

2021 Herbaceous Cultivar Trials Results

Chadwick Arboretum, 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 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 prior to 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 2021 in Columbus, Ohio. The purpose of the evaluation is to provide growers, landscapers, and homeowners 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 in 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, 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. Trials were irrigated as needed and containers were watered regularly. See the weather information below for details. In ground and raised beds were mulched prior to 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

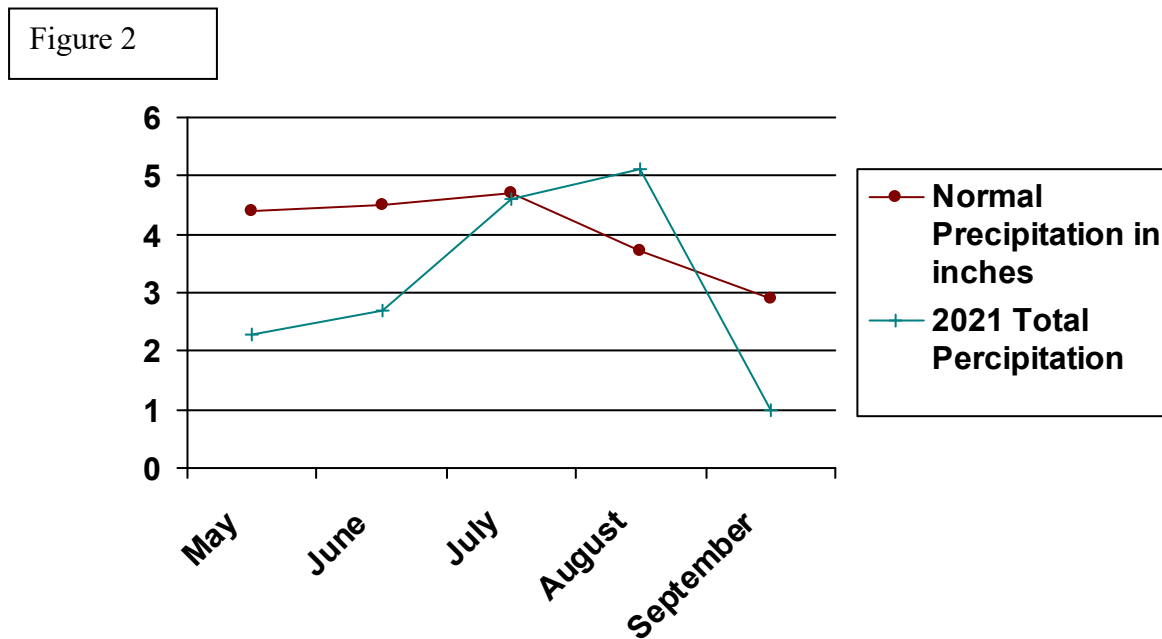
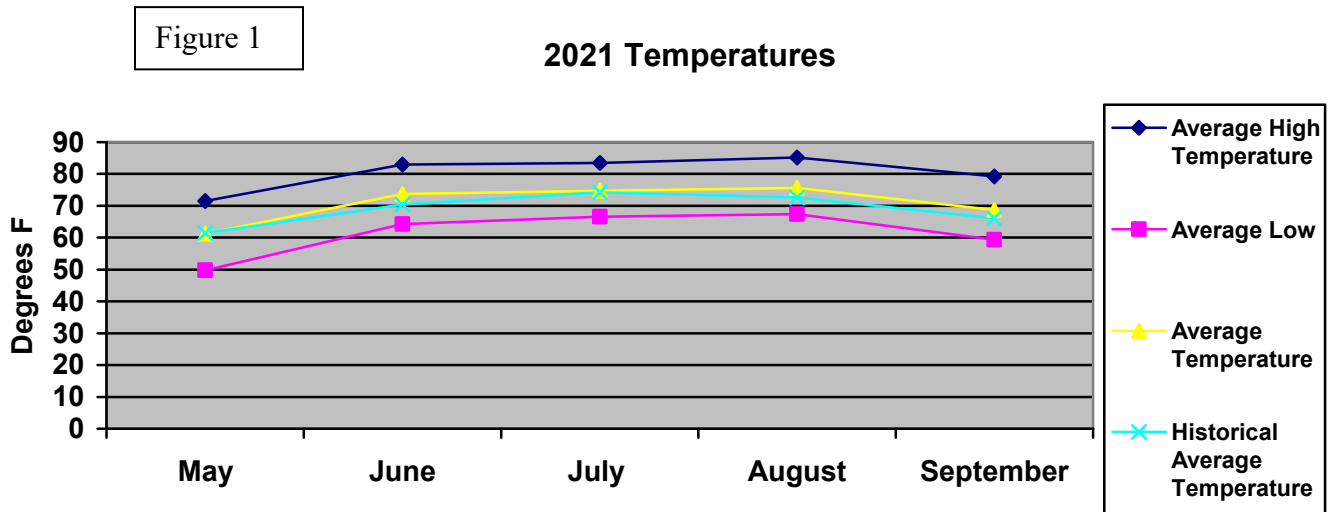
The information below was obtained from the College of Food, Agricultural, and Environmental Sciences weather station in Columbus, Ohio. More details can be found at:

<https://weather.cfaes.osu.edu/stationinfo.asp?id=14>

May precipitation overall was below normal, and we planted with perfect planting conditions on May 21th. Precipitation in June was below normal and in July it was above normal. 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 for a few days with little rain until the end of May. In 2021, there were a total of nine days of 90F or higher with September 18th one of them.

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	Yearly Average
Begonia	Viking Explorer	Red on Green	SAK	5.00	5.00	5.00	5.00	5.00
Bracteantha		Granvia Gold	SUN	5.00	5.00	5.00	5.00	5.00
Catharanthus	Soiree Kawaii	Red Shades	SUN	5.00	5.00	5.00	5.00	5.00
Catharanthus	Soiree Kawaii	White Peppermint	SUN	5.00	5.00	5.00	5.00	5.00
Cyperus	Graceful Grasses	Prince Tut	PW	5.00	5.00	5.00	5.00	5.00
Heliotropium	Augusta	Lavender	PW	5.00	5.00	5.00	5.00	5.00
Lobularia		White Knight	PW	5.00	5.00	5.00	5.00	5.00
Pepper		Pot-a-peno	BH	5.00	5.00	5.00	5.00	5.00
Petunia	Surfinia	Sumo Pink	SUN	5.00	5.00	5.00	5.00	5.00
Solenostemon	ColorBlaze®	Torchlight	PW	5.00	5.00	5.00	5.00	5.00
Rex Begonia	Jurassic Megalo	Reptile	BH	5.00	5.00	5.00	5.00	5.00
Salvia	Unplugged	Pink	PW	5.00	5.00	5.00	5.00	5.00
Salvia	Unplugged	So Blue	PW	5.00	5.00	5.00	5.00	5.00
Solenostemon	ColorBlaze®	El Brighto	PW	5.00	5.00	5.00	5.00	5.00
Solenostemon	ColorBlaze®	Newly Noir	PW	5.00	5.00	5.00	5.00	5.00
Solenostemon	ColorBlaze®	El Brighto	PW	5.00	5.00	5.00	5.00	5.00
Solenostemon	ColorBlaze®	Newly Noir	PW	5.00	5.00	5.00	5.00	5.00
Solenostemon	ColorBlaze®	Torchlight	PW	5.00	5.00	5.00	5.00	5.00
Begonia	Viking Explorer	Rose on Green	SAK	4.67	5.00	5.00	5.00	4.92
Catharanthus	Soiree Kawaii	Blueberry Kiss	SUN	4.67	5.00	5.00	5.00	4.92
Catharanthus	Soiree Kawaii	Coral Reef	SUN	4.67	5.00	5.00	5.00	4.92
Evolvulus		Blue My Mind	PW	4.67	5.00	5.00	5.00	4.92
Helianthus	Suncredible®	Saturn	PW	4.67	5.00	5.00	5.00	4.92
Helianthus	Suncredible®	Yellow	PW	4.67	5.00	5.00	5.00	4.92
Impatiens	Beacon	Bright Red	BH	4.67	5.00	5.00	5.00	4.92
Impatiens	Beacon	Coral	BH	4.67	5.00	5.00	5.00	4.92
Impatiens	Beacon	Violet Shades	BH	4.67	5.00	5.00	5.00	4.92
Lantana	Lucious	Citron	PW	4.67	5.00	5.00	5.00	4.92
Pepper	Candy Cane	Chocolate Cherry	BH	4.67	5.00	5.00	5.00	4.92
Petunia	Supertunia Vista®	Jazzberry	PW	4.67	5.00	5.00	5.00	4.92
Rex Begonia	Jurassic	Silver Swirl	BH	5.00	5.00	5.00	4.67	4.92
Rex Begonia	Jurassic Jr.	Purpla Croc	BH	5.00	5.00	4.67	5.00	4.92
Verbena		Meteor Shower	PW	5.00	5.00	5.00	4.67	4.92
Zinnia	Profusion	Double Red	SAK	5.00	5.00	5.00	4.67	4.92
Zinnia	Profusion	Red Yellow Bicolor	SAK	5.00	5.00	5.00	4.67	4.92
Petunia	CannonBall	Merlot Star Imp	BH	5.00	5.00	4.67	4.67	4.83
Rex Begonia	Jurassic Dino	Black Sky	BH	4.67	4.67	5.00	5.00	4.83
Rex Begonia	Jurassic Dino	Polka Dot	BH	4.67	4.67	5.00	5.00	4.83
Rex Begonia	Jurassic Jr.	Red Splash	BH	5.00	4.67	4.67	5.00	4.83
Evolvulus		Blue My Mind XL	PW	4.33	5.00	5.00	5.00	4.83
Gomphrena	Truffula	Pink	PW	4.33	5.00	5.00	5.00	4.83

Genus/ Common Name	Series	Variety/Color	Company	June	July	August	September	Yearly Average
Lantana	Luscious	Marmalade	PW	4.33	5.00	5.00	5.00	4.83
Rex Begonia	Jurassic	Pink Splash	BH	4.33	5.00	5.00	5.00	4.83
Rex Begonia	Jurassic Megalo	Croc	BH	4.33	5.00	5.00	5.00	4.83
Rex Begonia	Jurassic Megalo	Komodo	BH	4.33	5.00	5.00	5.00	4.83
Impatiens	Beacon	Formula Mixture	BH	4.67	4.33	5.00	5.00	4.75
Lantana	Shamrock	Orange Flame	BH	4.67	4.33	5.00	5.00	4.75
Lantana	Shamrock	White	BH	5.00	4.00	5.00	5.00	4.75
Petunia	Headliner™	Enchanted Sky	BH	5.00	5.00	4.00	5.00	4.75
Petunia	Starlet	Midnight Sky	BH	5.00	5.00	4.00	5.00	4.75
Petunia	Supertunia	Royal Velvet®	PW	4.67	5.00	4.33	5.00	4.75
Petunia	Supertunia	Sharon	PW	5.00	5.00	4.00	5.00	4.75
Rex Begonia	Jurassic Jr.	Berry Swirl	BH	5.00	4.67	4.33	5.00	4.75
Impatiens	Beacon	White	BH	4.67	4.33	4.67	5.00	4.67
Petunia	CannonBall	Red	BH	4.67	5.00	4.67	4.33	4.67
Petunia	Surfinia	Heartbeat Imp	SUN	5.00	5.00	4.00	4.67	4.67
Rex Begonia	Jurassic	Heartbeat	BH	4.33	4.67	4.67	5.00	4.67
Rex Begonia	Jurassic Dino	Greenie	BH	4.00	4.67	5.00	5.00	4.67
Verbena	EnduraScape	Burgundy	BH	4.33	4.67	5.00	4.67	4.67
Impatiens	Beacon	Orange	BH	4.33	4.33	5.00	5.00	4.67
Lantana	Bloomify	Orange	BH	4.67	4.67	4.33	4.67	4.58
Ocimum		Amazel Basil	BH	5.00	5.00	4.67	3.67	4.58
Impatiens	Beacon	Salmon	BH	4.00	4.33	5.00	5.00	4.58
Petunia	Shock Wave	Spark Mixture Imp	BH	4.33	5.00	4.33	4.67	4.58
Petunia	Supertunia	Mini Vista White	PW	5.00	5.00	3.67	4.67	4.58
Angelonia*	Angelface	Cascade Blue	PW	5.00	5.00	5.00	3.00	4.50
Angelonia*	Angelface	Cascade Snow	PW	5.00	5.00	5.00	3.00	4.50
Dianthus	Jolt	Purple	BH	3.33	4.67	5.00	5.00	4.50
Heliopsis helianthoides		Summer Eclipse	BH	3.33	4.67	5.00	5.00	4.50
Lantana	Shamrock	Peach	BH	4.67	3.67	4.67	5.00	4.50
Petunia	Supertunia	Mini Vista Hot Pink	PW	4.67	5.00	3.33	5.00	4.50
Petunia	Surfinia	Purple Heart	SUN	5.00	5.00	4.00	4.00	4.50
Petunia	Surfinia	XXL Taffy Pink	SUN	4.67	4.67	3.67	5.00	4.50
Petunia	Vista®	Snowdrift	SUN	4.67	4.67	4.67	4.00	4.50
Angelonia	Angelissa	White	SAK	4.00	5.00	4.67	4.00	4.42
Impatiens	Beacon	Rose	BH	4.67	4.00	4.00	5.00	4.42
Petunia	E3 Easy Wave	Coral	BH	5.00	5.00	3.33	4.33	4.42
Salvia		Lancelot	BH	5.00	3.33	4.67	4.67	4.42
Petunia	SuperCal Premium	Yellow Sun	SAK	4.33	4.67	4.33	4.33	4.42
Lantana	Shamrock	Rose	BH	3.33	4.00	5.00	5.00	4.33
Verbena	Superbena	Imperial Blue	PW	4.67	5.00	4.00	3.67	4.33

Genus/ Common Name	Series	Variety/Color	Company	June	July	August	September	Yearly Average
Angelonia	Angelissa	Purple	SAK	4.00	4.33	5.00	4.00	4.33
Ocimum	Everleaf	Thai Towers Basi		5.00	5.00	4.33	3.00	4.33
Petunia	E3 Easy Wave	Pink	BH	5.00	5.00	4.00	3.33	4.33
SunPatiens	Vigorous	White	SAK	4.00	4.33	4.00	5.00	4.33
Tomato		Dark Star	BH	5.00	4.33	3.67	4.33	4.33
Tomato		Loki	BH	5.00	4.33	3.67	4.33	4.33
Tomato		Marzito	BH	4.67	4.33	3.67	4.67	4.33
Begonia	Boliviensis Rivulet	Orange	BH	4.00	4.33	4.67	4.00	4.25
Begonia	Megawatt	Pink Bronze Leaf Improved	BH	3.67	3.33	5.00	5.00	4.25
Dahlia	City Lights	Orange	BH	4.33	4.67	4.00	4.00	4.25
Lantana	Bloomify	Pink	BH	4.67	4.33	3.67	4.33	4.25
Petunia	SuperCal Premium	Orange Sun	SAK	4.33	4.33	3.67	4.67	4.25
Petunia	SuperCal Premium	Purple Dawn	SAK	4.00	4.00	4.33	4.67	4.25
Petunia	SuperCal Premium	White	SAK	4.00	4.67	3.67	4.67	4.25
Petunia	E3 Easy Wave	Red	BH	5.00	5.00	3.33	3.67	4.25
Rudbeckia	MiniBeckia	Flame	HER	4.33	5.00	4.67	3.00	4.25
Scaevola	Surdiva	White Imp	SUN	4.33	5.00	4.67	3.00	4.25
Angelonia	Angelissa	Rose	SAK	4.00	4.00	4.67	4.00	4.17
Petunia	Shock Wave	Volt Mixture Imp	BH	4.33	4.67	3.33	4.33	4.17
Petunia	Supertunia	Priscilla Imp	PW	4.33	4.00	3.67	4.67	4.17
Tomato		Bellatrix	BH	5.00	4.00	3.67	4.00	4.17
Petunia	CannonBall	White	BH	4.00	4.67	3.00	4.67	4.08
Petunia	Shock Wave	White	BH	4.67	4.67	4.00	3.00	4.08
Lantana	SunDance	White	SAK	4.33	4.00	4.67	3.33	4.08
SunPatiens	Compact	Deep Red	SAK	3.00	3.67	4.67	5.00	4.08
Thunbergia		Coconut-A-Peel	PW	4.67	4.33	4.33	3.00	4.08
Ageratum	Artist	Blue	PW	5.00	4.33	3.33	3.33	4.00
Begonia	Boliviensis Rivulet	Blush	BH	4.00	4.33	4.67	3.00	4.00
Lantana	SunDance	Yellow	SAK	4.33	3.33	4.00	4.33	4.00
Thunbergia		Tangerine Slice-A-Peel	PW	4.67	4.00	4.33	3.00	4.00
Petunia	E3 Easy Wave	Sky Blue	BH	4.67	4.67	4.00	2.33	3.92
Scaevola	Surdiva	Blue Violet	SUN	4.67	4.00	4.00	3.00	3.92
Petunia	Surfinia	Trailing Red	SUN	5.00	5.00	3.00	2.67	3.92
Petunia	Pretty Grand	Mellow Yellow	BH	4.33	4.33	2.67	4.00	3.83
Verbena	Cake Pops	Purple	PW	4.00	4.33	4.33	2.67	3.83
Dahlia	City Lights	Neon	BH	3.67	4.67	3.67	3.00	3.75
Lantana	SunDance	Red	SAK	4.33	2.67	3.33	4.33	3.67

Genus/ Common Name	Series	Variety/Color	Company	June	July	August	September	Yearly Average
Calibrachoa	MiniFamous	Neo Double Red	BH	4.67	2.67	3.67	3.67	3.67
Verbena	Cake Pops	Pink	PW	3.67	4.33	4.33	2.33	3.67
Petunia	Surfinia	Heavenly Blue	SUN	3.33	4.33	2.67	4.33	3.67
Lobelia	Laguna®	Sky Blue Imp	PW	4.67	4.67	1.67	3.33	3.58
Petunia	CannonBall	Yellow	BH	4.67	5.00	3.00	1.67	3.58
Petunia	CannonBall	Burgundy	BH	4.33	4.67	2.67	2.67	3.58
Petunia	E3 Easy Wave	Blue	BH	4.67	4.33	3.67	1.67	3.58
Petunia	Pretty Flora	Mellow Yellow Duplicate	BH	4.33	4.67	2.67	2.33	3.50
Ageratum	Artist	Pearl	PW	4.67	4.00	2.67	2.33	3.42
Jamesbrittenia	Safari	Sky	PW	4.67	4.00	2.67	2.00	3.33
Verbena	Beats	Red and White	BH	5.00	3.00	2.00	3.00	3.25
Begonia	Boliviensis Rivulet	Double Red	BH	3.33	4.00	3.33	2.00	3.17
Petunia	Headliner™	Banana Cherry	BH	5.00	5.00	2.33	0.33	3.17
Calibrachoa*	MiniFamous	Neo Pink Hawaii	BH	5.00	2.67	3.00	2.00	3.17
Calibrachoa*	Superbells	Double Amber	PW	5.00	2.67	3.33	1.67	3.17
Calibrachoa*	Superbells	Double Twilight	PW	5.00	2.67	3.33	1.67	3.17
Jamesbrittenia	Safari	Dawn	PW	4.67	4.33	2.33	1.00	3.08
Verbena	Beats	Purple and White	BH	4.33	3.00	2.33	2.67	3.08
Petunia	Surfinia	Heavenly Cabernet	SUN	3.33	3.67	2.00	3.00	3.00
Lobelia	Laguna®	Cloud White	PW	4.67	4.67	2.33	0.00	2.92
Verbena	Superbena	Scarlet Star	PW	3.33	3.00	2.33	3.00	2.92
Scaevola	Surdiva	Fashion Pink	SUN	3.67	3.67	2.00	2.00	2.83
Exacum	Jupiter	Blue	BH	3.67	4.00	2.67	0.00	2.58
Exacum	Jupiter	White	BH	4.00	4.00	1.67	0.00	2.42
Coleus	Wizard	Select Mixture Imp	BH	1.00	1.00	0.00	0.00	0.50

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. Thank you to Cultivate 21 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 937-398-7575.

Companies

PW = Proven Winners

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

EH = Eason Horticultural Resources

SAK = Sakata

SUN = Suntory



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES