

June Cactus of the Month

Echo Pang

Obregonia denegrii

Common name: Artichoke Cactus

Origin: Discovered in 1923 by Alberto Vojtěch Frič (a famous Czech botanist undertook 8 voyages to America, discovered, described and catalogued many species of cactus) and Marcello Castaneda in the valley of Jaumave, Tamaulipas, Mexico. The name *Obregonia* honors Alvaro Obregón, a leader in the Mexican Revolution and the country's first president.

Obregonia denegrii is the only representative of its genus among the most famous of all cacti, for its unique artichoke-shaped stem, always solitary with the sunk and woolly apex growing leveled to the ground. It is related to both *Ariocarpus* and *Lophophora*.



Photo credit:
Phaitoon Chaiwatthanamethin



Photo credit: Ad Konings, iNaturalist

Habitat:

Obregonia denegrii thrives in semi-desert (or Tamaulipan Shrubland) both

in open areas and in dense bushes. They generally grow in limestone soil, among gravel and small stone in the inferior part of a dense forest. On lower hill slopes where erosion is a serious problem, plants can get washed off from the soil during heavy rains. The climate is semi-arid, relatively wet and humid. And it is partly cloudy year round. Over the course of the year, the temperature typically varies from 51°F to 94°F (rarely below 43°F or above 104°F). Jaumave experiences extreme seasonal variation in monthly rainfall with the most rain in September (avg. rainfall of 5.5 inches); the least rain is in December (avg. rainfall of 0.4 inches). Summer into fall can be extremely humid, which can last for 5 to 6 months, from early May to late October. It feels very muggy, oppressive, or miserable at least 12% of the time during this time of the year!

Description: *O. denegrii* has a solitary, greyish green to dark green artichoke-shaped stem with a woolly center. It can grow to more than 15cm (6 inch) in diameter. The tubercles arise in

a rosette, overlapping and arranged in a spiral, deeply cut like an artichoke. The shape of tubercles is triangular, protruding, with leaf like tips. Areoles appear at the tips of the tubercles with wool. There are 2 to 4 soft and flexible spines whitish to brown in the young tubercles. A seed grown plant develops thick taproots. Buds form in the wool of the apex. Flowers are funnel-shaped, white petals with reddish filaments, yellow anthers and white style and stigma lobes. Blooming time is summer during the day. Fruits are hidden in the apex wool to ripe. Seeds are large and black (1 to 1.4 mm long).

There are three forms and cultivars of plants belonging to the *O. denegrii* group:



- 1. *Obregonia denegrii* f. *aurata* (hort.): variegated with uniformly yellow stems due to the absence of (or very little) chlorophyll pigments.
- 2. *Obregonia denegrii* f. *cristata* (hort.): crested form. The stem is fan shaped.
- 3. *Obregonia denegrii* f. *monstrosa* (hort.): monstrous form. Free branching with stocky, rounded tubercles and woolly white areoles.

Cultivation: This is a very slow growing plant and can pose some challenge to cultivate. It likes high humidity in summer, can enlarge relatively fast when well watered, but it is also very prone to stem rot in stagnant air. It is often seen as a grafted plant but grows very well on its own roots too. It needs a very well drained mineral substrate with little organic matter. Requires a decent amount of sun for good compact growth but gets scorched easily in direct sun. Water sparingly from March to October and keep dry in winter (when night temperatures remain below 10° C). To prevent drying and shedding of the lower tubercles, it is also advised to give this plant a light and cautious watering in winter. It is hardy to -4°C (or less) for a short period when well established, but it doesn't enjoy cold at all. Make sure to keep atmospheric humidity low in winter and ensure excellent ventilation in greenhouses. In Houston, this cactus will do really well in summer with rain shelter; and staying in a well ventilated, low humidity greenhouse in winter.

Propagation: Exclusively by seeds. The seedlings are tiny and very slow growing in the first two years (to reach the diameter of 3-5 mm). It's critical for seedlings to reach 4 years old because they will be tougher and easier to grow afterwards. A 5 to 6 years old plant will reach to about 5 cm in diameter but always require very careful watering. Plants reach flowering size in about 7 to 8 years. Most of the plants in cultivation nowadays are grafted as seedlings to increase their growth speed and success rate.

References:

1. http://www.llifile.com/Encyclopedia/CACTI/Family/Cactaceae/2100/Obregonia_denegrii
2. Edward Anderson "The Cactus family" Timber Press, Incorporated, 2001
3. <https://www.cactusexpert.org/cultivation-of-cacti/obregonia.html>
4. <https://weatherspark.com/y/6159/Average-Weather-in-Jaumave-Mexico-Year-Round>

Photo credit:

1. Habitat: <https://www.inaturalist.org/taxa/185339-Obregonia-denegrii>
2. Picture of Obregonia in habitat: <https://www.inaturalist.org/photos/81814512>
3. Pictures of Obregonia denegrii f. *aurata*; *O. denegrii* f. *cristata*; *O. denegrii* f. *monstrosa* and seedling with taproots: http://www.llifile.com/Encyclopedia/CACTI/Family/Cactaceae/2100/Obregonia_denegrii
4. Picture of cultivation plant in flowers by Phaitoon Chaiwatthanamethin: <https://www.facebook.com/groups/420722088282106/permalink/1935494460138187>