The Queen of Fall Flowers: The History of the Chrysanthemum

hrysanthemums, commonly referred to as mums, have long been a popular flower for front porches and landscape beds during the late summer and fall season. They are prized for their hardy, colorful flowers that are easy to care for.

While most people know a mum when they see it, few know the history behind them. The chrysanthemum was first cultivated in China as a flowering herb and is mentioned in writings as early as the 15th

Century B.C. As an herb, it was believed to have the power of life. Boiled roots were used as a headache remedy, young sprouts and petals were eaten in salads, and leaves were brewed for a festive drink.

Around the 8th century A.D., the chrysanthemum appeared in Japan. The Japanese were so enamored with this flower that they adopted a chrysanthemum as the crest and official seal of the Emperor.

The chrysanthemum was first introduced into the Western world during the 17th century by a Swedish botanist who named the plant from the Greek words *chrysos*, meaning gold, and *anthemon*, meaning flower. The word for chrysanthemum in both Chinese and Japanese is equivalent to "gold flower." While the meaning behind the flower's name translates across cultures, the symbolism does not. From ancient Asian cultures to modern-day America, the chrysanthemum has signified everything from life to death.

Today's Mums

Ancient growers would not recognize modern mums. Although some mums still resemble daisies, others are more showy.



More than 25 mum varieties will be on display this fall.

Regardless of the flower type, they all belong to the *Compositae*, or daisy family. In more recent times, growers within several countries began to propagate chrysanthemums. Hybridizers in England, France, Japan and the United States have developed

a wide range of colors, shapes and sizes. Today, its colors include various shades of pink, purple, red, yellow, bronze or orange, and white.

Mums remain the most widely grown potted plant in the country and are one of the longest lasting of all cut flowers. This latter attribute, along with their artistic allure, makes mums highly favored by floral arrangers. In the United States, the chrysanthemum is the largest commer-

cially produced flower due to its ease of cultivation, capability to bloom on schedule, diversity of bloom forms and colors, and holding quality of the blooms.

*Excerpts of this article courtesy of the National Chrysanthemum Society.

See more than 1,300 colorful mums at Hershey Gardens. Look for these new varieties.



Butter n' Cream



Gigi Orange



Paradiso Yellow



Stellar Rec



Wicked Purple

10 Questions With...

Alyssa Hagarman, Horticulture Specialist at Hershey Gardens

What is your role at Hershey Gardens?

I design all the displays in the Seasonal Display Garden, which include the spring tulip display, the display of summer annuals and all the fall displays. I also order all the plants and assist with designing other areas throughout the Gardens.

How long have you worked at the Gardens?

I started working here in 2010, fresh out of college, hired as a gardener to care for The Children's Garden. I was fortunate to be given some great learning opportunities along the way. When Barb Whitcraft, former horticulture specialist, retired in 2016, I assumed her position.

Designing the Seasonal Display Garden with tulips in spring, annuals in summer and mums in fall seems like a daunting task. How do you go about coming up with a design?

At first, I found creating designs for the Seasonal Display Garden challenging. Luckily, I had experience with designing displays for The Children's Garden, so I was able to take that knowledge and apply it to the Seasonal Display Garden. It's challenging to come up with a different design every year. The design dictates what types of plants can be used, so I'm faced with selecting plants that have different growing habits but still fit within the same space. The other thing that can be tricky is laying the plants out in the Seasonal Display Garden so they match up with what I've created on paper.

What is a typical day like for you?

It really depends on the time of the year. I am currently in the process of designing the fall mum display, securing all of our pumpkin suppliers for Pumpkin Glow, reviewing my tulip design for spring 2020 and ordering trees for The Christmas Tree Showcase. I also help the rest of the crew carry out their assignments.

What is your background?

While in high school I attended vocational school for three years to study horticulture. After graduating, I enrolled in a two-year program at Penn College (now known as Pennsylvania College of Technology), majoring in horticulture with an emphasis in landscape technology. Some prior part-



Alyssa began working at Hershey Gardens in 2010.

time, landscape-related jobs have included working at a native plant nursery and at a landscape supply company.

What do you enjoy most about your job?

I really enjoy designing the seasonal displays. I like the challenge and love creating a new design every year.

What is your favorite part of the Gardens?

I'm not sure if I have one favorite spot, although I am partial to The Children's Gar-

den because that's the area I was responsible for when I was first hired. I also enjoy the ever-changing Perennial Garden.

Do you have a favorite plant?

That's a difficult question! I have so many, I joke that I need to categorize them. My favorite annual is gerbera daisy; favorite perennial is salvia; favorite tropical plant is the orchid; and my favorite shrub is oak leaf hydrangea. As if that wasn't enough, my favorite tree is a tie between paper bark maple and tri-colored beech.

We hear your son just turned 1. How have you introduced him to nature?

We love to play outside! He is already a nature lover, always pointing out any bird that flies by. He also loves watching butterflies and bees, and he enjoys camping. Now that he's walking and more observant, I will be bringing him to the Gardens frequently.

What are your hobbies outside of work?

Besides being the best mom I can be, I enjoy camping and spending time with my husband and our friends. I am also an avid aquarist. We have two fairly large aquariums at home, filled with lots of fish. I'm also the proud mom to a very lively English springer spaniel; I love teaching him new tricks.



Alyssa uses more than 30 tulip varieties to design the spring tulip display.

Mark Your Calendar!



Member Reception

Thursday, September 26 from 4:30 to 6 p.m.

Members, join us! Look for your invitation in the mail.

Bonsai: Living Art of the Susquehanna Bonsai Club

Friday, October 11 through Saturday, November 2 from 9 a.m. to 5 p.m.



Experience the living art of bonsai with this popular annual exhibit provided by the Susquehanna Bonsai Club. The exhibit will be displayed in the Hoop House. Included in admission; members are free.



PUMPKINGLÓW

October 18, 19, 25 and 26 from 6 to 8:30 p.m.



Hershey Gardens lights up the night with more than 200 carved, illuminated pumpkins on display at this non-scary, family-friendly event. Kids are encouraged to bring a flashlight and dress in costume! Trick-or-treaters can col-

lect candy at eight stations along the path as they enjoy themed jack-o-lantern displays and live cartoon characters! Lebanon County Career & Technology Center students will also be demonstrating pumpkin carving. Kettle corn will be for sale.



Pumpkin Glow is a special event requiring a ticket purchase at the door or in advance at HersheyGardens.org. Members are free.

Fulton Bank

Sponsor

On October 25 and 26 only, celebrity pumpkin carver Danny Kissel will be onsite carving his whimsical creations.

Teacher Appreciation Day: We're Nuts About You! Saturday, November 9 from 9 a.m. to 5 p.m.



Teachers are invited to enjoy Hershey Gardens all day—for free! Join us for a guided walking tour of the nut grove and arboretum at 10 a.m. or noon. Participants can sip warm, mulled cider while taking their time

to observe how our woodland floor, leaf canopy and scent of autumn enhance the experience of the season. Plus, teachers can win a free individual membership to Hershey Gardens and tickets to The Hershey Story! Please present proof of teaching.

Crafty Christmas Creations

November 23, 24, 29, 30, December 1, 7, 8, 14, 15, 21 - 24, and 26-31 from 11 a.m. to 2 p.m.

Bring the kids to celebrate the holidays at Hershey Gardens! Families can stop in at the Education Center, located in The

Children's Garden, for some fun holiday craft making. A display of trees decorated with ornaments made by local students will add to the holiday spirit. Included in admission; members are free.

See Santa on Dec. 7 & 14 from 11 a.m. - 2 p.m.

The Christmas Tree Showcase

Saturday, November 23 through Wednesday, January 1 from 9 a.m. to 5 p.m. (Closed Thanksgiving & Christmas)

Experience all things merry and bright at the festive showcase of holiday trees in the Milton & Catherine Hershey Conservatory. Each tree will be exquisitely decorated by a different local florist and will feature a variety of decorating styles and themes, while a stunning 14-foot poinsettia tree will take center stage. The Welcome Pavilion and Butterfly Atrium will be decorated for the holidays, too! Included in admission; members are free.



Orchid Show, hosted by the Susquehanna Orchid Society



Friday, January 31 to Sunday, February 2 from 9 a.m. to 5 p.m.

The Susquehanna Orchid Society presents the 36th annual orchid show and sale in the Milton & Catherine Hershey Conservatory. More than 1,000 orchids

representing dozens of varieties will be on display, including rare species and unique hybrids. In addition, vendors will have orchids for sale; various orchid societies will have showy displays that will be judged onsite and presented with awards. Included in admission; members are free.

Members, join us for an exclusive preview on Thursday, January 30 from 2 to 5 p.m.!

Butterflies and Beyond

MEET THE STARS INSIDE THE BUTTERFLY ATRIUM

Featured Plant: Plumeria

Plumeria spp.

Plumeria is a genus of plants made up of shrubs and trees native to tropical America. "There are five of these beautiful plants in the Butterfly Atrium, where they thrive," said Sadie Smith, manager of Conservatory habitats. "The common name for Plumeria is 'frangipani,' which originates from a 16th century perfume that had a scent similar to that of a Plumeria flower." The flowers are very fragrant and are often used to make leis.



"Plumerias are a butterfly favorite, and they frequently visit the scented blooms," said Smith. "Despite being loved by the butterflies, plumerias don't provide nectar. Instead, their fragrance draws in butterflies to pollinate the flowers."

Plumerias have a wide range of color depending on cultivar. "They are also partially deciduous, losing their leaves if temperatures drop below 50 degrees," said Smith. "In the Atrium, with its near constant 80 degrees, they never lose their leaves."

Despite being a tropical tree, plumerias can be grown in Pennsylvania in containers. "They will need to be taken into a warm, indoor environment for the winter months," noted Smith. "Plumerias like consistently moist, well-draining soil, but be careful not to overwater." They prefer full sun to very light shade and will not bloom well if they are placed in the shade. "They are also easily rooted from branch cuttings, allowing easy propagation for home gardeners," said Smith.

Featured Butterfly: Blue Morpho Morpho peleides



The blue morpho is a large butterfly with bright blue on the inner side of its wings. "Its size and color make it a popular butterfly in the Atrium," said Smith. "When its wings are closed, its blue color is hidden and only its outer brown wings with seven 'eye spots' are visible. These eye spots are a defense mechanism meant to scare away predators."

Another defense mechanism is the blue color of its wings. "When held up to the light, the blue in the wings is a holograph, allowing the brown color of the outer side to show through," explained Smith. "As it flies, this flashing holographic effect and the movement of the wings are a deterrent to birds, much like the method of hanging pie tins in the garden to protect the harvest."

Blue morphos are native to Central and South America and have a broad range of host plants including plants in the pea family. "As caterpillars, they are covered in fine hairs that act as an irritant, offering protection against predators," said Smith.

"As adults, they like feeding on fruit and prefer the fruit to be rotten." The forest floor and rainforest understory are where female morphos spend most of their time. When mating, they'll leave the lower layers of the forest to look for a mate and lay eggs. "Males are territorial, patrolling their territories; they are often found in more open habitats," said Smith. "Both the males and females will seek sunny spots to warm themselves. The blue morphos are always found in the Butterfly Atrium showing off their bright blue wings!"

Featured Bug: Chilean Rose Hair Tarantula

Grammostola rosea

"Our tarantula is named 'Rosie," laughed Smith. Native to Chile, Bolivia and Argentina, Chilean rose hair tarantulas are common as pets due to their docile temperament. "Although generally even tempered, when they feel threatened and cannot flee, they will show aggression by raising their front legs and baring their fangs as a warning sign," said Smith. Tarantulas also protect themselves by kicking off small hairs from their abdomen. "These hairs are like fiberglass and are not pleasant to have lodged in your skin," said Smith. "They will only bite as a last resort. While their bite can be painful, it is no more venomous than a bee sting."

"Despite having eight eyes, they cannot see well and use their legs to feel for prey," said Smith. "Rosie is fed tobacco hornworms and cockroaches one or two times a week," said Smith. In nature, Chilean rose hair tarantulas live in burrows. "They spin webs, but not to catch food like other spiders," said Smith. "Instead, their webs are spun around their burrows or living quarters in a mat to alert them when something approaches."



Tarantulas grow by molting. "When young, tarantulas look like miniature versions of the adults and as they grow, they will molt," explained Smith. Molting is the process of shedding the outer exoskeleton to reveal a new exoskeleton from beneath the old one.

Editor's note: Katherine Serfass was a contributor to the spring issue article.



Beautiful Plants for Cooler Days

by Alyssa Hagarman, Horticulture Specialist

veryone knows that when the chrysanthemums, pumpkins and straw bales come out, fall is right around the corner. But there are other beautiful plants that also hint at cooler days. These perennials look great all year in your landscape but put on a colorful show as the days begin to shorten. Be sure to include these in your home garden to enhance your fall display.



This plant can grow to be up to 3 feet tall and 1 foot wide

Turtlehead -

to 3 feet tall and 1 foot wide with amazing pink blooms that look like they are puckering. The blooms

start at the end of summer and continue through fall. These plants will also attract hummingbirds and butterflies, so your garden will be full of life. They grow best in moist soil, and they will grow well in both full sun and partial shade.



Goldenrod - Let the bright, yellow blooms of goldenrod shower your late-season garden with color. Heat- and drought-tolerant, goldenrod is an easy-care native that's been given a modern makeover. Newer hybrids are great for your garden because they're more compact and produce more flowers than their roadside cousins. Hybrid goldenrods grow 18 to 24 inches tall and are highly attractive to hungry bees and butterflies. It's a myth that goldenrod causes hay fever. Ragweed, which blooms at the same time as goldenrod, is generally the sneeze-inducing culprit.



Aster - These reliable perennials form dense mounds of white, purple, pink or blue flowers. Asters come in a variety of shapes and sizes and, depending on variety, can grow 1 to 4 feet tall. This makes them versatile enough to be planted anywhere, from a container to the back of the border. These fall beauties are also extremely attractive to butterflies, particularly hungry monarchs looking for a quick snack while on their fall migration. Asters need full sun and well-drained soil.



Sedum - "Autumn Joy" comes as close to perfection as any plant can. It looks good all year, requires minimal attention, and has few problems. The only drawback of Stonecrop (*Sedum sp.*) is that it is not deer resistant. The "Autumn Joy" cultivar has been joined in the garden by a growing number of fall wonders, such as "Bertram Anderson," "Brilliant" and "Matrona." No fall garden is complete without sedum.



Blue Mist Shrub - This shrub slowly opens its blossoms throughout August with dazzling blue flower clusters. It should be cut back in early spring like a butterfly bush (*Buddleia*) because it blooms on new wood. The gray-green foliage is attractive all season.

Japanese Anemone - Borne on tall, el-



egant stems, the pink or white flowers of Japanese anemone are a treat in the late-

summer garden. Growing 2 to 4 feet high, Japanese anemone mingle well with other fall bloomers. The plants prefer full sun but will also bloom in partial shade. Japanese anemone spreads by underground runners, so keep an eye on your plants to be sure they aren't crowding nearby perennials.



Nippon Daisy - Often called Montauk daisy, Nippon daisy is prized for its late-in-the-season explosion of white flowers. This easy-care plant grows 24 to 36 inches tall and thrives in full sun and well-drained soil. The nectar-rich blooms will also lure colorful butterflies to your garden. Nippon daisy is deer-resistant, too. Just be sure to cut back in early July to about two-thirds the height, this will reduce flopping when all those flowers open!



Container Considerations

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

rowing plants in containers is a great option for those who have a small yard or whose only outdoor space is a deck or patio. Container gardening also is a good way to provide a changing spot of color in an established garden or to place vegetables and herbs right outside the kitchen door. However, plants in containers have different cultural needs than those grown in the ground. Here are some things to consider if containers are part of your gardening plan.

Soil

Don't dig up soil from your garden to fill containers! Clay in this soil will not drain adequately, and it may contain weed seeds or disease. Instead, purchase a soil or soilless mix specifically designed for containers.

Temperature

A perennial plant or shrub planted in a container may not survive the winter if you don't take special precautions. Why? Because the roots of plants in a container are much closer to the cold air. It's as if the containerized plant is two zones colder than the rest of the plants in your garden. You can mitigate this effect by moving the container into an unheated garage or shed,



Ornamental grass makes an excellent backdrop for other plants.



Bubble wrap can be used to protect potted plants during the winter months.

"Plants in containers have different cultural needs than those grown in the ground."

or by burying the pot in the ground and covering it with soil or mulch. If you must leave containers in place, try grouping them together and insulating with straw, shredded leaves or bubble wrap. Protect ceramic containers during the winter, even if they do not contain a perennial or shrub. The freezing temperatures may cause them to crack. When overwintering plants, be aware that they will dry out more quickly in containers and do not have the surrounding soil to pull moisture from. While plants do not need much water during their dormant stage, keep an eye on overwintering containers. I check every few weeks and water if needed, increasing the amount and frequency of water as soon as plants come out of their winter dormancy in the spring.

Watering

Plants in containers will dry out much more quickly than plants in the ground. First, make sure your outdoor container is at least 6 inches in diameter—the larger the container, the better it will retain moisture. You may have to water containers every day, especially during the hottest days of summer. Water until the excess flows out of the drainage hole. (Your container should have a drainage hole—a layer of stone in the bottom of the container will not provide drainage and may retain too much moisture.)

Spacing

Some container designers advocate packing plants into a container much closer than you would plant in the ground. This provides an immediate reward of an established appearance. Frugality prevents me from doing this; plus, I enjoy watching my container gardens develop. I have planted canna rhizomes, sunflower and basil seeds in containers to watch the look of the container change as they emerge from the soil and grow. If you plant vegetables in a container, it is important to follow the same spacing guidelines that you would if you planted them in the ground. With vegetables, your goal is food production and not purely aesthetics.

Fertilizing

Containerized plants in a soilless or sterile potting medium will not have the same benefit of nutrients and beneficial microbes found in the ground. You will need to fertilize them regularly. You may choose either a granular or liquid fertilizer. Be sure to follow the application directions. It is possible to burn your plants with fertilizer, especially in the case of containerized plants where there is less soil to absorb excessive fertilizer.

Fall Containers

Many plant choices exist for fall containers besides chrysanthemums. Ornamental peppers make an appearance at garden centers in late summer, and their red, orange and purple fruit and compact form are a great look for fall. Pansies are often thought of as the harbingers of spring, but their ability to withstand cold and variety of colors lend themselves to fall containers. Lantana and ornamental kale are also interesting choices. Varieties of thyme can lend a frosty appearance and should survive the winter. Finally, consider planting an ornamental grass in the center of the container. As the grass turns brown at the end of the growing season, it makes an excellent backdrop for fall color; the grass can even be left in place as a centerpiece for a winter container of evergreen boughs and red dogwood twigs. The variety of plants and container shapes and materials are endless. Enjoy experimenting with container gardening!



Make a Winter Greenery Wreath

by Jody Davey, Indoor Horticulture and Programs Specialist

othing celebrates the beauty of winter and welcomes holiday guests like a fresh and fragrant evergreen wreath accenting the front entrance of a home. A do-it-yourself, handmade wreath using natural, freshly-sourced materials is all the more special and easy to put together with the right technique and a few tips.

Size

A 24-inch wreath is an appropriate size for a typical 30-inch door. For best aesthetics, it should be positioned about one-third down from the top of the door.



Various types of greens and foliage will give your wreath texture.

Forms

A wreath form gives the finished wreath structure and stability and guarantees that perfect, round shape. Forms can be made of wire, compressed straw, Styrofoam or grapevine and can be found at any craft or hobby store.



Floral wire is used to wrap the greens.

Materials

Greenery covers and camouflages the wreath form and provides a background for wreath accents. Combinations of spruce, pine, fir, juniper, cedar and boxwood are favorites for their varied colors, textures and blend of fragrance, and should be gathered just before the wreath is made to maximize freshness. More non-traditional leafy materials such as myrtle, magnolia, eucalyptus and any other evergreen leaves with a waxy surface make nice accent foliage. Further embellish a wreath with natural foraged objects such as twigs, pinecones, nuts, berries (preferably dried), dried flowers and seed pods.

Technique

Perhaps the simplest and strongest way to construct a wreath is by wire wrapping. A handful of material is bundled and laid onto the wreath form. Floral wire is wrapped around the stem end of the bundle and around the wreath form several times. Another bundle is laid over the stem end of the first, covering the stems and wire wrap, and it, in turn, is wrapped using the same uncut length of wire, and so on until the entire wreath is covered. Don't forget to make a loop for hanging with the tail end of your wire once wrapping is done. Accents and embellishments can be stuck into the wreath with wood and wire picks, or they can be secured with hot glue. Finish off a holiday wreath with a festive handmade bow, if desired.

Extending Life

There are anti-transpirant products available that coat the leaves and needles of a wreath and provide a barrier against moisture loss, which keeps greenery fresher for a longer period of time. These liquid products are sprayed onto the greens or finished wreath to the point of runoff. Once the product dries, it allows the leaves and needles to retain moisture and significantly extends the life of the wreath. Alternatively, misting the wreath daily with plain water can also keep the foliage moist and extend its freshness.



Using a wreath form will help create a perfect circular shape.

Join Jody to Create Your Own Perfect Wreath!

Saturday, December 7 at 10 a.m. or 1 p.m.

Members: \$55 Non-members: \$65

All materials and supplies are provided. Advance registration is required at HersheyGardens.org.





170 Hotel Road Hershey, PA 17033 HersheyGardens.org

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