Hidden Treasures
By Dawn Stover

Gingers have long been part of our East Texas gardening palette. Most of us at one time or another have grown a Butterfly Ginger and praised it for its fragrant flowers or cursed it for its spreading nature. The Butterfly Gingers are but a small part of the Zingiberaceae or ginger family. Within the last few years, the arboretum has begun an interesting and fun journey down the road to ginger Nirvana. With around 47 genera and over 1000 species, we have a long road ahead of us, but are looking forward to our mission.

One of the best surprises for us in this world of Zingiberaceae has been with the genus Curcuma. This genus is best known as Hidden Ginger or Surprise Ginger and has beautifully exotic flowers often appearing at the base of lush foliage. This genus has been a surprise not only for the flowers, but also for their ease of growing and hardiness. Most Curcuma are native to tropical parts of Asia like India, Thailand, and Sri Lanka, and at least one species is native to Australia.

The flowers of Curcuma are actually quite small, but are borne in colorful, waxy bracts that can be pink, white, orange, or lavender. The inflorescence often resembles unusual looking pine cones. They make long lasting cut flowers, and breeders are now hybridizing Hidden Gingers to produce longer stems for the cut flower trade. Some species bloom in the spring, while the great majority bloom in mid to late summer.

The earliest to bloom is the Giant Plume Ginger, Curcuma elata. Each inflorescence has soft pink bracts and can reach 1 foot tall. In mid July, the bright pink inflorescence of the Aussie Plume Ginger, Curcuma australisicca, are beginning to show along with the white inflorescence of Curcuma petiolata.

Who is Big Jack?

Big Jack is Amorphophallus titanum – the infamous Titan Arum or Giant Corpse Flower and it is found exclusively in the equatorial rainforests of Sumatra, Indonesia. The plant is said to grow in openings in the rainforest on limestone hills. The plant was discovered by Italian botanist Odoardo Beccari in 1878. The plant is endangered in the wild and very few exist in cultivation.

How rare is this blooming event?

After its discovery in 1878, seeds from the wild resulted in the first blooming of this species in cultivation at Kew Gardens in England in 1889. The first recorded bloom in the U.S. was at the New York Botanical Garden in 1937. There have been only about two dozen recorded flowering events in the U.S. since then. A flowering event is often turned into a giant extravaganza for those few botanical gardens and arboreta that have been blessed with a plant that survives and actually flowers successfully. This Texas plant proudly joins the list.

How does this plant do what it does?

The plant grows from a large corm which reaches weights up to 200 lbs. in the wild. Typically, the corms are smaller in cultivation but often top 75 lbs. or more. For most of their lives, corms produce solitary, highly dissected leaves over 12’ high and 10’ across. Leaves persist for about a year and senesce. The plant then enters a dormant phase of several months. A replacement leaf emerges and the plant begins growing a new root system and adding to the size of the corm. After a year or so, the process is repeated. Infrequently, instead of a replacement leaf, the corn will generate the blessed event: a flower. In that season, the leaf will emerge only after the flower has collapsed. The entire life cycle of leaf growth, flowering, and dormant periods is botanically strange, considering that these plants are found only in warm equatorial jungle habitats. Equally curious, in the wild, the stages are evidently quite randomly spaced, with some plants in various stages of growth at any given time. The evolutionary significance of this is a matter of great debate. The plant is known to live 40 years or more and can flower several times in its life cycle.

What’s the big deal about this flower?

First, let’s be correct. Titan Arum had the title of the largest “flower in the world” but technically, the “flower” is really an “inflorescence,” or a cluster of flowers. The spadix can reach over 6 feet tall (the tallest ever recorded was over 10 feet), and when fully open the spatha can reach about 3 feet across. Thousands of true flowers are hidden inside at the base of the spadix (the fleshy central column). The large frilly-edged leafy structure enclosing the spadix is called the spatha. Male and female flowers are separate and in a ring around the base of the plant, with the female flowers below and receptive first, the male flowers above and releasing pollen the next day. This means that the plant must be cross pollinated. A plant will not produce seed unless pollinated from another plant because of the timing of stigma receptivity and pollen release. We call this dichogamy.

A wonderful hybrid, simply called ‘Sulee Hybrid’ has an amazing, dark, orange-pink inflorescence.

The Siam Tulip, Curcuma alismatifolia, resembles a tulip part of the Zingiberaceae and comes in varying shades of pink, white, or lavender. When not in flower, Curcuma make excellent foliage plants, offering a luxuriant tropical feel to the garden. The foliage can grow from 1 foot to 8 feet depending on the species. Curcuma elata can be used in smaller gardens where a banana is desired but not practical. Some species have dark maroon stripes down the middle of each leaf, and others have dark red stems. The hybrid ‘Scarlet Fever’ is a surprise not only for the flowers, but also for their ease of growing and hardiness. Most Curcuma are native to tropical parts of Asia like India, Thailand, and Sri Lanka, and at least one species is native to Australia.

Curcuma are not difficult to grow if you know a few key points before planting. These gingers have a true dormant cycle and cannot be forced to keep their foliage even in a hothouse. Leaves will turn a buttery yellow before total senescence, and can be removed when papery and brown. Dormancy occurs in the drought cycle of their native climate, and as a result, the rhizomes need to be kept very dry in our winters. Don’t forget to add plenty of organic matter, since Curcuma need plenty of nutrients when they are actively growing. Beyond well drained winter soils, they are not terribly picky. Fertilization in the spring and once weekly watering during the summer are rather beneficial. As we experiment and learn about these plants, we are finding that they will accept a very sunny location; however morning sun is adequate.

I invite and encourage you to find a Hidden Ginger that fits your garden. Visit the arboretum to find the one that is right for you.
On Tuesday morning Jack was still in fine shape but the spathe had moved upward a bit, as if he wanted to close. The pollen chain will continue until there is an Amorphophallus flower in every household in America! Stay tuned.

We are sooooooo proud of Jack. He’s done well. We know he wasn’t the biggest corn ever. Let’s face it: at 26 lbs. he was a small corn in the world of Amorphophallus corms. Everyone here can attest that he hasn’t had a plush lifestyle the last four years. But he’s a Texan. He’s an SFA Lumberjack. He loved the attention, the kids, the crowds and he’ll always be a memory to this wonderful garden in the Pineywoods of East Texas.

and Jack was on his way to Texas.

Jack quickly made his home in a pot and was grown along with thousands of other plants and by some miracle the plant was arrived in the fall and was brought back into the shade house when spring was fully in place. There was a shifting up in 2002 to a 15-gallon pot. The plant made some waves in 2003 with an 8' leaf and thick trunk. Jack was moved into the greenhouse in the fall 2003 and kept a healthy leaf all the way into February 2004 before crashing back to the ground. In March 2004, it was decided that Jack had done so well in 2003 that he deserved a big new pot. Jack was repotted by students in a lab and at that time the corn was healthy and weighed in at a respectable 26 lbs and 2 oz. We didn’t know it then, but Jack was thinking of flowering. Jack emerged in mid-June 2004 and while we thought we had a leaf, it wasn’t long before we realized Jack was producing a flower.

How was the odor?

Very few people have been blessed enough to catch the corpse flower at its most powerful fragrance. Most bizarre to the public is that when the flower is fully open, it emits the nauseating fragrance of rotten meat (hence its Indonesian common name Bunga Bangkai). From the first signs of opening. Evidently the spadix was exuding its charm quite vigorously at that time. But flies and other flies had found this carcass and were lighting on the spadix. Hopefully, we will have good fertilization, a seed crop, and baby Jacks. On Wednesday, we collected Jack’s pollen and that was mailed on to Jim Thompson at Disney World’s Animal Kingdom conservatory; a plant there is about to bloom! The pollen from this plant will be sent to Atlanta Botanical Garden where a fourth Amorphophallus flower is developing. The pollen chain will continue until there is an Amorphophallus in every household in America! Stay tuned.

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2004 Les Reeves Lecture Series

Mark your calendars now and plan to attend the remaining Les Reeves Lectures scheduled for 2004. Hear great horticulturists from all over the United States. The lectures are free and open to the public. No reservation required. A rare plants raffle is held afterwards.

Third Thursday 7-8:30 p.m. Agriculture Building Wilson Drive

August 19: Aubrey King, King’s Nursery, Tenaha, TX, “Don’t Tell Me to Get Out of My Rut—I Like It Here!”

September 16: Dawn Stover, SFA Mast Arboretum, “Ginger and Spice and Other Things Nice.”


November 18: Jim Berry, PDSI, Alabama, “Tomorrow’s Plants Today.”

December 16: Dave Cressh, SFA Mast Arboretum, “End of the Year Review.”

The camp week was highlighted by visits from Kerry Barnes. Sierra Club (The Snake Lady); Joe Pase and Alan Smith, Texas Forest Service (The Insect Guys); Dr. Alan Sowards, SFA Department of Elementary Education (The Water Wizard); expert forest guides, Larry Shelton and Emily Goodwin; and Clarence Shepherd, Pineywoods Beekeeper Association.

Volunteers played a crucial role in making the camp a success. Fifty volunteers donated over 1000 hours to create this exceptional learning environment for the campers.

Here are a few quotes from campers overhead by leaders throughout the camp:

“Golly, Mr. Mike, this is the best time I ever had!”

“Wow, this is someplace I can get dirty and no one tells me I can’t!”

“I caught a salamander, I caught a salamander, I CAUGHT A SALAMANDER!!!”

“I’m amazed!”

For information about Mill Creek for 43 young campers. Honey bees, dragonflies, grasshoppers, butterflies, and earthworms were just a few of the amazing invertebrates seen at the annual summer camp hosted by the SFA Mast Arboretum, Pineywoods Native Plant Center, and Pineywoods Sierra Club. Kids 11-year old explored rotten logs, open fields, streams, ponds, and woodlands in search of remarkable animals, plants, and fungi. Campers created clay insects and swept nets, coworked lans of silly songs, made new friends, and formed a connection to the natural world.

<ref>Summer Fun at Mill Creek Gardens</ref>

By Ellyse Rodewald

Invertebrates and their connection to all parts of the environment were the focus of two weeks of outdoor adventure at Mill Creek for 43 young campers. Honey bees, dragonflies, grasshoppers, butterflies, and earthworms were just a few of the amazing invertebrates seen at the annual summer camp hosted by the SFA Mast Arboretum, Pineywoods Native Plant Center, and Pineywoods Sierra Club. Kids 11-year old explored rotten logs, open fields, streams, ponds, and woodlands in search of remarkable animals, plants, and fungi. Campers created clay insects and swept nets, cowked lans of silly songs, made new friends, and formed a connection to the natural world.