Winter Trials 2003

Extensive trialing on the industry's best.

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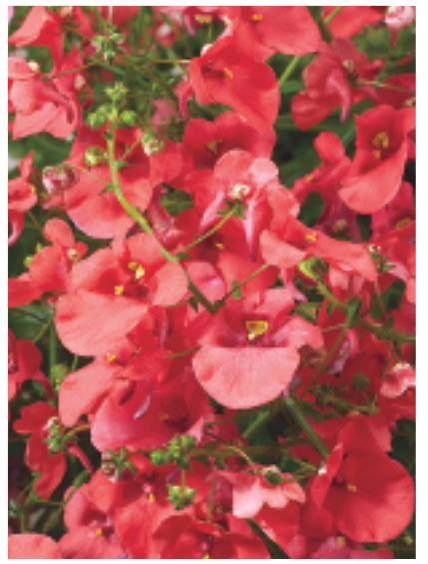

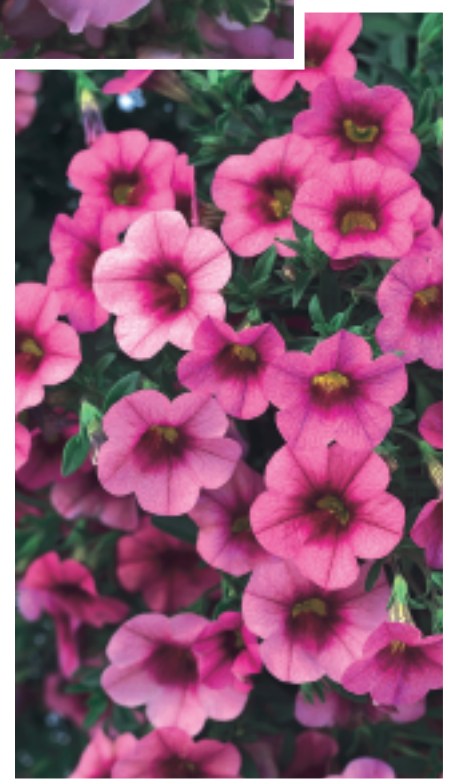

Clockwise from top: diascia 'Miracle Red' (Bodger Botanicals); calibrachoa 'Suberbells Coral Pink' (Proven Winners); nemesia 'Safari Pink' (Proven Winners).

This year's winter trials were a real learning experience here in Florida. We had a series of night temperatures around 20-22° F, and that really impacted results and performance of almost all entries. The purpose of the winter trials is to look at cold-weather performance of the entries but also to keep an eye on crops with potential for minimally heated Northern greenhouses.

The biggest lesson we learned this year is that to truly access a lot of winter entries we need a separate winter trial garden, as many of the entries were only beginning to bloom when they were removed for the spring trial planting. Because of this, you'll see a lot of low ratings in this year's trials due to weather-delayed flowering and plants being removed prior to peak. On the bright side, plants that did well in this year's trials are tough and flower regardless of temperature extremes.

All entries in the Gainesville trials are planted on 12-inch centers directly from liner flats. Each plant receives 5 grams of Osmocote 14-14-14, which is incorporated at planting. The soil in the trial gardens is amended with mushroom compost at 1 cu.yd. per 100 sq.ft. each spring, and beds are topped with composted bark mulch. The overall pH in the trial beds range from 5.6-6.2. Beds receive full sun all day throughout the winter. This trial began in Week 46 of 2003 and continued through Week 6 of 2004.

Keep in mind that in Figures 1-7, the average ratings in the far right column represent total ratings divided by the number of weeks evaluated. As you look across the weekly ratings look for spikes of 3-5 to tell you that a given plant was performing well at that time. The overall average rating is just that, nothing will show as a five in the "average" column because, for example, there are weeks after planting where entries are not flowering. So a rating of 3.0 or above is excellent for this trial, and entries with above a 2.0 are also strong performers.

SPECIES EVALUATIONS

Calibrachoa. This year's entries pretty much span the available genetics, and nothing reached peak flowering throughout the trial. I know advances have been made in genetics for day neutrality, but that is under optimal conditions. Our cold nights seemed to reinforce a vegetative habit; we only began to see sporadic flowering in the last three weeks of the trial and did not reach peak flowering during the trial.

As a result, comparative ratings are fairly low and really say more about the vegetative vigor of entries. The top-rated cultivars had good growth and early flowering; lower-rated cultivars had less vigorous growth and/or did not flower. Keep in mind that these plants were exposed to a much colder environment than average greenhouse conditions. The interaction of flowering with average temperature is something that needs to be looked at before any big assumptions are made about greenhouse performance.

Dianthus. This year our dianthus trials included some of the best of class entries from our Bradenton Seed trials (see page 48 for more details on this trial). It was an interesting trial, even though we are basically comparing apples and oranges with this much genetic diversity. We had three groups of plants in the trials: seed-produced annuals, alpine perennials and hybrids with more carnation genetics.

Everything grew well, and all plants performed; however, the Devon Cottage series didn't flower until the trial was over. They are strong mounding plants with crisp gray foliage and good vegetative growth, but in Florida they bloom too late to be of winter interest. The seed types entered had a similar problem, though peak bloom occurred earlier than it did with the Devon Cottage series. All seed

Figure 1. Calibrachoa ratings throughout the trial. 0 = dead; 1 = poor growth, no flowering; 2 = good growth, no flowering; 3 = good growth and flowering; 4 = strong growth and flowering; and 5 = excellent (peak) growth and flowering.

Cultivar	Wk. 46	Wk. 48	Wk. 50	Wk. 52	Wk. 2	Wk. 4	Wk. 6	Average
'Superbells Coral Pink' (Proven Winners)	2	2	2	2	3	2	3	2.3
'Superbells Blue' (Proven Winners)	2	1	2	2	3	2	3	2.1
'Superbells Pink' (Proven Winners)	2	2	2	2	3	2	2	2.1
'Superbells White' (Proven Winners)	2	2	2	2	2	2	3	2.1
'Million Bells Blush Blue' (Suntory)	2	2	2	2	3	2	2	2.1
'Spring Fling Red' (Bodger Botanicals)	2	1	2	2	3	2	2	2.0
'Superbells Pink Kiss' (Proven Winners)	2	2	2	2	2	2	2	2.0
'Million Bells Antique Rose' (Suntory)	2	2	2	2	2	2	2	2.0

entries were spectacular at the termination of the trials, but they did not flower early enough to really push their ratings. The overall winners of this trial were the Garden Spice series because of constant flowering. There was some variability within the series, but in general, they continued to bloom throughout the trial. Strong growers and fairly uniform, though they would have looked much better if planted ➧

Figure 2. Dianthus ratings throughout the trial. 0 = dead; 1 = poor growth, no flowering; 2 = good growth, no flowering; 3 = good growth and flowering; 4 = strong growth and

Cultivar	Wk. 46	Wk. 48	Wk. 50	Wk. 52	Wk. 2	Wk. 4	Wk. 6	Average
'Garden Spice Fuchsia' (Twyford)	3	3	3	3	4	3	4	3.3
'Garden Spice Red' (Twyford)	2	2	3	4	4	3	4	3.1
'Melody Pink Blush' (Twyford)	N/A	1	2	2	3	4	4	5 3
'Garden Spice Pink' (Twyford)	2	2	3	3	4	3	4	3.0
'Diamond Blush Pink' (Sakata)	1	2	2	4	4	4	4	3.0
'Dynasty Purple' (PanAmerican)	1	2	2	3	4	3	5	2.9
'Telstar Picotee' (American Takii)	1	2	2	3	3	4	4	2.7
'Diamond Purple' (Sakata)	1	1	2	3	4	4	4	2.7
'Garden Spice Baby Pink' (Twyford)	2	2	3	3	3	3	3	2.7
'Garden Spice Pearl White' (Twyford)	3	2	2	3	3	3	3	2.7

Figure 3. Diascia ratings throughout the trial. 0 = dead; 1 = poor growth, no flowering; 2 = good growth, no flowering; 3 = good growth and flowering; 4 = strong growth and flowering; and 5 = excellent (peak) growth and flowering.

Cultivar	Wk. 46	Wk. 48	Wk. 50	Wk. 52	Wk. 2	Wk. 4	Wk. 6	Average
'Miracle Red' (Bodger Botanicals)	3	4	4	4	4	3	4	3.7
'Flying Colors Coral' (Proven Winners)	3	2	3	4	4	3	5	3.4
'Flying Colors Trailing Antique Rose' (Proven Winners)	3	3	3	3	4	3	4	3.3
'Flying Colors Trailing Red' (Proven Winners)	2	2	2	3	3	3	3	2.6
'Miracle Chiffon' (Bodger Botanicals)	2	2	2	2	3	3	3	2.4
'Flying Colors Apricot' (Proven Winners)	2	2	2	2	3	3	3	2.4

Figure 4. Nemesia ratings throughout the trial. 0 = dead; 1 = poor growth, no flowering; 2 = good growth, no flowering; 3 = good growth and flowering; 4 = strong growth and flowering; and 5 = excellent (peak) growth and flowering.

Cultivar	Wk. 46	Wk. 48	Wk. 50	Wk. 52	Wk. 2	Wk. 4	Wk. 6	Average
'Safari Pink' (Proven Winners)	2	3	3	4	3	3	3	3.0
'Safari Plum' (Proven Winners)	3	4	3	3	2	3	3	3.0
'Aromatica Rose Pink' (Ball FloraPlant)	2	3	2	4	3	3	3	2.9
'Aromatica Deep Blue' (Ball FloraPlant)	3	3	2	3	3	3	3	2.9
'Aromatica True Blue' (Ball FloraPlant)	3	3	2	3	3	3	3	2.9
'Sunsatia Peach' (Proven Winners)	2	3	3	3	2	3	3	2.7
'Aromatica Compact White' (Ball FloraPlant)	2	3	2	3	3	2	3	2.6
'Blue Bird' (Proven Winners)	2	2	2	3	3	3	3	2.6
'Compact Innocence' (Proven Winners)	2	3	2	3	3	2	3	2.6

as 4-inch or 1-gal. containers with a bit more vegetative bulk. For winter color they were definitely the only entries that kept blooming, and that continual flowering rating gave them strong marks.

Diascia & Nemesia. I still think these plants have untapped potential, and each year I see new entries and improved performance. Our 2002-2003 top entry was 'Flying Colors Coral', and this year 'Miracle Red' took over as number-one entry. The difference was in consistency of flowering, and this cultivar did not rest, even when temperatures hovered around 20º F.

Nemesias were strong performers this year as well, but they have a key flaw in really strong performance. Across all the genetics trailed, temperatures in the low 20s burned off all open flowers. They would flush back in about one week, but that flower loss really lowered their overall appearance after a cold night. All entries had pretty good ratings because they did well vegetatively and usually had a few flowers inside the canopy; however, there are only a few 4 ratings this year due to the cold nights we saw. While I love the Sunsatia types for their flower colors, they were not as strong as top-rated Safari and Aromatica types, which have a more vigorous growth and quicker return to flower.

Osteospermum. I love this plant and the new hybrids, but they did not love Florida winters. There is not much good to report here, as the first truly cold nights burned almost all of the plants back to a dormant state, from which they never really emerged. Two things of note: First, the hybrids between osteospermum and dimorphotheca had better cold tolerance than hybrids with the addition of dimorphotheca genetics. Symphony and Summer Sides series continued to put out vegetative growth, though flowering was minimal. Second, don't put a lot of weight on this trial as plants with just a little bit of protection performed well in plantings outside the trials; our trials were too exposed to frost and freeze. In most greenhouse situations this would have been a different trial altogether. It was just too cold for good performance of osteospermum in our trial.

Verbena. It really was interesting to see that our 20º F nights cleared the flowers off all cultivars except 'Wildfire Rose', which held up all winter in strong color with foliage undamaged by cold — a clearly superior plant. Seed types did not flower until the trials were ending but showed good basal branching. When they did flower after the trials were over, they were stunning.

Assorted vegetative crops. Freezing temperatures took out our argyranthemum, ageratum and lobelia early on. Snapdragons grew well vegetatively but never flowered during the trials. Even ➧

Top: osteospermum 'Cream Symphony' (Proven Winners); bottom: dianthus 'Garden Spice Fuschia' (Twyford).

Figure 5. Verbena ratings throughout the trial. 0 = dead; 1 = poor growth, no flowering; 2 = good growth, no flowering; 3 = good growth and flowering; 4 = strong growth and flowering; and 5 = excellent (peak) growth and flowering.

Cultivar	Wk. 46	Wk. 48	Wk. 50	Wk. 52	Wk. 2	Wk. 4	Wk. 6	Average
'Wildfire Rose' (Ball FloraPlant)	5	5	5	5	5	4	5	4.8
'Aztec Cherry Red' (Ball FloraPlant)	4	4	4	3	4	3	3	3.6
'Temari Sakura Pink' (Suntory)	3	4	4	4	4	3	3	3.6
'Wildfire Violet' (Ball FloraPlant)	3	4	4	4	3	3	3	3.4
'Temari Patio Salmon' (Suntory)	3	3	4	4	4	3	3	3.4
'Aztec Grape Magic' (Ball FloraPlant)	4	3	3	3	3	3	3	3.1
'Tapien Lilac' (Suntory)	3	3	3	3	3	2	3	2.9
'Temari Burgundy' (Suntory)	4	4	3	3	2	1	1	2.6
'Serenity Mix' (American Takii)	N/A	0	1	1	3	3	4	2.0

Figure 6. Osteospermum ratings throughout the trial. 0 = dead; 1 = poor growth, no flowering; 2 = good growth, no flowering; 3 = good growth and flowering; 4 = strong growth and flowering; and 5 = excellent (peak) growth and flowering.

Cultivar	Wk. 46	Wk. 48	Wk. 50	Wk. 52	Wk. 2	Wk. 4	Wk. 6	Average
'Cream Symphony' (Proven Winners)	2	2	2	2	3	3	3	2.4
'Vanilla Symphony' (Proven Winners)	2	2	2	2	3	2	4	2.4

Figure 7. Assorted crops ratings throughout the trial. 0 = dead; 1 = poor growth, no flowering; 2 = good growth, no flowering; 3 = good growth and flowering; 4 = strong growth and flowering; and 5 = excellent (peak) growth and flowering.

Cultivar	Wk. 46	Wk. 48	Wk. 50	Wk. 52	Wk. 2	Wk. 4	Wk. 6	Average
'Artist Purple' ageratum (Proven Winners)	3	4	2	0	0	0	0	1.3
'Floral Showers Rose Pink' snapdragon (Sakata)	N/A	1	1	2	2	2	3	1.6
'Floral Showers Yellow' snapdragon (Sakata)	N/A	1	1	2	2	2	3	1.6
'Madeira Santa Maria' argyranthemum (Ball FloraPlant)	2	2	2	1	0	0	0	1.0
'Laguna Sky Blue' lobelia (Proven Winners)	4	5	4	1	1	0	0	2.1
'Laguna Compact Blue w/ Eye' lobelia (Proven Winners)	3	4	3	2	1	1	0	2.0
'Double Wave Rose' petunia (Twyford)	2	2	3	2	2	2	2	2.1
'Double Wave Lavender' petunia (Twyford)	2	2	2	2	2	2	2	2.0
'Double Wave Misty Lilac' petunia (Twyford)	2	2	2	2	2	2	2	2.0
'Solaire Yellow' bidens (Proven Winners)	3	3	4	3	1	3	2	2.7
'Dreamtime Jumbo Yellow' bracteantha (Ball FloraPlant)	4	5	4	3	4	3	2	3.6
'Festival Star' gypsophila (Proven Winners)	1	1	1	1	2	1	2	1.3
'Intensia Lilac Rose' phlox (Proven Winners)	2	3	3	3	4	4	5	3.4
'Intensia Neon Pink' phlox (Proven Winners)	2	2	3	3	4	4	5	3.3

Double Wave petunia, which has done well in past trials, only threw one flower throughout the trial, though they held up well vegetatively.

The strength of the bracteantha entry 'Dreamtime Jumbo Yellow', which bloomed early and survived through the winter was interesting; it didn't get a chance to flower again, but I never suspected bracteantha of that much staying power.

The top plants again in this trial were definitely the Intensia phlox series, which flowered from liner throughout the season and were in full bloom at trial termination. The hybrids have now been top rated in spring/summer and winter trials, a pretty impressive season for these hybrids. Seed types of phlox trialed had just begun to come into an impressive bloom when the trials were removed.

For more information on the varieties discussed in this article, direct your inquiries to the following companies.

American Takii, Inc.
(831) 443-4901
www.takii.com

Ball FloraPlant
(630) 231-3600
www.ballfloraplant.com

Bodger Botanicals
(800) 422-4678
www.michells.com/bodger/bodger.htm

PanAmerican Seed
(630) 231-1400
www.panamseed.com

Proven Selections/ Proven Winners
(815) 748-0805
www.provenwinners.com

Sakata Seed Corporation
(408) 778-7758
www.sakata.com

Jackson & Perkins — Suntory Corp.
(541) 864-2660

Twyford International
(800) 905-3263
www.twyford.com

SUMMARY

In short, there were a few truly strong cold weather performers in this year's trials. Even though it was cold this year, there was a lot of good information in the trials, mainly that we have some great genetics for cold/frost/freeze tolerance. This information can help you start your spring a bit earlier and extend it further into fall as well.

Again, I stress that these trials are not greenhouse trials, and under more optimal conditions the results seen here are going to vary a lot. GPN

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Author's Note: While not all varieties were covered in Figures 1-7, the trial results can be found at http://hort.ifas.ufl.edu/floriculture/statewide_plant.htm, with digital images taken every other week and notes summarizing conditions in the trial gardens. All our past trials are available as well as the Bradenton seed cultivar trials and our South Florida winter trials of New Guineas and geraniums.

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