Colorado State University 2022-2023 Cool Season Trial Performance Report



Cool Season Trial Garden
1401 Remington Street Fort Collins, CO 80523
NE Corner of College Avenue and Lake Street
Colorado State University
Department of Horticulture and Landscape Architecture
www.flowertrials.colostate.edu

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For further information contact:

James E. Klett

Director, Annual Garden, Perennial Garden, & Cool Season Trials

Faculty Coordinator

Phone: (970) 218-0104

Fax: (970) 491-7745

E-mail: jim.klett@colostate.edu

Department of Horticulture and Landscape Architecture

Campus Delivery 1173

Fort Collins, CO 80523-1173

2022-2023 Cool Season Trial Performance Report

Dr. James E. Klett, David Staats, and Ian McLellan¹

Introduction

This is the fifteenth year that Colorado State University has conducted a Cool Season Trial at the Annual Flower Trial Garden. It marks the twenty-second year that the Annual Flower Trial Garden has been located adjacent to the University Center for the Arts at Colorado State University. The overall goal of this project is to determine which varieties of cool season plants are best suited for marketing and growing in the Rocky Mountain Region. Initial data was recorded in November 2022, then approximately every month from December 2022 to May 2023. Data was collected on a monthly basis when there was no snow coverage. Irrigation was monitored throughout the trials and any additional water given to these plants was recorded. The trials were evaluated by industry professionals and company representatives in early May 2023.

The cool season trials at Colorado State University have no specific operation dollars from university funds. Financial assistance, plant material, and other miscellaneous materials for the trials were acquired from sponsoring seed companies. Special thanks to Dale Kiyota at Kiyota Greenhouse for their generous support in growing a flat of each of the cool season varieties at a reduced cost. Some operational and staff dollars have come from Colorado State University Agricultural Experiment Station, Extension, and the Department of Horticulture and Landscape Architecture. Seed Companies that participated in this trial were: PanAmerican Seed, and Syngenta.

¹ Professor and Extension Landscape Horticulture Specialist: Horticulture Research Associate; Horticulture student and 2022-2023 Cool Season Trial Coordinator; respectively.

Cultural Data for the 2022-2023 Cool Season Trial Garden

Planting Days

All cool season plants were planted on October 12th, 2022. All plants arrived from Kiyota Greenhouse as rooted seedlings in a 50-cell tray. They were transplanted into planting beds located in the Annual Flower Trial Garden at 1401 Remington Street. There was one plant planted per hole, and 16 plants were planted in each of the three rows of the bed for a total of 48 plants per cultivar.

Watering

All precipitation and irrigation were monitored. Irrigation was utilized when natural precipitation was low and when ground media was not saturated. The beds were watered using the gardens irrigation system in October, November, December, April, and May. Watering from October through April was done with water from a frost-free line. The irrigation typically ran for 1 hour on a weekly basis when snow cover was not present. The irrigation system applies .39 inches of water per hour.

Weather Data October 2022 through May 2023

Winter temperatures in 2022-2023 were typical of a sporadic Colorado winter. However, we experienced a dramatic drop in temperature on Dec. 22nd through the 24th with a temperature drop from 49°F to -17°F in 24 hours with minimal snow cover. Depending on the amount of snow, the coverage on the trials lasted from a couple days to two months in length. There was consistent snow cover from January-early March, which provided some protection from temperatures in the low teens. The first hard freeze (temperatures below 25°F) after the trials were planted was recorded on October, 28, 2022 with a temperature of 24°F. Temperature data for the 2022-2023 Cool Season Trials is listed in Table 1. Weather records were provided from CSU Colorado Climate Center which are located on the main campus near the student center. Wind-chill factors are not included but can be quite significant in Colorado's winter climate.

Month	Avg.	Avg.	Precipitation	Snow
	Maximum	Minimum	(inches)	(inches)
	Temperature	Temperature		
	(°F)	(°F)		
October	68	36.2	0.2	0.2
November	48.5	21	0.79	9.2
December	42.5	15.7	0.32	4.0
January	38.7	18.4	0.79	8.8
February	47.2	17	0.41	4.8
March	49.1	23.8	1.15	15.7
April	63.2	32.9	1.27	5.0
May 1-15	69.87	45.6	2.84	0.0

https://climate.colostate.edu/data_access.html

Data Collection Methods

Ian McLellan (Horticulture student) collected data throughout the 2022-2023 Cool Season Trial.

The overall appearance rating scoring was: 1=poor condition (dying), 2=weak condition (struggling with some dieback), 3=average (few to no flowers with healthy foliage), 4=good condition (progressing flowers with healthy foliage growth), and 5 =great condition (many flowers with healthy uniform foliage growth).

The frost damage rating score was: 1 =poor condition (frost damage is significant), 2 =weak condition (struggling with some dieback), 3=average (healthy foliage), 4 =good condition (healthy foliage growth), and 5 =great condition (many flowers with healthy uniform foliage growth).

The bloom rate scoring was 1 = poor blooming (little to no blooms), 2 = minimal blooming (few blooms) 3 = average blooming (most are blooming, with several flowers), 4 = good blooming (multiple blooms on plants), 5 = great blooming (all plants are flowering prolifically)

Data was collected from November 2022 to May 2023 on a monthly basis.

Conclusion

The 2022-2023 Cool Season Trials overall were a success. There was consistent snow cover on the bed from January through the first week of March, which allowed for some protection from freezing temperatures. Some varieties struggled during this trial, but every pansy and viola variety had surviving plants

We thank all of our cooperators in the 2022-2023 Cool Season Trials for their support and look forward to your participation and support in the 2022-2023 Cool Season Trials.

2022-2023 CSU Cool Season Trial Winners

The evaluation day for the 2022-2023 CSU Cool Season Trial was held on May 3, 2023. Following are the winners from a season marked by severe cold and temperature fluctuations. On December 22, the high temperature was 49° F and in a little more than a 24-hour span, the temperature dropped to -17° F on December 23rd. The temperature plunged 49° F to -6° F and happened in a matter of about 4 hours, without any snow cover. Snow fall occurred a few hours later. In January and February, low temperatures of -11°F and -13°F respectively, were recorded.

In the 2022-2023 Cool Season trial, many selections in the Freefall™ Series were noted to be especially nice due the vigorous spreading plants. Winter survival was impressive for such a severe winter. This was the second year in a row that many in the Freefall™ Series were recognized for superior performance. The plants looked great in the ground trial but would also work well trailing over the side of containers.

Viola x wittrockiana Freefall™ XL Blue Picotee Shades from Syngenta Flowers

Selected as the "Best of Show" from the Cool Season Trial, it was an obvious and unanimous choice among the evaluators. It was the first in the trial to rebound from the winter and had excellent winter survival. Flowering was very prolific, and flowers faced upward providing maximum flower power. Multiple shades of blue added interest with the white and yellow in the flower face. Spreading plants had good vigor and great uniformity.

Viola x wittrockiana Freefall™ Mariana from Syngenta Flowers

This entry was selected as a winner in the 2021-2022 trial as well. For two years in a row, it was noted for strong vigor and a classic blue and white pattern. As one evaluator described it, it "speaks spring". Flowering was prolific and it had an excellent growth habit and good uniformity.

Viola x wittrockiana Freefall™ Sundown from Syngenta Flowers

Another repeat winner from the 2021-2022 trial. Flowers had good depth of color with nice contrast between the dark violet and yellow. Whiskers were an added bonus on the abundant flowers. Winter hardiness was excellent without any losses or dieback. Plants and flowers had nice size as well as being very uniform.

Viola cornuta Endurio[®] Bue Face from Syngenta Flowers

This entry was a true viola and had excellent winter survival (100%) along with impressive "cuteness" appeal. Flowers were abundant and the color was very solid with no signs of fading. It was a nice tricolor that with a novel appearance of yellow, white and shades of lavender blue along the outer petal.

Survival Data

Survival data was collected at the end of April 2023. The data was based on how survival percentage out of the 48 plants per variety. A plant that was considered to have survived was any plant that had green vegetative growth. '*' Denotes plantings of less than 48 plants.

Genus	Variety	Company	% Survival
Viola cornuta	Endurio Blue Face	Syngenta	98
Viola cornuta	Endurio Pure Violet Imp.	Syngenta	88
Viola x wittrockiana	Cool Wave Blue	PanAmerican Seed	93*
Viola x wittrockiana	Cool Wave Lemon	PanAmerican Seed	65*
Viola x wittrockiana	Cool Wave Purple	PanAmerican Seed	98
Viola x wittrockiana	Cool Wave White	PanAmerican Seed	67
Viola x wittrockiana	Cool Wave Yellow Golden	PanAmerican Seed	93*
Viola x wittrockiana	Delta Premium Blue with Blotch	Syngenta	54
Viola x wittrockiana	Delta Premium Deep Blue	Syngenta	65
Viola x wittrockiana	Delta Premium Gold with Blotch	Syngenta	27
Viola x wittrockiana	Delta Premium Neon Violet	Syngenta	75
Viola x wittrockiana	Delta Premium Pure Lemon	Syngenta	83
Viola x wittrockiana	Delta Premium Pure Light Blue	Syngenta	50
Viola x wittrockiana	Delta Premium Pure Orange	Syngenta	60
Viola x wittrockiana	Delta Premium Pure Violet	Syngenta	31
Viola x wittrockiana	Delta Premium Pure White Imp.	Syngenta	73
Viola x wittrockiana	Delta Premium Pure Yellow	Syngenta	67
Viola x wittrockiana	Delta Premium Red with Blotch	Syngenta	42
Viola x wittrockiana	Delta Premium True Blue	Syngenta	67
Viola x wittrockiana	Delta Premium Violet & White	Syngenta	33

Genus	Variety	Company	% Survival
Viola x wittrockiana	Delta Premium White with Blotch	Syngenta	42
Viola x wittrockiana	Delta Premium Yellow with Blotch	Syngenta	77
Viola x wittrockiana	Delta Premium Yellow with Purple Wing	Syngenta	63
Viola x wittrockiana	Delta Premium Yellow with Red Wing	Syngenta	81
Viola x wittrockiana	Delta Pro Clear Light Blue	Syngenta	71
Viola x wittrockiana	Delta Pro Clear Orange	Syngenta	90
Viola x wittrockiana	Delta Pro Clear Violet	Syngenta	75
Viola x wittrockiana	Delta Pro Clear White	Syngenta	69
Viola x wittrockiana	Delta Pro Clear Yellow	Syngenta	94
Viola x wittrockiana	Delta Pro Deep Blue with Blotch	Syngenta	48
Viola x wittrockiana	Delta Pro Lavender Blue Shades	Syngenta	71
Viola x wittrockiana	Delta Pro Neon Violet	Syngenta	75
Viola x wittrockiana	Delta Pro Red with Blotch	Syngenta	48
Viola x wittrockiana	Delta Pro True Blue	Syngenta	56
Viola x wittrockiana	Delta Pro Violet & White	Syngenta	40
Viola x wittrockiana	Delta Pro White with Blotch	Syngenta	46
Viola x wittrockiana	Delta Pro Yellow with Blotch	Syngenta	52
Viola x wittrockiana	Delta Pro Yellow with Red Wing	Syngenta	75
Viola x wittrockiana	Freefall Deep Violet	Syngenta	79
Viola x wittrockiana	Freefall Marina	Syngenta	98
Viola x wittrockiana	Freefall Morpho	Syngenta	88
Viola x wittrockiana	Freefall Purple & White	Syngenta	71
Viola x wittrockiana	Freefall Purple Wing	Syngenta	85
Viola x wittrockiana	Freefall Sundown	Syngenta	92
Viola x wittrockiana	Freefall True Blue	Syngenta	54
Viola x wittrockiana	Freefall XL Blue Picotee Shades	Syngenta	96

Genus	Variety	Company	% Survival
Viola x wittrockiana	Freefall XL Blue Picotee Shades	Syngenta	100
Viola x wittrockiana	Freefall XL Bright Yellow	Syngenta	69
Viola x wittrockiana	Freefall XL Fire	Syngenta	66
Viola x wittrockiana	Select Orange with Blotch	Syngenta	69

Cool Wave Blue – only 14 planted due to propagation problem
Cool Wave Lemon – only 17 planted due to propagation problem
Cool Wave Yellow Golden – only 43 planted due to propagation problem

Frost Damage Rating by Student Coordinator

Frost Damage data was collected on a monthly basis. On a scale of 1-5, 1 represents significant frost damage while 5 represents great condition with healthy growth. "D" represents dead with no visible vegetation.

Genus	Variety	Company	Nov	Dec	March	April	May
Viola cornuta	Endurio Blue Face	Syngenta	5	5	5	5	5
Viola cornuta	Endurio Pure Violet Imp.	Syngenta	5	4	5	4	4
Viola x wittrockiana	Cool Wave Blue	PanAmerican Seed	5	5	4	4	4
Viola x wittrockiana	Cool Wave Lemon	PanAmerican Seed	5	5	3	2	1
Viola x wittrockiana	Cool Wave Purple	PanAmerican Seed	5	5	4	4	5
Viola x wittrockiana	Cool Wave White	PanAmerican Seed	5	5	2	2	3
Viola x wittrockiana	Cool Wave Yellow Golden	PanAmerican Seed	5	5	3	4	4
Viola x wittrockiana	Delta Premium Blue with Blotch	Syngenta	5	5	4	3	2
Viola x wittrockiana	Delta Premium Deep Blue	Syngenta	5	5	3	2	2
Viola x wittrockiana	Delta Premium Gold with Blotch	Syngenta	5	3	1	2	1
Viola x wittrockiana	Delta Premium Neon Violet	Syngenta	5	3	4	3	3
Viola x wittrockiana	Delta Premium Pure Lemon	Syngenta	5	5	4	4	4
Viola x wittrockiana	Delta Premium Pure Light Blue	Syngenta	5	5	2	3	2
Viola x wittrockiana	Delta Premium Pure Orange	Syngenta	4	5	3	3	2
Viola x wittrockiana	Delta Premium Pure Violet	Syngenta	5	4	2	1	1
Viola x wittrockiana	Delta Premium Pure White Imp.	Syngenta	4	3	2	3	3
Viola x wittrockiana	Delta Premium Pure Yellow	Syngenta	5	3	4	3	3
Viola x wittrockiana	Delta Premium Red with Blotch	Syngenta	4	5	2	2	2
Viola x wittrockiana	Delta Premium True Blue	Syngenta	5	3	5	3	3

Genus	Variety	Company	Nov	Dec	March	April	May
Viola x wittrockiana	Delta Premium Violet & White	Syngenta	5	3	2	2	1
Viola x wittrockiana	Delta Premium White with Blotch	Syngenta	5	5	2	2	1
Viola x wittrockiana	Delta Premium Yellow with Blotch	Syngenta	5	5	3	3	3
Viola x wittrockiana	Delta Premium Yellow with Purple Wing	Syngenta	4	4	4	3	3
Viola x wittrockiana	Delta Premium Yellow with Red Wing	Syngenta	5	5	4	3	3
Viola x wittrockiana	Delta Pro Clear Light Blue	Syngenta	4	5	4	4	3
Viola x wittrockiana	Delta Pro Clear Orange	Syngenta	4	5	4	4	3
Viola x wittrockiana	Delta Pro Clear Violet	Syngenta	5	3	3	3	3
Viola x wittrockiana	Delta Pro Clear White	Syngenta	5	4	3	4	2
Viola x wittrockiana	Delta Pro Clear Yellow	Syngenta	5	4	5	4	5
Viola x wittrockiana	Delta Pro Deep Blue with Blotch	Syngenta	5	4	4	3	2
Viola x wittrockiana	Delta Pro Lavender Blue Shades	Syngenta	5	5	4	4	3
Viola x wittrockiana	Delta Pro Neon Violet	Syngenta	5	4	5	3	3
Viola x wittrockiana	Delta Pro Red with Blotch	Syngenta	5	4	2	2	2
Viola x wittrockiana	Delta Pro True Blue	Syngenta	5	5	3	3	3
Viola x wittrockiana	Delta Pro Violet & White	Syngenta	5	5	2	3	1
Viola x wittrockiana	Delta Pro White with Blotch	Syngenta	4	5	2	2	2
Viola x wittrockiana	Delta Pro Yellow with Blotch	Syngenta	5	5	2	2	2
Viola x wittrockiana	Delta Pro Yellow with Red Wing	Syngenta	5	3	5	3	4
Viola x wittrockiana	Freefall Deep Violet	Syngenta	5	5	4	3	3
Viola x wittrockiana	Freefall Marina	Syngenta	5	5	5	4	4
Viola x wittrockiana	Freefall Morpho	Syngenta	5	3	5	4	3
Viola x wittrockiana	Freefall Purple & White	Syngenta	4	4	5	4	3
Viola x wittrockiana	Freefall Purple Wing	Syngenta	5	5	4	4	3
Viola x wittrockiana	Freefall Sundown	Syngenta	4	4	4	4	4
Viola x wittrockiana	Freefall True Blue	Syngenta	4	4	3	3	3

Genus	Variety	Company	Nov	Dec	March	April	May
Viola x wittrockiana	Freefall XL Blue Picotee Shades	Syngenta	4	4	3	4	4
Viola x wittrockiana	Freefall XL Blue Picotee Shades	Syngenta	5	5	5	5	5
Viola x wittrockiana	Freefall XL Bright Yelow	Syngenta	4	5	3	3	4
Viola x wittrockiana	Freefall XL Fire	Syngenta	5	3	2	2	2
Viola x wittrockiana	Select Orange with Blotch	Syngenta	5	5	3	2	3

Overall Appearance Rating by Student Coordinator

Overall Appearance data was collected on a monthly basis. On a scale of 1-5, 1 represents dying while 5 represents great condition with healthy growth. "D" represents dead with no visible vegetation.

Genus	Variety	Company	Nov	Dec	March	April	May
Viola cornuta	Endurio Blue Face	Syngenta	4	3	4	4	4
Viola cornuta	Endurio Pure Violet Imp.	Syngenta	4	3	4	3	3
Viola x wittrockiana	Cool Wave Blue	PanAmerican Seed	5	4	3	4	4
Viola x wittrockiana	Cool Wave Lemon	PanAmerican Seed	4	4	2	2	2
Viola x wittrockiana	Cool Wave Purple	PanAmerican Seed	4	4	2	4	3
Viola x wittrockiana	Cool Wave White	PanAmerican Seed	5	3	1	2	2
Viola x wittrockiana	Cool Wave Yellow Golden	PanAmerican Seed	4	3	2	2	4
Viola x wittrockiana	Delta Premium Blue with Blotch	Syngenta	4	3	3	3	2
Viola x wittrockiana	Delta Premium Deep Blue	Syngenta	4	4	2	2	2
Viola x wittrockiana	Delta Premium Gold with Blotch	Syngenta	4	3	1	2	1
Viola x wittrockiana	Delta Premium Neon Violet	Syngenta	4	3	2	3	2
Viola x wittrockiana	Delta Premium Pure Lemon	Syngenta	5	3	3	3	3
Viola x wittrockiana	Delta Premium Pure Light Blue	Syngenta	5	4	2	2	2
Viola x wittrockiana	Delta Premium Pure Orange	Syngenta	3	4	2	2	2
Viola x wittrockiana	Delta Premium Pure Violet	Syngenta	4	4	2	1	1
Viola x wittrockiana	Delta Premium Pure White Imp.	Syngenta	3	3	1	2	2
Viola x wittrockiana	Delta Premium Pure Yellow	Syngenta	5	3	2	2	3
Viola x wittrockiana	Delta Premium Red with Blotch	Syngenta	4	4	1	2	2
Viola x wittrockiana	Delta Premium True Blue	Syngenta	5	4	2	3	3
Viola x wittrockiana	Delta Premium Violet & White	Syngenta	3	3	2	2	2

Genus	Variety	Company	Nov	Dec	March	April	May
Viola x wittrockiana	Delta Premium White with Blotch	Syngenta	5	4	1	2	2
Viola x wittrockiana	Delta Premium Yellow with Blotch	Syngenta	4	4	2	2	3
Viola x wittrockiana	Delta Premium Yellow with Purple Wing	Syngenta	4	3	2	3	2
Viola x wittrockiana	Delta Premium Yellow with Red Wing	Syngenta	4	3	2	2	3
Viola x wittrockiana	Delta Pro Clear Light Blue	Syngenta	4	4	2	4	3
Viola x wittrockiana	Delta Pro Clear Orange	Syngenta	4	3	1	3	3
Viola x wittrockiana	Delta Pro Clear Violet	Syngenta	4	3	2	3	2
Viola x wittrockiana	Delta Pro Clear White	Syngenta	5	4	2	1	2
Viola x wittrockiana	Delta Pro Clear Yellow	Syngenta	4	4	3	3	5
Viola x wittrockiana	Delta Pro Deep Blue with Blotch	Syngenta	4	4	3	3	2
Viola x wittrockiana	Delta Pro Lavender Blue Shades	Syngenta	5	4	2	4	3
Viola x wittrockiana	Delta Pro Neon Violet	Syngenta	4	4	3	2	3
Viola x wittrockiana	Delta Pro Red with Blotch	Syngenta	3	3	1	2	2
Viola x wittrockiana	Delta Pro True Blue	Syngenta	5	3	2	3	3
Viola x wittrockiana	Delta Pro Violet & White	Syngenta	5	3	2	3	2
Viola x wittrockiana	Delta Pro White with Blotch	Syngenta	5	3	2	2	2
Viola x wittrockiana	Delta Pro Yellow with Blotch	Syngenta	3	4	1	2	2
Viola x wittrockiana	Delta Pro Yellow with Red Wing	Syngenta	5	4	3	3	3
Viola x wittrockiana	Freefall Deep Violet	Syngenta	3	3	2	3	3
Viola x wittrockiana	Freefall Marina	Syngenta	4	3	4	4	5
Viola x wittrockiana	Freefall Morpho	Syngenta	5	3	3	4	3
Viola x wittrockiana	Freefall Purple & White	Syngenta	5	4	4	4	4
Viola x wittrockiana	Freefall Purple Wing	Syngenta	4	3	2	4	3
Viola x wittrockiana	Freefall Sundown	Syngenta	5	3	4	3	5
Viola x wittrockiana	Freefall True Blue	Syngenta	5	3	2	3	3
Viola x wittrockiana	Freefall XL Blue Picotee Shades	Syngenta	5	3	3	3	4

Genus	Variety	Company	Nov	Dec	March	April	May
Viola x wittrockiana	Freefall XL Blue Picotee Shades	Syngenta	4	3	4	5	5
Viola x wittrockiana	Freefall XL Bright Yelow	Syngenta	5	4	2	3	4
Viola x wittrockiana	Freefall XL Fire	Syngenta	5	3	2	2	2
Viola x wittrockiana	Select Orange with Blotch	Syngenta	4	3	2	2	3

Bloom Rating by Student Coordinator

Bloom Rating data was collected on a monthly basis. On a scale of 1-5, 1 represents no blooms while 5 represents prolific flowering. "D" represents dead with no visible vegetation.

Genus	Variety	Company	Nov	Dec	March	April	May
Viola cornuta	Endurio Blue Face	Syngenta	4	1	3	4	4
Viola cornuta	Endurio Pure Violet Imp.	Syngenta	3	1	3	3	3
Viola x wittrockiana	Cool Wave Blue	PanAmerican Seed	3	2	3	4	4
Viola x wittrockiana	Cool Wave Lemon	PanAmerican Seed	4	2	1	2	2
Viola x wittrockiana	Cool Wave Purple	PanAmerican Seed	4	1	2	2	3
Viola x wittrockiana	Cool Wave White	PanAmerican Seed	3	1	1	1	2
Viola x wittrockiana	Cool Wave Yellow Golden	PanAmerican Seed	4	2	1	2	4
Viola x wittrockiana	Delta Premium Blue with Blotch	Syngenta	3	1	1	1	2
Viola x wittrockiana	Delta Premium Deep Blue	Syngenta	3	1	1	1	2
Viola x wittrockiana	Delta Premium Gold with Blotch	Syngenta	4	2	1	1	1
Viola x wittrockiana	Delta Premium Neon Violet	Syngenta	3	1	1	2	2
Viola x wittrockiana	Delta Premium Pure Lemon	Syngenta	4	2	2	1	3
Viola x wittrockiana	Delta Premium Pure Light Blue	Syngenta	3	1	1	2	2
Viola x wittrockiana	Delta Premium Pure Orange	Syngenta	3	1	1	1	2
Viola x wittrockiana	Delta Premium Pure Violet	Syngenta	4	1	1	1	1
Viola x wittrockiana	Delta Premium Pure White Imp.	Syngenta	3	1	1	1	2
Viola x wittrockiana	Delta Premium Pure Yellow	Syngenta	4	2	1	2	3
Viola x wittrockiana	Delta Premium Red with Blotch	Syngenta	4	2	1	1	2
Viola x wittrockiana	Delta Premium True Blue	Syngenta	3	1	2	3	3
Viola x wittrockiana	Delta Premium Violet & White	Syngenta	4	1	1	1	2

Genus	Variety	Company	Nov	Dec	March	April	May
Viola x wittrockiana	Delta Premium White with Blotch	Syngenta	4	1	1	1	2
Viola x wittrockiana	Delta Premium Yellow with Blotch	Syngenta	4	1	1	1	3
Viola x wittrockiana	Delta Premium Yellow with Purple Wing	Syngenta	3	1	1	3	2
Viola x wittrockiana	Delta Premium Yellow with Red Wing	Syngenta	4	1	2	2	3
Viola x wittrockiana	Delta Pro Clear Light Blue	Syngenta	3	1	1	3	3
Viola x wittrockiana	Delta Pro Clear Orange	Syngenta	3	1	1	1	3
Viola x wittrockiana	Delta Pro Clear Violet	Syngenta	3	2	1	1	2
Viola x wittrockiana	Delta Pro Clear White	Syngenta	4	1	1	1	2
Viola x wittrockiana	Delta Pro Clear Yellow	Syngenta	3	2	1	2	5
Viola x wittrockiana	Delta Pro Deep Blue with Blotch	Syngenta	3	1	1	1	2
Viola x wittrockiana	Delta Pro Lavender Blue Shades	Syngenta	3	2	1	2	3
Viola x wittrockiana	Delta Pro Neon Violet	Syngenta	3	1	1	1	3
Viola x wittrockiana	Delta Pro Red with Blotch	Syngenta	3	1	1	1	2
Viola x wittrockiana	Delta Pro True Blue	Syngenta	4	1	1	2	3
Viola x wittrockiana	Delta Pro Violet & White	Syngenta	4	1	1	1	2
Viola x wittrockiana	Delta Pro White with Blotch	Syngenta	3	1	1	1	2
Viola x wittrockiana	Delta Pro Yellow with Blotch	Syngenta	3	2	1	1	2
Viola x wittrockiana	Delta Pro Yellow with Red Wing	Syngenta	3	1	3	3	3
Viola x wittrockiana	Freefall Deep Violet	Syngenta	4	2	1	2	3
Viola x wittrockiana	Freefall Marina	Syngenta	4	2	4	5	5
Viola x wittrockiana	Freefall Morpho	Syngenta	4	2	2	2	3
Viola x wittrockiana	Freefall Purple & White	Syngenta	3	2	4	4	4
Viola x wittrockiana	Freefall Purple Wing	Syngenta	3	1	1	2	3
Viola x wittrockiana	Freefall Sundown	Syngenta	4	1	4	3	5
Viola x wittrockiana	Freefall True Blue	Syngenta	4	2	1	4	3
Viola x wittrockiana	Freefall XL Blue Picotee Shades	Syngenta	4	2	2	4	4

Genus	Variety	Company	Nov	Dec	March	April	May
Viola x wittrockiana	Freefall XL Blue Picotee Shades	Syngenta	4	2	4	4	5
Viola x wittrockiana	Freefall XL Bright Yelow	Syngenta	4	2	2	3	4
Viola x wittrockiana	Freefall XL Fire	Syngenta	4	1	2	1	2
Viola x wittrockiana	Select Orange with Blotch	Syngenta	4	2	1	2	3

Genus	Cultivar	Company Name	Evaluator Comments*	Rating **	Additional Comments on 5/3/2023
Viola cornuta	Endurio Blue Face	Syngenta	[10] Many Flowers, [1] Great Foliage, [1] Non-Uniform, [1] Unique Colors, [1] Vibrant Flower Color, [2] Low Vigor, [2] Unique Flower Color, [5] Vigorous Plant, [8] Uniform	3.90	Excellent winter survival; Good vigor very consistent; Lovely tricolor flower; Many flowers; Good sized plants; Nice balanced plants; Plants not up to size; True viola
Viola cornuta	Endurio Pure Violet Imp.	Syngenta	[1] Few Flowers, [1] Great Foliage, [1] Unique Colors, [2] Low Vigor, [2] Uniform, [3] Vibrant Flower Color, [3] Vigorous Plant, [5] Many Flowers, [5] Non-Uniform	3.10	Flower spotting; Few dead plants; Good color inconsistent growth; Less balanced foliage to flowers; Moderate vigor; Looks good, Size difference between plants; Some died out; True viola; Plants too small
Viola x wittrockiana	Cool Wave Blue	PanAmerican Seed	[1] Unique Flower, [1] Unique Flower Color, [2] Great Foliage, [2] Low Vigor, [5] Vibrant Flower Color, [5] Vigorous Plant, [6] Uniform, [9] Many Flowers	3.40	Best of the group; Nice spreading habit; Good growth on all but 2 plants; Great flower color; Fills out nicely; High rate of plant mortality; Fairly uniform and floriferous; Only a few plants planted due to propagation problem but those that are there look very good; What survived looks good
Viola x wittrockiana	Cool Wave Lemon	PanAmerican Seed	[1] Disease Present, [1] Uniform, [1] Unique Colors, [4] Few Flowers, [5] Non-Uniform, [8] Low Vigor	1.50	Color nice; about 35% plants died due to winter; High mortality; Only a few plants planted (propagation problem); Not enough to evaluate; Unique light yellow color; Very few flowers
Viola x wittrockiana	Cool Wave Purple	PanAmerican Seed	[1] Disease Present, [1] Few Flowers, [1] Great Foliage, [1] Low Vigor, [1] Unique Colors, [1] Unique Flower Color, [2] Vibrant Flower Color, [3] Non-Uniform, [4] Many Flowers, [4] Uniform, [7] Vigorous Plant	3.50	Great flower color; Some size difference in plants; Ground covering foliage dappled with balanced flowers; Larger plants in block quite floriferous but not uniform; More light purple; All survived; Some plants have great spread; Spreading habit just okay color; Vigor ranges from good to excellent; Flowering is moderate.
Viola x wittrockiana	Cool Wave White	PanAmerican Seed	[1] Many Flowers, [1] Uniform, [1] Vibrant Flower Color, [1] Vigorous Plant, [5] Non-Uniform, [7] Few Flowers, [9] Low Vigor	1.80	Could be good later, Creamy white, More of a creeper. Many plants died. Inconsistent flowering on alive plants, More than half stunted and or lost, Small plants; about 50 percent survival; Surviving plants quite small; nice color though not as vigorous a they could be but survived
Viola x wittrockiana	Cool Wave Yellow Golden	PanAmerican Seed	[10] Many Flowers, [1] Great Foliage, [2] Unique Flower Color, [4] Non-Uniform, [4] Vibrant Flower Color, [5] Uniform, [8] Vigorous Plant	3.60	Good spread on many plants; Nice clean yellow flowers; Probably biggest detriment is lack of uniformity; Smaller yellow flower; good survival; Some size difference in plants; Many flowers; Eye catcher even from the road; Sprawling habit
Viola x wittrockiana	Delta Premium Blue with Blotch	Syngenta	[1] Disease Present, [1] Many Flowers, [3] Vibrant Flower Color, [5] Few Flowers, [8] Low Vigor, [8] Non- Uniform	1.90	About 30 percent survival; Flower good size; Nice large flower; Nice sized flowers; about 1/2 of surviving plants have flowers; Small plants; Inconsistent flowers; Still slightly better than the new Pro series; Vigor is variable
Viola x wittrockiana	Delta Premium Deep Blue	Syngenta	[1] Vibrant Flower Color, [2] Few Flowers, [2] Many Flowers, [2] Uniform, [3] Non-Uniform, [8] Low Vigor	2.00	About 50 percent survival; Larger flowers for small plants; Lost about 50% during the winter; Small plants; Some dieback.
Viola x wittrockiana	Delta Premium Gold with Blotch	Syngenta	[1] Uniform, [1] Vibrant Flower Color, [2] Many Flowers, [2] Vigorous Plant, [4] Few Flowers, [6] Non-Uniform, [7] Low Vigor	1.50	About 20 percent survival; Barely a just enough plant and color; Barely survived; Dieback; Just 3 flowers; Massive die back; Very few plants have flowers; Mostly dead; Winter survival is very poor with only about 10 to 20% alive
Viola x wittrockiana	Delta Premium Neon Violet	Syngenta	[1] Vigorous Plant, [2] Few Flowers, [2] Uniform, [2] Vibrant Flower Color, [3] Many Flowers, [3] Unique Flower Color, [4] Low Vigor, [5] Non-Uniform	2.70	About 85-90% survival; Flowering is moderate; I like the contrast in color; Not uniform; Few plants with decent flowering but others not a lot of flowering; Some death; Some winter death; Vibrant flower; Small plants; Plants way undersized
Viola x wittrockiana	Delta Premium Pure Lemon	Syngenta	[1] Few Flowers, [1] Low Vigor, [1] Non-Uniform, [1] Unique Flower, [1] Unique Flower Color, [4] Vigorous Plant, [5] Uniform, [6] Vibrant Flower Color, [9] Many Flowers	3.50	All survived; Larger flower, Big buttery color on small plants; Dainty flowers; Some die back; Plants with flowers are full; Edges blooming more than on other areas of plant; Good winter survival although uniformity of vigor is a little off; Abundant large yellow flowers are showing; In general one of the varieties with quickest rebound from winter; Cheerful strong lemon color with upward facing flowers; Decent sized plants; Good survival

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Viola x wittrockiana	Delta Premium Pure Light Blue	Syngenta	[1] Disease Present, [1] Uniform, [1] Unique Flower Color, [1] Vibrant Flower Color, [2] Many Flowers, [4] Few Flowers, [5] Non-Uniform, [8] Low Vigor	1.90	1/3 of row is dead; Good flower color; More than half stunted and or lost; Small plants; Some dieback.
Viola x wittrockiana	Delta Premium Pure Orange	Syngenta	[1] Disease Present, [1] Many Flowers, [1] Unique Flower Color, [2] Uniform, [2] Unique Colors, [3] Few Flowers, [7] Non-Uniform, [9] Low Vigor	2.00	All orange flower; About 60% survival; Fairly good flowering of those survivors; Flowers seem a bit reflexed; Nice soft orange color; Small plants and not many flowers; Some dieback.
/iola x wittrockiana	Delta Premium Pure Violet	Syngenta	[1] Disease Present, [3] Non-Uniform, [4] Few Flowers, [8] Low Vigor	1.20	Only 8 plants remain; quite irregular even for living plants; About 95% died during winter; High percentage of winter kill; Many dead; Massive die back; Only small plants that are alive
/iola x wittrockiana	Delta Premium Pure White Imp.	Syngenta	[1] Disease Present, [3] Non-Uniform, [5] Uniform, [7] Few Flowers, [8] Low Vigor	1.70	All plants stunted; Essentially no flowers; Decent survival but no color; Not many flowers; Some death due to winter; Very small plants; few flowers; Winter survival is good but vigor is a little low and flowers are very sparse
/iola x wittrockiana	Delta Premium Pure Yellow	Syngenta	[1] Uniform, [1] Unique Flower Color, [2] Few Flowers, [2] Low Vigor, [3] Vigorous Plant, [5] Many Flowers, [6] Vibrant Flower Color, [8] Non-Uniform	2.40	80 percent are flowering; Decent flowering on those that are alive; lacks uniformity, Large flowers and about 80% survival; Many plants stunted; Rich yellow color; Some dieback; Some winter death; Large flowers on inconsistently sized plants
/iola x wittrockiana	Delta Premium Red with Blotch	Syngenta	[1] Disease Present, [2] Uniform, [2] Unique Flower Color, [2] Vibrant Flower Color, [4] Few Flowers, [6] Non-Uniform, [9] Low Vigor	1.60	About 50 percent survival; Low survival irregular flowering; Massive die back; Great flower color; Mostly stunted or dead; Some dieback; Winter survival is around 75% but plants are still very small
/iola x wittrockiana	Delta Premium True Blue	Syngenta	[1] Disease Present, [1] Few Flowers, [1] Unique Colors, [1] Unique Flower Color, [2] Vibrant Flower Color, [2] Vigorous Plant, [3] Non-Uniform, [4] Uniform, [5] Many Flowers, [7] Low Vigor	2.70	About 80 percent survived; Good flower color; Great flower color; Smaller plants; Winter death; Lots of flowers per individual plant; Lovely clear blue color; Nice bright blue; Only a couple of plant left alive but they look good; Some stunted
/iola x wittrockiana	Delta Premium Violet & White	Syngenta	[1] Many Flowers, [1] Unique Flower Color, [2] Few Flowers, [6] Low Vigor, [6] Non-Uniform	1.60	At least 2/3 are dead; High rate of mortality; Massive death; Small plants that survived; Not many flowers; Mostly dead; Good color on two that are alive; One plant looks good
/iola x wittrockiana	Delta Premium White with Blotch	Syngenta	[1] Disease Present, [1] Unique Colors, [1] Unique Flower, [6] Few Flowers, [7] Non-Uniform, [8] Low Vigor	1.20	About 30 percent survival few flowers; Massive die back; Very small plants; Most stunted; Lots of loss; Poor winter survival and low vigor
/iola x wittrockiana	Delta Premium Yellow with Blotch	Syngenta	[1] Many Flowers, [1] Unique Flower Color, [1] Vigorous Plant, [2] Vibrant Flower Color, [3] Uniform, [5] Non- Uniform, [6] Low Vigor, [7] Few Flowers	2.20	Irregular flowering; sone plants don't have any flowers; Mostly stunted; Nice dark blotch; Winter survival is 100%
/iola x wittrockiana	Delta Premium Yellow with Purple Wing	Syngenta	[1] Color Does Not Match Name, [1] Few Flowers, [1] Many Flowers, [1] Unique Flower, [2] Unique Colors, [2] Unique Flower Color, [2] Vibrant Flower Color, [3] Uniform, [4] Non-Uniform, [6] Low Vigor	2.50	Color is fading on some; Good flowering on the 80% that survived; Many plants stunted or lost due to winter; Small plants; Great flower colors and color combo; Those plants that have flowers have several flowers; Variable flower colors; Some dieback; Yellow color fades; 70 percent survival
/iola x wittrockiana	Delta Premium Yellow with Red Wing	Syngenta	[1] Unique Colors, [1] Unique Flower, [1] Unique Flower Color, [1] Vigorous Plant, [2] Many Flowers, [2] Non- Uniform, [2] Vibrant Flower Color, [4] Few Flowers, [7] Uniform, [8] Low Vigor	2.70	All survived but not vigorous; Good amount of flowers on very petite plants; Mostly stunted; equal to new Pro counterpart; Similar to Delta Pro; clubby growth habit; decent flowering; Winter survival is near 100% but plants are still a little small and just beginning to flower but still showy.
/iola x wittrockiana	Delta Pro Clear Light Blue	Syngenta	[1] Disease Present, [1] Few Flowers, [1] Unique Flower, [1] Unique Flower Color, [1] Vibrant Flower Color, [2] Vigorous Plant, [3] Non-Uniform, [3] Uniform, [4] Low Vigor, [6] Many Flowers	2.90	About 80 percent survived; Better survival than Delta Premium; Great flowers; Better than Premium counterpart; Nice large frilly flower; Small plants; Minimal dieback; Surviving plants look pretty decent; Quite floriferous

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Viola x wittrockiana	Delta Pro Clear Orange	Syngenta	[2] Vigorous Plant, [3] Few Flowers, [3] Many Flowers, [3] Unique Flower Color, [3] Vibrant Flower Color, [4] Low Vigor, [4] Non-Uniform, [6] Uniform	3.20	About 15 or 20% of plants have low vigor but the rest look good; Medium vigor; Good flower to foliage ratio; Minimal dieback; Not great but showing color; Smaller plants; Good flower texture and colors; Soft orange color with upward facing flowers; Some loss and stunting but better than Premium counterpart; True orange with 90 percent survival
Viola x wittrockiana	Delta Pro Clear Violet	Syngenta	[1] Disease Present, [1] Unique Flower Color, [2] Many Flowers, [2] Uniform, [3] Few Flowers, [3] Non-Uniform, [7] Low Vigor	2.10	Decent amount of flowers for plant size; Some death; Like the color; Small plants; Moderate vigor; Winter survival is near 100% but some are significantly smaller and not flowering yet; Most are alive; Small plants and not vigorous.
Viola x wittrockiana	Delta Pro Clear White	Syngenta	[1] Disease Present, [3] Non-Uniform, [4] Uniform, [7] Few Flowers, [8] Low Vigor	1.70	A little bigger plant that's all; Decent survival, uniform plants, lack flowering; All plants stunted; Not vigorous; few flowers; Small plants; Some winter death; Small plants; Not many flowers; This has potential as most plants overwintered; Think it just needs more time to rebound
Viola x wittrockiana	Delta Pro Clear Yellow	Syngenta	[10] Many Flowers, [1] Low Vigor, [1] Unique Flower Color, [2] Non-Uniform, [3] Vigorous Plant, [5] Vibrant Flower Color, [7] Uniform	3.20	100% winter survival; Better than premium counterpart; Bold color catches the eye; Decent uniformity; not the very best; nice ratio plant to flower size; Eye catcher from the road; Smaller plants; Many flowers; Huge upward facing flowers; Large flower; Many flowers; Great balance of foliage and flowers.
Viola x wittrockiana	Delta Pro Deep Blue with Blotch	Syngenta	[1] Disease Present, [1] Unique Colors, [1] Unique Flower, [3] Non-Uniform, [4] Few Flowers, [9] Low Vigor	1.50	About 20% failed to survive winter and remainder are slow to flower; About 70 percent survival but very few flowers; Small plants; some dieback; Lots of plants surviving but not flowering (~2/3) of surging plants without color; Many plants stunted or dead from cold; Winter death; Really small plants; Inconsistent flowers
/iola x wittrockiana	Delta Pro Lavender Blue Shades	Syngenta	[1] Disease Present, [1] Few Flowers, [1] Unique Colors, [1] Vigorous Plant, [2] Vibrant Flower Color, [3] Low Vigor, [3] Non-Uniform, [3] Uniform, [3] Unique Flower Color, [8] Many Flowers	2.80	Decent survival; lots of flowers on each individual surviving plant; like the multi hue plants; Flower color breaking; Small plants; Flower color fades; 90 percent survival, Good flower coverage; Great fade of flowers to lavender; Nice range of Lavender shades; Browning of the lighter shades as flowers age detracts from overall appearance
/iola x wittrockiana	Delta Pro Neon Violet	Syngenta	[1] Disease Present, [1] Many Flowers, [1] Uniform, [1] Unique Flower Color, [1] Vigorous Plant, [2] Unique Colors, [3] Vibrant Flower Color, [4] Few Flowers, [5] Non-Uniform, [7] Low Vigor	2.30	About 50 percent dead; About 50% of plants are tiny and about 25% of them have good vigor with good flowering; Not as good as Premium counterpart; Similar to Delta Premium; Some plants have more flowers; Good size flowers
Viola x wittrockiana	Delta Pro Red with Blotch	Syngenta	[1] Disease Present, [1] Great Foliage, [1] Unique Flower, [1] Vigorous Plant, [3] Unique Flower Color, [4] Few Flowers, [5] Vibrant Flower Color, [7] Non-Uniform, [8] Low Vigor	1.80	About 50 percent survival; Better than Premium counterpart; Most stunted or lost; Massive winter death; Plants that are alive have a great flower color; Only about 50% survived winter; Plants that are flowering have lots of flowers; Some dieback.
Viola x wittrockiana	Delta Pro True Blue	Syngenta	[1] Disease Present, [1] Unique Flower Color, [1] Vigorous Plant, [2] Few Flowers, [2] Vibrant Flower Color, [3] Many Flowers, [3] Uniform, [4] Non-Uniform, [5] Low Vigor	2.30	About 60 percent survived, Great flower color; Small plants; Winter death; Low to moderate winter survival; More losses and stunting compared to Premium counterpart; Small plants; flowering plants have several flowers; Some dieback.
Viola x wittrockiana	Delta Pro Violet & White	Syngenta	[1] Disease Present, [1] Many Flowers, [3] Few Flowers, [7] Low Vigor, [7] Non-Uniform	1.50	Very non-uniform; those plants with flowers have several of them; Massive die back; A few plants have some flowers. Small overall; Only about 20% look like they survived; Large flowers
Viola x wittrockiana	Delta Pro White with Blotch	Syngenta	[1] Disease Present, [1] Uniform, [5] Few Flowers, [5] Non-Uniform, [8] Low Vigor	1.40	About 40 percent survival; nice dark blotch; Low winter survival and low vigor; Massive die back; Very small surviving plants; More flowers than Delta premium version; Most stunted; lots of loss, maybe slightly better than Delta Premium

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Viola x wittrockiana	Delta Pro Yellow with Blotch	Syngenta	[1] Uniform, [1] Unique Flower Color, [1] Vibrant Flower Color, [5] Non-Uniform, [6] Few Flowers, [7] Low Vigor	2.00	About 60 percent survival; Flowers are large; Large upward facing flowers; Mostly dead; Small plants; Survivors are uniform; Very low vigor; Not many plants with flowers
Viola x wittrockiana	Delta Pro Yellow with Red Wing	Syngenta	[1] Many Flowers, [1] Vibrant Flower Color, [1] Vigorous Plant, [2] Unique Flower, [3] Non-Uniform, [4] Few Flowers, [4] Uniform, [7] Low Vigor	2.60	Inconsistent flowers between plants; Size of plants are about the same; Some die back from winter; Mostly stunted; Ratio of plant to flower is good with more flower than plant; Growth habit looks clumpy; Smaller plants; all survived; not vigorous; Winter survival is around 90% but plants still look a little small
Viola x wittrockiana	Freefall Deep Violet	Syngenta	[1] Disease Present, [1] Many Flowers, [1] Uniform, [1] Unique Flower, [1] Unique Flower Color, [1] Vibrant Flower Color, [1] Vigorous Plant, [3] Few Flowers, [3] Unique Colors, [4] Low Vigor, [5] Non-Uniform	2.50	Almost black flower color; Dark color blends with garden media; Some small plants; Deep violet floweralmost black; Most could pass for black; Nice deep color; Color holds well; Plants are a little small but only lost about 5% during winter; Nice dark flower.
Viola x wittrockiana	Freefall Marina	Syngenta	[1] Disease Present, [1] Non-Uniform, [1] Unique Colors, [1] Unique Flower, [2] Great Foliage, [3] Vibrant Flower Color, [4] Unique Flower Color, [9] Many Flowers, [9] Uniform, [9] Vigorous Plant	4.20	All survived; Smaller flower but many of them so very showy; Easy to like; Good coverage and flower power; Good spreading coverage; Lovely falr blue flowers with dark blotch; Upward facing flowers; One of the best stands in the trial, Petite and fills out nicely; All plants look alive; Many flowers
/iola x wittrockiana	Freefall Morpho	Syngenta	[1] Disease Present, [1] Few Flowers, [1] Great Foliage, [1] Non-Uniform, [1] Unique Flower, [2] Low Vigor, [2] Unique Colors, [3] Uniform, [3] Unique Flower Color, [3] Vibrant Flower Color, [3] Vigorous Plant, [6] Many Flowers	3.30	All survived; Nice yellow center; Great flower color; Some inconsistent plant size; Great flower foliage balance; Like the contrast in color; Lovely rich flower color; Would be better if flowers were upward facing; Moderate flower spotting; moderately uniform; One of the better ones for winter survival with near 100% success but vigor and flowering is variable.
Viola x wittrockiana	Freefall Purple & White	Syngenta	[1] Unique Colors, [2] Vigorous Plant, [3] Few Flowers, [3] Low Vigor, [3] Many Flowers, [3] Uniform, [4] Vibrant Flower Color, [5] Non-Uniform, [5] Unique Flower Color	2.70	About 70% survival; Neat flowers; Good color contrast; Most all those that survived; Decent flower displays, Smaller flower; 70 percent survival; Many flowers on plants that survived, some flowers fading to a weak color
/iola x wittrockiana	Freefall Purple Wing	Syngenta	[2] Few Flowers, [2] Low Vigor, [2] Unique Colors, [2] Unique Flower Color, [2] Vibrant Flower Color, [2] Vigorous Plant, [3] Non-Uniform, [3] Uniform, [4] Many Flowers	3.10	About 85 percent survival; not as vigorous as primed seed; About 85% survival but plant size is variable; Balanced but smaller in size; Some dieback; Many flowers on small plants; Some die back; Primarily not uniform
Viola x wittrockiana	Freefall Sundown	Syngenta	[1] Low Vigor, [2] Unique Flower, [3] Great Foliage, [4] Unique Colors, [4] Unique Flower Color, [5] Vibrant Flower Color, [6] Vigorous Plant, [8] Uniform, [9] Many Flowers	4.00	Colorful and one of best here; Decent display; About ~5 plants smaller than rest; Flowers raised slightly more above foliage; Great growth and flowering; Eye catcher; Slower to come out of winter than the others; Great winter survivorship; Nice yellow blotch smaller flower; Very good winter survival with 100% success, Vivid purple/yellow flower
Viola x wittrockiana	Freefall True Blue	Syngenta	[1] Disease Present, [1] Few Flowers, [1] Uniform, [1] Unique Colors, [1] Vibrant Flower Color, [2] Unique Flower Color, [3] Low Vigor, [3] Non-Uniform, [3] Vigorous Plant, [6] Many Flowers	2.40	About 50% stunted and or lost during winter; 60 percent survived; About 1/3 of plants failed to survive; Great blue color with upward facing flowers; Just too uneven; Small foliage; Very irregular plant sizes; Each plant is floriferous; Winter death; Many flowers on living plants
Viola x wittrockiana	Freefall XL Blue Picotee Shades	Syngenta	[10] Many Flowers, [1] Great Foliage, [1] Non-Uniform, [1] Unique Flower Color, [2] Unique Colors, [3] Vibrant Flower Color, [5] Uniform, [7] Vigorous Plant	3.90	All survived in good shape; Overall very nice; Slight uniformity issues; Nearly 100% survival; Some smaller plants; Many flowers; Good growth

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Viola x wittrockiana	Freefall XL Blue Picotee Shades	Syngenta	[1] Few Flowers, [1] Unique Colors, [3] Great Foliage, [3] Unique Flower, [3] Unique Flower Color, [4] Vibrant Flower Color, [9] Many Flowers, [9] Uniform, [9] Vigorous Plant	4.70	All survived; Best here; Filling the area with color; Complete coverage; Best performer of the trial; One of the best stands in the trial; Perfect growth. No plants lost to winter; Many flowers all around. A solid row. Very first one to come out of winter and subsequently flower; Clear winner in my book; Slightly unstable coloring but easily the best looking entry out in the trial; Spread very well creating a blanket of flowers; Very uniform; Flower size nice; Great spring picotee look.
Viola x wittrockiana	Freefall XL Bright Yelow	Syngenta	[1] Unique Flower, [1] Unique Flower Color, [2] Few Flowers, [2] Vigorous Plant, [3] Low Vigor, [3] Uniform, [3] Vibrant Flower Color, [5] Non-Uniform, [6] Many Flowers	2.90	1/3 of plants dead or dying; Good flower color; 80 percent of survivors have flowers; Decent; Moderate vigor but showy; Rich yellow color with great whiskers and some bronze blush; Some dieback.
Viola x wittrockiana	Freefall XL Fire - Primed BK	Syngenta	[1] Disease Present, [1] Unique Colors, [2] Unique Flower Color, [2] Vibrant Flower Color, [3] Uniform, [5] Few Flowers, [5] Non-Uniform, [9] Low Vigor	1.80	60 percent survival; Color did not rebound consistently from cold however has beautiful, vibrant, bronze, red and yellow flowers; Cool orange gradient of blooms; Fair amount of winter death; Small plants with few flowers; Mostly stunted; Okay flowering for what's alive; Like the colors; Winter survival is around 60 to 70%; Plants are very small with few flowers.
Viola x wittrockiana	Select Orange with Blotch	Syngenta	[2] Many Flowers, [2] Unique Colors, [2] Vibrant Flower Color, [2] Vigorous Plant, [3] Few Flowers, [3] Uniform, [4] Unique Flower Color, [5] Non-Uniform, [6] Low Vigo	2.60 r	Fun eye and orange pairing; Lovely sherbet orange color with a rich chocolatey blotch; Nice color; Irregular flowering; flower sizes variable; Nice orange with black blotch; Not much winter death; Very small plants; Nice flower color; Winter survival is around 90%; variable flowering is moderate to low; Nice flower color.