



LONGWOOD  
GARDENS

September 2016

# Creating the Thousand Bloom Chrysanthemum



The Thousand Bloom Chrysanthemum



These chrysanthemums are not your ordinary mums!

Longwood has one of the largest and oldest chrysanthemum collections in North America with more than 200 different cultivars.

We maintain our own collection as stock plants in pots and through tissue culture because these chrysanthemum cultivars (varieties) are rare and difficult to acquire. Tissue culture enables us to maintain healthy virus free plants.





Our Thousand Bloom Chrysanthemum is started from cuttings in June, seventeen months before the plant goes on display. Two of these cuttings will be selected – one to be the beautiful Thousand Bloom Chrysanthemum on display and one to be the understudy.



The stem surface is slit to stimulate additional root growth along the stem.


With potting medium surrounding the slit stem, more healthy new roots grow to support the growing plant.





A close-up photograph showing a person's fingers pinching the stem of a green plant. The plant has large, lobed leaves. A white text box in the upper left corner contains the text "Soft Pinching".


Soft  
Pinching

A close-up photograph of a plant stem with a terminal bud removed. An arrow points from the text box to the point where the bud was removed. The plant has large, lobed leaves. A white text box in the upper left corner contains the text "Terminal bud removed".

Terminal bud  
removed

Throughout the growing season, gardeners pinch the stems to remove the terminal bud at the end of each stem.

Each pinch creates two or more new stems for a fuller plant and more buds.

A photograph of a plant with new side shoots. Two arrows point from the text box to the new side shoots. The plant has large, lobed leaves. A white text box in the upper left corner contains the text "New side shoots".

New side  
shoots

Chrysanthemums are short-day bloomers.

This means they naturally are stimulated to start blooming as the days grow shorter in late summer.

We turn lights on at night to “trick” the plants into thinking the day is longer. This prevents early flowering during the long growing period.







The plant is placed in its final growing pot in December.

Wood dividers are used to keep the soil area small as the plant grows to stimulate root development. Dividers are removed as the plant grows larger.







## February

Supporting framework is put into place.  
It will grow as the plant grows.





**June**





A fiberglass support ring is added about once a month as the stems grow outward. Stems are tied down to the rings.



One amazing stem !

This Thousand Bloom,  
a traditional Asian form,  
will grow to be  
twelve and a half feet  
wide and eight feet tall by  
in eighteen months.





## Disbudding

The gardeners disbud plants in mid September so there will be only one flower bud at the top of each branch.

All the plant's energy goes into these remaining buds, creating one larger flower on each stem..







Each flower is wired to a Rindai flower support to support and space each flower precisely.

Staff work from the top to bottom for days placing each bloom.





Placing flowers into  
rindai supports







Carpenters, painters, and metalworkers  
all work with gardeners  
toward one perfect display.







The single stem plant is carefully prepped for an early morning trip to the Conservatory from our Nursery and Production facilities.









Please do not touch or move the plants as we make preparations for future events and displays.





The Thousand Bloom Chrysanthemum  
takes over 2,000 dedicated staff hours of to complete.





1100 perfect blooms grace this traditional Asian form in 2012





2013

Over 1400 flowers on one stem of *Chrysanthemum* 'Susono-no-hikari'





2014

1515 perfect flowers

*Chrysanthemum* 'Susono-no-Tsuki'





The largest Thousand Bloom Chrysanthemum grown outside of Asia.