

Statewide Trialing: 2002 Winter Trials of Diascia

Dr. Rick Schoellhorn and Alexis A. Richardson

Keywords: trial gardens, winter flowering crops, UF evaluations, plant ratings, floriculture



***Diascia* 'Whisper Salmon Red' is a vigorous, well branched cultivar that performs well in Florida winter and spring conditions.**

The following is a report of the *Diascia* trials conducted at the University of Florida trial gardens in Gainesville, FL in the winter of 2002. Gainesville FL is in USDA zone 8b and is part of an ongoing research program to evaluate new crops for their potential as winter flowering crops. While southern and Sunbelt producers can use this information to boost winter sales and extend fall season sales, northern growers might wonder how this type of trailing affects their use of product and the answer is two-fold. The UF evaluations generate information on southern landscape performance but also information on cold tolerance and photoperiodic responses of these crops which are used as spring annuals in the north. A cultivar that does well during the UF winter trials will likely also make for a good bet in early spring production in the north, offering northern growers some options for early production when many crops may not flower on schedule or minimally heated greenhouses are being used. The trial was conducted on line both pictures of the plants every two weeks and ratings sheets are available on the internet at: <http://hort.ifas.ufl.edu/floriculture/wintertrials2002/index.htm>

Winter conditions at the University of Florida's winter trials

Bed pH – range from 5.8-6.4, beds are amended with mushroom compost a 1 yard/100 ft.

Fertilization – At planting 4 grams of Osmocote 18-6-12 are incorporated beneath each planting.

Plants – Rooted liners (72 Cell trays) are planted directly into the gardens 2 liners per @ 12" spacing.

Irrigation – As needed to keep plantings moist, usually one irrigation per week.

Temperature data – Average temperature during trials:

Day – 60-65F

Night – 40-45F

In 2002, 12 nights with temperatures below freezing (Coldest period of the season between weeks 3 & 7)

Photoperiod – Day length from 10HR-11.5 HR

Data taken – Overall quality ratings, notes on flowering, foliage condition, peak blooming periods, lodging, and response to freezing temperatures. Trial was conducted week 49, 2002 to week 15, 2003

Quality Rating

0	Plant is dead
1	Plant is growing poorly, with little vigorous growth and little or no flowering
2	Plant is growing, and flowering, but not performing well enough to merit use.
3	Plant is growing and flowering enough to be considered of use in winter production, so a rating of 3 is the cutoff point for acceptable performance
4	Plant has good growth and flowering with enough impact to be considered a strong candidate
5	Plant is at peak performance with exceptional flowering and vigorous growth.

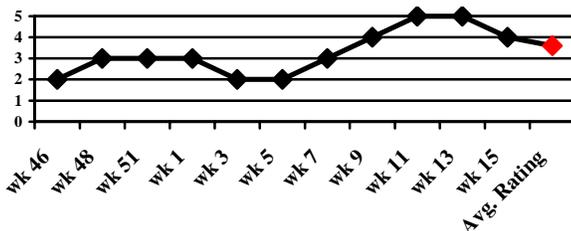
Remember that these ratings are taken every two weeks, so average ratings will be lower as these plants flower cyclically they cannot always be a perfect five. When averaged over the entire season, any average rating much below a 2.5 means that the plant did not have a long enough season of interest to be of use in winter plantings under winter conditions similar to those experienced in 2002.



Whisper Apricot Diascia

Before discussing the results of the trials, I'd like to go over the graphs presented for the different cultivars (See Table 1). The vertical portion of the graph is the quality rating taken every two weeks throughout the season. The horizontal axis is the weeks of 2002-2003 when we held the trial. So as you look at the graphs for the different cultivars the amount of weeks their ratings are above a 3 indicates their overall performance during the trial. The peaks and valleys in the graph indicate high points in flowering and low points in performance. The low point in mid trial is the result of the season's coldest weather with 8 nights of temperatures below 25F. The final point (in red) at the right of the graph is the average rating for that cultivar over the entire season; all other points indicate performance at that date within the trial.

Here are some basic overall notes on the performance of Diascia in this trial. Diascia was temperature sensitive in its performance, with highest ratings occurring under warmer temperatures. It is really interesting to look at these graphs and see what early cold performance was and then compare it late trial performance when temperatures were rising with Florida spring conditions. Freezing temperatures knocked flowers,



but cultivars with higher ratings were those which regenerated flowers the quickest, so the plants which did not abort buds at cold temperatures bounced back to higher ratings, faster.. Some plants remained nearly dormant during early trials, which give them a flat rating. Others grew and flowered even under early winter conditions. Diascia flowers in cycles, which means that you get blooms in flushes. Higher ratings went to cultivars with the shortest period of time between these 'peak blooms'. In general, response to cold temperatures was seen in the form of bud abortion, flower drop, leaf yellowing, leaf purpling, and time of recovery. Response to warmer temperatures included increased growth and flowering. Almost all cultivars reached a rating of 4 at some point in the trial, but the key is how long do they hold those higher ratings? A plant with a longer bloom cycle also has a longer sales window, and likely a better consumer rating when it reaches the homeowner. A final note on liner quality, entries which came in late, small, or with shipping damage definitely suffered in the trial as they did not perform well in early season and so have lower average ratings.



Diascia was cold hardy and quick to establish a solid mass in the trials. Highly rated cultivars did not burn or yellow under freezing weather conditions, grew enough to form a canopy between individual plants, and flowered either over a longer season or with consistently better flowering than cultivars with lower ratings. All Diascia cultivars survived the winter and continue in the gardens as part of the spring trials.



Diascia Flying Colors Coral was the top performer two years running in our Diascia trials at the University of Florida.

- Wink Pink – Ball FloraPlant, Average Rating 3.3
- Flying Colors Antique Rose – Proven Winners, Average Rating 3.2

In 2003, winter trials will include Verbena, Calibrachoa, Trailing Petunias, Dianthus, and other focus crops and all trials will in the web-based format of the 2002 winter trials. You can find these trials at www.hort.ifas.ufl.edu as well as spring trials for 2002 and 2003.

Commercial Sources for Diascia

Ball FloraPlant: www.ballfloraplant.com

Proven Winners: www.provenwinners.com

Environmental Horticulture Department,

University of Florida: <http://hort.ifas.ufl.edu>

Statewide Trialing Website:

http://hort.ifas.ufl.edu/floriculture/statewide_plant.htm

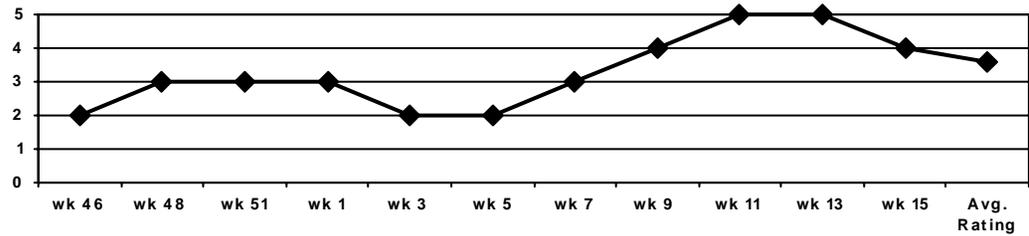
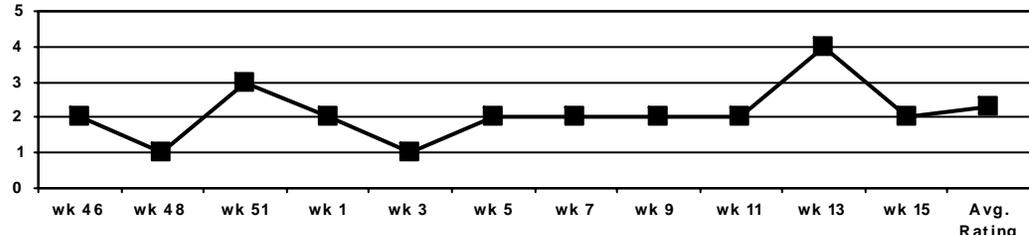
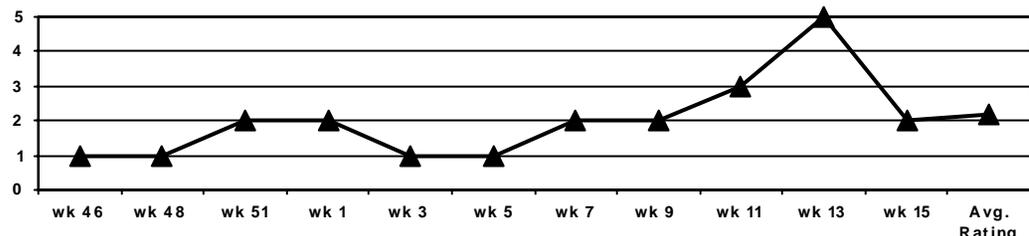
Alexis A. Richardson is a contributing author with the Environmental Horticulture Department at the University of Florida.

Best of Class - Diascia

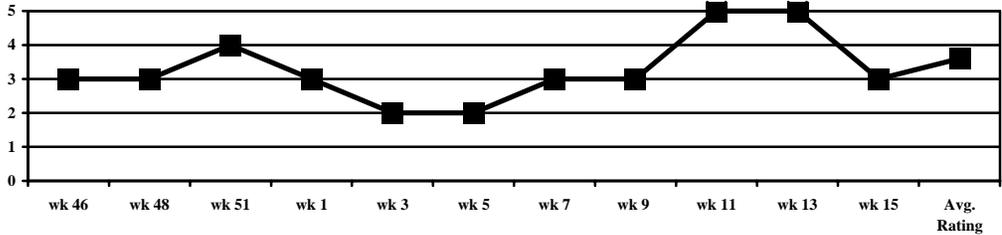
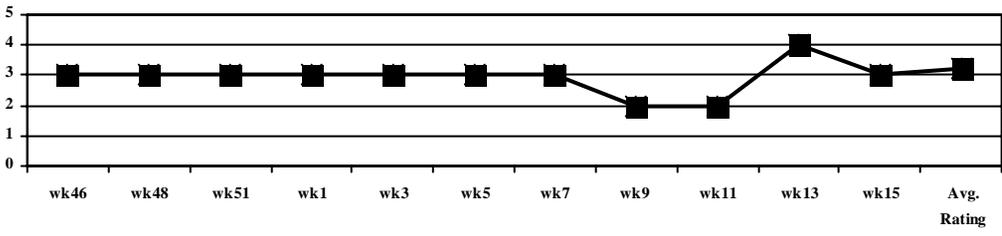
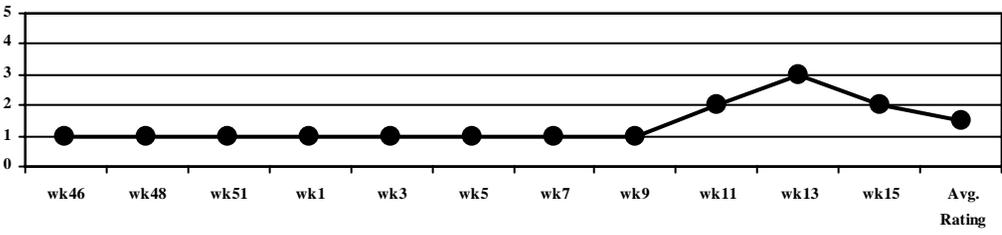
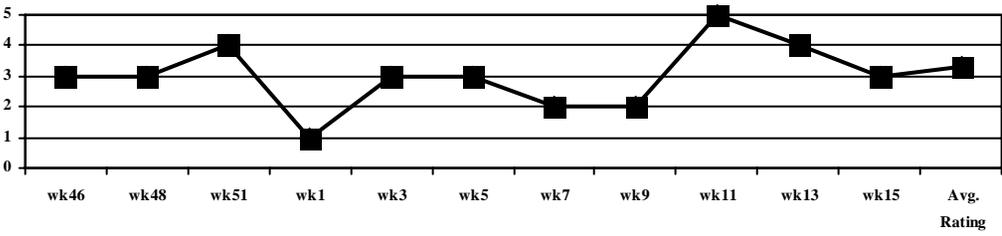
- Flying Colors Coral Diascia - Proven Winners, Average rating 3.6, Peak bloom from week 9-15, early season performance also acceptable. Great strong orange-salmon color, consistent growth and performance, good foliage color and cold tolerance.
- Whisper Salmon Red Improved - Ball FloraPlant, Average rating 3.6, Peak bloom from week 11-13, early season performance excellent. Incredibly vigorous growth and strong red toned flowering (no more a salmon than I am, but...), flowers held on longer stalks for a lighter appearance but good mounding growth habit and foliage color, excellent cold tolerance.
- Whisper Cranberry from Ball FloraPlant, Average rating of 3.6, Peak bloom week 7 – 15, early season performance excellent. Same great vigor as Salmon Red Improved, subtly different crisper red coloring, excellent foliage and habit.

Honorable mention – Diascia

Table 1: Diascia Bloom Cycles

Rating ¹	Cultivar/Supplier	Bloom cycles Winter 2002-Spring 2003																										
3.6	Flying Colors Coral Diascia Proven Winners Peak bloom from week 9 to week 15	 <table border="1"> <caption>Bloom cycles for Flying Colors Coral Diascia</caption> <thead> <tr> <th>Week</th> <th>Rating</th> </tr> </thead> <tbody> <tr><td>wk 46</td><td>2.0</td></tr> <tr><td>wk 48</td><td>3.0</td></tr> <tr><td>wk 51</td><td>3.0</td></tr> <tr><td>wk 1</td><td>3.0</td></tr> <tr><td>wk 3</td><td>2.0</td></tr> <tr><td>wk 5</td><td>2.0</td></tr> <tr><td>wk 7</td><td>3.0</td></tr> <tr><td>wk 9</td><td>4.0</td></tr> <tr><td>wk 11</td><td>5.0</td></tr> <tr><td>wk 13</td><td>5.0</td></tr> <tr><td>wk 15</td><td>4.0</td></tr> <tr><td>Avg. Rating</td><td>3.6</td></tr> </tbody> </table>	Week	Rating	wk 46	2.0	wk 48	3.0	wk 51	3.0	wk 1	3.0	wk 3	2.0	wk 5	2.0	wk 7	3.0	wk 9	4.0	wk 11	5.0	wk 13	5.0	wk 15	4.0	Avg. Rating	3.6
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¹ Average of weeks 49, 2002 to week 15, 2003. 5 = excellent performance & color, 0 = Dead

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wk1	1																											
wk3	2																											
wk5	2																											
wk7	2																											
wk9	2																											
wk11	3																											
wk13	3																											
wk15	2																											
Avg. Rating	2.5																											

2.3

Wink Light Apricot Diascia
Ball FloraPlant

