

Table 4. Arthropod and disease pest ratings^T for flowers of *Impatiens walleriana* Hook. f. (syn. *I. sultana* Hook. f.) (impatiens or sultana) grown in a saran-shaded, sprayed on demand field at Bradenton, FL, and grouped within classes according to flower type and color. Seeds were sown 6 Feb. and 13 Feb., and plugs transplanted to ground beds 13 March.

Cultivar	Arthropod - Flower			Disease - Flower			Overall Flower Pest Rating ^U	Overall Fol./Flow. Pest Rating ^V	Dead Plants ^W	Adjusted Overall Performance ^X
	2 May	26 May	Avg.	2 May	26 May	Avg.				
<i>Double^Y flower – orange/white class</i>										
Circus Orange White	7.0 ^Z	7.0	7.0	7.0	7.0	7.0	7.0	5.9	0.0	4.7
Best of class: Circus Orange White – Ball Seed, uncontested.										
<i>Double flower – orange shades/tints class</i>										
Fanciful Deep Coral	7.0	7.0	7.0	7.0	6.7	6.8	6.9	6.5	0.0	5.8
Fanciful Salmon	7.0 ^{NS}	7.0 ^{NS}	7.0 ^{NS}	7.0 ^{NS}	6.7 ^{NS}	6.8 ^{NS}	6.9 ^{NS}	6.4 ^{NS}	0.0 ^{NS}	5.8 ^{NS}

Best of class: Fanciful Salmon – Ball Seed.

^T Flower pest ratings for arthropods and disease on a 1 to 7 scale: 7- all flowers were free from arthropod feeding scars; 4- average flower condition, minimal pest damage to tissue, but flower was still acceptable; 1- flowers severely infested and damage unacceptable, making flowers undesirable.

^U Overall flower pest rating = (average arthropod flower+ average disease flower rating)/2.

^V Overall foliage/flower pest rating = [overall foliage pest rating (Table 3) + overall flower pest rating (Table 4)]/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 OP = (Q + P)/2, where Q = overall foliage/flower ratings (Table 2) and P = overall foliage/flower pest rating (Table 4). OP_{adj} = (Q + P_{adj})/2, where P_{adj} = P - (dp x dpf); dp = number of dead plants/plot and dpf = dead plant factor. The value dpf = number plants per plot/highest rating possible. *Impatiens* dpf was 5 plants/7, or 0.71. Cultivars ≥ 6.0 were considered outstanding, 5.5 to 5.9 as very good performers, ≤ 5.4 to 5.0, and 4.0 – 4.9 as fair. There were no poor performers. 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 The doubles class for these trials combines both double and semi-double flower forms. The Circus and Fanciful series are semi-doubles, referred to as fancy-flowered in the seed catalog.

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

Table 4. Continued.

Cultivar	Arthropod - Flower			Disease - Flower			Overall Flower Pest Rating	Overall Fol./Flow. Pest Rating	Dead Plants	Adjusted Overall Performance
	2 May	26 May	Avg.	2 May	26 May	Avg.				
<i>Double flower – red class</i>										
Fanciful Red	6.7	7.0	6.8	7.0	7.0	7.0	6.9	6.6	0.0	5.9
Best of class: Fanciful Red – Ball Seed, uncontested.										
<i>Double flower – rose shades/tints class</i>										
Fanciful Orchid Rose	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.3	0.3	5.3
Best of class: Fanciful Orchid Rose – Ball Seed, uncontested.										
<i>Single flower – mixes class</i>										
Dazzler Star Mix	7.0	7.0	7.0	7.0	6.3	6.7	6.8	6.3	0.0	5.5
Showstopper Cotton Candy	7.0	7.0	7.0	7.0	6.7	6.8	6.9	6.5	0.3	5.8
Showstopper Tropical Flair Mix	7.0	7.0	7.0	7.0	6.7	6.8	6.9	6.2	0.0	5.4
Tempo Butterfly Mix	7.0	7.0	7.0	6.7	6.7	6.7	6.8	6.0	0.7	5.1
Tempo Crystal Mix	7.0 ^{NS}	6.7 ^{NS}	6.8 ^{NS}	7.0 ^{NS}	7.0 ^{NS}	7.0 ^{NS}	6.9 ^{NS}	6.4 ^{NS}	0.0 ^{NS}	5.8 ^{NS}
Best of class: Showstopper Cotton Candy – Ball Seed.										
<i>Single flower – orange shades class</i>										
Tempo Peach Butterfly	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.4	0.7	5.3
Best of class: Tempo Peach Butterfly – Bodger Seeds, uncontested.										
<i>Single flower – orange/white shades/tints class</i>										
Stardust Salmon	7.0	6.7	6.8	7.0	6.3	6.7	6.8	5.9	0.3	5.4
Best of class: Stardust Salmon – PanAmerican Seed, uncontested.										

Table 4. Continued.

Cultivar	Arthropod - Flower			Disease - Flower			Overall Flower Pest Rating	Overall Fol./Flow. Pest Rating	Dead Plants	Adjusted Overall Performance
	2 May	26 May	Avg.	2 May	26 May	Avg.				
<i>Single flower – pink class</i>										
Dazzler Pink Improved	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.3	0.0	5.8
Best of class: Dazzler Pink Improved – Ball Seed, uncontested.										
<i>Single flower – pink shades/tints class</i>										
Super Elfin Deep Pink	7.0	7.0	7.0	7.0	7.0 a	7.0 a	7.0 a	6.4	0.0	6.0
Tempo Cherry Butterfly	7.0	7.0	7.0	7.0	5.3 b	6.2 b	6.6 b	6.4	0.3	5.1
Tempo Strawberry Butterfly	7.0 ^{NS}	7.0 ^{NS}	7.0 ^{NS}	7.0 ^{NS}	6.7 a	6.8 a	6.9 a	6.6 ^{NS}	0.7 ^{NS}	5.3 ^{NS}
Best of class: Super Elfin Deep Pink – PanAmerican Seed.										
<i>Single flower – purple, blue-violet shades/tints class</i>										
Carnival Lavender Blue	7.0	7.0	7.0	7.0	6.3	6.7	6.8	6.3	0.0	5.8 b
Dazzler Blue Pearl	7.0	7.0	7.0	7.0	6.0	6.5	6.8	6.3	0.0	6.0 ab
Super Elfin Blue Pear	7.0 ^{NS}	7.0 ^{NS}	7.0 ^{NS}	7.0 ^{NS}	6.0 ^{NS}	6.5 ^{NS}	6.8 ^{NS}	6.2 ^{NS}	0.0 ^{NS}	6.1 a
Best of class: Super Elfin Blue Pearl – PanAmerican Seed, uncontested.										
<i>Single flower – purple, red – violet shades/tints class</i>										
Raspberry Swirl	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.0	0.3	5.2
Tempo Lavender Butterfly	7.0 ^{NS}	7.0 ^{NS}	7.0 ^{NS}	7.0 ^{NS}	6.7 ^{NS}	6.8 ^{NS}	6.9 ^{NS}	6.5 ^{NS}	0.0 ^{NS}	5.3 ^{NS}
Best of class: Tempo Lavender Butterfly – Bodger Seeds.										
<i>Single flower – purple, red - violet/white shades/tints class</i>										
Stardust Violet	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.6	0.3	5.8
Best of class: Stardust Violet – PanAmerican Seed, uncontested.										

Table 4. Continued.

Cultivar	Arthropod - Flower			Disease - Flower			Overall Flower Pest Rating	Overall Fol./Flow. Pest Rating	Dead Plants	Adjusted Overall Performance
	2 May	26 May	Avg.	2 May	26 May	Avg.				
<i>Single flower – rose/white shades/tints class</i>										
Stardust Rose Improved	7.0	6.7	6.8	7.0	6.7	6.8	6.8	6.7	0.0	6.0
Best of class: Stardust Rose Improved – PanAmerican Seed, uncontested.										
<i>Single flower – red shades/tints class</i>										
Super Elfin Ruby	7.0	7.0	7.0	7.0	6.7 a	6.8 a	6.9 a	6.2 b	0.0	5.5
Tempo Cinnamon	7.0	7.0	7.0	7.0	5.7 b	6.3 b	6.7 b	6.4 ab	0.0	5.5
Tempo Lipstick	7.0 ^{NS}	7.0 ^{NS}	7.0 ^{NS}	7.0 ^{NS}	7.0 a	7.0 a	7.0 a	6.7 a	0.0	5.7 ^{NS}
Best of class: Tempo Lipstick – Bodger Seed.										