Gomphrena	<i>Gomphrena globosa</i> , <i>G. haageana</i>	Too many to list all; Buddy Purple, Buddy White, Dwarf Buddy, Lavender Lady, Rainbow Purple, Rose Improved, Strawberry Fields, and Woodcreek Red do well for us; Gnome is an excellent dwarf series	Lavender, orange, pink, purple, red, white	Very heat tolerant	Full sun	Drought tolerant	14–24" x 30"	Excellent source of color for the “tough” landscape; gomphrena can be sheared into shapes, if desired; dwarf cultivars are available; very little maintenance required in the landscape
Heliotrope	<i>Heliotropium arborescens</i>	Blue Wonder, Marine, Mini Marine	Blue	Heat tolerant	Full sun to partial shade		12" x 16"	Attractive as a border plant; flowers are pleasantly fragrant
Hypoestes, Polka Dot Plant	<i>Hypoestes phyllostachya</i>	Confetti, Splash, and Splash Select series	White, pink, and red foliage	Heat tolerant	Partial to full shade		18–30" x 24"	Can be grown in full sun, but color is more intense with some shade; very sensitive to frost; can be pruned back for size control; 'Splash Select' is a dwarf series with more compact growth
Joseph's Coat, Calico Plant	<i>Alternanthera ficoidea</i>	Amoena (red/orange), Bettickiana (red/yellow), Brilliantissima (red)	Orange, red and yellow foliage		Full sun to partial shade		10" x 10"	Colors are more intense in full sun; can be pruned/sheared for size and shape control; prefers a well-drained soil
Mealy-Cup Salvia	<i>Salvia farinacea</i>	Argent, Rhea, Victoria	Blue, white	Very heat tolerant	Full sun	Drought tolerant	20" x 24"	Attractive silver/green foliage and dependable full-season flowering; not as brilliant of flower colors as <i>S. splendens</i> , but much tougher

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Melampodium	<i>Melampodium paludosum</i>	Medaillon, Showstar	Yellow	Heat tolerant	Full sun	Drought tolerant	30" x 34"	Melampodium is a "sponge" plant--the more water and fertilizer received, the larger the plants become; an excellent substitution for yellow marigolds in a low-maintenance landscape setting
Mexican Heather	<i>Cuphea hyssopifolia</i>	Desert is a cultivar from seed; Mexican Heather is also grown from cuttings	White, pink, lavender	Very heat tolerant	Full sun	Drought tolerant	10" x 20"	Low growing; nice glossy foliage; very susceptible to frost; other species such as <i>C. ignea</i> , <i>C. lanceolata</i> , <i>C. llavea</i> , and <i>C. micropetalata</i> are also interesting
Nierembergia, Cupflower	<i>Nierembergia hippomanica</i> var. <i>violacea</i>	Mont Blanc	White	Heat tolerant	Full sun to partial shade		6" x 10"	'Mont Blanc' is excellent as a border plant; 'Purple Robe' does not perform nearly as well for us
Sanvitalia, Creeping Zinnia	<i>Sanvitalia procumbens</i>	Gold Braid, Mandarin Orange	Orange, yellow	Heat tolerant	Full sun	Drought tolerant	9" x 20"	Low-growing, spreading growth habit; is susceptible to powdery mildew
Spur Flower	<i>Plectranthus coleoides</i>	From cuttings	Green and white foliage	Heat tolerant	Full sun to partial shade		14" x 18"	Attractive light-green foliage with white margins; does not develop flower stalks as do most coleus
Tuberous Begonia	<i>Begonia x tuberhybrida</i>	Too many to list all; Charisma and Nonstop series do well for us	Orange, pink, red, white, yellow		Partial shade		9" x 12"	Truly elegant flowers and foliage; excellent for containers and other "close-up" viewing sites
Verbena	<i>Verbena canadensis</i> , <i>V. tenuisecta</i> , <i>V. tenera</i> , <i>V. x hybrida</i>	Homestead Purple, Tex Tuf Purple, Texas Appleblossom, Michelle, Silver Anne, Sissinghurst, Batesville Rose, Fiesta	Blue, pink, red, rose, white	Very heat tolerant	Full sun	Drought tolerant	6" x 18"	Mainly from cuttings; are borderline perennial in many parts of the Southeast

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Viola	<i>Viola cornuta</i> , <i>V. tricolor</i> , and hybrids of these species	<i>V. cornuta</i> : Jewel and Princess series, Baby Yellow, Arkwright Ruby, Chantreyland; <i>V. tricolor</i> : Alpine Summer, Blue Elf, Helen Mount; <i>V.</i> hybrids. Velour series	Blue, orange, purple, rose, white, yellow		Full sun to partial shade		8-12" x 10"	Our experience with violas shows them to be more temperature tolerant than pansies; <i>V. tricolor</i> tends to be more tolerant of cold weather than pansies, and <i>V. cornuta</i> and hybrids of these two species are more heat-tolerant than pansies
Narrow-Leaved Zinnia	<i>Zinnia angustifolia</i> (<i>Z. linearis</i>)	Classic and Star series	orange, white, yellow	Heat tolerant	Full sun	Drought tolerant	12" x 18"	Excellent low-growing mounds of color for summer color; are mildew resistant and "self-cleaning"

through plant manipulations in the landscape. A good example is the ability to shear and shape gomphrena and still have it reflower. Landscapers requiring a formal, manicured look can take advantage of this unique characteristic.

The listing of plants presented in this leaflet includes only a portion of new materials and new uses for established materials that are available. The cultivars in the table are those that we have had success with in our trials, but obviously there are many more available in the trade.

Each year, we publish a full report of summer and winter annual bedding plant performance ratings. You can obtain a copy of these summaries on the internet by accessing:

<http://www2.ncsu.edu/floriculture/>

The summaries are listed in the Research Report submenu at that location on the world wide web and can be read with Acrobat Reader. You may also contact your County Extension Center to view a copy of the results.