

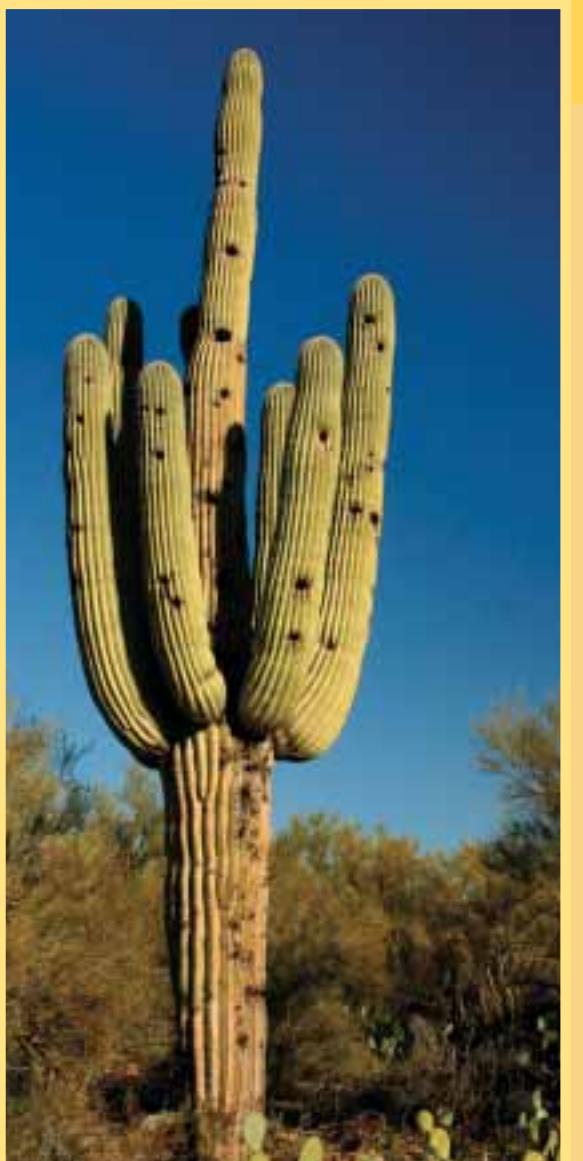
# Growing up saguaro isn't easy

While fully-grown saguaros are formidable survivors, their tender offspring are vulnerable to drought, heat and cold, and animals of all sorts. Many tiny seedlings are crushed underfoot by wildlife. And new plants that survive long enough to be noticed are seen (and consumed!) by many creatures as soft-spined, water-filled canteens.

Of the thousands of seeds that a mature saguaro generates each year, very few reach the ripe old age of five or six weeks. A saguaro's best chance for survival is to sprout beneath the canopy of a "nurse" plant, such as a palo verde or mesquite, that will provide shelter from heat and cold, and to experience a period of several back-to-back years of mild and wet weather.

## They can live a long time, but saguaros grow slo-o-owly

Summer rainy seasons are good for growth spurts and dry conditions mean slow growth—or no growth—for saguaros. Small, young plants are able to store less water than their larger kin, and so grow more slowly. Soil conditions and temperature fluctuations also impact growth rates. But saguaros that survive their early, most vulnerable stages can live 175–200 years.

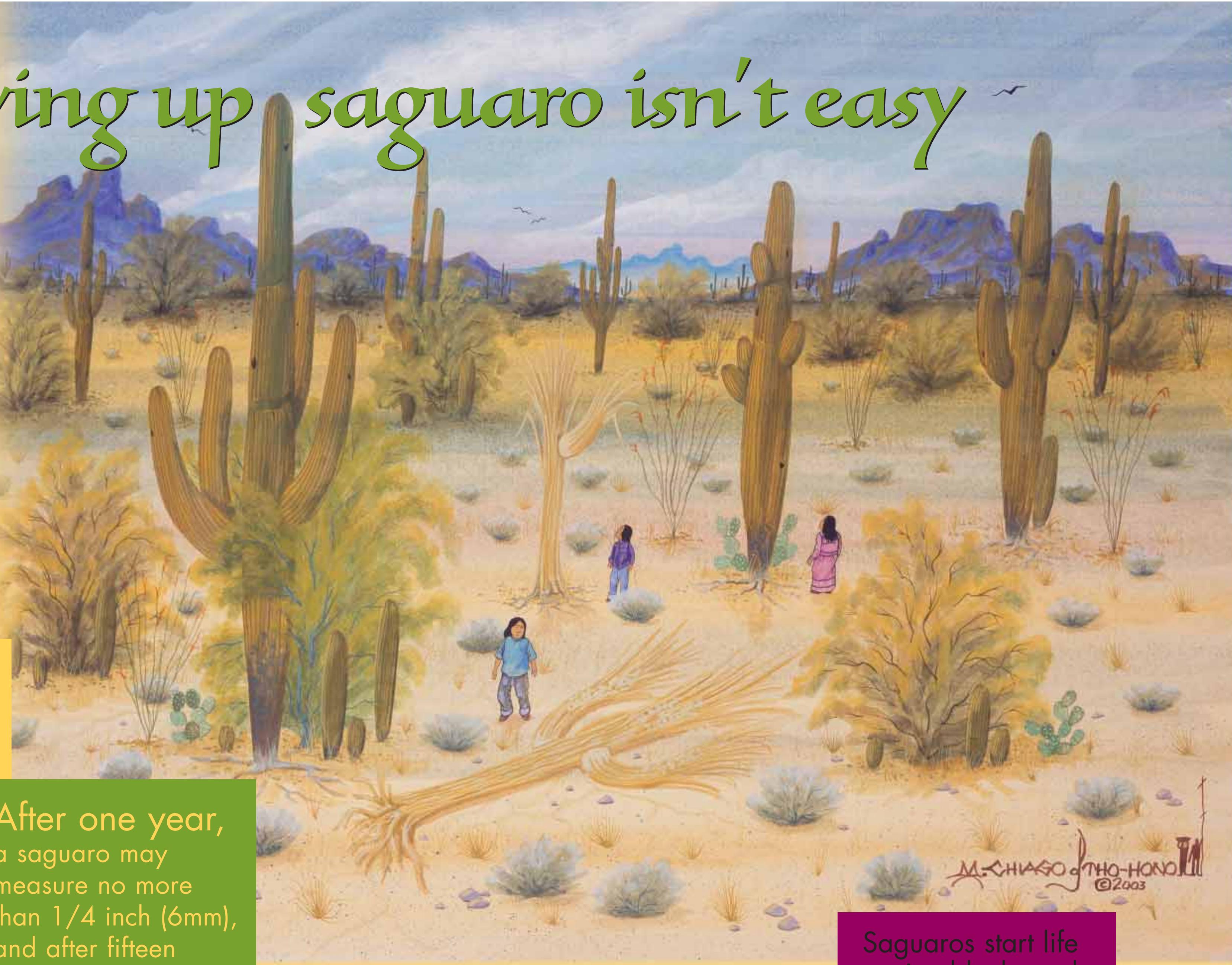


Saguaros can have as many as twenty arms, or remain unbranched, and are commonly 20–35 ft / 6–10.7 m in height. Though such individuals are extremely rare, a mature saguaro in the Tortolita Mountains was measured at 68 ft / 20.7 m—all from a shiny black seed no bigger than a pinhead!

Saguaros often sprout their first branches, or "arms," when they are 10–15 ft / 3–4.5 m tall. The new branch buds grow outward at first, then curve upward. The number of arms a cactus will develop depends on genetic factors and growing conditions.



After one year, a saguaro may measure no more than 1/4 inch (6mm), and after fifteen years, may be just one foot (.3m) tall!



## Saguaros start life as tiny black seeds

A mature saguaro produces tens-of-thousands of seeds each year—about 2,000 in each piece of fruit—and about 40 million in a lifetime. The incredible numbers are necessary to ensure future generations because such a small percentage will survive.



Some saguaros develop abnormal growth patterns that resemble fan tops. The exact causes are not known, but while these spectacular "crests" can get quite large, they do not seem to harm the plant, which will continue to grow and may even produce flowers and fruit.

Saguaro "arm" buds and Saguaro portrait photos © Linda Bugg  
Cristate saguaro photo © Jackie Stein