



Pads and flowers of the domesticated Indian fig prickly

PRICKLY PEAR CACTUS

Opuntia spp.

Spanish: *nopal de castilla*

O’odham: *nawí na:k* (pads) *i:bhai* (fruit)

Prickly pear cactus is a must-have for a healthy, sustainable, and climate-smart diet. These hardy plants are well-suited to hot, dry desert conditions and nutrient-poor soils. Their flattened, jointed stems (pads) store water and are covered in spines that protect the plant from hungry and thirsty animals. These spines are actually modified leaves that also help plants prevent water loss. The waxy coating on the surface of the cactus pads helps seal in moisture.

Prickly pear cacti are nutritious and easy to grow. Both the young green pads and the ripe fruits are edible. A few key tips will have you enjoying these plants in your garden and on your plate—and providing food and refuge for local wildlife—all without a costly water bill.

Origin and History

Desert dwellers throughout North America have long used prickly pear cacti for food and medicine. The Sonoran Desert is home to at least 18 different species of wild prickly pear cactus. The fruits and pads of some native species, like Engelmann prickly pear (*Opuntia engelmannii*), are edible. But beware, the dense spines and higher amounts of **oxalic acid** in native species require extra care when preparing.

Domesticated prickly pears have been cultivated specifically for edible fruits and pads and have fewer spines and low acid levels. The Indian fig cactus (*Opuntia ficus-indica*) can be found in backyards and gardens throughout Arizona and was first cultivated in Central Mexico before the arrival of Europeans. Despite having been a staple of desert diets for centuries, today prickly pear cactus is often overlooked as a food crop, especially in the United States. Prolonged drought and recent record-breaking heat waves, however, are encouraging us to re-think food production. Rising temperatures and dwindling water resources will make growing less hardy, but familiar, commercial crops less and less feasible. Desert food plants like the prickly pear cactus could be the key to more sustainable and resilient local food system.



Ripe fruits of the native Engelmann prickly. Credit: Mart Dimmitt/ ASDM Sonoran Desert Digital Library.

From Garden to Plate

Harvesting and Preparing Cactus Pads

- Find cactus pads at Mexican grocery stores or harvest from your own yard or neighborhood.
- Harvest young, bright green pads that still have cone-shaped, fleshy leaves. Older pads are woody.
- Harvest in the morning (when acid content is low) by cutting the young pad near its base with a sharp knife.
- Hold pads with tongs to avoid the tiny, hair like spines called glochids, which can get stuck in hands and fingers.
- Singe off spines and glochids or remove with a knife and trim all the way around the edge of the pad.
- Slice cleaned pads according to recipe and boil, sauté, or grill. Cooking helps reduce the slime (mucilage), which some people don't enjoy.



Young pad of the Indian fig cactus.
Credit: EC Riordan.

CAUTION! Cactus pads contain **oxalic acid** which causes digestive problems in large amounts. Cooking neutralizes these effects. Young pads and domesticated varieties have lower acid levels.

Good for Your Health

- High in calcium, fiber, vitamin A, and Vitamin C
- Low in fat, cholesterol, calories
- Mucilage and fiber help control blood sugar by slowing absorption of simple carbohydrates (sugars)
- Low glycemic index food recommended for those with diabetes

Good for the Planet

- Low water requirement reduces groundwater use and provides food even during drought years
- Source of shade, habitat, and food for wildlife
- Roots stabilize soil, improving rainwater infiltration and soil retention
- Flowers support native pollinators

Learn More

- From the University of Arizona Cooperative Extension: [Prickly Pear Cactus: Food of the Desert](https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1800-2019.pdf) (extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1800-2019.pdf)
- Visit the [Mission Garden](#) for an example of the impressive diversity of domesticated varieties.
- Find recipe inspiration in *Eat Mesquite and More* by [Desert Harvesters](#) and *The Prickly Pear Cookbook* by Carolyn Niethammer.

