

2021 Herbaceous Cultivar Trials Results

Ohio State University Extension, Springfield, OH

Pamela J. Bennett, Associate Professor, Extension Educator, Horticulture, Clark County

Introduction

Cultivar trials have been conducted by Ohio State University faculty along with Clark County Extension staff and Master Gardener Volunteers (MGV) in Springfield, Ohio since 1995. MGVs Theresa Gregory, Linda McCann and Rosalind Soles were the 2021 project leaders and were responsible for growing the plants in the greenhouse. Ohio State University Extension Office (OSUE) Associate Jo Brown managed the data. The trials are in the Snyder Park Gardens and Arboretum (1900 Snyder Park Street) in Springfield, Ohio. MGVs planted in the beds and containers, weeded, and assisted with evaluation of the plots. Most of the visitors to the trials were residents, those from out of town who were familiar with the trials, and those who visited the gardens for other reasons.

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, Norway maple). The plots are tilled in the spring prior to planting and in the fall after removal of the annuals.

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 2021 in Springfield or west central Ohio. The purpose of the evaluation is to provide growers, landscapers, and homeowners a tool for plant selection for Ohio as well as to provide performance data to the breeders and companies.

Method

The plants were started in the greenhouse at the Ohio State University campus from seeds or plugs, depending on the species, according to the recommended starting dates. They were planted in the ground plots and in the containers on May 19, 2021. 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, 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 prior to planting at the labeled rate (one tablespoon per four-inch plant). No additional application of fertilizer was made to plants in the ground. Additional fertilizer (Main Event) was provided to the containers to manage pH of the mix. Trials were irrigated as needed and containers were watered regularly. 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 pesticides are applied; however, the deer pressure was a problem for a few of the plants (tomatoes) in 2021. A repellent was used on these plants throughout the season. ***The plants were not deadheaded or pruned during the growing season.***

Faculty, staff, and volunteers conducted visual evaluations on June 23th, July 22nd, August 19th, and September 16th. 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 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

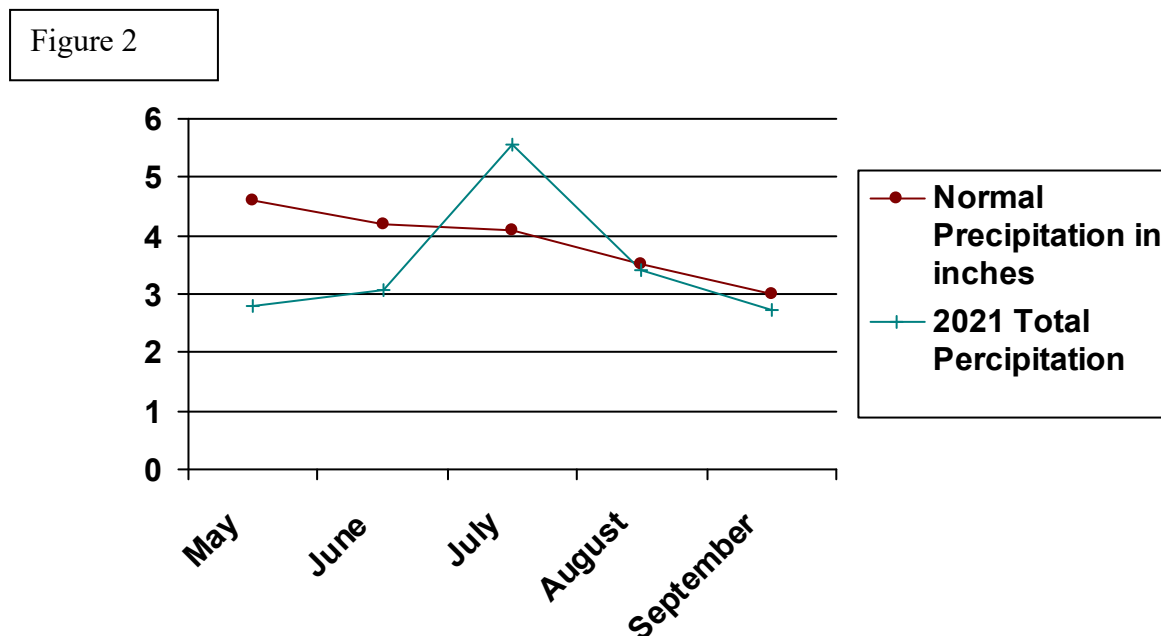
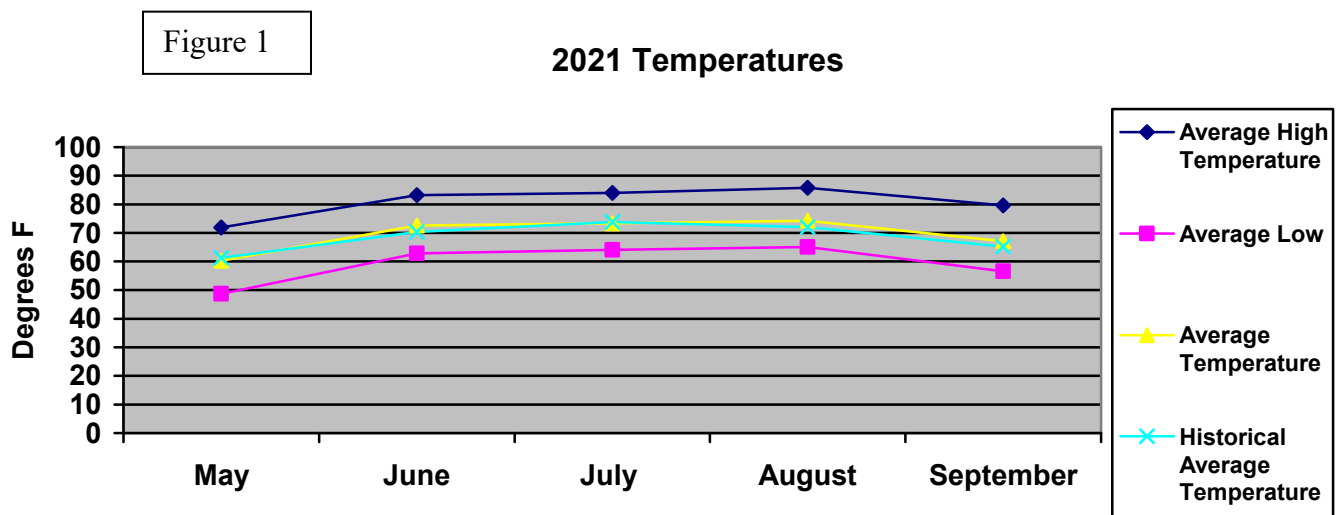
The information below was obtained from the College of Food, Agricultural, and Environmental Sciences weather station in Springfield, Ohio. More details can be found at:

<https://weather.cfaes.osu.edu/stationinfo.asp?id=13>

Plants were installed under perfect planting conditions on May 19th. May and June precipitation overall was below normal. However, July was above normal, with 10 out of 11 days in the early part of the month measuring rainfall. Many of the plants (petunias in particular) took a beating from a few heavy downfalls which resulted in lower evaluation numbers. August was close to normal, and September was slightly lower in precipitation.

Temperatures were close to the season average temperature. Immediately after planting temperatures soared into the upper 80F range with little rain until the end of May. On May 24th, there were a total of 18 days of 90F or higher with half of them occurring in August. This compares to 21 days with temperatures 90F or higher in 2020, 23 days in 2019, 22 days in 2018 and four days in 2017.

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



Results

Following are the varieties in the 2021 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 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
Cyperus	Graceful Grasses	Prince Tut	PW	4.83	5.00	5.00	5.00	4.96
Solenostemon	Colorblaze	Torchlight	PW	5.00	4.83	5.00	5.00	4.96
Petunia	Supertunia Vista®	Bubblegum	PW	4.83	4.83	5.00	5.00	4.92
Petunia	Supertunia Vista®	Snowdrift	PW	4.67	5.00	5.00	4.83	4.88
Petunia	CannonBall	Merlot Star Imp	BH	4.67	4.83	4.67	4.83	4.75
Solenostemon	ColorBlaze®	Torchlight	PW	4.67	4.83	4.67	4.83	4.75
Solenostemon	Colorblaze	El Brighto	PW	4.67	4.50	5.00	4.83	4.75
Bracteantha	Granvia	Gold	SUN	4.83	5.00	4.83	4.33	4.75
Petunia	Surfinia	Sumo Pink	SUN	5.00	4.50	5.00	4.33	4.71
Solenostemon	ColorBlaze®	Newly Noir	PW	4.50	4.67	5.00	4.50	4.67
Rex Begonia	Jurassic Jr.	Berry Swirl	BH	4.50	4.50	4.67	5.00	4.67
Rex Begonia	Jurassic Megalo	Komodo	BH	4.50	4.17	5.00	5.00	4.67
Solenostemon	ColorBlaze®	El Brighto	PW	4.67	4.17	4.67	5.00	4.63
Solenostemon	Colorblaze	Newly Noir	PW	4.83	4.00	4.83	4.83	4.63
Impatiens	Beacon	White	BH	3.83	4.83	4.83	4.83	4.58
Begonia	Megawatt	Pink Bronze Leaf Improved	BH	3.50	4.83	5.00	5.00	4.58
Rex Begonia	Jurassic Jr.	Red Splash	BH	4.50	4.33	4.50	5.00	4.58
Rex Begonia	Jurassic	Pink Splash	BH	4.50	4.33	4.67	4.67	4.54
Petunia	Supertunia Mini Vista	White	PW	4.83	4.33	4.83	4.00	4.50
Rex Begonia	Jurassic Jr.	Purpla Spec	BH	4.50	4.50	4.50	4.50	4.50
Rex Begonia	Jurassic Megalo	Croc	BH	4.50	4.33	4.50	4.67	4.50
Ageratum	Artist	Blue	PW	4.00	4.67	4.67	4.50	4.46
Zinnia	Profusion	Double Red	SAK	4.50	4.50	4.67	4.17	4.46
Petunia	Supertunia	Royal Velvet®	PW	4.83	3.67	4.67	4.50	4.42
Ocimum		Amazel Basil	PW	4.17	4.50	4.50	4.50	4.42
Begonia	Viking Explorer	Red on Green	SAK	4.83	4.33	4.33	4.17	4.42
Rex Begonia	Jurassic	Silver Swirl	BH	4.17	4.33	4.50	4.67	4.42
Rex Begonia	Jurassic Megalo	Reptile	BH	4.33	4.17	4.33	4.83	4.42
Rex Begonia	Jurassic Dino	Polka Dot	BH	4.33	4.33	4.50	4.50	4.42
Petunia	Surfinia	Purple Heart	SUN	4.83	4.00	4.17	4.50	4.38

Genus/ Common Name	Series	Variety/Color	Company	June	July	August	September	Overall Average
Basil	Everleaf	Thai Towers	BH	5.00	4.83	4.50	3.17	4.38
Begonia	Viking Explorer	Rose on Green	SAK	4.83	4.33	4.33	4.00	4.38
Zinnia	Profusion	Red Yellow Bicolor	SAK	4.50	4.50	4.50	4.00	4.38
Rex Begonia	Jurassic	Heartbeat	BH	4.50	4.00	4.50	4.50	4.38
Rex Begonia	Jurassic Dino	Greenie	BH	4.17	4.33	4.50	4.50	4.38
Salvia		Lancelot	BH	4.83	4.33	4.33	4.00	4.38
Salvia	Unplugged	Pink	PW	3.50	4.33	4.50	5.00	4.33
Impatiens	SunPatiens	Compact Double Red	SAK	2.83	4.50	4.83	5.00	4.29
Gomphrena	Truffula	Pink	PW	4.00	4.33	4.50	4.33	4.29
Impatiens	Beacon	Violet Shades	BH	3.67	4.33	4.33	4.83	4.29
Ageratum	Artist	Pearl	PW	3.67	4.67	4.33	4.33	4.25
Impatiens	Beacon	Salmon	BH	3.67	4.33	4.50	4.50	4.25
Rex Begonia	Jurassic Dino	Black Sky	BH	4.00	4.33	4.17	4.50	4.25
Petunia	Supertunia Vista®	Jazzberry	PW	4.67	3.67	3.67	4.83	4.21
Lantana	Luscious	Citron	PW	4.00	4.17	3.50	5.00	4.17
Scaevola	Surfinia	White Imp	SUN	3.83	4.67	3.33	4.83	4.17
Dahlia	City Lights	Orange	BH	4.17	4.67	4.33	3.50	4.17
Impatiens	Beacon	Formula Mixture	BH	3.50	4.67	4.17	4.33	4.17
Impatiens	Beacon	Rose	BH	3.00	4.17	4.67	4.67	4.13
Begonia	Boliviensis Rivulet	Blush	BH	3.50	4.17	4.83	4.00	4.13
Dahlia	City Lights	Neon	BH	3.50	4.67	4.67	3.50	4.08
Thunbergia		Coconut-A-Peel	PW	3.17	4.33	4.67	4.17	4.08
Petunia	Supertunia	Sharon	PW	4.50	3.67	4.17	4.00	4.08
Petunia	Supertunia Mini Vista	Hot Pink	PW	4.67	3.00	4.33	4.17	4.04
Thunbergia		Slice-A-Peel	PW	3.33	4.33	4.33	4.17	4.04
Pepper	Candy Cane	Chocolate Cherry	BH	4.67	3.67	3.83	3.67	3.96
Dianthus	Jolt	Purple	BH	3.50	5.00	4.83	2.50	3.96
Catharanthus	Soiree Kawaii	Blueberry Kiss	SUN	4.17	3.67	3.00	4.83	3.92
Lantana	Shamrock	Orange Flame	BH	3.50	3.83	3.33	5.00	3.92
Petunia	ColorRush	Red	BH	4.17	3.67	4.17	3.67	3.92
Calylophus	Ladybird	Sunglow	PW	3.67	3.67	4.50	3.83	3.92
Catharanthus	Soiree Kawaii	Red Shades	SUN	4.33	3.67	4.00	3.67	3.92
Lantana	Bloomify	Orange	BH	3.67	4.00	3.17	4.83	3.92
Petunia	E3 Easy Wave	Blue	BH	4.67	3.83	3.83	3.17	3.88
Catharanthus	Soiree Kawaii	White Peppermint	SUN	4.17	3.67	3.67	4.00	3.88
Lantana	Shamrock	Rose	BH	3.50	4.00	3.00	5.00	3.88
Impatiens	Beacon	Coral	BH	3.67	4.50	3.83	3.50	3.88
Impatiens	Beacon	Bright Red	BH	3.33	4.00	3.67	4.50	3.88
Calylophus	Ladybird	Lemonade	PW	3.67	3.83	4.17	3.67	3.83
Lantana	Luscious	Marmalade	PW	3.17	3.83	3.33	5.00	3.83
Verbena	EnduraScape	Burgundy	BH	4.83	3.33	2.50	4.67	3.83
Lantana	Bloomify	Pink	BH	3.67	3.83	3.33	4.33	3.79
Rudbeckia	MiniBeckia	Flame	EHR	4.00	5.00	4.50	1.67	3.79
Pepper		Pot-a-peno	BH	4.00	3.67	3.83	3.67	3.79

Genus/ Common Name	Series	Variety/Color	Company	June	July	August	September	Overall Average
Calibrachoa*	MiniFamous	Neo Pink Hawaii	BH	4.83	4.83	3.50	1.83	3.75
Impatiens	Beacon	Orange	BH	3.17	4.33	3.50	4.00	3.75
Helianthus	Suncredible®	Yellow	PW	4.33	4.83	4.17	1.67	3.75
Calibrachoa*	Superbells®	Double Amber	PW	4.83	4.67	3.50	1.83	3.71
Begonia	Boliviensis Rivulet	Orange	BH	3.00	3.67	4.33	3.83	3.71
Helianthus	Suncredible®	Saturn	PW	4.33	5.00	4.33	1.17	3.71
Petunia	Pretty Flora	Mellow Yellow	BH	4.67	2.83	3.83	3.33	3.67
Lantana	Shamrock	Peach	BH	3.50	3.67	3.00	4.33	3.63
Angelonia*	Angelface	Cascade Snow	PW	4.00	5.00	3.17	2.33	3.63
Exacum	Jupiter	Blue	BH	4.33	4.00	3.00	3.17	3.63
Petunia	E3 Easy Wave	Pink	BH	4.00	4.00	4.33	2.00	3.58
Evolvulus		Blue My Mind	PW	4.00	3.17	2.50	4.67	3.58
Impatiens	Beacon	Red White Mix	BH	3.50	4.33	3.33	3.17	3.58
Salvia	Unplugged	So Blue	PW	2.67	4.50	3.17	3.83	3.54
Impatiens	SunPatians	Vigorous Sweetheart White	SAK	2.33	4.17	4.00	3.67	3.54
Petunia	E3 Easy Wave	Coral	BH	4.17	3.33	2.83	3.67	3.50
Angelonia*	Angelface	Cascade Blue	PW	3.83	5.00	3.17	2.00	3.50
Calibrachoa*	Superbells®	Double Twilight	PW	4.67	3.83	3.50	2.00	3.50
Lobularia		White Knight	PW	4.33	3.17	2.83	3.50	3.46
Begonia	Boliviensis Rivulet	Double Red	BH	3.00	3.33	3.67	3.67	3.42
Evolvulus		Blue My Mind XL	PW	3.67	3.17	2.50	4.33	3.42
Petunia	SuperCal	Orange Sun	SAK	2.83	3.50	3.83	3.33	3.38
Petunia	E3 Easy Wave	Sky Blue	BH	4.33	3.00	3.17	3.00	3.38
Petunia	CannonBall	White	BH	4.33	3.00	3.17	3.00	3.38
Exacum	Jupiter	White	BH	4.33	3.50	2.67	3.00	3.38
Petunia	Pretty Grand	Mellow Yellow	BH	4.50	2.67	3.17	3.17	3.38
Verbena	Superbena	Imperial Blue	PW	4.50	3.83	2.33	2.67	3.33
Calibrachoa*	MiniFamous	Neo Double Red	BH	4.83	3.67	3.17	1.67	3.33
Catharanthus	Soiree Kawaii	Coral Reef	SUN	4.17	3.00	2.50	3.50	3.29
Petunia	SuperCal Premium	Yellow Sun	SAK	2.33	3.33	3.50	3.67	3.21
Petunia	Surfinia	Heavenly Blue	SUN	4.33	2.50	3.50	2.50	3.21
Petunia	Surfinia	Heartbeat Imp	SUN	4.00	2.83	3.00	2.83	3.17
Petunia	Shock Wave	Spark Mixture Imp	BH	4.00	3.00	2.83	2.83	3.17
Petunia	SuperCal Premium	Purple Dawn	SAK	2.50	3.00	3.67	3.50	3.17
Lantana	Shamrock	White	BH	3.50	3.17	2.67	3.00	3.08
Petunia	Surfinia	Trailing Red	SUN	4.17	2.50	3.67	1.67	3.00
Verbena bonariensis		Meteor Shower	PW	3.50	3.17	3.33	2.00	3.00
Petunia	Supertunia	Priscilla Imp	PW	3.83	2.67	3.50	1.83	2.96
Scaevola	Surdiva	Blue Violet	SUN	3.50	2.83	2.33	3.17	2.96
Petunia	Starlet	Midnight Sky	BH	4.33	2.67	2.67	2.17	2.96
Tomato		Bellatrix	BH	4.33	3.50	2.33	1.67	2.96

Genus/ Common Name	Series	Variety/Color	Company	June	July	August	September	Overall Average
Scaevola	Surdiva	Fashion Pink	SUN	3.17	3.33	2.33	2.67	2.88
Petunia	Headliner™	Banana Cherry	BH	4.50	2.17	2.67	2.17	2.88
Coleus	Wizard	Select Mixture Imp	BH	3.67	3.50	2.33	1.83	2.83
Tomato		Dark Star	BH	4.50	3.00	2.33	1.50	2.83
Petunia	Headliner™	Enchanted Sky	BH	4.33	1.83	2.67	2.33	2.79
Petunia	Shock Wave	Volt Mixture Imp	BH	4.33	2.17	2.00	2.67	2.79
Petunia	Surfinia	Heavenly Cabernet	SUN	4.17	2.50	2.33	2.00	2.75
Tomato		Loki	BH	3.83	3.33	2.33	1.50	2.75
Petunia	CannonBall	Yellow	BH	4.83	2.67	1.50	1.83	2.71
Petunia	Surfinia	XXL Taffy Pink	SUN	4.00	3.50	3.17	0.00	2.67
Petunia	Shock Wave	White	BH	4.33	2.33	1.83	2.17	2.67
Heliotropium	Augusta	Lavender	PW	4.17	3.50	1.33	1.50	2.63
Angelonia	Angelissa	Rose	SAK	2.17	3.33	2.33	2.50	2.58
Tomato		Marzito	BH	3.00	2.83	2.50	2.00	2.58
Angelonia	Angelissa	White	SAK	1.67	3.33	2.50	2.50	2.50
Angelonia	Angelissa	Purple	SAK	2.17	3.17	2.33	2.33	2.50
Petunia	E3 Easy Wave	Red	BH	3.83	2.67	1.83	1.33	2.42
Verbena	Superbena	Scarlet Star	PW	3.83	2.50	1.50	1.67	2.38
Lantana	SunDance	Red	SAK	1.33	1.67	2.33	4.17	2.38
Lobelia	Laguna®	Sky Blue Imp	PW	4.50	1.17	1.83	1.83	2.33
Verbena	Superbena	Whiteout	PW	4.33	2.33	1.50	1.00	2.29
Petunia	ColorRush	Yellow	BH	3.50	2.67	1.67	1.17	2.25
Heliopsis helianthoides		Summer Eclipse	BH	1.33	2.17	3.33	2.17	2.25
Verbena	Beats	Red and White	BH	4.33	2.00	1.17	1.00	2.13
Jamesbrittenia	Safari	Sky	PW	3.33	2.33	1.33	1.50	2.13
Lantana	SunDance	Yellow	SAK	1.00	1.67	2.33	3.50	2.13
Verbena	Beats	Purple and White	BH	3.83	2.00	1.33	1.00	2.04
Petunia	CannonBall	Burgundy	BH	3.17	1.50	1.67	1.67	2.00
Verbena	Beats	Purple	BH	3.33	2.00	1.33	1.00	1.92
Jamesbrittenia	Safari	Dawn	PW	3.50	2.33	1.33	0.17	1.83
Verbena	Cake Pops	Purple	PW	3.83	1.33	1.00	1.00	1.79
Lantana	SunDance	White	SAK	1.33	1.50	1.83	2.33	1.75
Verbena	Cake Pops	Pink	PW	3.50	1.17	1.00	1.00	1.67
Lobelia	Laguna®	Cloud White	PW	3.83	0.67	0.50	0.17	1.29

Thank You

Thank you to all the companies who participated in the trials in 2021. Thank you, Mike Anderson, Greenhouse Manager for your guidance and valuable help. Thank you to Berger for the soil donation used to start the plants. 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.

More Information

Contact Pam Bennett, Associate Professor with questions or comments: bennett.27@osu.edu or 937-398-7575.

Companies

PW = Proven Winners

BH = Ball Horticulture (Includes Ball FloraPlant, Ball Ingenuity, PanAmerican Seed)

EH = Eason Horticultural Resources

SAK = Sakata

SUN = Suntory



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