

Vinca Series: Summary of Some Recent Landscape Performance Observations

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Significance to Industry: A number of new vinca series have been released in the last five years. These new series include the ‘Titan’ series from PanAmerican Seed and ‘Nirvana’ series from Fischer USA (now Syngenta Flowers). The ‘Cora’ series from Goldsmith Seed (now Syngenta Flowers) is also new but was not included in LSU AgCenter trials until 2007. It is important to evaluate these new series and cultivars from each group in landscape performance trials in order to provide comparisons to existing series and cultivars. The LSU AgCenter has also conducted landscape disease observations on many of these cultivars over the past 8-10 years.

Nature of Work: In 2005, landscape performance evaluations were conducted on ten vinca series and sixty-five cultivars at the Ornamental and Turfgrass Research and Extension Facility at Burden Center, a LSU AgCenter agricultural experiment station, in Baton Rouge, LA (USDA hardiness zone 8B). Series evaluated were: ‘Sunstorm’ (8 cultivars and a mix), ‘Cooler’ (12 cultivars and a mix), ‘Victory’ (9 cultivars), ‘Titan’ (3 cultivars), ‘Pacifica’ (13 cultivars and two mixes), ‘Sunglow’ (1 cultivar), ‘Sundress’ (1 cultivar), ‘Sunshower’ (5 cultivars), ‘Mediterranean’ (6 cultivars and a mix) and ‘Nirvana’ (2 cultivars).

Twenty-four plants from 606 jumbo cell packs of each cultivar were planted in landscape beds in late-April 2005. All plants were grown from seed (with the exception of the vegetatively propagated ‘Nirvana’ series) in a greenhouse following typical production practices for vinca. Raised beds used in this evaluation were enclosed by landscape timbers and were composed of pine bark planting mix on top of an Olivier silt

loam native soil. The planting was located in full sun and plants received overhead irrigation via spray stake risers as needed to prevent stress during the evaluation period. Plants were spaced on one foot centers and received uniformly applied topdressings of StaGreen Nursery Special 12-6-6 (Pursell Industries) at the rate of 1 lb N/1000 ft² at planting and at the rate of 0.5 lb N/1000 ft² feet in late June. Plants were not deadheaded or pruned during the study season. No pesticides were applied for insect or disease control. Weed control was accomplished via hand removal and two applications of benefin + oryzalin (Amaze® from Green Light) at the label recommended rate one week after planting and in mid-summer.

Visual quality ratings based on a scale from 1 to 5 (1=dead, below average landscape performance, 3=average landscape performance, 4=above average landscape performance, 5=superior landscape performance). Included in this rating were plant foliage color and appeal, uniformity, flowering and overall growth habit. Plant height was measured October 1st and was the distance from soil line to the tallest plant part. Flower diameter was measured October 1st and was the average of width across the flower measured two perpendicular directions. Flowers were counted October 1st and this data represents the number of fully open flowers counted in one square foot of randomly selected canopy area.

Rhizoctonia web blight ratings were taken in the fall and were based on a scale from 1 to 6 where 1= no blighted foliage, 2=1-10% foliage blighted, 3=11-25% foliage blighted, 4=26-50% foliage blighted, 5=51-75% foliage blighted, and 6=76-100% foliage blighted.

Results and Discussion: Visual quality ratings were generally higher later in the season for all series and cultivars (Table 1). This is common with performance of vinca in landscapes in the southeastern United States. ‘Sunglow Scarlet w/Eye’, ‘Sunstorm Rose

w/Eye', 'Cooler Apricot', 'Cooler Orchid', 'Cooler Red', 'Victory Purple', 'Victory Pure White', 'Titan Polka Dot', 'Pacifica White', and 'Pacifica Pure White' had above average landscape performance by October (Table 1). Other cultivars were mostly in the average performance category.

When looking at the vinca series, 'Sunstorm', 'Cooler' and 'Nirvana' had the highest visual quality ratings based on season long performance averaged over cultivars within the series (Table 2). The tallest series were 'Cooler', 'Victory' and 'Titan' followed by the 'Pacifica', 'Nirvana' and 'Sunstorm' (Table 2). The 'Sunshower' and 'Mediterranean' series were the shortest growing (Table 2). Flower size was largest for the 'Titan' and 'Nirvana' series (Table 2). 'Titan' vincas are promoted as having the largest flowers among vinca cultivars. Number of flowers per ft² of canopy area was highest for the 'Pacifica' series and lowest for the 'Nirvana' series (Table 2).

Rhizoctonia was somewhat active in 2005. The most susceptible series to web blight fungus were 'Mediterranean' and 'Sunstorm' (data not shown).

Table 1. Landscape performance of vinca cultivars as measured by visual quality ratings, plant height, flower size and number of flowers – 2005.

	Visual Quality Ratings					Height (cm)	Flower Size (cm)	Flowers (# sq ft)
	7/1	7/15	8/1	8/15	10/1			
'Sunstorm'								
- Apricot	3.3	3.8	3.8	3.8	3.3	32.0	3.80	33
- Bright Red Imp.	3.0	3.5	3.6	3.8	3.8	31.3	4.03	33
- Orchid	3.3	3.5	3.5	3.5	3.3	44.7	3.63	27
- Lilac	3.0	3.6	3.6	3.8	3.2	41.7	4.10	23
- White w/Eye	3.5	3.8	4.0	4.0	3.5	39.7	3.67	27
- Pink	3.8	3.6	3.6	3.8	3.8	37.7	4.07	38
- Formula Mix	3.2	3.5	3.5	3.5	3.2	45.3	4.07	25
- Violet w/Eye	3.2	3.6	3.6	3.6	3.6	44.7	3.57	26
- Rose w/Eye	3.0	3.5	3.6	3.6	4.0	37.7	3.80	30
'Cooler'								
- Apricot	3.3	3.5	3.5	3.6	4.0	43.3	3.80	25
- Rose	3.5	3.5	3.5	3.8	3.8	46.0	4.07	29
- Blush	3.3	3.6	3.6	3.6	3.8	46.7	3.77	15
- Lavender Halo	3.2	3.3	3.5	3.5	3.6	48.3	3.43	18
- Coconut	3.0	3.2	3.5	3.5	3.6	50.0	4.03	19
- Orchid	3.3	3.2	3.5	3.5	4.0	58.0	3.83	18
- Pink	3.2	3.3	3.5	3.5	3.3	50.7	3.87	31
- Grape	3.0	3.3	3.6	3.6	3.2	49.7	3.57	17
- Icy Pink	3.2	3.6	3.6	3.6	3.2	53.7	3.73	29
- Formula Mix	3.0	3.2	3.5	3.5	3.2	42.3	3.90	33
- Peppermint	3.0	3.2	3.5	3.5	3.2	43.3	4.37	32
- Red	3.2	3.5	3.8	3.8	4.0	46.7	4.47	26
- Rose Hot	3.3	3.3	3.6	3.6	3.5	49.7	4.30	25
'Victory'								
- Carmine	3.2	3.2	3.5	3.5	3.8	42.7	3.93	35
- Apricot	3.0	3.5	3.5	3.5	3.6	47.0	3.83	25
- Blue	3.2	3.2	3.5	3.5	3.5	44.0	3.90	14
- Lavender	3.2	3.2	3.3	3.5	2.5	40.0	3.40	16
- Deep Pink	3.0	3.0	3.2	3.3	3.2	44.0	3.80	24
- Cranberry	3.0	3.2	3.5	3.6	3.5	43.3	3.97	28
- Grape	2.8	3.0	3.3	3.3	3.8	44.0	3.93	25
- Purple	3.0	3.2	3.3	3.3	4.0	45.7	3.93	29
- Pure White	2.5	3.0	3.0	3.3	4.0	39.3	4.43	31
'Titan'								
- Punch	2.8	3.2	3.2	3.3	3.6	46.3	4.73	26
- Burgundy	3.0	3.0	3.0	3.3	3.5	39.0	4.77	28
- Polka Dot	3.2	3.2	3.5	3.5	4.0	45.0	4.40	23
'Pacifica'								
- Blush	2.6	3.0	3.0	3.0	3.2	34.0	4.13	24
- Punch	3.2	3.3	3.3	3.5	3.6	55.3	4.87	30
- White	3.2	3.3	3.3	3.5	4.0	48.3	3.97	22
- Pure White	2.8	3.0	3.3	3.2	4.4	39.7	4.33	36
- Burgundy	2.5	2.8	3.2	3.3	3.6	39.0	4.03	32
- Lipstick Mix	2.5	2.8	3.2	3.3	3.5	44.0	4.00	33
- Rose Halo	2.6	3.0	3.0	3.2	3.5	48.3	4.07	32
- Orchid Deep	2.6	2.8	3.0	2.8	3.3	42.3	3.77	23
- Punch Halo	2.5	3.0	3.0	3.3	3.8	43.3	4.47	28
- Icy Pink	2.6	3.2	3.5	3.5	3.6	50.3	4.30	30
- Polka Dot	2.4	2.8	3.0	2.8	3.3	41.3	3.70	38
- Formula Mix	2.5	3.0	3.0	3.2	3.2	42.7	4.03	30
- Rose	2.3	2.8	3.0	3.0	3.5	40.0	4.10	26
- Peach	2.5	2.8	3.0	3.0	3.5	41.3	4.40	36
- Lilac	2.3	2.8	2.8	3.0	3.4	34.7	4.13	37

Table 1 (continued). Landscape performance of vinca cultivars as measured by visual quality ratings, plant height, flower size and number of flowers – 2005.

	Visual Quality Ratings					Height (cm)	Flower Size (cm)	Flowers (# sq ft)
	7/1	7/15	8/1	8/15	10/1			
'Sunglow'								
- Scarlet w/Eye	2.5	2.8	3.2	3.2	4.0	50.0	4.37	31
'Sundress'								
- White w/Eye	2.5	2.8	2.6	2.8	3.8	31.0	3.70	39
'Sunshower'								
- White w/Eye	3.0	3.5	3.5	3.5	3.6	26.0	3.50	23
- Apricot	3.0	3.2	3.5	3.4	3.5	32.7	4.13	24
- Lilac	3.0	3.0	3.4	3.4	3.4	28.3	3.73	34
- Orchid w/Eye	3.0	3.0	3.4	3.4	3.4	25.7	3.53	22
- Pink	2.5	2.8	3.2	3.2	3.5	22.3	3.47	18
'Mediterranean'								
- Lilac	3.0	3.0	3.0	3.0	3.5	22.0	3.73	27
- Pink	3.2	3.2	3.4	3.4	3.2	19.3	3.37	20
- White w/Broadeye	3.0	3.0	3.0	3.0	3.2	14.7	3.57	24
- Formula Mix	3.2	3.0	3.2	3.2	3.2	20.3	3.57	26
- Orchid Deep	3.0	3.2	3.2	3.2	3.0	26.7	3.57	26
- Deep Rose	3.2	3.4	3.5	3.5	3.0	15.0	3.80	33
- Polka Dot	3.2	3.4	3.5	3.5	3.5	28.7	3.93	25
'Nirvana'								
- Lavender	3.5	3.5	3.5	3.0	3.0	41.3	4.33	13
- Rose	3.5	3.5	3.5	3.5	3.5	38.0	4.40	20

Note: Visual quality ratings based on a scale from 1 to 5 (1=dead, below average landscape performance, 3=average landscape performance, 4=above average landscape performance, 5=superior landscape performance). Included in this rating were plant foliage color and appeal, uniformity, flowering and overall growth habit. Plant height measured October 1st and was distance from soil line to the tallest plant part. Flower diameter was measured October 1st and was the average of width across the flower measured two perpendicular directions. Number of flowers counted October 1st and represented flowers in one square foot of randomly selected canopy area.

Table 2. Landscape performance of vinca series as measured by averages of visual quality ratings, plant height, flower size and number of flowers for selected cultivars – 2005.

	Visual Quality Ratings	Height	Flower Size	Flowers
	Season Long Average of Cultivars	(cm)	(cm)	(# sq ft)
'Sunstorm'	3.55	39.42	3.86	29.11
'Cooler'	3.45	48.34	3.93	24.38
'Victory'	3.37	43.33	3.90	25.22
'Titan'	3.29	43.43	4.63	25.67
'Pacifica'	3.08	42.97	4.15	30.47
'Sunshower'	3.25	27.00	3.67	24.20
'Mediterranean'	3.21	20.96	3.65	25.86
'Nirvana'	3.40	39.65	4.37	16.50

Note: Visual quality ratings based on a scale from 1 to 5 (1=dead, below average landscape performance, 3=average landscape performance, 4=above average landscape performance, 5=superior landscape performance). Included in this rating were plant foliage color and appeal, uniformity, flowering and overall growth habit. Season long average of visual quality ratings is from means on July 1, July 15, August 1, August 15, and October 1 pooling data from all cultivars listed in Table 1. Plant height measured October 1st and was distance from soil line to the tallest plant part. Flower diameter was measured October 1st and was the average of width across the flower measured two perpendicular directions. Number of flowers counted October 1st and represents the number of fully open flowers in one square foot of randomly selected canopy area. Sunglow and Sundress series are not included since only one cultivar/series was evaluated.