



Cristate Saguaros

The saguaro cactus (*Carnegiea gigantea*) is a truly iconic symbol of the Sonoran Desert. Its remarkable size and ability to endure harsh desert conditions has endeared it to many people.

Cristate or “crested” saguaros form when the cells in the growing stem begin to divide outward, rather than in the circular pattern of a normal cactus. This is an unusual mutation which results in the growth of a large fan-shaped crest at the growing tip of a saguaro’s main stem or arms.

The cause for this mutation is unknown; however, there has been some speculation about the presence of a “trigger,” which may initiate the process. One heavily implicated trigger is frost, as crested saguaros tend to be more common in the northernmost parts of their range. Unfortunately there is not enough evidence to confirm this theory.



Comparison of cristate saguaro and normal saguaro

Abundance

Cristate saguaros are fairly rare. Scientists once estimated that for every 200,000 normal cacti, there is only one abnormal crest. Originally there were thought to be less than 200 of these abnormalities in existence. Contrary to this theory, more than 2050 have been discovered, and biologists believe that there may be many more. In fact, there are at least 27 documented saguaros on the East side of Saguaro National Park, and 30 on the West.



Saguaro “crests” generally measure between three and five feet in diameter. The largest crest in reported history was said to be nine feet across; however, this claim was never confirmed.

Cristate saguaro crests commonly grow in the shape of a fan, or semi-circle. They tend to exhibit convoluted patterns and folds, and have even been said to resemble broccoli.



Old cristate saguaro

There are many opportunities to see one of these unique specimens within Saguaro National Park. For example, in the Rincon Mountain District, there is one cristate saguaro which can be observed from the Loop Road, near the Javelina Picnic Area. For those who prefer a bit of a hike, it is possible to see an impressive crest just two miles south of the Douglas Spring Trailhead, off of the Garwood Trail. There are no easily accessible crested cacti in the Tucson Mountain District, although there is one located at the entrance to the Arizona-Sonora Desert Museum.

Other Crested Cacti

While Saguaro crests do tend to be larger and more elaborate, other species of cacti are more than capable of developing similar mutations. Crests have been noted in a variety of succulent plants, from agave, to cholla, to prickly pear, and they occur in all different shapes and sizes.



Cristate cholla



Cristate hedgehog cactus

Due to their bizarre appearance and scarcity, crested cacti are coveted by many ornamental cactus collectors. In the past, this misguided enthusiasm resulted in the frequent poaching of saguaros. Today, the illegal removal of cristate saguaros still poses a threat to the known population; however, increased public awareness appears to have resulted in a significant decrease in the problem.



Dead cristate saguaro

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NRInfo Portal:
IRMA Intranet site:
IRMA SharePoint site:

<http://nrinfo.nps.gov/>
http://www1.nrintra.nps.gov/nrpc_soa/
<http://nrpcsharepoint/irma/>