

2022 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 2022 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 21, 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, 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. Trials were irrigated as needed and containers were watered regularly. See the weather information below for 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. Normally pesticides are not applied; however, the deer pressure was a problem for a few of the plants (tomatoes, begonias, impatiens). A repellent was used on these plants. ***The plants in these trials were deadheaded on a regular basis by volunteers and staff.***

Faculty, staff, and volunteers conducted visual evaluations on June 24th, 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 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 precipitation overall was above normal, but we were able to plant under perfect conditions on May 21st. There was significant rainfall in May, with a total of 2.85 inches more than normal precipitation. June was close to normal in precipitation and again in July, there were 2.8 inches of rain above the normal historical average. August was normal and September was slightly above normal in precipitation. Temperatures were close to the season's historical average temperature. In 2022, there were a total of nine days of 90F or higher which is comparable to the number of days above 90F in 2021.

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

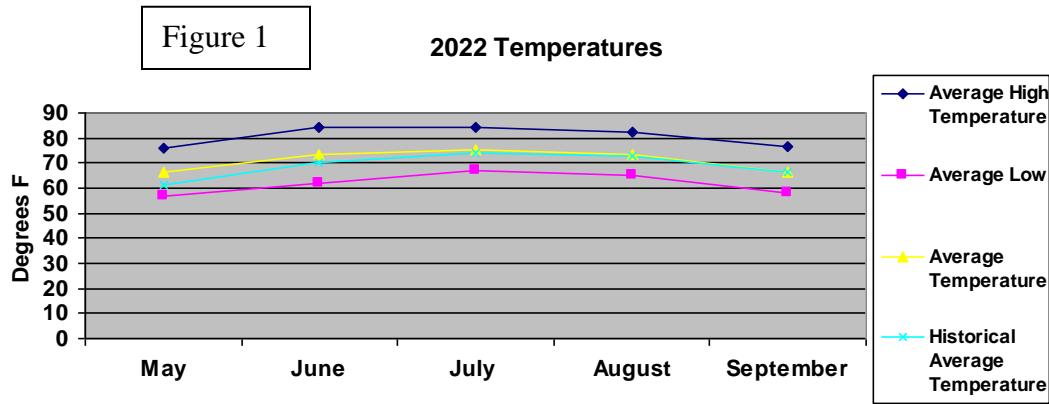
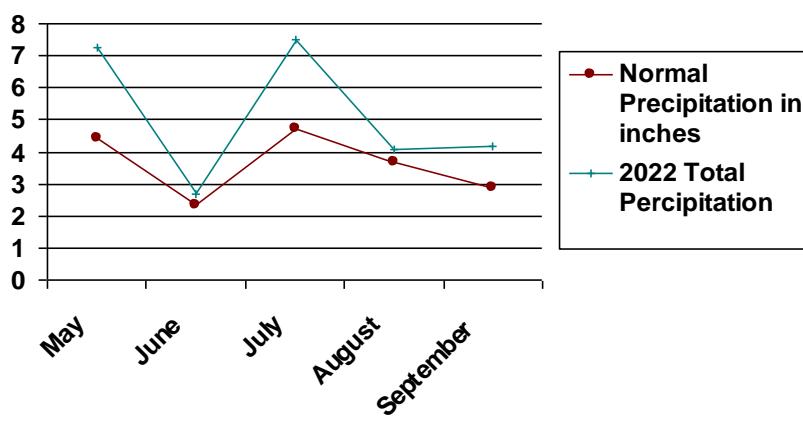


Figure 2



Results

Following are the varieties in the 2022 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
Zinnia	Zesty™	Orange	Ball	4.88	4.95	5.00	4.94	4.94
Zinnia	Zesty™	Purple	Ball	4.88	4.90	5.00	4.94	4.93
Ipomoea	Illusion®	Penny Lace™	PW	4.92	4.95	4.95	4.89	4.93
Salvia		Blue Chill	Ball	4.83	4.95	4.95	4.94	4.92
Begonia	Megawatt™	Rose Bronze Leaf Improved	Ball	4.88	4.95	4.95	4.83	4.90
Begonia	Megawatt™	Rose Green Leaf	Ball	4.92	4.95	4.95	4.78	4.90
Coleus	Trailblazer™	Road Trip	Ball	4.75	5.00	4.95	4.89	4.90
Helianthus	Sunccredible	Yellow	PW	4.74	4.89	5.00	4.94	4.89
Begonia	Megawatt™	White Green Leaf	Ball	4.88	4.90	4.95	4.83	4.89
Helianthus	Sunccredible	Saturn	PW	4.83	4.89	5.00	4.83	4.89
Impatiens x hybrida	SunPatiens	Compact Classic White	Sak	4.75	5.00	4.95	4.83	4.88
Lantana	Luscious® Royale	Red Zone	PW	4.61	4.95	5.00	4.94	4.88
Lantana	Luscious®	Basket Tangelo™	PW	4.65	4.95	4.90	4.94	4.86
Impatiens	Beacon®	Portland Mix	Ball	4.67	4.89	5.00	4.89	4.86
Begonia	Surefire®	Cherry Cordial™	PW	4.75	4.95	4.86	4.89	4.86
Begonia	Dragon Wing®	Red	PW	4.65	4.90	5.00	4.89	4.86
Zinnia	Zesty™	Yellow	Ball	4.63	4.90	4.95	4.94	4.86
Lantana	Luscious® Royale	Lemon Tart™	PW	4.52	4.95	5.00	4.94	4.85
Begonia x hybrida*	Viking	Explorer Rose on Green	Sak	4.68	4.89	4.95	4.88	4.85
Impatiens x hybrida	SunPatiens	Compact Purple Candy	Sak	4.58	4.95	4.95	4.89	4.84
Gomphrena	Truffula	Pink	PW	4.71	4.90	4.80	4.94	4.84
Ipomoea	Sweet Caroline Upside	Black Coffee™	PW	4.92	4.90	4.75	4.78	4.84
Plectranthus	ColorBlaze®	Torchlight	PW	4.61	4.95	4.95	4.83	4.84
Bracteantha	Granvia	Gold	Sun	4.67	4.95	4.86	4.83	4.83
Ipomoea	Sweet Caroline Upside	Key Lime	PW	4.79	4.85	4.80	4.83	4.82
Celosia plumosa		Flamma Golden	Sak	5.00	4.85	4.75	4.67	4.82
Begonia x hybrida*	Viking	Explorer Red on Green	Sak	4.59	4.84	4.95	4.88	4.82
Petunia	Supertunia Mini Vista®	Yellow	PW	4.42	4.95	5.00	4.89	4.81
Rex Begonia	Jurassic Jr.™	Fire Spike	Ball	4.75	4.74	4.90	4.83	4.81
Begonia	Dragon Wing®	Pink	PW	4.48	4.85	5.00	4.89	4.80
Impatiens	Beacon®	Sanibel Mix	Ball	4.75	4.84	4.84	4.78	4.80
Impatiens x hybrida	SunPatiens	Compact Lilac Improved	Sak	4.46	4.95	4.90	4.89	4.80
Celosia plumosa		Flamma Bright Red	Sak	4.75	4.75	4.85	4.83	4.80
Celosia plumosa		Flamma Red	Sak	4.75	4.80	4.90	4.72	4.79
Petunia	Surfinia	Sumo Pink	Sun	4.50	4.95	5.00	4.72	4.79
Impatiens x hybrida	SunPatiens	Vigorous Pretty Pink	Sak	4.38	4.95	4.90	4.94	4.79
Rex Begonia	Jurassic Megaloo™	Croc	Ball	4.71	4.79	4.80	4.83	4.78

Genus/ Common Name	Series	Variety/Color	Company	June	July	August	September	Overall Average
Coleus		Peach Frizzle	Ball	4.58	4.85	4.90	4.78	4.78
Salvia	Unplugged®	Pink	PW	4.71	4.85	4.76	4.78	4.77
Cyperus	Graceful Grasses®	Prince Tut	PW	4.75	4.85	4.71	4.78	4.77
Angelonia	AngelDance™	Violet Bicolor	Ball	4.54	4.85	4.90	4.78	4.77
Rex Begonia	Jurassic Megalo™	Reptile	Ball	4.58	4.79	4.85	4.83	4.76
Petunia	Supertunia Vista®	Jazzberry	PW	4.92	4.95	4.95	4.22	4.76
Canna	Canna Nova	Scarlet	Ball	4.33	4.90	4.90	4.89	4.76
Lantana camara		SunDance Pink	Sak	4.42	4.90	4.81	4.83	4.74
Plectranthus	ColorBlaze®	Pineapple Brandy	PW	4.67	4.75	4.80	4.72	4.73
Impatiens	Beacon®	Lindau Mix	Ball	4.79	4.68	4.74	4.72	4.73
Zinnia hybrida	Profusion	Exp. Fire Improved	Sak	4.13	4.90	5.00	4.88	4.73
Lantana	Little Lucky™	White	Ball	4.65	4.75	4.67	4.83	4.73
Salvia	Rockin'®	Deep Purple 2023	PW	4.88	4.68	4.62	4.72	4.73
Rex Begonia	Jurassic Megalo™	Komodo	Ball	4.46	4.79	4.80	4.83	4.72
Petunia	Supertunia Mini Vista®	White	PW	4.92	4.95	4.38	4.56	4.70
Petunia	ColorRush™	Pink Star	Ball	4.83	4.80	4.95	4.22	4.70
Lantana	Shamrock™	Butterscotch Glow	Ball	4.55	4.55	4.76	4.94	4.70
Lantana	Shamrock™	Peach Improved	Ball	4.55	4.45	4.90	4.89	4.70
Impatiens x hybrida	SunPatiens	Vigorous Red	Sak	4.42	4.70	4.75	4.89	4.69
Impatiens x hybrida	SunPatiens	Compact Lavender Splash	Sak	4.17	4.95	4.86	4.78	4.69
Coleus	Trailblazer™	Glory Road	Ball	4.42	4.80	4.81	4.72	4.69
Angelonia	AngelDance™	Fuchsia Bicolor	Ball	4.67	4.70	4.81	4.50	4.67
Begonia	Double Up®	Red	PW	4.67	4.75	4.85	4.39	4.66
Petunia	Supertunia Mini Vista®	Hot Pink	PW	4.75	4.85	4.60	4.44	4.66
Petunia	Supertunia Mini Vista®	Pink Star	PW	4.75	4.85	4.60	4.39	4.65
Impatiens x hybrida	SunPatiens	Vigorous White Improved	Sak	4.29	4.70	4.76	4.83	4.65
Petunia	SureShot™	White	Ball	4.58	4.70	4.71	4.56	4.64
Ipomoea	Sweet Caroline	Medusa Green	PW	4.65	4.80	4.57	4.50	4.63
Rex Begonia	Jurassic Dino™	Dragon Fruit	Ball	4.79	4.58	4.74	4.39	4.62
Begonia	Surefire®	Rose	PW	4.29	4.60	4.76	4.83	4.62
Rex Begonia	Jurassic™	Pink Splash	Ball	4.63	4.42	4.70	4.72	4.62
Begonia	Megawatt™	Pink Green Leaf	Ball	4.52	4.80	4.71	4.39	4.61
Rudbeckia		Mini flame	EHS	4.57	4.90	4.86	4.06	4.60
Interspecific Impatiens	Solarscape™	XL Salmon Glow	Ball	4.08	4.75	4.71	4.83	4.60
Heliotropium	Augusta	Lavender	PW	3.88	4.95	5.00	4.56	4.60
Celosia plumosa		Flamma Orange	Sak	4.79	4.55	4.62	4.39	4.59
Salvia	Rockin'®	Blue Suede Shoes	PW	4.64	4.25	4.67	4.78	4.58

Genus/ Common Name	Series	Variety/Color	Company	June	July	August	September	Overall Average
Catharanthus	Soiree Double	Orchid	Sun	4.25	4.90	4.90	4.28	4.58
Cyperus	Graceful Grasses®	Queen Tut™	PW	4.54	4.70	4.57	4.44	4.56
Begonia	Dragon Wing®	White	PW	4.52	4.55	4.43	4.72	4.56
Plectranthus	ColorBlaze®	Mini Me™ Watermelon	PW	4.21	4.70	4.71	4.56	4.54
Catharanthus	Soiree Double	White	Sun	4.13	4.80	4.75	4.50	4.54
Rex Begonia	Jurassic Dino™	Black Tie	Ball	4.58	4.53	4.50	4.56	4.54
Petunia x atkinsiana	DuraBloom	Royal Pink	Dum	4.54	4.65	4.67	4.22	4.52
Begonia	Surefire®	Red	PW	4.22	4.50	4.43	4.89	4.51
Begonia	Double Up®	White	PW	4.04	4.65	4.76	4.56	4.50
Nemesia	Aromance®	Mulberry	PW	4.79	4.90	4.43	3.89	4.50
Pepper		Trailblazer	Ball	4.63	4.75	4.57	4.06	4.50
Petunia	Supertunia Mini Vista®	Scarlet	PW	4.75	4.90	4.85	3.50	4.50
Begonia	Surefire®	White	PW	4.21	4.85	4.62	4.28	4.49
Canna	Cannova	Bronze Peach	Ball	3.71	4.50	4.80	4.83	4.46
Dahlia	Venti™	Mango	Ball	4.38	4.35	4.67	4.44	4.46
Lantana	Little Lucky™	Lavender	Ball	4.09	4.60	4.19	4.94	4.46
Cuphea hyssopifolia		Hummingbirds Lunch	Dum	4.29	4.55	4.29	4.67	4.45
Zinnia hybrida		Profusion Fire	Sak	4.00	4.53	4.65	4.61	4.45
Spreading Begonia	Hula™	Red	Ball	4.04	4.65	4.52	4.56	4.44
Petunia	Headliner™	Light Pink Sky	Ball	4.25	4.45	4.90	4.17	4.44
Celosia plumosa		Flamma Rose	Sak	4.33	4.25	4.38	4.78	4.44
Tomato		Sun Dipper	Ball	4.75	4.50	4.50	3.89	4.41
Begonia	Megawatt™	Red Green Leaf	Ball	4.50	4.40	4.43	4.28	4.40
Spreading Begonia	Hula™	Bicolor Red White	Ball	3.67	4.65	4.67	4.61	4.40
Rex Begonia	Jurassic™	Pink Shades	Ball	4.58	4.00	4.55	4.44	4.39
Petunia	Supertunia Mini Vista®	Midnight	PW	4.54	4.70	4.70	3.61	4.39
Begonia	Megawatt™	Pink Bronze Leaf	Ball	4.74	4.45	4.38	3.94	4.38
Petunia	SureShot™	Blueberries & Cream	Ball	4.71	4.55	4.57	3.67	4.37
Calibrachoa*	Bloomtastic	Rose Quartz	Dum	4.83	4.79	4.05	3.71	4.34
Double Impatiens	Glimmer™	Salmon	Ball	3.88	4.65	4.62	4.22	4.34
Rex Begonia	Jurassic™	Green Streak	Ball	4.50	3.79	4.50	4.50	4.32
Lanatana camara	Heartland	Orange	Dum	3.42	4.20	4.67	4.83	4.28
Petunia	Headliner™	Pink Sky 23	Ball	4.38	4.30	4.90	3.50	4.27
Rex Begonia	Jurassic Jr.™	Berry Swirl	Ball	4.67	4.26	4.25	3.89	4.27
Juncus		Blue Mohawk	PW	3.83	4.40	4.43	4.39	4.26
Calibrachoa*	Superbells®	Yellow 2023	PW	4.25	4.58	4.38	3.82	4.26
Calibrachoa*	Superbells®	Double Yellow	Dum	4.54	4.79	4.19	3.47	4.25
Coleus blumei	Main Street	Portage Avenue	Dum	4.54	4.35	4.38	3.67	4.23
Double Impatiens	Glimmer™	White	Ball	4.00	4.25	4.29	4.39	4.23

Genus/ Common Name	Series	Variety/Color	Company	June	July	August	September	Overall Average
Coleus	Premium Sun	Ruby Heart	Ball	4.25	4.30	4.52	3.78	4.21
Double Impatiens	Glimmer™	Dark Red	Ball	4.21	4.30	4.29	4.06	4.21
Scaevola	Surdiva	White Improved	Sun	4.38	4.40	4.57	3.50	4.21
Canna	Cannova	Red Golden Flame	Ball	3.54	4.00	4.43	4.78	4.19
Nemesia	Aromance®	Pink	PW	4.25	4.40	3.86	4.22	4.18
Calibrachoa*	Superbells®	Prism™ Pink Lemonade	PW	4.96	4.79	3.57	3.35	4.17
Double Impatiens	Glimmer™	Hot Pink	Ball	3.58	4.55	4.19	4.22	4.14
Scaevola	Surdiva	Purple	Sun	4.29	4.40	4.24	3.61	4.14
Spreading Begonia	Hula™	Pink	Ball	3.79	4.30	4.14	4.22	4.11
Petunia	Surfinia	Heavenly Blue	Sun	3.95	3.40	4.40	4.65	4.10
Petunia	SureShot™	Dark Red	Ball	4.04	3.95	4.76	3.56	4.08
Petunia x atkinsiana	Surprise QueenBee	Red NP Windmill 93	Dum	4.58	4.45	4.20	3.06	4.07
Calibrachoa*	Superbells®	Double Twilight	PW	4.71	4.63	3.71	3.06	4.03
Interspecific Impatiens	Solarscape™	Magenta Bliss	Ball	3.88	4.20	3.95	4.00	4.01
Spreading Begonia	Hula™	Blush	Ball	3.63	3.95	4.10	4.28	3.99
Double Impatiens	Glimmer™	Burgundy	Ball	3.71	4.30	4.24	3.67	3.98
Interspecific Impatiens	Solarscape™	White Shimmer	Ball	3.63	3.80	4.05	4.39	3.97
Dahlia	Dalaya®	Apricot	Ball	4.67	3.70	3.90	3.44	3.93
Osteospermum	Bright Lights™	Sunset	PW	3.75	4.55	3.76	3.61	3.92
Petunia	Supertunia®	Persimmon	PW	3.92	3.50	4.38	3.83	3.91
Lanatana camara	Heartland	Blue Moon	Dum	2.52	4.30	4.29	4.50	3.90
Portulaca	Mojave®	Yellow 2023	PW	3.08	3.95	4.20	4.22	3.86
Interspecific Impatiens	Solarscape™	Orange Burst	Ball	3.58	3.95	3.81	4.11	3.86
Rex Begonia	Jurassic Jr.™	Arctic Twist	Ball	4.00	3.37	4.05	3.83	3.81
Geranium	Big EEZE	Pink	Dum	3.17	4.15	3.40	4.44	3.79
Petunia	SureShot™	Dark Blue	Ball	4.13	3.45	3.67	3.89	3.78
Dahlia	Megaboom	Orange Crush	Dum	4.17	4.32	3.35	3.28	3.78
Interspecific Impatiens	Solarscape™	Mix	Ball	3.27	3.56	3.62	4.61	3.76
Begonia	Megawatt™	Red Bronze Leaf	Ball	4.39	3.65	3.67	3.17	3.72
Coleus blumei	Main Street	Orchard Road	Dum	4.04	3.90	3.76	3.06	3.69
Calibrachoa*	Tik Tok	Orange	Dum	4.71	4.53	3.48	1.94	3.66
Sedum		Little Shimmer	Ball	4.33	4.05	3.67	2.39	3.61
Calibrachoa*	Superbells®	Coral Sun	PW	3.58	4.16	3.90	2.47	3.53
Interspecific Impatiens	Solarscape™	Neon Purple	Ball	3.46	3.05	3.81	3.78	3.52
Sedum		Little Shine	Ball	4.13	3.95	3.67	2.33	3.52
Lanatana camara	Heartland	Red Sky	Dum	2.78	3.00	3.67	4.61	3.52
Petunia	CannonBall™	Coral	Ball	4.13	3.70	3.00	3.22	3.51
Agastache	Betterbuzz	Amber	Dum	4.13	4.10	3.10	2.67	3.50
Petunia	SureShot™	Blue Vein	Ball	5.54	2.35	3.19	2.89	3.49

Genus/ Common Name	Series	Variety/Color	Company	June	July	August	September	Overall Average
Double Impatiens	Glimmer™	Bright Red	Ball	3.54	3.65	3.62	3.11	3.48
Lobelia	Magadi™	Compact Blue Bay	Ball	4.96	4.20	2.43	1.94	3.38
Double Impatiens	Glimmer™	Appleblossom	Ball	4.00	3.20	3.33	2.94	3.37
Juncus	Graceful Grasses®	Curly Wurly	PW	3.00	3.05	3.57	3.78	3.35
Crossandra infundibuliformis		Watermelon	Dum	1.64	2.60	4.14	4.33	3.18
Petunia	Surfinia	XXL Taffy Pink	Sun	3.42	2.75	3.00	3.50	3.17
Dahlia	Venti™	Tequila Sunrise 23	Ball	2.83	2.90	3.43	3.39	3.14
Petunia	SureShot™	Magenta	Ball	3.83	2.65	3.14	2.56	3.05
Agastache	Betterbuzz	Amarillo	Dum	3.83	3.45	1.71	2.89	2.97
Muehlenbeckia		Big Leaf	PW	2.13	2.90	3.33	3.50	2.97
Scaevola	Fairy™	Pink 23	Ball	3.08	2.60	2.81	2.50	2.75
Petunia x atkinsiana	Smartunia	Baby Pink	Dum	3.29	2.70	3.05	1.89	2.73
Agastache	Betterbuzz	Rosa	Dum	3.79	3.30	2.19	1.06	2.59
Petunia	Surfinia	Heavenly Cabernet	Sun	2.33	2.00	2.14	2.28	2.19
Sanvitalia	Tsavo™	Compact Yellow 23	Ball	4.08	1.60	1.05	1.00	1.93
Lobelia	Laguna®	Compact Blue with Eye IMPROVED	PW	2.71	1.95	1.05	1.08	1.70

Thank You

Thank you to all the companies who participated in the trials in 2022. 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. Thank you to Cultivate 22 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: Kathy Krantz, Ben Gantz, Lindalee Brownstein, Joan Garner, Juliet Taylor, Jeff Harriman, Maggie Harriman, Patti Mikac, Susan Studebaker, Linda Bauer, Jennifer Kuehn, Michele Bailey, Debbie Roshto, Susan Meder, Caye Aiello, Gary Wearsh, Deb McWilliam, Barb House, Ann Crafton, Rosie Wendt, Michael Gagel, Brook Plummer, Lorraine Normore, Marjorie Ward, Denise Fields, Karen Wander, Jacqui Denton-Stickle, Sarah Rice, Lou Tomlin-King, Mark Debard, Rusty Lawyer, Loretta Graham, Julie Clemens, Ben Gantz, Susan Speck, Hope Weber, Ann Sheldon, Denise Johnson, and Sabine Kuhn.

More Information

Contact Pam Bennett, Associate Professor with questions or comments: bennett.27@osu.edu or 937-408-7900.

Companies

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

Dum = Dummen Orange

EH = Eason Horticultural Resources

PW = Proven Winners

SAK = Sakata

SUN = Suntory



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