2023 Herbaceous Cultivar Trial Results
Chadwick Arboretum
The Ohio State University, Columbus OH

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Introduction

The Cultivar Trials at The Ohio State University are located on the campus of the College of Food, Agriculture, and Environmental Sciences in the Chadwick Arboretum and Learning Gardens. Faculty and staff worked with Chadwick volunteers and Franklin County Master Gardener Volunteers (MGV) to implement the trials. Chadwick horticulturist Anna Williamson was responsible for growing the plants and working with volunteers to manage the trials. Julia Wilson, program manager, organized the volunteer workdays. Volunteers planted seeds and plugs, planted the trial beds, weeded, and assisted with the evaluation of the plots. The objective of the trials is to observe the performance of new and recently introduced annual cultivars under the environmental conditions of central Ohio.

The plots have loamy, well-drained soil and have had compost each year of the trial. The beds were tilled before planting. Shade plants were in raised beds containing a soilless mix; shade cloth was provided for shade.

The selection of plants to be trialed in the garden varies from year to year. The selection is based on entries from companies. The results of performance for the plants are based on the data collected at the plots. The data reflects the growing conditions of 2023 in Columbus, Ohio. The purpose of the evaluation is to provide growers, landscapers, and homeowners with a tool for plant selection for the Midwest as well as to provide performance data to the breeders and companies.

Method

The plants were started in the greenhouse from seeds or plugs, depending on the species, according to the recommended starting dates. They were planted in the ground plots and the raised beds on May 19, 2023. There were six plants of each variety in a block; most plants were spaced on two-foot centers with the trailing/vining plants planted on four-foot centers in the block. *Calibrachoa* cultivars were planted in 18" diameter containers, six plants per container, and in a soilless mix. There were a few other plants in containers as noted below.

A 14-14-14 slow-release fertilizer was incorporated into the soil as well as the containers before planting at the labeled rate (one tablespoon per four-inch plant). No additional application of fertilizer was made to plants in the ground. A new irrigation system was installed in spring 2023 and was used to ensure that plants had approximately one inch of water per week. It was used more often in the beginning of the season and less during the later part. See the weather information below for additional details. In-ground and raised beds were mulched before planting. Hand weeding was completed as needed.

All plants were grown in full sun unless otherwise indicated with a shaded row in the chart below. ***The plants in these trials were deadheaded on a regular basis by volunteers and staff.***

Faculty, staff, and volunteers conducted visual evaluations on June 19th, July 19th, August 16th, and September 20th. The entire block of plants received a visual rating from one to five. A rating of five was excellent and a rating of one was poor. The individual evaluation ratings were averaged for the monthly rating figure. The monthly evaluations (June-September) were averaged for the final rating for each variety.

Weather Information
The information below was obtained from the College of Food, Agricultural, and Environmental Sciences weather station in Columbus, Ohio. More details can be found at:
https://weather.cfaes.osu.edu/stationinfo.asp?id=14

May was somewhat dry, however planting conditions were perfect. May was 1.2 degrees F above the normal historical average. Additional irrigation was given in the latter part of May and early June, right after planting. June was slightly over an inch above normal precipitation and July was slightly above normal. Temperatures in July and August were close to normal. August precipitation was an inch below the normal. Temperatures in September were slightly above, and rainfall was 2.8" below normal precipitation. In 2023 there only three days of 90F or higher, in 2022 there were nine days which is comparable to the number of days above 90F in 2021. Overall, it was a normal growing season.

Figure 1 indicates temperature conditions and *Figure 2* indicates rainfall amounts for this growing season.

Figure 1

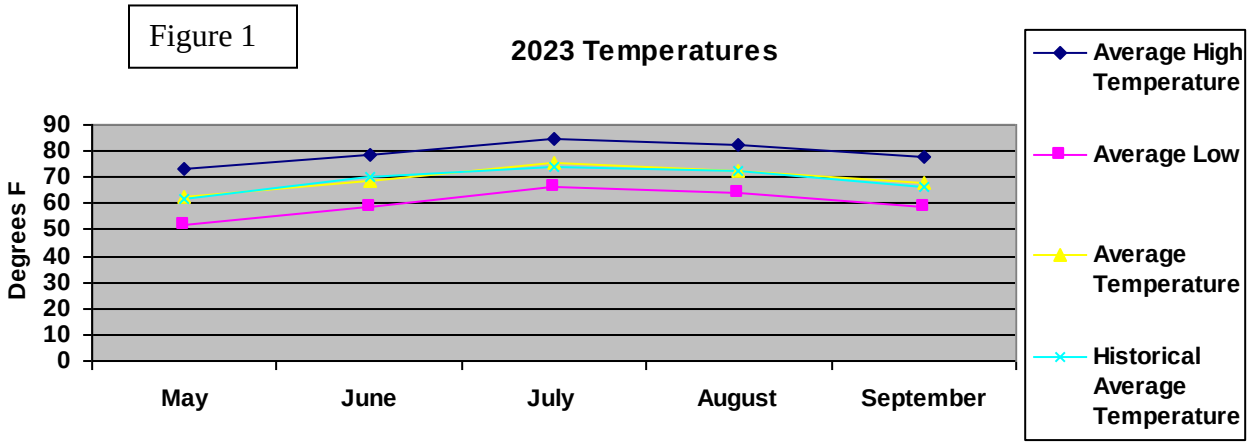
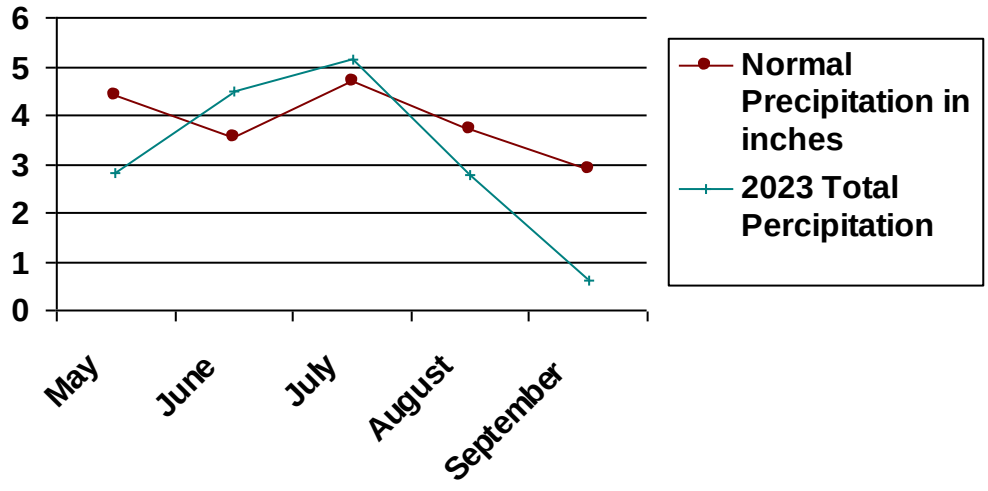


Figure 2



Results

Following are the varieties in the 2023 field trials and their monthly ratings and final rating. The plants listed that are shaded gray are those varieties that were grown in shade. The plants with an * (asterisk) after the Genus/Common Name were grown in containers with six plants per container.

The supplier for each variety is listed in the table; the supplier key is at the end under companies. The plants are listed in order of Final Rating from highest to lowest. A rating of five is the highest; a rating of one is the lowest.

Genus/ Common Name	Series	Variety/Color	Company	June	July	August	September	Overall Average
Ipomoea	Sweet Caroline Upside	Black Coffee	PW	4.92	5.00	4.95	4.96	4.96
Coleus	Volcana	Solar Flare	Ball	4.79	4.95	5.00	4.91	4.91
Salvia	Rockin	Deep Purple	PW	4.75	5.00	4.95	4.90	4.90
Calibrachoa*	Bumble Bee	Hot Pink	PW	4.83	4.90	4.95	4.90	4.90
Ipomoea	Sweet Caroline Upside	Key Lime	PW	4.75	4.95	4.95	4.89	4.89
Lantana	Shamrock	Red	Ball	4.70	5.00	4.95	4.88	4.88
Bidens	Campfire	Marshmallow	PW	4.83	5.00	4.82	4.88	4.88
Petchoa mix*		Mix colors	Sak	4.68	4.95	5.00	4.88	4.88
Lantana	SunDance	White	Sak	4.65	4.91	4.95	4.84	4.84
Plectranthus	ColorBlaze	Cherry Drop	PW	4.79	4.81	4.91	4.84	4.84
Impatiens	Beacon	Salmon	Ball	4.57	4.90	5.00	4.83	4.83
Begonia	Viking Explorer	Red on Green	Sak	4.75	4.76	4.95	4.82	4.82
Begonia	Viking Explorer	Rose on Green	Sak	4.79	4.76	4.91	4.82	4.82
Supertunia	Minivista	Sweet Sangria	PW	4.54	4.95	4.91	4.80	4.80
Geranium		Dark Red	Ball	4.65	4.91	4.82	4.79	4.79
Ipomoea	Sweet Caroline	Red Hawk	PW	4.71	4.71	4.95	4.79	4.79
Begonia	Viking	Coral Flame on Bronze	Sak	4.54	4.81	5.00	4.78	4.78
Begonia	Viking	Pink on Chocolate	Sak	4.58	4.76	5.00	4.78	4.78
Supertunia	Minivista	Yellow	PW	4.33	4.95	5.00	4.76	4.76
Supertunia	Hoopla	Vivid Orchid	PW	4.46	4.95	4.82	4.74	4.74
Rudbeckia	MiniBeckia	Flame	GC	4.60	4.94	4.64	4.73	4.73
Plectranthus	ColorBlaze	Chocolate Drop	PW	4.79	4.76	4.62	4.72	4.72
Salvia	Rockin	Blue Suede Shoes	PW	4.71	4.82	4.64	4.72	4.72
Supertunia	Minivista	Hot Pink	PW	4.75	4.77	4.64	4.72	4.72
Supertunia	Minivista	Violet Star	PW	4.75	4.77	4.64	4.72	4.72
Lantana	Shamrock	Rose Gold	Ball	4.52	4.91	4.73	4.72	4.72
Supertunia	Vista	Jazzberry	PW	4.50	4.73	4.91	4.71	4.71
Begonia	Viking	XL Red on Chocolate	Sak	4.17	4.90	5.00	4.69	4.69
Calibrachoa*	Cha Cha	Diva Lavendar	Ball	4.71	4.71	4.64	4.69	4.69

Genus/ Common Name	Series	Variety/Color	Company	June	July	August	September	Overall Average
Supertunia	Minivista	White	PW	4.54	4.86	4.64	4.68	4.68
Supertunia	Minivista	Midnight	PW	4.46	4.82	4.73	4.67	4.67
Ipomoea	Sweet Caroline	Sweet Mahogany	PW	4.58	4.41	5.00	4.66	4.66
Begonia	Viking	Rose on Bronze	Sak	4.17	4.81	5.00	4.66	4.66
Impatiens	Solarscape	XL Salmon Glow	Ball	4.57	4.50	4.91	4.66	4.66
Impatiens	Glimmer	Appleblossom	Ball	4.52	4.43	4.91	4.62	4.62
Impatiens	Beacon	Lindau Mix	Ball	4.48	4.76	4.55	4.60	4.60
Petunia		Bees Knees	Ball	4.32	4.71	4.73	4.59	4.59
Calibrachoa*	SuperBells	Double White	PW	4.67	4.71	4.36	4.58	4.58
Calibrachoa*	Superbells®	Blue	PW	4.63	4.57	4.55	4.58	4.58
Supertunia	Minivista	Indigo	PW	4.50	4.55	4.68	4.58	4.58
Calibrachoa*	Superbells®	Prism™ Pink Lemonade	PW	4.58	4.24	4.86	4.56	4.56
Impatiens	Solarscape	White Shimmer	Ball	4.04	4.64	5.00	4.56	4.56
Begonia	Double Delight	Appleblossom	PW	4.54	4.67	4.45	4.55	4.55
Petunia	SuperCal Premium	Sunset Orange (5)	Sak	4.04	4.91	4.68	4.54	4.54
Calibrachoa*	Superbells®	Double Amber	PW	4.63	4.48	4.50	4.53	4.53
Supertunia		Saffron Finch	PW	4.46	4.45	4.68	4.53	4.53
Calibrachoa*	Superbells®	Vintage Coral	PW	4.83	4.67	4.09	4.53	4.53
Bidens	Campfire	Flame	PW	4.43	4.95	4.18	4.52	4.52
Impatiens	SunPatiens Compact	Red Candy	Sak	3.74	4.86	4.95	4.52	4.52
Calibrachoa*	Superbells®	Double Twilight	PW	4.71	4.52	4.32	4.52	4.52
Impatiens	Glimmer	Salmon	Ball	4.57	4.38	4.59	4.51	4.51
Calibrachoa*	SuperBells	Double Smitten Pink	PW	4.29	4.71	4.50	4.50	4.50
Impatiens	Solarscape	Orange Burst	Ball	4.00	4.55	4.91	4.48	4.48
Petunia	SuperCal Premium	Red Maple	Sak	3.74	4.86	4.82	4.47	4.47
Supertunia	Minivista	Ultramarine	PW	4.38	4.91	4.14	4.47	4.47
Impatiens	SunPatiens Vigorous	Red	Sak	3.68	4.77	4.95	4.47	4.47
Calibrachoa*	Superbells®	Double Red Stone	PW	4.46	4.62	4.32	4.47	4.47
Supertunia	Minivista	Scarlet	PW	4.52	4.23	4.64	4.46	4.46
Verbena	Superbena	Sparkling Amethyst	PW	4.74	4.55	4.09	4.46	4.46
Jamesbrittenia	Safari	Dusk	PW	4.71	4.48	4.18	4.46	4.46

Genus/ Common Name	Series	Variety/Color	Company	June	July	August	September	Overall Average
Supertunia		Tiara Pink	PW	4.33	4.36	4.50	4.40	4.40
Nemesia	Sunsatia	Coconut	PW	4.74	4.86	3.59	4.40	4.40
Begonia	Double Delight	Blush Rose	PW	4.21	4.48	4.50	4.39	4.39
Petunia	SureShot	Raspberry Cheesecake	Ball	4.50	4.77	3.91	4.39	4.39
Geranium		White Eye	Ball	4.13	4.73	4.32	4.39	4.39
Verbena	EndurScape	Purple Fizz	PW	4.91	4.91	3.32	4.38	4.38
Supertunia		Bermuda Beach	PW	4.46	4.64	4.05	4.38	4.38
Impatiens	SunPatiens Vigorous	Sweetheart White	Sak	3.64	4.73	4.73	4.36	4.36
Impatiens	SunPatiens Compact	Classic White	Sak	3.52	4.68	4.86	4.36	4.36
Impatiens	SunPatiens Compact	Lilac Improved	Sak	3.70	4.59	4.77	4.35	4.35
Impatiens	SunPatiens Compact	Purple Candy	Sak	3.61	4.57	4.82	4.33	4.33
Impatiens	SunPatiens Vigorous	Pretty Pink	Sak	3.78	4.82	4.36	4.32	4.32
Petunia	SuperCal Premium	Pearl White	Sak	3.83	4.68	4.45	4.32	4.32
Petunia	SuperCal Premium	Yellow Sun	Sak	3.73	4.59	4.64	4.32	4.32
Salvia	Rockin	Unplugged Pink	PW	3.92	4.41	4.55	4.29	4.29
Angelonia	Archangel	Ruby Sangria	Ball	3.77	4.59	4.50	4.29	4.29
Cuphea		Sweet Talk	Ball	4.50	3.76	4.59	4.28	4.28
Calibrachoa*	SuperBells	Pink	PW	4.75	3.00	4.95	4.23	4.23
Petunia	ColorRush	Blueberries and Cream	Ball	3.96	4.36	4.32	4.21	4.21
Bidens	Goldilocks	Rocks	PW	4.48	4.00	4.14	4.20	4.20
Verbena	Superbena	Pink Cashmere	PW	4.22	4.82	3.50	4.18	4.18
Jamesbrittenia	Safari	Sky	PW	4.50	3.95	3.73	4.06	4.06
Torenia	Catalina	Pink	PW	3.78	4.19	4.14	4.04	4.04
Guara		Monarch White	Dum	3.70	4.14	3.90	3.91	3.91
Verbena	Superbena	Cherryburst	PW	4.17	3.55	3.86	3.86	3.86
Petunia	Jewel	Frosted Sapphire	Ball	4.33	3.86	2.95	3.72	3.72
Scaveola	Whirlwind	Blue	PW	4.26	3.50	3.32	3.69	3.69
Guara		Monarch Pink	Dum	3.95	3.29	3.27	3.50	3.50
Scaveola	Whirlwind	Blue	PW	3.74	3.14	3.18	3.35	3.35

Genus/ Common Name	Series	Variety/Color	Company	June	July	August	September	Overall Average
Scaveola	Whirlwind	White	PW	4.00	3.50	2.32	3.27	3.27

Companies
Ball = Ball Horticulture (Includes Ball FloraPlant, Ball Ingenuity, PanAmerican Seed)
Dum = Dummen Orange
GC = GardenChoice
PW = Proven Winners
SAK = Sakata

Thank You
Thank you to all the companies who participated in the trials in 2023. Thank you to Cultivate 23 for providing buses for attendees to visit the campus trials. More than 300 people attended the open house. A special thanks to our volunteers who assisted with a variety of tasks in these trials. Their dedication and hard work during the growing season kept the trials in excellent condition.

Volunteers were: Alison Circle, Anne Rauck, Ben Gantz, Beth Brown, Bruce Wall, Carol Williams, Carolyn Abood, Caye Aiello, Christine Osterman, Cyndi Mohler, Dana Kromer, Debbie Farynowski, Deborah Roshto, Denise Fields, Gail Walter, Gary Wearsch, Hope Jacqueline Weber, Jason Chaney, Jean Cook, Jeff Harriman, Jennifer Hayes, Jennifer Kuehn, Jill Alexander, John Glacken, Julia Hartfelder, Julie Clemens, Karen Pacht, Kathy Krantz, Kelly Delaveris, Linda Bauer, Lindy Rushton, Lisa Craddock Thitoff, Lori Kingston, Lynn Giljahn, Maggie Harriman, Margie Campbell, Marianne Robinson, Mark Reisch, Michael DeCrane, Nancy Loy, Patti Mikac, Rosemary Hage, Rosie Wendt, Ruth Seggerson, Sabine Kuhn, Shaunessy Everett, Sue Wolfe, Susan Meder, and Suzy Levine.

More Information
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