

Planting & Caring for a Saguaro



Carnegiea gigantea-Saguaro

The Saguaro, *Carnegiea gigantea*, was named after the great philanthropist Andrew Carnegie, and is the only plant in its genus. It is most closely related to cacti within the genus *Neobuxbaumia* found in central and southern Mexico.

Saguaros are found only in the Sonoran Desert of Arizona and the State of Sonora, Mexico, with a small population in California just west of the Colorado River. Plants grow from sea level to 4,000 ft. in elevation. They are some of the largest cacti in the cactus family, reaching over 50 feet and weighing several tons at maturity. Their water storage capacity enables them to survive drought conditions for a year or more. They will produce one to several branches between the ages of 50-75 years.



Saguaro flower

Saguaros bloom in late spring after reaching an average age of 40-55 years. The large white flowers are found at the apex of the stems and arms, opening at night and staying open during the following day. This enables the flowers to be pollinated not only by bats at night, but also by bees and birds the following morning. Fruits open when ripe from around mid-June through July to reveal a red pulp that is full of seeds. Animals that eat the fruit deposit the seeds as they visit other sites or rest in trees.



Saguaro fruit

Saguaros can be planted in the springtime after the danger of frost is over and throughout the summer growing season. Whether the plants were grown outside in containers or in the ground, the south side of the plant must be marked and oriented the same way when being installed to avoid burning the more tender north-facing tissue. Young saguaros in the desert usually germinate and develop in the shade of a “nurse plant” such as a Palo Verde tree, so young cacti from the nursery may still need to be protected from the summer sun for a few years. At planting time it is best not to

water in the saguaro for a few days to minimize the chance of rot. In order to become established, the plant

will need occasional watering during the growing season. Being established means that after one or two years in the ground, the cactus should remain full with its ribs apart, indicating that it's taking in water. During the months of May through July, the plant will benefit from additional water once per month, especially in the lower, hotter desert areas. Once the summer rains arrive, watering should stop unless the weather becomes hot and dry again. Stop watering in the fall when temperatures become milder. Average yearly rainfall is usually sufficient for mature plants. Make sure the saguaro is not planted near a water source such as an emitter head or a lawn. These plants are adapted to live in our desert and should not receive excessive amounts of water. Once established, the plant will need only occasional watering during the growing season and a dry winter rest.



Gila Woodpecker

In addition to the animals that visit the saguaro's flowers and fruits, the Gila Woodpeckers and Gilded Flickers make their nests in the trunk, hollowing out a space in which to raise their young. The plant simply dries and hardens off the exposed tissue as a barrier to infection. This dried tissue is known as callus, and the cavity made by the woodpeckers is called a boot, which is often preserved after the cactus dies and falls over. Typically these nest holes cause no serious damage to the saguaro. Keep in mind, however, that this is the natural ecology of mature saguaros. These abandoned woodpecker nests also serve as nesting sites for Elf Owls, Ash-Throated Flycatchers, and House Finches.

Sometimes an infection can develop in a saguaro through an injury or as a result of frost damage. It may be long after the actual event, but brownish or black ooze coming out of the trunk will indicate a problem. If it is localized, the affected area can be cut out and treated with a 10% bleach solution. Often, though, it means that the plant has been killed by a hard freeze and it is only now showing signs of rot. Saguaros can sustain a few to several degrees of frost depending on their location, but more than that prevents them from growing outside of their range in the Sonoran Desert. Sometimes an arm will fall off or swing down as a result of a weakening of tissue combined with excessive weight. Letting the wound dry naturally is sufficient treatment in this case. It is important not to overwater saguaros or plant them close to a regular source of water.



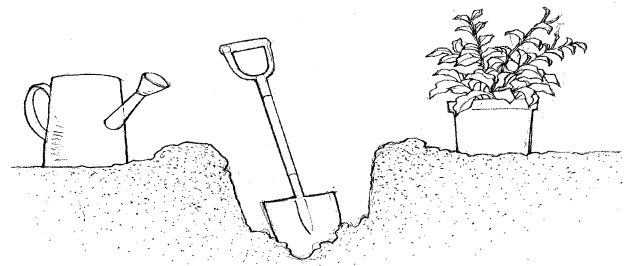
Dried tissue of saguaro commonly referred to as a "boot".

Transplanting large saguaros is best left to professionals who have the proper equipment and experience. Keep in mind that the larger the plant, the lesser the chance for establishment in its new location. Transplanting success is much higher with smaller "spears" less than 10 feet. Remember that the plants must be planted no deeper than their original level with the same cardinal direction as their previous location.

Need Help?

For more information about particular desert plants or problems, call the Desert Botanical Garden's Plant Hotline, 480-481-8120, Monday through Friday, from 10:00 – 11:30 a.m. or email your questions to planthotline@dbg.org

The Desert Botanical Garden provides a range of services to homeowners including a desert Plant Hotline, a variety of classes about landscaping and gardening in the desert, an onsite library, and an extensive selection of resources in the Garden Shop.



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