

2019 Herbaceous Ornamental Field Trial Results

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Introduction

Annual field trials have been conducted by Clark County Extension staff and Master Gardener Volunteers (MGV) in Springfield, Ohio since 1995. MGVs Theresa Gregory, Linda McCann and Cathy Zernechel were the 2019 project leaders and were responsible for growing the plants in the greenhouse. The trials are in the Snyder Park Gardens and Arboretum (1900 Snyder Park Street) in Springfield, Ohio. More than 3,600 people visited the gardens in 2019. Approximately 40 MGVs work on this project, starting plugs and seeds in the greenhouse, planting the trials, and weeding the plots.

The plots have loamy, well-drained soil with a pH of 7.4. The current plots were established in the spring of 2015. The beds were tilled to a depth of 8" in both the sun and shade plots. There is approximately 5000 square feet of bed space in full sun and approximately 1000 square feet in shade, under a shade tree (moderate to heavy shade).

The selection of plants to be trialed in the garden varies from year to year. The selection is based on entries from companies, performance in prior years, on current trends, and on industry recommendations. The results of performance for the plants are based on the data collected at the plots. The data reflects the growing conditions of 2019. The purpose of the evaluation is to provide growers, landscapers, and homeowners a guide for plant selection for Ohio as well as to provide performance data to the breeders and seed companies.

Method

The plants were started from seeds or plugs, depending on the species, according to the recommended starting dates. They were planted in the ground plots on May 14, 2019. There were six plants of each variety in a block; plants were spaced on two-foot centers and trailing/vining plants were planted on four foot centers in the block. All *Calibrachoa* cultivars were planted in 18" diameter containers, six plants per container, in a soilless mix.

A 14-14-14 slow release fertilizer was incorporated into the soil as well as the containers prior to planting at the labeled rate (one tablespoon per four-inch plant). No additional application of fertilizer was made. Irrigation was applied during dry periods in order to prevent wilting. See the weather information below for details. No mulch was used. Hand weeding was completed as needed. Treflan (e.g. trifluralin) was incorporated in between the plants at six weeks after planting.

All plants were grown in full sun unless otherwise indicated with a shaded row in the chart below. Normally no insecticides or fungicides are applied; however, the deer pressure was a problem for a few of the plants (tomato, sweet potato, and amaranth) in 2019. A repellent was used on these plants throughout the season. ***The plants were not deadheaded or pruned during the growing season.***

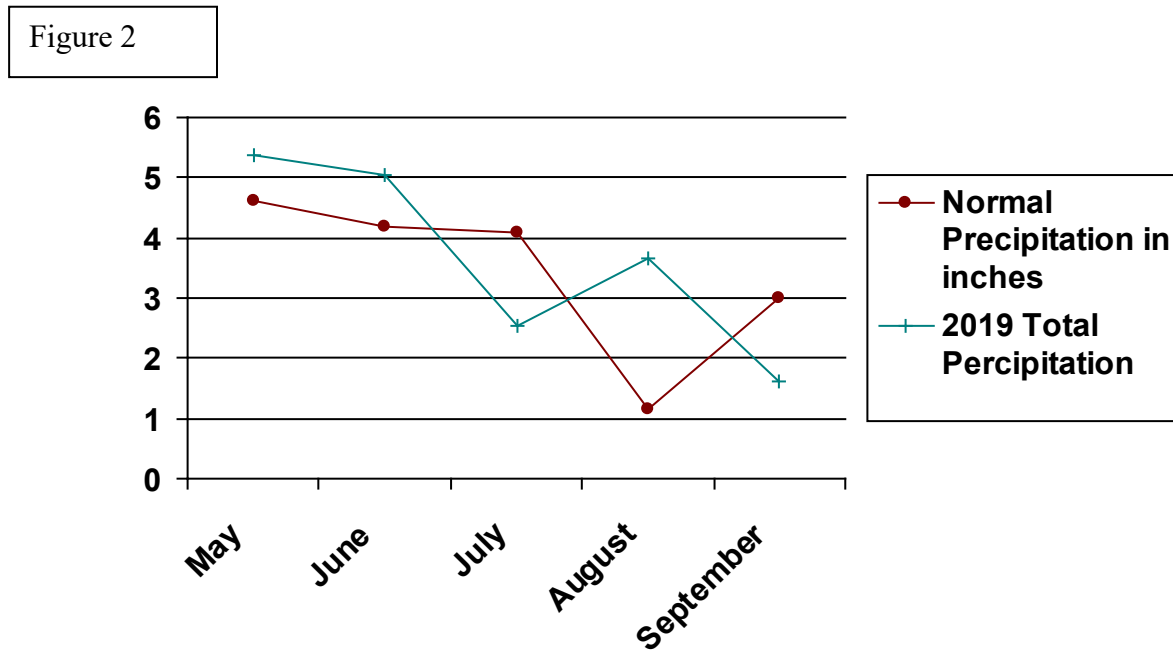
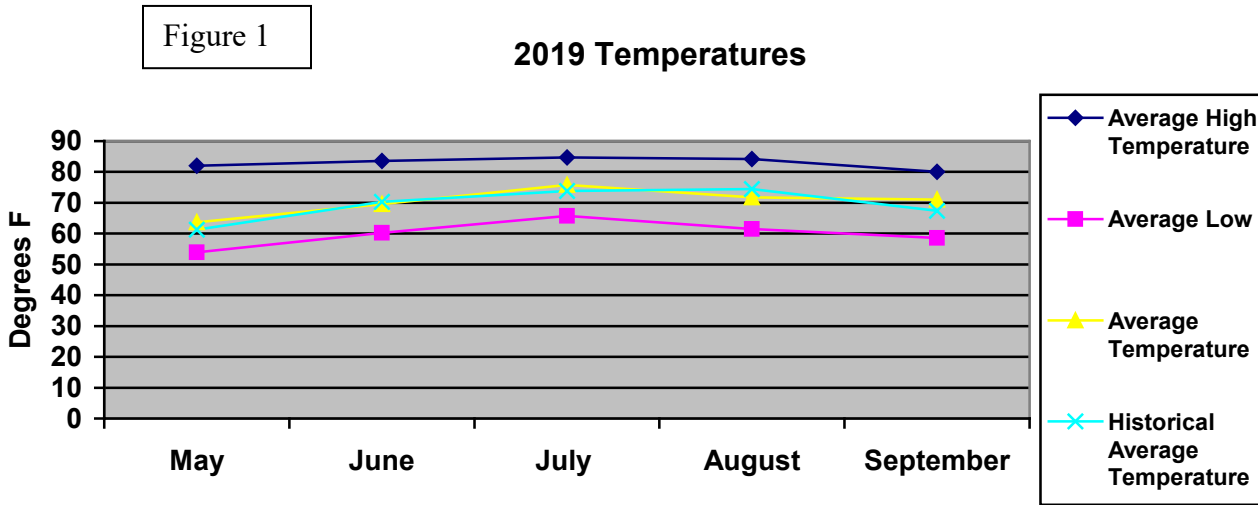
Five people conducted visual evaluations on June 19th, July 17th, August 21st, and September 18th. The entire block of plants was given a visual rating from one to five. A rating of five was excellent and a rating of one was poor. The five individual evaluation ratings were averaged for the monthly rating figure. The monthly evaluations (June-September) were averaged for the final rating for each variety.

Weather Information

May precipitation overall was above the normal amount; however, we were able to plant under good planting conditions on May 15th. From May 15th until the end of the month, we received 3.64" of rain; this is 1.04" above normal precipitation for this time period. The average temperature was 4.2F above the historical average temperatures (HAT) for this time period (63.9). In June Average temperature was slightly below the HAT for the month with two days 90F or

above at the end of the month. Rainfall in June was slightly above normal precipitation. July average temperatures were two degrees above the normal average. Rainfall was 1.55" below normal average rainfall; supplemental irrigation was necessary. There were 13 days 90F or greater. August average temperature was slightly below the HAT (-2.7F); however, precipitation was 2.34" below normal average precipitation. There were four days 90F or above. In September, the average temperature was 3.6F higher than the HAT and rainfall was 1.94" below the normal range. This month was warm and included five days with temperatures 90F or above. The last day of September was 92.2.

Overall, the plants started out wet in the beginning with slightly cooler temperatures and went to the extreme of hot and somewhat dry. Root systems appeared to struggle in the beginning due to wet soils. For the 2019 growing season, there were a total of 23 days of 90F or above; this compares to 22 days with temperatures above 90F in 2018, four days in 2017 and 17 days in 2016. *Figure 1 indicates temperature conditions and Figure 2 indicates rainfall amounts for this growing season.*



Results

Following are the varieties in the 2019 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 * after the Genus/Common Name were grown in containers, six plants per container.

The supplier for each variety is listed in the table; the supplier key is at the end. 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	Cultivar	Company	June	July	August	Sept	End of Season Average
Petunia	Supertunia Vista®	Snowdrift™	PW	4.83	5.00	5.00	5.00	4.96
Solenostemon	ColorBlaze®	Wicked Hot™	PW	4.67	5.00	5.00	4.83	4.88
Solenostemon	ColorBlaze®	Wicked Witch™	PW	4.67	5.00	5.00	4.83	4.88
Spilanthes		Peek-A-Boo	B	4.67	5.00	4.83	4.83	4.83
Euphorbia		Diamond Snow™	PW	4.67	4.83	4.83	4.83	4.79
Solenostemon	ColorBlaze®	Wicked Witch™	PW	4.67	4.83	4.67	4.83	4.75
Gaillardia	Heat it Up™	Yellow	PW	4.67	4.67	4.50	4.83	4.67
Scaevola	Whirlwind	Blue Improved	PW	4.50	4.17	5.00	5.00	4.67
Celosia		Arrabona Red	B	4.50	4.83	4.83	4.33	4.63
Petunia	Supertunia®	Sharon	PW	4.50	4.67	4.17	5.00	4.58
Solenostemon	ColorBlaze®	Wicked Hot™	PW	4.17	4.67	4.50	4.50	4.46
Capsicum	Fire Away™	Hot and Heavy™	PW	4.50	5.00	4.17	4.00	4.42
Helianthus	Suncredible™	Yellow	PW	4.67	5.00	4.83	3.00	4.38
Petunia	Supertunia Mini Vista	Indigo Improved	PW	4.83	3.67	4.50	4.50	4.38
Salvia	Unplugged™	So Blue™	PW	4.50	3.83	4.33	4.67	4.33
Gaillardia	Heat it Up™	Red	PW	4.67	4.50	3.67	4.33	4.29
Lantana	Luscious®	Goldengate™	PW	4.00	3.00	5.00	5.00	4.25
Portulaca	Mojave®	Red Improved	PW	4.17	3.50	4.67	4.50	4.21
Scaevola	Whirlwind®	Blue Improved	PW	3.83	4.17	4.50	4.33	4.21
Salvia	Rockin'®	Blue Suede Shoes™	PW	3.83	3.33	4.67	4.83	4.17
Impatiens	Rockapulco®	Orange	PW	4.17	4.17	4.50	3.83	4.17
Calibrachoa*	Superbells®	Watermelon Punch	PW	4.83	4.50	4.67	2.67	4.17
Amaranthus		Coral Fountain	J	4.67	4.83	4.17	2.83	4.13
Amaranthus		Red Spike	B	4.17	4.83	4.17	3.00	4.04
Zinnia		Raspberry Lemonade Mix	B	4.33	4.67	4.17	2.83	4.00
Pentas	Sunstar™	Rose	PW	3.50	2.83	4.33	5.00	3.92
Calibrachoa*	Superbells® Double	Amber	PW	4.83	4.67	4.00	2.17	3.92
Salvia		Big Blue	B	3.67	3.00	4.00	4.67	3.83
Gomphrena		QIS Carmine	B	4.33	3.00	3.83	4.17	3.83
Gomphrena		QIS™ Purple Globe	J	3.50	3.33	3.67	4.83	3.83
Osteospermum	Bright Lights	Berry Rose	PW	4.67	3.17	3.33	4.00	3.79
Calibrachoa*	Superbells® Compact	White	PW	4.17	4.00	3.83	3.00	

Genus/ Common Name	Series	Cultivar	Company	June	July	August	Sept	End of Season Average
Pentas	Sunstar	Lavender	PW	3.33	3.00	4.33	4.33	
Calibrachoa*	Superbells® Double	Blue	PW	4.83	4.17	3.83	2.17	
Calibrachoa*	Superbells®	Dreamsicle Improved	PW	4.50	4.50	3.33	2.33	
Calibrachoa*	Superbells®	Blackcurrant Punch	PW	4.67	4.17	3.33	2.33	
Craspedia		Drumstick	B	3.83	3.17	3.50	4.00	
Verbena	Superbena Sparkling®	Amethyst Improved	PW	4.33	2.17	4.33	3.67	
Osteospermum	Bright Lights	White	PW	4.33	2.50	3.83	3.67	
Nemesia	Aromance™	Pink	PW	4.50	3.17	3.50	3.17	
Celosia		Pampas Plume Mix	J	3.67	3.67	3.67	3.17	
Petunia	Supertunia®	Raspberry Rush™	PW	3.67	3.00	3.50	3.83	
Isotoma		Patti's Pink™	PW	4.33	3.33	3.17	3.00	
Vinca		Tattoo Papaya	B	3.33	2.17	4.00	4.33	
Vinca		Tattoo Raspberry	B	3.33	2.17	4.00	4.33	
Osteospermum	Bright Lights™	White	PW	3.67	3.00	3.67	3.50	
Gomphrena		QIS™ Orange	J	3.50	2.50	3.33	4.33	
Pentas	Sunstar	Pink	PW	3.33	2.67	3.17	4.50	
Nemesia	Sunsatia®	Cranberry Red	PW	3.50	3.00	3.67	3.17	
Calibrachoa*	Superbells® Compact	Blue	PW	4.67	3.33	2.83	2.33	
Euphorbia		Diamond Snow™	PW	4.50	2.83	3.67	2.17	
Bidens	Campfire®	Flame	PW	3.50	3.00	3.17	3.33	
Osteospermum	Bright Lights™	Purple	PW	4.00	3.00	2.83	3.17	
Calibrachoa*	Superbells® Double	Orange	PW	4.50	3.67	2.67	1.67	
Zinnia		Color Crackle	B	3.33	3.67	3.00	2.33	
Pentas	Sunstar™	Red	PW	3.17	2.17	2.83	4.00	
Ipomoea	Sweet Caroline	Red Hawk	PW	2.67	3.00	3.67	2.83	
Sutera	Snowstorm®	Snow Globe® Improved	PW	3.50	2.50	3.17	3.00	
Calibrachoa*	Superbells® Compact	Red	PW	4.17	3.00	2.83	2.17	
Nemesia	Aromance™	Pink	PW	4.83	2.33	2.33	2.33	
Calibrachoa*	Superbells®	Honeyberry	PW	4.83	2.50	2.50	2.00	
Verbena	Superbena Sparkling®	Rosé	PW	3.67	2.00	3.17	2.50	
Ammi		Dara	J	3.50	4.50	2.83	0.00	
Sutera	Snowstorm®	Glacier Blue	PW	3.33	2.33	2.67	2.33	
Sutera	Snowstorm®	Blue NEW	PW	3.17	2.50	2.50	2.33	2.63
Zinnia		Andes Jewel	B	3.67	4.33	2.33	0.00	2.58
Petunia		Spellbound White Blush Hybrid	B	3.67	2.00	2.33	2.17	2.54
Osteospermum	Bright Lights	Purple	PW	3.08	1.33	2.67	2.83	2.48
Sutera	Snowstorm®	Rose	PW	3.17	2.00	2.17	2.17	2.38
Nemesia	Sunsatia®	Cranberry Red	PW	4.50	1.83	1.50	1.50	2.33
Gomphrena		QIS Lilac	B	3.50	2.17	1.50	1.83	2.25
Sutera	Snowstorm®	Pink NEW	PW	3.50	1.67	1.50	2.33	2.25
Bidens		Goldilocks Rocks® Imp.	PW	3.83	1.17	1.83	2.00	2.21

Genus/ Common Name	Series	Cultivar	Company	June	July	August	Sept	End of Season Average
Nigella		Albion Black Pod	J	3.50	3.67	1.67	0.00	2.21
Lycopersicon		Goodhearted™	PW	3.50	2.00	2.00	1.00	2.13
Salvia		Purple Fairy Tale	B	2.17	1.33	2.00	2.67	2.04
Ipomopsis		Hummingbird Mix	B	3.17	1.33	1.17	1.17	1.71
Bidens		Goldilocks Rocks® Improved	PW	3.33	1.00	1.00	1.50	1.71
Bidens	Campfire®	Flame	PW	4.83	0.00	0.00	0.00	1.21

Seed Companies

B = Burpee

J = Johnny's Selected Seeds

PW = Proven Winners



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