

Lan Su Garden Plant Talks

Gardenias 梔子

Elizabeth Cha Smith (8/8/17)

Why We Love Gardenias

As staff and volunteers, all of us have seen Lan Su visitors sniffing the air the moment they walk into the main gate. Once they are told that the fragrance is mostly coming from our gardenias, we might see them put their noses up close to the creamy white flowers and show their amazement, surprise, and joy.

Flowers do make us happy. Whether we receive or give them to others, they bring out positive responses, and some research suggests that fragrance may even improve long term memory. For me, highly pleasing fragrances are the best reward for taking good care of plants and flowers.

It isn't only humans who are instinctively drawn to flower fragrance. Hawkmoths are attracted to the scent of the vaporized essential oils of gardenias that grows stronger at dusk. Bees, flies, and other insect pollinators visit gardenias during the day, but nocturnal hawkmoths can see the bright, pale flowers of the gardenia better at night. Because of this, we must remember to clear away those brown, faded flowerheads that may be too dark for moths to see at night.

Gardenias in the Garden

If our *Osmanthus heterophyllus* 'Variegata' is a signature tree in our garden, *Gardenia jasminoides* 'Kleim's Hardy' could be our signature flowering shrub! The mature gardenia shrubs we have are rather dwarfish, 2-4 feet tall and wide, and are covered with whorls of densely compacted waxy leaves (in clusters of three) and single white flowers.

Even though commercial nurseries will recommend hot sun and humidity for gardenias, ours have done very well mainly because they are hybridized to endure freezing temperatures and dry weather--and, of course, because our horticulture staff is vigilant throughout the year!

Image of *Gardenia jasminoides* showing the yellow stigma and the brownish stamens:



The tubular base of the gardenia flower with the green sepals:



In mid-July, I saw something amazing near the western wall: A gardenia with an open stigma! Although this is unusual to see, the hot weather might have caused it to open.

Chinese Culture and Gardenias ("Zhi Zi")

Although Europeans were cultivating few flowers other than roses in the first millennium, China has been cultivating flowering trees (like plums and peaches) and shrubs for thousands of years. One can easily tell how the Chinese valued their flowers by looking at the floral designs incorporated into refined textiles, porcelain, carpets, architectural details, and paintings from as early as the Song Dynasty (962-1279). Traditionally, Chinese women have also loved to adorn their hair with gardenia

flowers and have used the fragrance as an important ingredient for cosmetics and incense making. The Chinese have also made yellow dye from gardenia seeds.

In addition, Chinese herbal medicine has found multiple uses for gardenias including treating depression and insomnia, reducing swelling, and stopping bleeding (through acrocetin, the hemostatic element in gardenias).

The History and Botany of Gardenias

We can trace the taxonomy of gardenias to the 18th century England when well-known naturalists, John Ellis and Philip Miller, visited the famous gardens of Richard Warren to see a jasmine-like flowering plant from the Cape of Good Hope. The appearance and fragrance of the plant caused Miller (who wrote the first garden dictionary in England) to classify it as *Jasminum*. Later, Ellis (another well-respected scientist at the time) worked with Dr. Carl Linnaeus and proved that plant was actually part of the Rubiaceae family. The common name for gardenias, “Cape Jasmine,” reflects this early dispute and can cause confusion even now.

After the taxonomy dispute was settled, Dr. Linnaeus and Ellis decided to name it “Gardenia” after a Scottish-American naturalist, Dr. Alexander Garden.

Like other members of the Rubiaceae family, gardenias are native to tropical and subtropical regions of the world. The Rubiaceae family also includes the coffee plant and cinchona (a source of quinine).

There are about 140 species in the genus gardenia, mostly hybridized. The species in our garden, *jasminoides*, tells us that the specific characteristic of our flowers is their jasmine-like fragrance. (The “-oides” comes from the Greek meaning “like” or “resembling”).

The ‘Kleim’s Hardy’ variety in our garden was cultivated in the U.S. by Don Kleim in the early 1900s.

Tips on Cultivating *Gardenia jasminoides* J. Ellis ‘Kleim’s Hardy’

When transplanting gardenias, make sure they are 3-6 feet apart as they do not like to be crowded. Try not to water the white flowers as water will stain the petals to brown (which makes it harder for insects to see the flowers at night).

If you see yellow leaves, you could use commercial fertilizer formulated for acid-loving plants, or it’s easy enough to mix some vinegar or lemon juice with water and spread the mixture into the soil. To prevent mealybugs or other pests, try to avoid stressing your gardenias (from hot sun, poor soil, etc.)

Conclusion

We are very lucky to have a garden that is divided into smaller courtyards that contain a variety of fragrances. When I walk through each courtyard in the summertime, the gardenia’s intoxicating fragrance seems to magically permeate every corner. This makes me wonder if the Chinese characters above the Moon Gate are better translated as “Entering Magical Garden” instead of “Entering Wonderland”.

I’m looking forward to preparing my next Plant Talk on lotuses and appreciate the editorial help from my daughter, Deb Walsh, on this project.