

Kingdom: Plantae

Order: Caryophylliales

Family: cactacea

Genera: *Echinocactus* (spiny)

Species: *grisonii*

Common names: Golden Barrel Cactus, Golden Ball, Mother in-laws cushion



Range & Habitat

Barrel cacti are classified into the two genera *Echinocactus* (6) and *Ferocactus*, (25) both of which are found in the Southwest Desert of North America.

Echinocactus grisonii is native to central Mexico from San Luis Potosi to Hidalgo.

Described by Heinrich Hildmann in 1891.

It is now rare and endangered in the wild.

Barrel cacti vary in height from 16ins to 8ft and can grow in locations from sea level up to 4500 metres.

Most barrel cacti are round and green, may elongate with age and are among largest cacti found in North American deserts and can take decades to reach their mature size

A true desert plant they require hot sun and quick draining soils, and will endure occasional frost. They can live up to 100yrs

Barrel cacti have a clustering habit and tend to lean (North/south) for the sun to reach the top of the plant providing a reliable indicator of direction in the desert.

Description

Members of the genus have prominent accordion type ribs with waxy outer coating, the waxiness helps the plant retain water and the ribs decrease the amount of surface area exposed to the desert climate

Fully hydrated they are 90-94% water, and even a small barrel cactus can weigh a few hundred kilos.

Smaller surface pores close during the day and open at night.

The ribs are covered with heavy spines or needles and in some species the more central needles are curved like a fish hook.

Large mesh netting of roots near the ground surface help the plant soak up rain as soon as it falls and then shrink when it is dry to reduce stress on the plant..

Flowers: 4-6cms, develop from yellow areoles cluster at the top of the plant.

Fruits: yellow fleshy, tube shaped dry in Echinocactus and juicy in Ferrocactus when mature, have densely packed seeds.

Propagation: seed distribution, small animals and birds eat the fruit and distribute the seeds.

Uses:

Fruits: cactus fruit are edible but not always palatable and taste is tart; somewhere between lemon and kiwi fruit. Rich in Vitamin A and C

Desert animals enjoy the flowers and fruit of the barrel cactus, while the plants are eaten by cactus beetles and provide shade for pack

Pulp: gooey mucilage was widely used for making Barrel Cactus candy

Spines: used as needles for tattooing and fish hooks

Native Americans boiled young flowers to eat like cabbage and mashed older boiled flowers for a drink.

A cooking pot was made by cutting off the top, scooping out the pulp and inserting hot stones together with food.

Soldiers/explorers claimed they could survive the desert by drinking the liquid from the cactus, but the pulp fibre is full of alkali and unfit to drink.

Drinking the fluid squeezed from the pulp, causes diarrhea on an empty stomach and vomiting

Eating pulp of some Ferrocactus causes temporary paralysis or even death.

Threats

The large barrel cactus were over harvested for candy making in the 1900's and the popularity of desert landscaping, combined with the very slow growth, has resulted in large barrel cactus being rare and their replacement almost impossible.

Chamazal National Memorial cares for about 10 barrel (10yrs old)ain 55 acres, with a small cluster of plants over 100 yrs old/about 5ft high.

Reference: *A Natural History of the Sonoran Desert*, Arizona-Sonora Desert Museum. *National Park Service US Department of Interior USA*