

University of Florida Fort Lauderdale Trial Garden – 2012

Rooted liners of 50 cultivars were transplanted into 400ml round pots filled with Pro-Mix 'BX' (Premier Horticulture, Inc. Red Hill, PA) on January 24, 2012. Each plant was top dressed with 5 g of Osmocote 15N-4.05P-9.96K type 8-9 month (The Scotts Company, Marysville, Ohio) and placed in an open-sided greenhouse exposed to ambient air temperatures of 30 C day/21 C night. Plants were watered overhead every 2 days for 30 minutes.

Plants were transplanted on February 23, 2012 with 18 plants of each cultivar planted as 3 randomly placed groups of 6 plants per cultivar (Table 1). Two groups of the plants were planted into a 788-ft² open air garden. The third group was planted in a 217 ft² open air garden. All cultivars were planted under full sun. At planting, each plant was top dressed with 5 g of Osmocote 15N-9P-12K type 8-9 month fertilizer. The plants were watered twice a week with Orbit Rain Bird Full Mini Rotor riser irrigation for 45 minutes applying 88 ml of water each week. After plants were established, water was reduced to once a week.

Monthly mean temperature and rainfall was collected from <http://fawn.ifas.ufl.edu> (Table 2). Plant height, width, flower number, and quality were recorded for each individual plant at the initial planting, 30 days after planting (DAP), 60 DAP, and 90 DAP. Plant quality was based on the appearance of the group of 6 plants (3 groups of 6 plants for each cultivar) and took into relation the number of plants in flower in a group as well as uniformity in growth and appearance. Plant quality was based on a scale of 0 to 5 with 5=excellent performance, 4=very good performance, 3= good performance, 2= fair performance, 1=poor performance, and 0 = dead.

One consumer preference survey was conducted on March 22, 2012. Participants were asked to check all the cultivars they liked (Table 4).

Plant Growth and Rating. The majority of the cultivars reached their peak growth and bloom 60 days after transplanting (April 2012) and then began declining (Table 3). Cultivars experienced slightly higher than normal Florida temperatures and lower solar radiation from February to May and heavier rainfall in April and May. The plants with the highest quality and consumer ratings were Coleus Colorblaze Marooned, Coleus Colorblaze Velvet Mocha, Ipomea Illusions Garnet Lace, Ipomea Illusions Sweet Carolina Raven, Mecardonia GoldDust, Petunia Supertunia Bordeaux, Petunia Supertunia Vista Bubblegum, Phlox Intensia Blueberry, Verbena Superbena Coral Red, and Verbena Superbena Scarlet Star.

Table 1. List of cultivars planted in the Fort Lauderdale Trial garden on February 23, 2012.

Plant	Series	Variety
Bidens	Goldilocks	Rocks
Calibrachoa	Superbells	Cherry Star, Coralberry Punch, Dreamsicle, Grape Punch, Lemon Slice, Saffron, Sweet Tart, Yellow Chiffon
Cleome	Senorita	Blanca, Rosalita
Coleus	Colorblaze	Alligator Tears, Marooned, Velvet Mocha
Cyperus	Graceful Grasses	King Tut
Euphorbia		Diamond Frost
Evolvus		Blue My Mind
Ipomea	Illusion	Emerald Lace, Garnet Lace, Midnight Lace
Ipomea	Sweet Caroline	Bewitched, Raven
Lantana	Luscious	Berry Blend, Citrus Blend, Lemonade, Pina Colada, Tropical Fruit
Lobularia		Blushing Princess, Frost Knight, Snow Princess
Mecardonia		GoldDust
Petunia	Supertunia	Bordeaux, Indigo Charm, Picasso in Pink, Pink Charm, Pretty Much Picasso, Raspberry Blast, Sangria Charm, Vista Bubblegum, Vista Fuchsia, Vista Silverberry, Watermelon Charm

Phlox	Intensia	Blueberry
Scaevola	Whirlwind	Blue, White Imp
Verbena	Superbena	Coral Red, Royal Chambray, Royal Peachy Keen, Scarlet Star

Table 2. Average mean air temperature, solar radiation, and rainfall measured at the University of Florida's Fort Lauderdale Research and Education Center during spring 2012. The Florida Automated Weather Network (FAWN) collected the weather data.

Month/Year	Avg. mean air temperature (°C)	Avg. Humidity	Avg. mean solar radiation ($W \cdot m^{-2}$)	Monthly rainfall (inches)
January, 2012	19.30	73	154.86	0.70
February, 2012	21.94	81	159.16	1.64
March, 2012	23.30	74	219.33	1.92
April, 2012	23.43	69	234.54	7.41
May, 2012	25.51	80	221.38	11.77

Table 3. Consumer preference survey was conducted on March 22, 2012. Results are based on the percentage of respondents who chose that cultivar as one that they liked. A total of 157 surveys were completed.

Cultivar	Survey (%)
Bidens	
Goldilocks Rocks	24
Calibrachoa	
Superbells Cherry Star	28
Superbells Coralberry Punch	24
Superbells Dreamsicle	27
Superbells Grape Punch	21
Superbells Lemon Slice	22
Superbells Saffron	10
Superbells Sweet Tart	17
Superbells Yellow Chiffon	19
Cleome	
Senorita Blanca	36
Senorita Rosalita	42
Coleus	
Colorblaze Alligator Tears	54
Colorblaze Marooned	63
Colorblaze Velvet Mocha	60
Cyperus	
Graceful Grasses King Tut	25
Euphorbia	
Diamond Frost	28

Evolvus	
Blue My Mind	16
Ipomea	
Illusions Emerald Lace	14
Illusions Garnet Lace	49
Illusions Midnight Lace	16
Sweet Caroline Bewitched	27
Sweet Caroline Raven	48
Lantana	
Luscious Berry Blend	22
Luscious Citrus Blend	18
Luscious Lemonade	11
Luscious Pina Colada	31
Luscious Tropical Fruit	13
Lobularia	
Blushing Princess	30
Frost Knight	28
Snow Princess	30
Mecardonia	
GoldDust	47
Petunia	
Supertunia Bordeaux	44
Supertunia Indigo Charm	16
Supertunia Picasso in Pink	16
Supertunia Pink Charm	16
Supertunia Pretty Much Picasso	20
Supertunia Raspberry Blast	19

Supertunia Sangria Charm	26
Supertunia Vista Bubblegum	44
Supertunia Vista Fuchsia	29
Supertunia Vista Silverberry	20
Supertunia Watermelon Charm	36
Phlox	
Intensia Blueberry	47
Scaevola	
Whirlwind Blue	27
Whirlwind White Imp	36
Verbena	
Superbena Coral Red	51
Superbena Peachy Keen	32
Superbena Royal Chambray	38
Superbena Royal Iced Cherry	19
Superbena Scarlet Star	52

Table 4. Plant quality rating, 0 = dead, 1 = poor performance, and 5 = top performance of cultivars planted on February 22, 2011. Data was collected at initial planting, 30, 60 and 90 days after planting (DAP).

Cultivar	Quality			
	Initial (Feb 2012)	30 DAP (Mar 2012)	60 DAP (Apr 2012)	90 DAP (May 2012)
Bidens				
Goldilocks Rocks	3.0	3.3	2.7	1.5
Calibrachoa				
Superbells Cherry Star	3.0	3.7	3.5	2.7
Superbells Coralberry Punch	2.0	3.8	2.5	0
Superbells Dreamsicle	3.0	3.7	3.0	2.0
Superbells Grape Punch	2.0	4.0	3.3	2.5
Superbells Lemon Slice	2.0	3.7	3.5	2.5
Superbells Saffron	2.0	3.5	3.3	2.0
Superbells Sweet Tart	1.5	2.0	1.5	1.0
Superbells Yellow Chiffon	3.0	3.5	3.0	2.7
Cleome				
Senorita Blanca	3.0	2.8	2.8	2.5
Senorita Rosalita	3.0	2.8	3.0	2.5
Coleus				
Colorblaze Alligator Tears	3.0	3.8	3.3	3.5
Colorblaze Marooned	3.0	4.7	4.5	4.0
Colorblaze Velvet Mocha	3.0	4.7	4.0	3.5
Cyperus				
Graceful Grasses King Tut	3.0	3.5	4.0	4.0
Euphorbia				
Diamond Frost	2.5	4.3	3.7	3.0
Evolvus				
Blue My Mind	2.0	3.5	3.5	2.5
Ipomea				
Illusions Emerald Lace	3.0	4.0	3.8	3.7
Illusions Garnet Lace	3.0	4.0	3.5	3.5
Illusions Midnight Lace	3.0	4.0	3.8	3.8

Sweet Caroline Bewitched	3.0	4.0	4.0	3.8
Sweet Caroline Raven	3.0	4.0	4.0	3.7
Lantana				
Luscious Berry Blend	2.5	4.0	4.0	3.8
Luscious Citrus Blend	2.5	3.3	3.8	4.0
Luscious Lemonade	2.0	3.7	4.0	3.7
Luscious Pina Colada	3.0	3.7	3.8	3.5
Luscious Tropical Fruit	2.0	2.5	3.0	3.0
Lobularia				
Blushing Princess	3.0	4.7	4.3	3.3
Frost Knight	2.5	3.5	3.5	3.0
Snow Princess	2.0	3.3	3.0	3.0
Mecardonia				
GoldDust	3.0	4.5	4.5	4.0
Petunia				
Supertunia Bordeaux	3.0	4.0	3.8	3.0
Supertunia Indigo Charm	2.0	3.8	3.8	3.3
Supertunia Picasso in Pink	2.0	4.0	3.7	2.8
Supertunia Pink Charm	2.5	4.5	4.0	3.0
Supertunia Pretty Much Picasso	2.0	3.8	3.5	3.2
Supertunia Raspberry Blast	2.0	3.3	3.0	2.5
Supertunia Sangria Charm	1.5	3.2	3.2	2.5
Supertunia Vista Bubblegum	2.0	5.0	4.5	4.0
Supertunia Vista Fuchsia	2.0	3.5	3.5	3.0
Supertunia Vista Silverberry	2.0	4.7	4.0	3.7
Supertunia Watermelon Charm	3.0	4.0	3.7	3.2
Phlox				
Intensia Blueberry	2.0	4.3	4.5	4.0
Scaevola				

Whirlwind Blue	3.0	4.2	4.0	3.0
Whirlwind White Imp	3.0	4.0	3.8	3.0
Verbena				
Superbena Coral Red	2.5	4.8	4.7	4.5
Superbena Peachy Keen	2.0	3.5	3.7	3.0
Superbena Royal Chambray	2.0	3.5	3.8	3.5
Superbena Royal Iced Cherry	2.0	3.5	3.5	3.5
Superbena Scarlet Star	2.0	4.2	4.0	3.7