



Balanophagy;

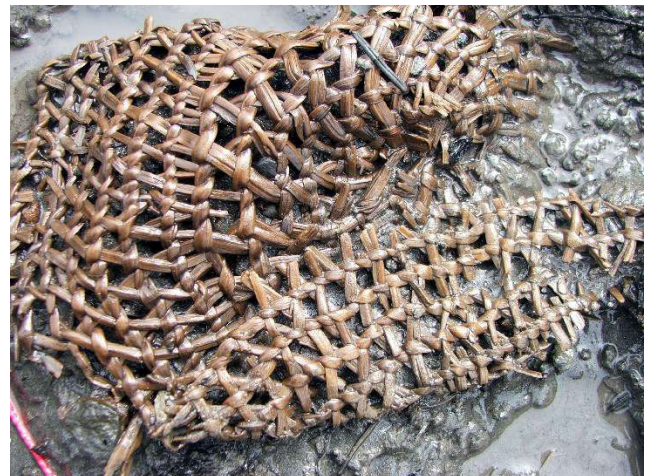
Its Not Just for Squirrels Anymore

The practice of eating acorns is called ‘balanophagy’. This term comes from the Greek words βάλανος (*balanos*, “acorn”) and φαγ- (*phag*, “eat”). Though many think of critters like squirrels, jays, and deer as being major acorn eaters, acorns have been an important traditional food for people all around the world. Cultures in North America, Europe, and Asia all relied on acorns as a source of food. Chances are, if you have ancestry among people in the Northern Hemisphere, you have some ancestors who ate acorns.

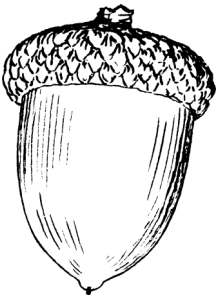
In the Northwest, native people enjoyed acorns whenever they were available. There are accounts of people harvesting and processing acorns from the Puget sound down through northern California. On Sauvie Island, a major archaeological site was excavated and over 100 giant baskets full of acorns were uncovered in the riverbank. This discovery proves that Chinookan peoples ate acorns. After the acorns were gathered, they were buried in the river bank. Over time, the waters of the river rinsed bitter tannins out of the acorns and turned them dark and sweet. This is called the ‘passive’ method of acorn processing.



Archaeologists at work uncovering over 100 acorn leeching pits at the ‘Sunken Village’ archaeological site on Sauvie Island. The rising and falling of the tide washed the bitter tannins out of the acorns. This process took months to complete.



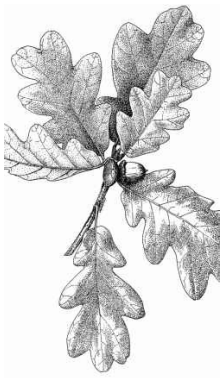
Acorn basket made of cross-warped cedar roots found at ‘Sunken Village’ site.



So you want to eat acorns...

Excellent choice! You are on your way to becoming a bona fide balanophage. There is a reason people have been eating acorns for thousands of years. Sure they are plentiful, and yes they are tasty, but most importantly acorns are very nutritious! Full of carbohydrates and fats, acorns are a one-of-a-kind wild plant food.

There are as many different ways to process acorns as there are cultures who eat them. In this guide, you will learn about a more active way to turn bitter acorns into delicious flour! The method the Chinook used was pretty hands off, and it took months for the acorns to be ready to eat. If you just can't wait, you can use a different method similar to the way the people of northern California process acorns, and get a meal a bit sooner.



The Hunt Begins

White oaks

White oaks: Lobes with round tips.



Red oak

Red oaks: Lobes with pointy tips.



To find a good supply of acorns, you must first find a good supply of oak trees. In our bioregion, Oregon White Oak (*Quercus garryana*), also called Garry Oak, is our native oak tree. In more urban areas, other kinds of oak trees are planted in neighborhoods as street trees.

There are two main groups of oak trees, red oaks and white oaks. Both have acorns that make excellent food. In general, red oaks take a little more time to leech than white oaks. The best way to tell the difference between red and white oaks are by looking at their leaves.



Gathering Acorns

Acorns fall in September and October. When gathering them, look for acorns with out holes or blemishes on the shell. Be sure to collect the ones without their caps... the ones that fell with their caps on most likely have an acorn weevil grub inside. The amount of nut that you get after shelling vs. the amount you gather is about 2:1. That means that for every two cups of acorns you gather, you will get about 1 cup of nut meat.



Leave acorns with black spots or holes on the ground. They are home to a variety of insects such as the larvae of the acorn weevil. The larvae eats the inside of the acorn, so the nut won't be good for eating. However, If you are feeling adventurous, you can always eat the larvae! They taste a little creamy, and a little like acorn.



Acorns for everyone!

Western Scrub Jays, White Breasted Nuthatches, Wood Ducks, Acorn Woodpeckers, deer, raccoons, bears, insects, spiders, mites, and many other critters enjoy the fall acorn bounty too! Make sure you leave some acorns for our wild friends to eat. It is also important to leave some acorns to help along the next generation of oak trees. About 1 in 10,000 acorns will become a full grown tree. Acorns are precious, and it is important to share.



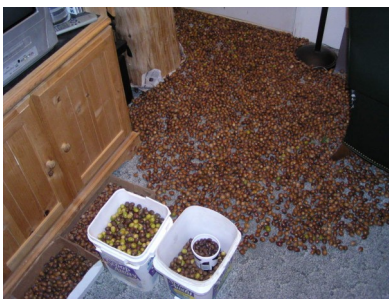


Pack Them Away for a Rainy Day

Drying and Storing

After the acorns are gathered they need to be dried out well. Drying makes the shells easier to crack, and it helps the inner skin (called a testa) flake off of the nut better. Acorns can be laid out in the sun, put in a food dehydrator, or even roasted in an oven on low heat. It can take weeks to dry acorns naturally. Make sure they are in a warm, well ventilated area. Stir them around occasionally so they dry completely. It would be a shame to lose your acorn bounty to mold!

If acorns are fully dry, they can last a very long time in a cool, dry place. The Pomo, Miwok, and Yosemite people of California constructed huge granaries for their acorn. It was not uncommon for acorn to be stored for 2, 3, or even 4 years.



A squirrely forager drying acorns in their living room.



Kumeyaay Granaries for storing acorns circa 1892



Women drying acorns in the sun outside of the Sogwang Temple in North Korea.



Lets Get Crackin'!

Shelling

This step can be the most fun, or the most boring, depending on how you look at it. Acorn cracking is a great thing to do with friends on a rainy day! If your acorns are dry, one solid crack with a rock should be enough to split the acorn without completely smashing it. Some experienced acorn processors say they can tell the quality of an acorn just by the 'pop' it makes when it is cracked. You can use hammers, pliers, nutcrackers to open the shells, but good old fashion rocks work the best.

Don't worry about getting the brown papery skin off just yet, it will come off in the next step. As you go, sort out the good from the bad acorns. Any with larvae are best given back to the earth (you can keep the larvae though!). Acorns darken as they dry, so they can be anywhere from tan to dark brown in color. Brownish or spotted acorns are OK, but discard any that look moldy.



The Wind and the Winnow

Winnowing

It is time to get rid of that papery skin that surrounds the acorn. This step is not necessary, but it is nice to do if you want a quality flour. According to Julia F. Parker, A Yosemite woman and acorn making expert, anyone who leaves skins in their acorn is considered lazy.

An easy way to do this is to 'winnow' your acorns. After you shell them, place them in a shallow bowl or basket and rub them between your hands. Then toss them in the air like a professional chef. Doing this on a windy day or in front of a fan is helpful to blow the skins away. A couple of tosses and you will have nice clean acorns.



The Daily Grind

Grinding and Making Flour

There are also many ways to grind your acorns into smaller bits. Depending on what you are planning on using it for, it may be best to have large pieces, fine flour, or even acorns the texture of cornmeal.

A traditional way to grind acorns was with a mortar and pestle. This method takes the most muscle, but you can control the type of product you get easier. You have to be careful though to keep a good amount of acorn between the two rocks. No one wants sand in their food! Modern ways of grinding are with a food processor or blender. Using modern tools usually results in a little bit of fine flour, and a lot of cornmeal textured acorn.



Many of the tribes in California used the same acorn grinding holes for generations. Every year, women would gather at the same spots and use holes made in exposed rocks.



You're In The Clear

Leaching

Acorns have a bitter compounds called tannins that must be soaked out before you can eat them. Not only do these tannins not taste good, but eating too many tannin filled acorns can be hazardous to your health and cause liver or kidney damage.

Cold Water Leaching



There are many ways to leach acorns. In the picture above a Hupa woman pours water over very fine flour in a basin of sand. The smaller the acorn meal is, the faster it will leach. The sand and cool water method is popular with California Tribes. You can also place the meal in a porous bag and leave it in a clean flowing stream for a few days. Once the acorn meal is no longer bitter, and the water flowing through it is clear, the acorns are ready. Lacking a stream or a large clean sand pit, you can also put your acorn meal in a big jar, and fill it with water, and keep it in your refrigerator. Every once and a while, pour out the brown tannic water and add fresh water. Once the water runs clear, you're done. Strain it through a dish cloth and set it out to dry.



Dry your meal in a dehydrator, the sun, or in the oven at a low setting (under 150°). Store it in a glass jar in the fridge or freezer.

Hot Water Leaching



Using hot water for leaching may be faster (taking hours instead of days) but it also yields a different product. Keep this in mind when deciding how to leach your acorns. To hot water leach, place *larger pieces, not flour* in a pot full of already boiling water. If you use fine textured flour, and add it to the hot water, you will have tannic acorn mush, and will have to start with gathering, drying, shelling, and winnowing all over. Begin boiling a second pot of water as soon as the acorns go in the first boiling pot. After about 10 minutes or so, pour off the dark water, and put the acorns into the clean, boiling water. You must go boiling water to boiling water. If you let them cool or place them in water that is not hot enough, the tannins will lock in and be almost impossible to remove completely. This method also pre-cooks the starch, and removes a lot of the oils and fats as well. This means that it is a little less nutritious, and it won't stick together like cold leached acorn will. If you are planning on baking with it, you will have to use an additional binder (such as wheat flour). That being said, it is much faster.

After leaching, dry the pieces out well, and store in the freezer. You can wait to grind them until you are ready to use them .



Fruits of Your Labor

Acorn recipes

Acorns are as versatile in cooking as grains (and much better for you!). You can use them in pieces in soups, and use the flour for bread, muffins, cakes, porridge, and puddings. Get creative!

There are many wonderful online resources for acorn recipes. Here are some favorites from around the web:

Acorn Griddle Cakes

- 2/3 cup acorn flour
- 1/3 cup cattail or wheat flour
- 1 tsp. baking powder
- 1/3 tsp. salt
- 1 Tablespoon honey
- 1 egg, beaten
- 3/4 cup milk
- 3 Tablespoons melted butter

Combine dry ingredients. Mix together egg and milk, and then beat into dry ingredients, forming a smooth batter. Add butter. Drop batter onto hot, greased griddle. Bake, turning each cake when it is browned on underside and puffed and slightly set

Acorn Bread

- 1 cups acorn flour
- 1 cups cattail or white flour
- 3 teaspoons baking powder
- 1/3 cup maple syrup or sugar
- 1 egg
- 1/2 cup milk
- 3 tablespoons olive oil or melted butter

Combine all ingredients and bake in pan for 30 minutes or until done at 400 degrees (test by inserting a toothpick into the center. If it comes out clean, the bread should be done).

Nutritional Information

Caloric Break down:

42% Carbohydrate

52% Fats

6% Protein

Nutrients of significance:

Calcium

Phosphorus

Potassium

Niacin

Vitamin B6

Manganese

Copper

Additional Acorn Resources

- *Natures Garden* by Samuel Thayer. The most complete guide to acorn processing. It has 40 pages on gathering, processing, and eating acorns. It has lots of other great info about other wild edibles too!
- *It Will Live Forever: Traditional Yosemite Indian Acorn Preparation* by Bev Ortiz. This book follows Julia Parker, Yosemite Indian and renowned acorn maker, as she describes every step of this intricate and astoundingly nuanced process.
- <http://zinelibrary.info/files/Hatch%20Acorn%20Ind.%20study.pdf>
- <http://honest-food.net/2010/01/14/acorn-pasta-and-the-mechanics-of-eating-acorns/>