

MESQUITE: MEALS AND MEDICINE

There are three species of Mesquite common to the Southwestern desert: the Honey Mesquite (*Prosopis glandulosa*), the Screwbean Mesquite (*Prosopis pubescens*) and the Velvet Mesquite (*Prosopis velutina*). As a member of the leguminosae (legume) family, the Mesquite restores nitrogen to the soil, which is essential for plant germination and growth.

Mesquite is an extremely hardy, drought-tolerant plant. Its roots grow wide and deep, absorbing water far below the hot surface of the desert soil. Their taproots have been recorded to go as deep as 190 feet. They also draw water closer to the surface, when available. They generally range from shrub size to a height of 10 to 15 feet, although under favorable conditions, the Honey and Velvet Mesquites may reach 30 to 60 feet in height.

Some Mesquites reportedly live for more than two centuries. Mesquites may have single or multiple-branched stems, with needle-sharp thorns up to 3 inches long growing on the younger branches; the thorns are always straight. Their woody stems and branches have bipinnately compound leaves (leaves with two or more secondary veins, each having two rows of leaflets). Twigs characteristically form zigzag patterns. They are deciduous trees, with leaves falling off in the winter. New leaves appear in the spring soon followed by five-petaled blossoms called "catkins" that are pale green or yellow in color. These blossoms are shaped like spikes, each having ten stamens, which distinguishes them from other legume desert shrubs. These spring to summertime blossoms attract pollinators, with bees producing Mesquite honey that is valued for its flavor and nutritional qualities.

The Mesquite produces an abundance of seedpods that are a nutritious food source for animals and humans. The pods ripen around mid-July through September in the Arizona Verde Valley region. The Honey Mesquite has smooth-surfaced leaflets while Velvet Mesquite has velvet-surfaced leaflets. The Screwbean Mesquite can be recognized by its tightly spiraled bean pods. Where the species overlap, sometimes the plants will hybridize making identification difficult.

NATIVE AMERICANS USED EVERY PART OF THE MESQUITE TREE.

The wood from the trunk and branches were crafted into bows, arrows, mortars and home furnishings. Because the wood burns slowly and with less smoke, it was a favorite for home fires. Thorns were used as sewing needles and to pierce skin for tattoos. The bark was used to make baskets, rope, fabric and medicine. Leaves were used to make tea, eyewashes and to relieve headaches and stomach pain. The gum was chewed for medicinal purposes, to mend pottery and as a base for body paint, pottery paint and hair dye. The pods were ground into meal or flour and were a main staple in their diet.

MESQUITE AS A FOOD SOURCE

Check out recipes at bottom of page!

Traditionally, beans (both pods and seeds) were dried then ground into a coarse meal. Water was added and the flour was formed into cakes that were not baked. Some cultures removed the seeds from the pods and ground them into flour from which bread was baked. Flour made from the pods is both delicious and nutritious in a variety of dishes, but especially in baked goods. Mesquite flour can be used to replace toxic, bleached flours, aid in diabetes control and add nourishment to every meal. Mesquite takes about 4 to 6 hours to digest, unlike wheat that digests in 1 to 2 hours. As a result, hunger is delayed.

Mesquite's sweetness comes from fructose that does not require insulin to be metabolized, which is good news for diabetics. Because of its high fiber content (25%), the nutrients are absorbed which also assists in stabilizing blood sugar levels. When used in baking, Mesquite flour is used in combination with other flours. Use about 1 cup of Mesquite flour for every 2 -3 cups of grain or rice flour. Mesquite flour is sweet; however, if you prefer to add more sweetener, use molasses or stevia in place of sugar.

Mesquite flour adds a sweet, nutty taste to breads, pancakes, muffins, corn bread, cakes and cookies. Mesquite can also be used to make syrup, jelly, tea and wine. It has a sweet, rich, molasses-like flavor with a hint of caramel, which blends well into smoothies and other drinks, especially those made with cacao and maca. Mesquite meal is a great thickener. It can replace an egg in a recipe for pancakes, waffles or quick breads. Try using it to replace half the sugar in a cookie recipe, or to sprinkle as a topping instead of brown sugar.

Add to salads, breakfast cereal and even your coffee with a pinch of mint leaves. Flavor steaks, chicken, fish and pork by sprinkling it on before grilling or adding it to your breading mixture. You can also sprinkle Mesquite on vegetables before grilling. It can be added to vegetable stir-fries, scrambled eggs, biscuits, breads, soups, even ice cream.

MEDICINAL PROPERTIES OF MESQUITE

Native American tribes have known of the medicinal properties of Mesquite for generations. Acting as an **antacid**, it can also treat digestive problems. It is used as an **antibiotic**; the roots, bark and leaves are **antifungal, antimicrobial, astringent, antiseptic** and **antispasmodic**. A powder or tea can be made from any of the above materials for *athlete's foot* and general *fungal infections*. This **disinfectant** wash or powder can be used for *mild infections, stings, bites, sores* and *scrapes*.

The tea of the powdered plant can be used as a **restorative** after bouts of *dysentery, diarrhea, stomach ulcers, dyspepsia, stomach/intestinal distress* and *food poisoning*. It also **soothes stomach and intestinal pain, ulcers, colitis** and *hemorrhoids*. Leaves and pods can be made into an eyewash for inflammation, including *pink eye*. Poultices from the leaves are used topically to relieve *headaches* and to treat *red ant stings*.

The white inner bark is used as an **intestinal antispasmodic**. The bark is also helpful in stopping excessive *menstrual bleeding* and *reducing fevers*. Young branches, when ground and toasted, were used to dissolve *kidney stones*. The Mesquite gum or resin is used as an eyewash to treat infection and irritation. It has several **dermatological uses**, including treatment for *sunburn, sores, wounds, burns and chapped and raw skin*. Mesquite gum is also used as a treatment for *lice, cough, sore throat, mouth sores, laryngitis, stomach inflammation, fever reduction, painful teeth* and *gums*. For *peptic ulcers*, unlike the chalky substances usually prescribed, it will not affect digestion and nutrient absorption from the small intestine and can be taken for long periods of time. The gum can also be used as a basic restorative for *intestinal mucosa* in *more serious diseases* or when *recuperating from abdominal surgery*.

Constituents found in Mesquite Flour per 100 grams

Nutrient source: <http://www.indigo-herbs.co.uk>

Protein 16 g	Copper 0.8 mg
Fat 3.4 g	Iron 18 mg
Energy 380 Calories	Magnesium 140 mg
Fiber 36 g	Manganese 2.3 mg
Minerals	Molybdenum 0.05 mg
Barium 3.7 mg	Phosphorus 215 mg
Boron 3.2 mg	Potassium 1712 mg
Calcium 520 mg	Sodium 12 mg
Chromium 0.12 mg	Sulfur 222 mg
Cobalt 0.03 mg	Zinc 3.0 mg

Leaves, pods, bark:

5-hydroxytryptamine, tryptamine, tyramine, prosopineGum: L-arabinose and D-glucuronic acid

Mesquite is also known to be a rich source of the amino acid lysine.

Other sources claim that powdered Mesquite seeds are made up of up to 40% protein.

COLLECTING MESQUITE

Bark and smaller branches

Cut into small pieces when fresh, so they can be more easily powdered when dry.

Gum

When the weather is mild, it is less likely to see gum forming on the branches. However, in the spring or early summer, tear off some lower live branches from the main trunks. In three to four weeks, the plants will heal the scars, usually secreting gum along the edges of the wound.

Bean Pods

Pods are ready to be harvested when they are yellow and begin falling off the tree, generally from late July through September. If you need to pull the pod, this is an indicator that the bean is unripe. Individual trees produce a wide variation in sweetness; gently chew on a ripe pod to determine its sweetness. Gather from the tree rather than the ground to avoid pods infested with insects, unless you can gather them directly after a windstorm. Beans that have been infested with insects will be light and hollow or have tiny holes in the pod. It is best to mill the pods as soon after harvesting as possible to avoid insect infestation.

Approximately five pounds of bean pods will make one pound of Mesquite flour.

Avoid picking beans close to the roadways due to water runoff that may have been subjected to automobile fluids, exhaust fumes, herbicides and pesticides.

MILLING THE BEAN PODS

An industrial hammermill is the most efficient way to break up the pods and hard seeds to create Mesquite flour. If you live in an area where mesquites flourish, check online for hammermill rental or use in your area. Some regions offer weekend festivals and invite folks to bring their beans to be milled for a nominal fee or to purchase milled flour from vendors. Below is a method I use to make my own flour using a blender. The procedure is more time-consuming, but economical...and a lot easier than using a metate!

GRINDING PODS INTO FLOUR WITH A BLENDER

Lay out the beans on a table to dispel insects and let beans dry for several days until they are brittle. When they easily snap in two, this is an indicator that they are dry and ready to be milled. Immediately, store the beans in a container with a sealed lid so they won't absorb moisture from the air.

It is best to grind the beans as soon as they are dry to deter insect infestation. Mesquite can be gummy and clog up juicers and food processors. Hand grinding can be very tedious because the beans and pods are tough and fibrous. We found that a blender works well. If you have an expensive model, we suggest buying an inexpensive blender at a second-hand store to save wear and tear on your good blender.

What you will need: blender, wooden spatula, funnel, sieve, bowl, glass jars to store flour.

The process is simple.

After the beans have dried and are brittle, break the pods into 1-2" pieces.

Place 1-2 handfuls of broken pieces into the blender; you can practice to see how much works best for you. I usually fill the blender 1/3 full.

Blend the pods until they are well thrashed. Pour them into a finely meshed bowl-shaped sieve and gently stir with a wooden spoon, capturing the flour in a bowl.

Place the remaining pod pieces back into the blender and repeat the process 1 or 2 more times until you are able to break the hard seeds, which is full of nutrients.

TIP: When the blender motor heats up, it can cause the flour to get sticky. I take turns rotating between two blenders.

The work area can get quite dusty from the flour, so you may want to mill outside or remove anything from the counter that you don't want to clean afterwards. You can then save the broken pieces to make tea, syrup or "milk."

To make **mesquite "milk,"** simply add the "millings" to boiling water then simmer about two hours. Add about 1 part millings to 3 parts water. Play around with it until you get the desired consistency that you prefer. More recipes below!

YUMMY MESQUITE RECIPES

These are just a few that I have created or found on the web. In the recipes below, you can substitute your favorite flours for those listed. Recipes calling for baking soda, use an aluminum-free product such as Bob's Red Mill <http://www.bobsredmill.com/> I also suggest using eggs from hens that live as close to nature as possible. Ask around to see if anyone in your area has cage-free hens.

Have fun experimenting and creating your own tasty treats!

BREADS AND CAKES

Ditoh's Mesquite Pirate Bread

1 cup mesquite flour	4 eggs
1 cup blue corn flour	2/3 cup olive oil
1 cup barley flour	½ cup almond milk
1 tablespoon baking soda	1 can sweet corn
½ cup raw pumpkin seeds	2 tablespoons molasses
½ teaspoon salt	2 roasted jalapeno peppers (blackened) and soaked in soy sauce
½ teaspoon rosemary	

Mix all ingredients.

Oil the bottom of an 8x13" baking dish.

Bake at 400 F. until fork comes clean (about 25 minutes).

Ditoh's Onion Squash (or Sweet Potato) Cornbread

1 cup spelt flour	2 eggs
1 cup mesquite flour	2 cups squash or sweet potato, grated
1 cup blue corn flour	2 tablespoons molasses
1 tablespoon baking soda	1 cup almond milk
1 onion, chopped	1 cup olive oil

In a bowl, mix dry ingredients together.

Saute onion in a small amount of oil.

Beat the eggs.

Add the onions, sweet potato, molasses, milk and olive oil, stirring well.

Add the wet ingredients to the dry mixture and stir well.

Spread into well-greased 8x13" baking dish.

Optional: sprinkle on top: fennel, sunflower, raw pumpkin seeds, anise or cinnamon

Bake at 400 F. approximately 30 minutes

Ditoh's Sweet Potato (or Pumpkin) Bread

In a large bowl, mix well:

1 cup mesquite flour	2 tablespoons cinnamon
1 cup brown rice flour	1 teaspoon salt
½ cup blue corn flour	2 teaspoons stevia powder
½ cup barley flour	½ cup pumpkin (pepino) seeds
1 tablespoon baking soda	½ teaspoon anise seed

In a separate bowl, mix:

3 eggs, beaten
2/3 cup olive oil

Stir in:

1 cup almond milk
1 teaspoon vanilla
2 tablespoons molasses

Then add:

2 cups, sweet potatoe or pumpkin, grated

Mix into bowl with dry ingredients.

Bake in a well-greased 8 x 13" baking dish at 400 F. for approximately 25 minutes.

Bread is done when inserted toothpick comes out clean.

Basic Yellow Mesquite Cake

www.desert-tropicals.com

Mesquite flour will give a delicate and distinctive flavor to your cakes.

2 ¼ c. flour	¾ c. oil or non-dairy margarine
¾ c. mesquite flour	1 ⅓ c. sugar
2 ½ tsp. baking powder	2 tsp. vanilla extract
½ tbsp. salt	1 ⅓ c. milk

1. Sift the flours, salt, and baking powder in a bowl
2. Beat the sugar, vanilla, and oil or margarine in a separate bowl
3. Mix slowly the content of the 2 bowls, and the milk. Beat until smooth.
4. Pour the batter into 2 greased 9-inch round cake pans.
5. Bake for 30 minutes in a pre-heated, 350 degrees F oven.

Mesquite Waffles

Daniel Baker

1 cup whole wheat flour
¾ cup mesquite flour
3 teaspoons baking powder
½ teaspoon salt
2 beaten egg yolks
1 ¼ cup oil
2 stiff beaten egg whites

Sift together dry ingredients.

Combine egg yolk, milk and oil.

Stir into dry ingredients.

Fold in egg whites leaving some fluffs.

Don't over mix.

Makes about 8 waffles.

Pearl Mast's Mesquite Pancakes

http://www.omick.net/native_foods/native_foods.htm

Measure the following dry ingredients into a glass jar or other tight container in which the dry mix can be stored. Shake to mix. (I usually double or triple this recipe and mix and store it in a gallon jar.)

1 cup mesquite meal
1 cup whole wheat flour
1 cup unbleached flour
1 tablespoon baking powder
1 1/2 teaspoons baking soda
1 1/2 teaspoons salt

When ready to make pancakes...

Whisk together in mixing bowl:

1 egg
1 tablespoon oil
1 cup buttermilk, sour milk, or fresh milk with a tablespoon of vinegar added.

Add a cup of the dry mix to the liquids and whisk all together.

Add more milk as needed to thin batter.

(I usually end up using a total of about a cup and a quarter of milk.)

Cook on hot griddle and enjoy with your favorite syrup or toppings.

MESQUITE DRINKS

Smoothies

2 tablespoons mesquite flour
1 cup cold water, almond milk or soy milk.

Add your favorite fruits.

Include your favorite smoothie additives.

Blend and Presto! You have a nutritious meal that will stave off hunger for 4-6 hours.

Summer Mesquite Drink

2 Tbsp finely ground mesquite flour
1 cup cold water, almond milk or soy milk.

Stir and let sit for a couple of minutes.

Strain, add honey or cinnamon to taste.

Mesquite Tea

Brad Lancaster

Boil mesquite pods in a volume of water twice the volume of mesquite beans along with a cinnamon stick for two hours.

Let it sit overnight.

Strain out the solids, then you've got one tasty drink which I usually serve chilled!

You can also prepare this like a sun tea, just put all ingredients in a covered, glass jar and set out in the hot sun for a day.

Pinole

(serves one)1

tablespoon mesquite flour

1 tablespoon saguaro seed meal

1 cup of water (or almond or soy milk)

Stir all together and drink before flour settles to the bottom.

Vanilla Hemp Mesquite Milk

<http://nutiva.com/nutrition/recipes/mesquitemilk.php>(

You can purchase mesquite flour on this site.)

1 C Nutiva hemp seeds (these are the freshest of all)

1 T mesquite pod meal

1 tsp. vanilla

3-4 C pure water

Combine hemp, mesquite, vanilla and 1/2 of the water in blender.

Buzz until mixture begins to get creamy and smooth.

Slowly add the remaining water, blend another moment, and serve.

Great as a smoothie base.

Excellent over granola, hot or cold cereal, grated or sliced apples or selected fresh fruit.

The fiber, Omega 3 fatty acids and protein in this mix puts it into the power food category!

Mesquite Mint Coffee

For a full-bodied rich flavor, add to your fresh ground organic coffee

1 teaspoon dried mint leaves

1 teaspoon of mesquite flour

For variety try adding your favorite herbs such as, rosemary, anise or fennel.

PASTRIES

Mesquite Shortbread Cookies

Rita Gibbs

3/4 C butter, softened

1/4 C maple syrup (optional-use for a sweeter cookie)

1/8 C ground flax seed

1/8 C oat bran (or use ground up oats or flour if you don't have this handy)

1/4 C chopped pecans or walnuts

pinch salt

1/2 C mesquite meal-any variety

3/4 C flour-white, wheat, spelt, etc.I use a wheat-free baking mix. It makes the cookies very light.

Roll out 1/4" thick and cut with a cookie or biscuit cutter.

Bake at 300 degrees for about 10-12 minutes.

Mesquite Holiday Bars

Brad Lancaster

1/2 cup of organic backyard honey
1 tablespoon baking powder
1/3 cup of water
2 teaspoons cinnamon
3 tablespoons organic butter

touch of nutmeg
1 1/2 cup of organic whole wheat flour
1/2 cup of organic nuts
1 1/2 cup of mesquite flour
1/2 cup of organic raisins

Preheat oven to 350 degrees F.

Lightly grease two 8-inch square pans.

In a large saucepan, slowly heat honey, water, and butter until butter is melted and honey is liquid.

Mix flour, mesquite meal, baking powder, and spices in a medium bowl.

Add to honey mixture and stir until well combined.

Stir in nuts and raisins.

Divide batter between pans and spread evenly.

Bake for 20-25 minutes.

Over-baking will make the holiday bars very hard.

When properly baked a straw or toothpick will come out clean.

Cool in pans; slice into bars.

Mesquite Syrup/ Molasses

Using a ratio of 1/4 pound washed mesquite pods per quart of water, fill crockpot nearly to the top.

Cook on low for at least 12 hours.

Strain, and reduce the tea by slow boiling to a thin, syrupy consistency.

Store in a sterilized jar.

When cooled, it thickens into a strong, robust, sweet syrup.

A 3 quart crockpot yields about 1 cup of syrup.

* Warning: in an instant, the syrup can burn, so keep a watchful eye on it!