

Table 3. Ratings for pest^U damage symptoms in unsprayed field on *Catharanthus roseus* (L.) G. Don (Madagascar periwinkle or vinca) grown in Bradenton, FL, grouped within classes according to species morphology and color. Seeds were sown 7 Feb. and 13 Feb., and plugs transplanted to ground beds 20 March.

Cultivar	Overall Foliage Pest Rating	Rating of Arthropod Pests on Flowers				Rating of Disease Pests on Flowers				Overall Flower Pest Rating	Overall Pest Rating ^V	Dead Plants ^W	Adjusted Overall Performance ^X
		Apr. 28	May. 22	June. 8	Avg.	Apr. 20	May. 22	June. 8	Avg.				
<i>Mixes class</i>													
Cooler Mix	7.0	5.3 a ^Y	4.3	5.0 b	4.9 a	7.0 a	5.8 a	5.0 ab	5.9 a	5.4 a	6.2 a	1.5	5.1
Merlot Mix	6.7	3.5 b	4.5	4.3 c	4.1 b	5.0 b	3.5 b	3.8 c	4.1 c	4.1 c	5.4 c	2.3	4.8
Stardust Mix	7.0	5.3 a	5.0	4.5 bc	4.9 a	7.0 a	5.0 a	4.3 bc	5.4 ab	5.2 a	6.1 ab	0.5	5.2
Tutti Frutti Mix	7.0 ^{NS}	3.0 b	3.8 ^{NS}	6.0 a	4.3 b	5.5 ab	3.8 b	5.8 a	5.0 b	4.6 b	5.8 b	1.5 ^{NS}	4.9 ^{NS}
<i>Pinks class</i>													
Cooler Blush	7.0 a	5.0 ab	6.3 ab	6.0 a	5.8 a	7.0 a	5.3 ab	4.8 c	5.7 bc	5.7 b	6.4 ab	0.8 b	5.3
Cooler Icy Pink	7.0 a	5.0 ab	5.8 bc	6.0 a	5.6 a	5.8 b	3.8 c	5.0 bc	4.8 e	5.2 cd	6.1 cd	1.3 ab	5.4
Cooler Pink	6.9 bc	3.8 cd	4.5 e	5.0 b	4.4 c	5.8 b	6.0 a	5.5 abc	5.8 bc	5.1 d	6.0 d	0.8 b	5.2
Cooler Strawberry	7.0 a	4.5 abc	5.3 cd	5.8 a	5.2 b	6.3 ab	6.0 a	5.8 ab	6.0 ab	5.6 b	6.3 bc	0.5 b	5.5
SunStorm Blush	6.8 c	5.3 a	6.5 a	6.0 a	5.9 a	4.5 c	4.5 bc	6.0 a	5.0 de	5.5 bc	6.2 bcd	1.0 ab	5.4

Best of class: Stardust Mix, Ball Seed.

^U Flower pest ratings for symptoms of feeding by arthropods and infestation by disease pathogens on a 1 to 7 scale: 7 - all flowers were free from arthropod feeding scars and diseased tissue in the form of spots, blights, or tissue distortion, symptomatic of plant dysfunction caused by a pathogen; 4 - average foliage condition, minimal pest damage to tissue, but flowers was still acceptable; 1 - flowers severely infested and damage unacceptable, making or flowers undesirable. Foliage was relatively healthy during the entire season, with few differences; therefore only overall foliage pest ratings are presented with the flower pest ratings; ratings on foliage were conducted on the same dates listed in this table.

^V Overall pest rating = (overall foliage pest rating + overall flower pest rating)/2.

^W This is the average number of dead plants/plot for each cultivar (dp). The value is used to calculate the adjusted overall performance.

^X The formula for overall performance (OP) = [overall foliage/flower ratings (Table 2) + overall pest ratings (Table 3)]/2. To account for plant death due to soilborne plant pathogens, OP must be adjusted (OP_{adj}). OP_{adj} = OP - [OP (dp x dpf)], where OP_{adj} is the adjusted overall performance and dpf = dead plant factor (0.86). Dpf is derived from dividing the highest possible plot rating into the number of plants per plot. That value is 0.86 for six plants/plot, the number planted/plot for vinca. Cultivars ≥5.3 were considered outstanding, 4.6 to 5.2 as good performers, and ≤ 4.5 to 1.0 as fair to poor. The highest value (whether or not it is significantly higher than another) is selected as best of class. Best of class may have an overall performance that is fair to poor for a class by our standards, indicating that the class does not do well, based on cultivars trialed, and the selected cultivar is currently the best performer. Best of class is used as the standard by which all future entries will be compared, until a better performer replaces it.

^Y Mean separation within classes by LSD, P < 0.05.

Table 3. Continued.

Cultivar	Overall Foliage Pest Rating	Rating of Arthropod Pests on Flowers				Rating of Disease Pests on Flowers				Overall Flower Pest Rating	Overall Pest Rating	Dead Plants	Adjusted Overall Performance
		Apr. 28	May. 22	June. 8	Avg.	Apr. 20	May. 22	June. 8	Avg.				
SunStorm Rose	6.9 ab	5.0 ab	4.5 e	6.0 a	5.2 b	5.5 b	5.3 ab	5.0 bc	5.3 cde	5.2 cd	6.1 d	0.5 b	5.4
SunStorm Rose w/Eye	7.0 a	4.0 bcd	4.8 de	6.0 a	4.9 b	6.5 ab	5.5 ab	4.8 c	5.6 bc	5.3 cd	6.2 bcd	0.0 b	5.8 ^{NS}
Heatwave Pink	7.0 a	3.3 d	6.0 ab	6.0 a	5.1 b	6.0 ab	4.8 b	5.5 abc	5.4 bcd	5.3 cd	6.2 bcd	1.0 ab	4.9
Stardust Pink	7.0 a	5.0 ab	6.0 ab	6.0 a	5.7 a	7.0 a	6.3 a	6.0 a	6.4 a	6.0 a	6.5 a	3.0 a	4.6 ^{NS}

Best of class: SunStorm Rose w/Eye, Syngenta Seeds.

Purples, dark – violet blue class

Heatwave Blue w/Eye	7.0	4.0	3.0	4.3	3.8	6.8	6.0	4.3	5.7	4.7	5.9	1.8	4.6
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Best of class: Heatwave Blue w/Eye, Bodger Seeds.

Purples, dark – violet red class

Cooler Raspberry Red	7.0	3.5 c	4.0 c	4.5 b	4.0 c	5.5 b	5.3 bc	4.3 c	5.0 cd	4.5 c	5.8 c	0.5	5.2 a
Cooler Orchid	7.0	4.5 a	4.0 c	5.0 a	4.5 b	7.0 a	6.0 ab	5.0 b	6.0 b	5.3 b	6.1 b	1.5	5.1 a
SunStorm Orchid	7.0	3.8 c	4.8 a	5.3 a	4.6 b	5.0 b	4.5 c	4.0 c	4.5 d	4.5 c	5.8 c	1.0	5.2 a
SunStorm Lilac	7.0	3.8 c	4.5 c	4.5 b	4.2 bc	7.0 a	6.0 ab	5.3 b	6.1 b	5.2 b	6.1 b	0.0	5.6 a
Heatwave Raspberry	7.0	3.3 c	2.0 d	3.0 c	2.8 d	7.0 a	5.3 bc	4.0 c	5.4 c	4.1 d	5.6 d	1.3	4.4 b
Stardust Orchid	7.0 ^{NS}	5.3 a	5.3 a	5.5 a	5.3 a	7.0 a	6.8 a	6.0 a	6.6 a	6.0 a	6.5 a	1.3 ^{NS}	5.1 a

Best of class: SunStorm Lilac, Syngenta Seeds.

Purples, light – violet blue class

Blue Pearl	7.0	5.0	6.0	6.0	5.7	7.0	6.0	6.3	6.4	6.1	6.5	0.3	5.9
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Best of class: Blue Pearl, PanAmerican Seed – uncontested.

Purples, light – violet red class

Cooler Grape	7.0	4.0	4.5	5.8	4.8	6.8	6.8	5.5	6.3	5.6	6.3	1.3	5.3
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Best of class: Cooler Grape, PanAmerican Seed – uncontested.

Table 3. Continued.

Cultivar	Overall Foliage Pest Rating	Rating of Arthropod Pests on Flowers				Rating of Disease Pests on Flowers				Overall Flower Pest Rating	Overall Pest Rating	Dead Plants	Adjusted Overall Performance
		Apr. 28	May. 22	June. 8	Avg.	Apr. 20	May. 22	June. 8	Avg.				
<i>Reds class</i>													
Cooler Red	7.0	5.0 a	5.0 a	6.0	5.3 a	5.8	5.5	5.5 b	5.6 ab	5.5 a	6.3 a	3.0	4.5 b
SunStorm Bright Red	7.0	3.8 b	4.3 ab	5.3	4.4 b	6.0	6.0	6.0 a	6.0 a	5.2 b	6.1 b	1.0	5.3 a
Heatwave Cherry	7.0	5.0 a	3.8 b	5.0	4.6 b	6.5	5.8	4.0 c	5.4 ab	5.0 bc	6.0 c	2.0	4.6 b
Sunsplash Cherry	7.0 ^{NS}	4.8 a	3.5 b	5.3 ^{NS}	4.5 b	5.3	5.3 ^{NS}	4.0 c	5.4 b	4.9 c	6.0 c	1.5 ^{NS}	4.9 ab
Best of class: SunStorm Bright Red, Syngenta Seeds.													
<i>Roses class</i>													
Cooler Rose	7.0	3.0 b	4.3	5.3	4.2 a	3.8 b	5.0	5.3	4.7 b	4.4 b	5.7 b	0.8	4.8
Heatwave Deep Rose	7.0 ^{NS}	4.3 a	4.5 ^{NS}	5.8 ^{NS}	4.9 b	6.5 a	5.8 ^{NS}	4.5 ^{NS}	5.6 a	5.2 a	6.1 a	1.5 ^{NS}	4.9 ^{NS}
Best of class: Heatwave Deep Rose, Bodger Seeds													
<i>Salmons^Z class</i>													
Cooler Apricot	7.0	5.3	5.3	6.0	5.5	5.5	3.3	4.0	4.2	4.9	6.0	5.0 a	3.9 b
SunStorm Apricot	7.0	4.0 ^{NS}	5.5 ^{NS}	6.0 ^{NS}	5.2 ^{NS}	5.8 ^{NS}	3.0 ^{NS}	4.0 ^{NS}	4.2 ^{NS}	4.7	5.9 ^{NS}	3.0 b	4.5 a
Best of class: SunStorm Apricot, Syngenta Seeds.													
<i>Whites class</i>													
Cooler Coconut	7.0	6.8	6.3	6.0 a	6.3 ab	7.0 a	4.0 a	4.8 a	5.3 a	5.8 a	6.4 a	0.8	5.5
Cooler Peppermint	7.0	7.0	6.3	5.0 b	6.1 b	6.8 a	3.3 ab	5.0 a	5.0 a	5.6 ab	6.3 ab	1.5	5.1
SunStorm White w/Eye	7.0	7.0	6.0	6.3 a	6.4 ab	6.8 a	4.0 a	4.0 b	4.9 a	5.7 ab	6.3 ab	1.3	5.4
Heatwave Peppermint	7.0	7.0	6.3	6.5 a	6.6 a	5.3 c	3.0 b	4.0 b	4.1 b	5.4 b	6.2 b	1.3	5.2
Heatwave White	7.0 ^{NS}	7.0 ^{NS}	6.5 ^{NS}	6.5 a	6.7 a	6.0 b	3.3 ab	4.3 b	4.5 b	5.6 ab	6.3 ab	1.8 ^{NS}	5.0 ^{NS}
Best of class: Cooler Coconut, PanAmerican Seed.													

^Z Salmon colors include peach and apricot hues and shades.

Table 3. Continued.

Cultivar	Overall Foliage Pest Rating	Rating of Arthropod Pests on Flowers				Rating of Disease Pests on Flowers				Overall Flower Pest Rating	Overall Pest Rating	Dead Plants	Adjusted Overall Performance
		Apr. 28	May. 22	June. 8	Avg.	Apr. 20	May. 22	June. 8	Avg.				
<i>Trailing; purples, light – violet blue class</i>													
Cascade Appleblossom	7.0	5.0	6.0	6.0	5.7	6.8	4.3	5.8	5.6	5.6	6.3	1.5	5.5

Best of class: Cascade Appleblossom, Ball Seed – uncontested.