



Above: Velvet mesquite tree (*Prosopis velutina*).
Credit: M Licher via SEINet. **Below:** Seed pods and leaflets of honey mesquite (*Prosopis glandulosa*).

MESQUITE BEANS

Prosopis spp.

Spanish: *péchitas de mezquite*

O'odham: *kui wihog*

Mesquites are the hardy trees now found seemingly everywhere throughout arid and semi-arid landscapes worldwide—and it's no wonder given their versatility and ability to thrive in hot, dry climates. Mesquites (etymology: “mizquitl” from the Nahuatl language) can grow to 20 feet or more and provide much-welcomed summer shade. Their leaves are composed of small, pinnate leaflets which stay relatively cool and reduce water loss. Their roots can tap into deep, underground water, growing to 50 feet on average and in some species to 200 feet deep! Mesquite trees are not just a climate-smart addition to your garden or yard, their edible pods also provide nutritious additions to your breakfast, dinner, and dessert plates. Harvest and mill ripe seed pods before the summer monsoon rain and use the flavorful flour throughout the year.

Origin and History

Mesquite trees are native to the arid and semi-arid areas of North and South America. Over time some species have been introduced to Africa, Asia, and Australia where they are now considered invasive. There are at least 44 mesquite species worldwide, three of which occur in the Sonoran Desert: honey mesquite (*Prosopis glandulosa*), velvet mesquite (*Prosopis velutina*), and screwbean mesquite (*Prosopis pubescens*). All of these species produce varying levels of sweet and edible seed pods. The pods can be ground and milled into flour and have been an important food staple for people living in the Sonoran Desert from time immemorial to today.

Mesquite trees provide materials for medicines, paints, adhesives, tools, syrups, building structures, firewood, and other culturally important uses. They also play an important role sequestering carbon and nourishing the environment. Their canopies buffer harsh temperatures and improve soil water retention, creating favorable conditions for seedlings and other sensitive plants. With the help of nitrogen-fixing bacteria in root nodules, they enrich the surrounding soil, providing a rich growing environment for staple crops such as corn and squash. For these reasons, mesquites are called “nurse plants.” On your next hike, observe the many desert plants, like the saguaro cactus, paired with a mesquite or other leguminous tree. Without the help of these nurse trees, the cacti would not survive the first few years of their sunny, dry desert lives.



Seed pods of the screwbean mesquite (*Prosopis pubescens*). Credit: LR Landrum via SEINet.

From Garden to Plate

Growing and Harvesting Mesquite Beans

- Mesquite grows best in deep, well-drained soils.
- Harvest, dry, and grind the pods to make your own mesquite flour. See 'Learn More' below for tips.
- If harvesting, pick ripe pods early summer (June – July) before monsoon rains to avoid **aflatoxin** contamination.
- Mesquite flour or meal is gluten free and can be used in cakes, breads, smoothies, and tortillas. For best baking results, use up to 10-25% of mesquite flour when mixing with other grain flours.



Velvet mesquite pods in Tohono O'odham basket. Credit: MA Burgess.

!CAUTION! Fungus can infect mesquite pods and produce **aflatoxin**, a toxic chemical. Only harvest brittle, dry pods from trees and never collect off the ground. For information about safe harvesting visit the 'Resources' page on the Desert Harvesters website (desertharvesters.org/dh-resources).

Good for Your Health

- High in calcium, magnesium, iron, fiber and zinc
- Properties to aid in the management of diabetes, such as high fiber to slow the absorption of sugar
- Alternative source of flour for those with gluten sensitivities or preferences
- Can be used as a sugar substitute given its natural sweetness

Good for the Planet

- Tolerates drought and heat, creating favorable conditions for other plants and animals
- Shade combats warming temperatures and urban heat island effects
- Sequesters carbon and enriches soil
- Stabilizes soil and improves rainwater infiltration
- Food source for pollinators, native songbirds, and other desert animals

Learn More

- For information about kui wihog and the food traditions of the Tohono O'odham read *From I'ittoi's Garden: Tohono O'odham Food Traditions* by Tohono O'odham Community Action.
- For tips on harvest and recipes read *Eat Mesquite and More* by Desert Harvesters and *Mesquite: It's Food* (article az1644-2014) by the University of Arizona Cooperative Extension extension.arizona.edu/pubs/mesquite-it's-food.
- Enjoy an homage to mesquite by Gary Paul Nabhan, *Mesquite: An Arboreal Love Affair*.



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