

Mesquite Harvesting Guide

Mesquite (*Prosopis sp.*) is a legume tree whose pods were a traditional staple for indigenous peoples of the southwestern desert. The 6 to 8 inch long beans are gluten-free and high in protein, complex carbohydrates, insoluble fiber, and minerals. Mature pods can be dried and ground into a sweet, nutritious meal or flour in a hammer mill. Although mesquite meal is naturally sweet, it is also extremely effective in controlling blood sugar levels in people with diabetes. Mesquite flour can be substituted for part of the other flour and part of the sweetening used in any baked good to make it healthier. Mesquite flour can also be used to season and coat meats before browning or as protein powder for smoothies.

Harvesting Mesquite Pods

Mesquite pods typically begin to ripen in June in Tucson and in mid to late July in Cochise County. It is best to harvest pods early in the season, before the monsoon is in full swing, or after the rains have stopped. Ripe pods are usually tan to red in color, and often mottled. Pods are ready to harvest when they are brittle, the seeds inside rattle, and they come off the tree easily. Hard pulling indicates that pods are unripe. Avoid pods that appear to have fungal growth on the outside. Also avoid collecting pods off the ground due to possible bacterial and fungal contamination. Please note that pods will fall off the tree easily when they are ripe, so it takes some vigilance to ensure you harvest before this occurs. Holding a large, shallow cardboard produce box under bunches of ripe pods can make harvesting more efficient.

Quality pods can be found in washes, city parks, backyards, and along low-traffic streets where they are likely to receive supplemental water or run-off and have not been in contact with pollutants. Once you have found a tree you want to pick from (look for large, filled out pods), taste one of the pods as the sweetness and flavor varies widely from one tree to the next. Pods from the Honey Mesquite tend to be sweeter, however Velvet Mesquite is the predominant (and native!) species.

Drying Mesquite Pods

After harvesting, place pods in the sun for several days to dry thoroughly until they are brittle. The pods are dry when they snap in two rather than bending. For large quantities, place pods on wire mesh over sheets of tin roofing.

Bruchid beetles will likely hatch out of the pods during drying and storage, but this is not something to cause alarm (they are harmless). To avoid hatching beetles (and to dry pods quickly without having to take them inside when monsoons threaten) the recommended technique is to kill the eggs by pasteurizing the pods at low temperatures (200 degree F) in a regular oven or, preferably, a solar dryer or solar oven. Heat pods for approximately 1 to 2 hours, or until there is no trace of moisture when the oven door is opened. Take care in a high temp solar oven to either position the oven away from the sun to ensure low temps or remove them promptly once they smell toasty and before they start to brown. Pods may also be thoroughly dried in a food dehydrator.

Storing Mesquite Pods

Store pods in a cool, dry, rodent-free place until milling day. It is important that pods are <u>absolutely</u> <u>brittle dry</u> when they are brought in for milling. Pasteurized pods can be stored in buckets with airtight lids and will remain totally bug-free. Large quantities of sun-dried pods can be stored in clean garbage cans and buckets with lids or in closed paper or cloth bags. However, storage containers for sun-dried pods will need to be opened every few days to release the hatched bruchid beetles. (The beetles usually collect at the bottom, so this can be tricky).

A few days before the milling, separate pods from any bugs collected at the bottom, and place them in the sun for their final drying. Also ensure that pods are <u>totally free of dirt</u>, <u>debris</u>, <u>and especially small</u> <u>stones</u> (to avoid serious damage to the hammer mill). Any mesquite beans that have mold, are mixed with sticks or stones or are too wet will be rejected and not milled by BASA.

Milling Mesquite Pods

Mesquite meal was traditionally ground with stone implements due to the rock hard seeds and fibrous pods. Modern mills make the work much easier. Hammer mills use "hammers" to rapidly pulverize the entire pod into flour. The pods are high in sugar so they will quickly gum up and shorten the life of home mills and blenders. Millings are scheduled in the dry months after the high dew point of the summer monsoon season since dry mesquite pods are hydroscopic and will reabsorb some of the atmospheric moisture.

Five gallons of mesquite pods makes approximately one gallon (five pounds) of meal, depending on how tightly the pods are packed. Mesquite meal retails at approximately \$15 a pound.

Baja Arizona Sustainable Agriculture holds annual millings in October in Bisbee and Sierra Vista & a volunteer milling/training in Whetsone. See www.bajaaz.org/calendar for milling dates.

Summary

Harvesting:

- Pick pods when they are tan to red, the seeds inside rattle, and they pull off the tree easily.
- Don't pick pods with fungal growth or black mold; don't collect pods off of the ground.

Drying:

• Dry pods outside in the sun or at even better at 200 degrees in a solar dryer or sun oven or indoor oven until they are brittle and snap in half easily.

Storing:

- Store pods in a dry, rodent-free place.
- Before the milling, check pods & re-dry them if necessary, remove bugs, dirt, or debris.

For More Information