

MEET A FEW OF OUR FREQUENT FLYERS

Look for these during your next visit to the Butterfly Atrium

More than 500 tropical and North American butterflies call the Butterfly Atrium home. Each of them starts as a chrysalis before emerging as a butterfly and being released into the Atrium.

"While only 40 to 60 butterfly species are showcased at a time, we often introduce new varieties, depending on what's available," said Dan Babbitt, associate director. "I always encourage guests to visit frequently so they see different species."

Look for more "Frequent Flyers" in future issues of *Twigs & Gigs*.

OPEN YEAR ROUND

Butterfly Atrium



Magnificent Owl
Central and South America

The magnificent owl has a stunning wing pattern.



Common Morpho
Central and South America

The bright blue wing color comes from microstructures on its scales.



Pearl Charaxes
Africa

With closed wings, this butterfly is an amazing leaf mimic.



Great Mormon female
Southeast Asia

There are 26 known variations of the female great mormon.



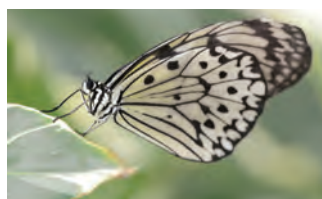
Great Mormon male
Southeast Asia

A large butterfly, its wingspan can exceed five inches.



Atala
Florida

This butterfly has come back from near extinction.



Paper Kite
Malaysia

The chrysalis of this species looks like it has been dipped in gold.



Great Orange Tip
India

The defensive poison in the wings of this butterfly is similar to the venom of the cone snail.



Glasswing
Central and South America

Featuring translucent wings, males will gather into groups to attract females.



Common Birdwing
Southeast Asia

These butterflies are known for their bright colors and long wingspans.



Chocolate Malachite
North and South America

This New World butterfly is also known as the "rusty-tipped page."



White Morpho
Central America

Its wings can appear to change color when viewed at different angles.

10 Questions With...

Brooke Umberger, Conservatory Supervisor of Butterflies and Plants, Hershey Gardens

We recently caught up with Brooke Umberger, who was just named Conservatory supervisor of butterflies and plants, and learned a little bit more about her background and involvement in the Conservatory.

Congratulations on your recent promotion! Tell us about your new role.

I care for all of the tropical plants in the new Conservatory; also, I oversee the staff in the new Butterfly Atrium. I will be designing the seasonal horticultural displays that we plan to feature in the Educational & Horticultural Wing, as well as working on long-term educational programming.

Can you tell us a little bit about your background?

I'm a graduate of Ursinus College with a B.S. in environmental studies and a minor in biology and theater. During the summers, I worked for the Penn State Extension office in Lebanon County, and that's where I became really interested in horticulture and agriculture. After graduating, my interest and love of plants brought me to Hershey Gardens in 2013.

A minor in theater? How did you end up in environmental sciences?

My theatrical interests stemmed from the plays and musicals I did as a kid and in high school. When I first entered college, I majored in theater because I enjoyed performing as well as designing and making costumes. After experiencing the fast pace and late nights of show business for a year, I decided to switch from theater to something that I could see myself doing as a career. Now I can work in nature every day and still perform and sew as a hobby.

You oversaw the coordination and selection of plants for the Conservatory?

Yes; a landscape architecture firm from California designed the Conservatory and provided us with an extensive list of tropical plants for the Butterfly Atrium and Educational & Horticultural Wing. Because we weren't sure which plants would be available to us on the East Coast, we asked Longwood Gardens and Fairchild Tropical Garden in Florida to help with the list. They were both very helpful. Hershey Gardens has never worked with tropical plants before, so this was all new for us.



Brooke Umberger

Where did the tropical plants for the Conservatory come from?

They were delivered by truck from a tropical plant broker in Florida. I went there in January, where I selected large specimen trees and tropical perennials. The entire job has been a learning process and one that I am thankful to be a part of.

There's a cacao tree in the Conservatory?

Yes, there is! A conservatory that honors Milton and Catherine Hershey must include a cacao tree! The pods that the tree produces are used to make chocolate. We've already harvested some of the pods and had them made into nibs. We continue to hand pollinate the tree so that it will keep producing pods.

What has been the most rewarding experience so far?

I love to see the joy in guests' faces. The team here is vigilant about keeping the gardens looking good. It's rewarding to know that others enjoy the result of our work.

Favorite plants?

My favorite plant in the Conservatory is the Frangipani Plumeria tree and *clerodendrum quadriloculare* shooting star bush. The Plumeria is the state tree of Hawaii and produces the flowers that are used to make leis. The shooting star bush looks like fireworks when it blooms and is a winter bloomer, so it is a show stopper. My favorite temperate plants are sunflowers and Hibiscus because I love big tropical flowers.

Rumor has it that you're passionate about pollinators. Why?

They play such an important role in our ecosystem and daily life that many take for granted. Pollinators are my passion and specialty in the horticultural world. It's important to provide a food source for pollinators, which provide one out of every three bites of human food consumption.

You're somewhat of a TV celebrity?!

Haha! That's funny! When I applied for the horticulture position three years ago, theater and performance were listed on my resume. My timing was perfect, because soon afterwards "Good Day PA" on abc27 approached us about doing a monthly gardening segment. The segments are educational for the viewers, and a great way for me to represent Hershey Gardens.

HOMESCHOOL DAY AT HERSHEY GARDENS

Wednesday, October 12
9:30 a.m. - 12 p.m.

Butterflies & Blooms

Students will be fascinated as they explore many natural wonders. They will discover the amazing butterfly life cycle, as well as butterfly anatomy and senses. Plant exploration will teach homeschoolers basic botany, how to plant a seed and plant observation. The day will include a visit to the new indoor, tropical Butterfly Atrium and the Educational & Horticultural Wing.

\$8 per student, 1 adult per family is free, additional adults are \$9. More information and registration (required) at HersheyGardens.org.



Orchid Display Coming in February

Susquehanna Orchid Society Hosting Show at Hershey Gardens

For anyone who has taken on the challenge of caring for an orchid, they will agree with the old adage, “it’s possible to grow orchids on your own, but not nearly as much fun as it should be.”

Fear not, there’s no need to grow your own orchid to admire. Simply visit Hershey Gardens in February, when the Susquehanna Orchid Society will be hosting an orchid show in the new Milton & Catherine Hershey Conservatory. The show will include several sizes, colors and varieties of orchids. The display will be housed in the Educational & Horticultural Wing and is included in regular admission.



The genus *Dendrobium* occurs in diverse habitats throughout much of southeast Asia. These orchids grow quickly throughout summer, but take a rest during winter.



Cattleya orchids are among the most popular orchids, and they come in many colors, shapes, forms and sizes. This genus comes from Costa Rica and the Lesser Antilles south to Argentina.

“Orchids are one of the most fascinating flowers in the plant world,” said Brooke Umberger, Conservatory supervisor. “They are among the largest family of flowering plants on earth, with more than 30,000 different species, and at least 200,000 hybrids.”

Most cultivated orchids are native to the tropics. In their natural habitat, they attach themselves to the bark of trees, or the surface of other plants. Their thick, white roots are specially adapted to absorb moisture and dissolve nutrients. Because orchids

usually grow high in the trees, they are accustomed to good air circulation and plenty of light. They prefer 12 hours of sun per day, year-round, and require a high intensity of light — about the same as mid-summer conditions in temperate regions.

“They are known for being difficult to grow in a non-tropical environment,” said Umberger. “Some are almost impossible to keep alive, much less bring into bloom—even for professional growers.”

Visit HersheyGardens.org later this fall for more information on the orchid show.

Susquehanna Orchid Society meets on the first Sunday afternoon of every month. A typical meeting will have a speaker and a “show table” to display orchids.

The society consists of more than 60 members who have different levels of expertise, grow all types of orchids and are all happy to share their knowledge.

Throughout the year, they host additional meetings at various orchid greenhouses in the area and guided nature walks to discover native orchids in the wild.

Susquehanna Orchid Society has their own orchid show but also participates in shows of sister societies including the Maryland, Southeastern Pennsylvania and Central Pennsylvania Orchid Societies.

Additional information can be found at SusquehannaOrchidSociety.org.



A Better Garden from the Ground Up

What's the Dirt on Soil Tests?

By Lois Miklas, Master Gardener Coordinator, Lancaster County & Retired Educator, The M.S. Hershey Foundation

Most home gardeners are willing to spend time and money on fertilizer, pesticides and replacement plants, yet one of the most important tools to achieve gardening success costs only \$9 and a small investment of time. Soil test kits are readily available from Penn State Extension offices and draw upon the expertise of Penn State's agricultural labs at University Park. The kits provide instruction on tweaking your soil to improve the health of your flowers, vegetables and lawn. To make the process less daunting, here is what you need to know and do.



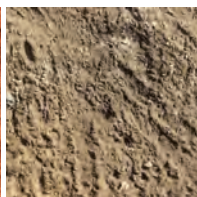
Soil for vegetable gardening, which should have a pH level between 6.2 and 6.8, can be made nutrient rich by creating a mixture of two-thirds garden soil and one-thirds mushroom compost.

Getting Started

- Decide which parts of your garden you want to conduct a soil sample. A different kit is needed for each part of your garden (e.g. lawn, vegetable garden, flower beds).
- Purchase the kit(s). (See inset box for extension office locations.)
- Directions are included in the kit. You will need to take a sample from a number of spots in the area you want to test. Dig about 4 to 6 inches and don't include grass or other materials. Allow your samples to dry before mixing them and placing them in the kit to mail.

Completing the Form

- List the plants you want to grow. This is very important, since a vegetable garden has different needs than a flower garden.
- The standard soil test will measure soil pH and basic nutrient levels. You can pay a little more for additional information, such as percentage of organic matter. However, the standard test will probably yield enough information for the home gardener.



Soil color can be an indicator of its composition. Dark brown suggests that the soil has a good percentage of organic matter. Red reflects the oxidized iron content of the soil, while tan indicates a combination of organic matter and iron.

Interpreting the Results

Here's the good news: Penn State does this for you! The soil test will indicate whether your nutrient levels are optimum, below optimum or above optimum.

- The test will recommend any amendments needed to correct the soil pH, such as limestone.
- The test will also include specific fertilizer recommendations, giving

the amount per 1,000 square feet for various types of fertilizer.

Soil testing will help you improve your garden and ultimately save you money and time, since healthy plants require less application of pesticides and less coddling. Discovering your exact fertilizer needs will help prevent run-off of unnecessary chemicals, making you a better gardener and a better steward of the environment.

SOIL NUTRIENT LEVELS		Below Optimum	Optimum	Above Optimum
Soil pH	6.2			
Phosphorous	37 ppm			
Potassium	241 ppm			
RECOMMENDATIONS FOR:		Home Lawn to Maintain Kentucky Bluegrass		



PennState

**Penn State Extension offices
that sell soil test kits:**

Dauphin County
1451 Peters Mountain Rd
Dauphin, PA 17018
717.921.8803

Lancaster County
1383 Arcadia Road (Farm and Home
Center)
Lancaster, PA 17601
717.394.6851

Lebanon County
2120 Cornwall Rd #1
Lebanon, PA 17042
717.270.4391

The Great Pumpkin Patch

Grow your own using a few simple tips

The fall pumpkin display at Hershey Gardens has become, well, a big deal.

“Each year, we try to grow a larger pumpkin,” said Jamie Shiffer, senior manager, who oversees the pumpkin patch. “The gardening team has tried different methods every year – to gain more insight into what makes a pumpkin grow to more than 300 pounds.”

It all started several years ago. “We always bought our pumpkins from local farms,” said Shiffer. “Then I thought we should try to grow a few here. It might be fun, and it will save us a little money, too.”



“We found a good location outside the Gardens, put up a fence and declared it the pumpkin patch,” said Shiffer. “It’s near our offices, so it’s convenient for watering frequently. As fall approaches, we stop by all the time, making predictions about which pumpkin is going to be the largest. It’s a bit of a friendly competition among the staff,” laughed Shiffer.

The largest pumpkins are used to create a

“As fall approaches, we stop by all the time, making predictions about which pumpkin is going to be the largest. It’s a bit of a friendly competition among the staff.”

display that is a perfect photo opportunity.

“Guests can sit next to these huge pumpkins for a nice fall photo,” said Shiffer.

“It’s a big hit with kids especially. You can imagine how a little kid feels sitting next to a pumpkin twice their size.”

So...how does one’s pumpkin patch grow a 300 pounder?

When it comes to growing these monster pumpkins, which begins in the spring, Shiffer says it’s most important to find a variety that has the ability to grow large. Not all pumpkins do. “Then, fertilizer and water are a pumpkin’s best friend,” Shiffer said. “We use GreenView All Purpose Plant Food 7-7-7.”

“When the pumpkins start to form on the vine, pick one pumpkin per vine to focus on and remove the rest,” said Shiffer. “Throughout the growing season, continue picking any new fruit that emerges so all the water and nutrients are channeled to the one you chose.”

“We pick our pumpkins in early October

for display. Generally, if you see the vines dying or there is the threat of a frost, it’s time to harvest,” said Shiffer. “You’ll also want to make sure the color is fully developed and that the rind is firm.”

“The vines are prickly, so beware,” cautioned Shiffer. “If you intend to carve your pumpkin – no matter what size it is – keep the stem long enough so you can use it to open the top, but never carry the pumpkin by the stem.”

“If for some reason the stem pulls away, it’s a sign that the pumpkin is too ripe and will likely spoil quickly,” said Shiffer.



“My daughter, who is 9, loves to visit the pumpkin patch, just to see how much the pumpkins have grown,” said Shiffer. “A pumpkin patch is a great activity that families can do together all summer, and then enjoy their bounty in the fall.”



A few years ago, Hershey Gardens began growing large pumpkins for a fall guest photo opportunity.



Farewell to Longtime Hershey Gardens Horticulturist

Barb Whitcraft retires after 20 years

On October 7, Barb Whitcraft, horticulture specialist, will be hanging up her pruning shears one last time and retiring after a 20-year career with Hershey Gardens. Barb's passion for horticulture and love of the Gardens has extended throughout many seasons, most of which were transformative. As she ends one chapter in her life and begins another, she reflects on her time at Hershey Gardens.

"It is hard to believe it has been 20 years since I first saw the gardeners pruning the wisteria," she said, as if it was just yesterday. "When I came on board, I knew that I wanted Hershey Gardens to be a greater part of the destination," she said.

Among Barb's improvements was the re-introduction of annual flower shows in the Seasonal Display Garden.

"We started planting mums in September and tulips for the spring show. The tulips, especially, were one of the highlights for me," she reflects. "It was great fun to create the designs each year and order the plants. I also designed container plantings each



year, which were displayed around the shop and entrance."

She also attributes the Advisory Board for helping the Gardens flourish.

"I enjoyed working with the Advisory

Board. They were very enthusiastic and helped me establish the Gardens as a place for families," she added. From the addition of the seasonal Butterfly House in 1998 – only one of six in the country at that time – to the addition of The Children's Garden in 2003 and the Bill Bowman Garden in 2005, Barb helped the Gardens grow in countless ways.

"One thing that I enjoyed most is the many people who I have met through the years - volunteers, staff, vendors, and guests who love Hershey Gardens as I do and are happy to see it grow. I'm grateful to all the staff who helped realize the vision that began so many years ago. I am glad I was a part of the quest to make our 23-acre jewel shine."

"We're very appreciative of all the ways Barb has contributed to Hershey Gardens throughout the years," added Don Papson, executive director of The M.S. Hershey Foundation. "We thank her for her dedication and wish her the very best in retirement."

Looking Back: High Point Garden

Long before Hershey Gardens was created, landscaping and beautification of grounds and property were priorities for Milton and Catherine Hershey. Their love of horticulture was clearly evident at their home, High Point, where Mrs. Hershey was largely responsible for the extensive gardens that surrounded the mansion. Employees remember that her word was law when it came to High Point's grounds.

Catherine Hershey died an untimely death on March 23, 1915, after a long illness; she was only 43. Urged by the Hersheys' housekeeper, Mrs. Candoni, Mr. Hershey directed his gardener, Karl Schmidt, to plant a rose garden at High Point in memory of his wife. Located east of the house and just south of the eastern garden beds, the garden was planted sometime after November 1918. Clayton Lehman, who began working at



High Point Garden, Hershey Rose Garden, ca. 1954

High Point on November 1, 1918, recalled in his 1954 oral history interview that the garden had not yet been planted when he first started working at the mansion.

The rose garden was not planted until after Mrs. Hershey died, and after I was up here, that is, after November, 1918. It was planted by Schmidt. It might have had perhaps 250 roses. There was a round bed in the center, and then on each of the four corners there was

a bed, with grass walks 'round them. I think that is where Mr. Hershey got the idea in the first place of having a rose garden. Carl Schmidt planted the rose garden at the house.

The garden was enclosed with a boxwood hedge and was surrounded with beds of peonies.

In 1930, Milton Hershey established the Hershey Country Club and provided his home as the new clubhouse. In

1939, the Country Club began expanding its facilities, building a locker room just south of the main house, and making plans for a swimming pool. This construction prompted the move of High Point's original rose garden to the Hershey Rose Garden in 1942.

The roses were transplanted in the same form or pattern as the original garden.

Mark Your Calendar!

PUMPKIN GLOW

October 21, 22, 28 and 29

6 to 8:30 p.m.

Hershey Gardens lights up the night with more than 150 carved illuminated pumpkins! New this year - discover a unique collection of live spiders and insects on display in the Educational & Horticultural Wing of the Milton & Catherine Hershey Conservatory. Plus, enjoy a variety of whimsical characters, watch live pumpkin-carving demonstrations and have story time with a scarecrow.

Kids ages 12 and younger are invited to bring a flashlight, come in costume and trick-or-treat throughout the Gardens. The Butterfly Atrium will be closed during Pumpkin Glow.

Pumpkin Glow ticket purchase is required at the door or online at HersheyGardens.org. Members are free!



Fulton Bank

Sponsor

Bonsai: Living Art of the Susquehanna Bonsai Club

Friday, October 7 through Sunday,
November 6

Featuring dozens of bonsai trees in various shapes and sizes, this popular annual exhibit provides information on bonsai, what they are and how they are cultivated. The exhibit will be displayed in the former Butterfly House. Included in admission; members are free!



HO-HO-HOLIDAY HAPPENINGS

Saturday, December 3 and 10
3 to 5 p.m.

Visit with Santa at Hershey Gardens

Kids can share their Christmas wishes with Santa as they visit with Kris Kringle in the Educational & Horticultural Wing of the Milton & Catherine Hershey Conservatory. Included in admission; members are free.



Saturday, December 17
3 p.m.

Happy Holidays with "Miss Maggie Sings"

Celebrate the holiday season with Miss Maggie! This popular children's performer combines singing, guitar, percussion, poems and stories to entertain and teach children (and adults) of all ages! Listen to Miss Maggie and her friends as they sing some favorite holiday songs. Included in admission; members are free.



Sunday, December 4, 11 and 18
1 to 3 p.m.

Music and holiday crafts in the Milton & Catherine Hershey Conservatory

Join us to deck the halls and fill the air with the sounds of holiday favorites from local choirs and musicians. Children will create an ornament out of natural materials in the Horticultural & Educational Wing. Included in admission; members are free.

THANK YOU, VOLUNTEERS!



Volunteens helped with a "vine-cutting" for the Conservatory's grand opening in July.

A big "thank you" goes out to the 2016 summer Volunteers! This annual eight-week summer program for teens ages 12 to 15 helps build work experience as teens learn to interact with guests.

"We had an amazing group of teens," said Peggy Guerra, education coordinator. "The program is a great way for them to develop customer service skills and learn simple environmental concepts to teach others."

The Volunteers also greeted guests and answered questions, as well as participated in the Conservatory's grand opening ceremony by cutting the ceremonial "vine."

This year's Volunteers were: Ben Babbitt, MacKenzie Brown, Anna-Kate Clancy, Katie Copeland, Kailey Eldridge, Katarina Elliott, William Field, Hattie Gavazzi, Patrick Gavazzi, Molly Gearhart, Brianna Hoffacker, Elizabeth (Lizzie) Jaskulski, Maya Jaskulski, Taylor Koda, Michelle Spratt and Jacob Wagers.

The M.S. Hershey Foundation



Hershey Gardens
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HersheyGardens.org

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Membership cards can be mailed to you
or directly to the recipient.**

FROM THE DIRECTOR

A GRAND OPENING!

After several years of planning, thousands of labor hours and the dedication of hundreds of staff and volunteers, the Milton & Catherine Hershey Conservatory opened on July 1, 2016. It was an exhilarating morning as guests entered the brand new building. Upon entering the sunlit Welcome Pavilion, the first sight of four large triangle palm trees, generously donated by Longwood Gardens, did not disappoint.

Visitors explored the Educational & Horticultural Wing's learning kiosks, walked among the varied plantings, and enjoyed the fountain and surrounding floral display, completed by students from Milton Hershey School. Guests and members visiting during the summer were also the first to see the exciting new Butterfly Atrium, with butterflies from around the world, beautiful tropi-



cal plants and a soothing water feature.

While we feel we have achieved a great accomplishment, we know our work doesn't end here. We are constantly striving to find new ways to fulfill our mission of educational and cultural enrichment, as set forth by our founder,

Milton Hershey. Plans are already underway to offer unique, interactive programs, as well as an expansion of our educational field trips. Opportunities for adult and family programming are also being developed. And we're just getting started.

Join us this fall and winter to experience old favorites, such as Pumpkin Glow, and new experiences, such as our festive new holiday program.

A handwritten signature in cursive script that reads 'Mariella Trosko'.

Mariella Trosko, Director
MTrosko@HersheyGardens.org