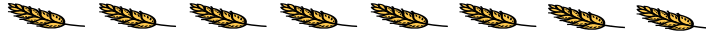




Ancient Grains



Webster's New World Dictionary defines **ancient** as an adjective: of times long past; belonging to the early history of the world; having existed a long time. But it also describes **ancient** as a noun: having the wisdom and dignity of age. **Ancient Grains** have been around for centuries and contain nutritional wisdom that our bodies innately recognize as valuable. Because they are ancient, they are remembered less, used less and may be nearly forgotten. Yet these grains may hold a key to human existence, from pre-historic man through today. Learning to bring these grains back into our meal planning may well be the **wisdom and dignity** of the word **ancient** to which Webster's refers.

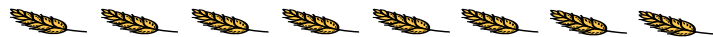
Whole grains:

Major sources of complex carbohydrates, fiber, vitamins, minerals, protective against heart disease, cancer and digestive issues.



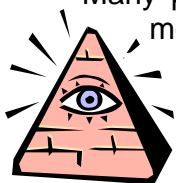
If they are so good for us, why don't we use more of them. Maybe it's a combination of not knowing the different grains, not having access to these grains and not knowing how to cook them to make them taste good.

Storage of Grains:



Each of the grains has its own shelf-life depending on the amount of oil in the germ. Generally speaking, whole grains that are not yet ground can be stored in a cool, dry place in an airtight container usually for about 6 months or more. Once ground, flour should be used immediately or kept in an airtight container in the refrigerator or freezer.

Food Allergies and Sensitivities:



Many people are discovering allergies to grains, especially wheat, corn and oats, the most popular grains in the US (along with rice which rarely causes allergic reactions). Rotating grains in your diet will help to avoid development of sensitivities in susceptible individuals which some experts believe is caused from eating the same foods over and over. Remember that a wheat allergy is different from a gluten intolerance.

Wheat free grains are marked with  gluten free with  and expensive with **\$\$**

The Grain Guru Speaks



“Naturally, it is wise to know these grains and ingest regularly.

Listen and learn ~ and you will reap the plentiful harvest of knowledge.”



Amaranth

Ancient Aztecs believed this grain made supermen, and its Greek name literally means “immortal.” And this grain may actually be immortal, since Amaranth discovered in 1000 year old Aztec ruins can still root and grow today. Slightly larger than a poppy seed, it has the protein equivalence to milk (minus the calcium), and is exceptionally high in lysine, one of the essential amino acids. It is inexpensive and increases radically in volume so it packs a huge nutritive punch for the dollar. It has a long shelf life and can be cooked in liquid until creamy or tossed in a hot pan and roasted like popcorn. Amaranth increases in volume when popped and can be tossed into salads, cereal or casseroles. It cooks quickly making it a great choice for first-time users.

Barley

Barley is one of the first grains ever cultivated. Traces of Stone Age cakes made of wheat and barley indicated man used both grains in prehistoric meal planning. The Chinese were using barley in 1520 BC and today, barley can be harvested from the Arctic to the equator. Ground into grain for bread or brew, this low-gluten grain is milled to remove its indigestible hull. In pearl barley, the milling is repeated over and over until the germ and chaff are gone. Scotch or pot barley have been milled fewer times so are more nutritious. Although pearled barley is not technically a whole grain, one cup of cooked barley is a good source of protein and potassium. Throw in soups, stews or use in place of rice or pasta. It's also economical since it swells to 4 times it's dry size.

Buckwheat

Buckwheat, often called kernels or groats, are hulled seeds of the buckwheat plant which is not a grain at all, but a fruit, a distant cousin of rhubarb. Originating from central Asia, this “grain” has been used by man since the 10th century BC but it was the Dutch who gave buckwheat its name. It has a balance of amino acids, contains calcium and riboflavin and is low in fat and sodium. The name is deceptive since this grain contains no wheat making it a good choice for those who cannot consume wheat products. The plant is disease resistant so may be grown more-often without pesticides. When roasted, groats are often called kasha. Roasting brings out robust flavors. Whole buckwheat can be packaged as hulled groats, and cream of buckwheat, a grits-like cereal.





Bulgur

Made from durum wheat, bulgur is steamed, dried and the bran is removed. Evidence of bulgur predates the birth of Christ by 2800 years and was found in Egyptian tombs. This grain, with its nutty flavor and fluffiness, is great for pilaf and grain salads like *Tabouli*. Bulgur groats come in coarse, medium, and fine grinds and have different uses according to the grind. Since it is precooked, it needs only short cooking times and can be soaked without cooking for use in salads.



Corn

Corn is native American but found across Europe today and is often thought of as a vegetable rather than a grain. As the largest crop in America, it produces almost half the world's harvest. It has many uses from cornmeal to animal feed, bourbon to corn syrup, grits to bio-fuels. Cornmeal in grocery stores is de-germinated, where germ and bran have been removed. Corn is often found in forms like grits, hominy and cornmeal.

Couscous

A staple of North African and Middle Eastern cuisines, it is coarsely ground durum wheat often used in place of rice. It is made from semolina flour sprinkled with water and hand-rolled into pellets, then coated with flour until pellets create small grains. Labor intensive with long cooking times, today it is pre-steamed, dried and packaged so now its distinct advantage is that it cooks in just minutes. Use it as a quick replacement for rice or pasta. Be careful, though, Couscous is only whole grain if it says, "100% Whole Wheat" on the package.

Faro \$\$

Thought to be one of the original grains from which all others arose, faro fed the Mediterranean and Far East for thousands of years. Although it is still used in Italy and parts of France, it may be difficult to find in the US. This grain is often confused with Spelt. Many use the names interchangeably because of similar shape and size however texture, taste and cooking are distinctively different between the two. Faro is mostly used in soups, especially in Italy.

Kamut (KAH-moot) \$\$

A close relative to wheat but twice the size, kamut has more protein than wheat but less fiber. It has a low gluten content and although similar to wheat, is often tolerated well by those sensitive or allergic to wheat products. It can be used in breads, cakes and works well in home-made pastas.





Millet

A small-seeded grass grown in difficult production environments like China and Korea, it may be the oldest grain known to man. Most millet today is used on animal feed but would be a nutritious addition to any human diet. Mostly used in African, Indian and Chinese diets, it is not related to wheat and can be appropriate for wheat-free diets. It has similar protein and nutrient content but millet contains no gluten. It is not suitable for making breads but can be used in soups, casseroles, stuffing or sprouted for salads or sandwiches.

Oats

Historically (and still today) used for animal feed, it took the Crusades to make oats respectable. High in vitamins, minerals and soluble fiber, oats are also a good source of protein. Oats can be rolled, crushed into oatmeal, ground into flour, eaten as porridge, cookies, breads. They can also be consumed raw, or used in brewing beer. The milling process retains bran and germ, and they are higher in soluble fiber than other grains which contributes to lowering blood sugars and cholesterol.

Steel-cut: (“Scotch” or “Irish”) organic, unrefined, dried and rough-sliced. Have long cooking times.

Rolled: “old fashioned,” raw oats sliced into confetti, steamed, rolled into flakes and dried.

Quick: Sliced fine and rolled into very thin flakes over heat, which basically precooks them slightly.

Instant: Faster version of quick oats.

Quinoa (pronounced “KEEN-wah”)

Technically not a grain at all, quinoa is a dried fruit of the herb family. The sacred staple of ancient Incas in Peru, it is still grown on the slopes of the Andes. The Incas believed it was sacred since it appeared to ensure long life—maybe because this grain is a good source of protein and contains essential amino acids. With its unique texture, delicate, light and fluffy, this small grain has a slight crunch. Since it cooks in just 15 min, it is often substituted for rice. Usually found in health food stores, it is finding its way into markets and specialty shops. Store quinoa in the fridge since it spoils quickly.



Rice



Ancient rice unearthed in China was over 7000 years old and has been a staple around the world for centuries. One pound of rice delivers four times the energy of one pound of potatoes or pasta. It comes in many varieties (over 7000): long, short, medium grains, basmati, wild. Brown rice means the hull has been removed but the bran and germ have not been polished off, giving it a nutlike and chewy texture, and retaining most of the nutrient. Wild rice is not wild, but aquatic grass native to North America. It is more expensive due to its limited supply.

Converted: Steamed and pressure-cooked before milling, this forces nutrients into the kernel making them a tad higher in vitamin content but still not a whole grain product.

Brown long & short grain: With its whole, unpolished outer husk, it's chewier and a lot higher in nutrients and fiber than other rice. It takes longer to cook but worth it.

Brown Basmati long grain: Long thin strands from the foothills of the Himalayas, this rice is aged and aromatic.

Brown Texmati long grain: A hybrid of Basmati and long grain rices, it is made in the US as an aromatic but is a less expensive substitute for Basmati.

Medium and short grain: moist, tender, sticks together more.

Wild rice: Not really wild, it is difficult to harvest and is expensive. Cooking times can vary but it should be chewy, much like *al dente* pasta. \$\$

Rye

Heartier and faster-growing than wheat, Bavarian farmers paid peasants to pull this grassy "weed" from wheat fields. But rye grew more furiously than ever forcing farms to give up and allow wheat and rye to be grown, threshed and milled together. Widely used in flour and whiskey, rye has been sifted and most of the bran removed. Dark flour is often referred to as "pumpernickel". Very flavorful but low in gluten, it should be blended with other flours for baking.

Spelt

An important staple in Europe from the Bronze Age to Medieval times, spelt is a species of wheat. Protein is 10-25% higher than common varieties of commercial wheat. Most products are made from the spelt flour and are found in the form of a coarse, pale bread with a sweet, nutty flavor. You may also find spelt pasta and other specialty products in some health foods stores.





Teff

An annual grass native to Ethiopia, this is a small grain higher in fiber and iron than other grains. Teff tiny grains were found in ancient pyramids and the name is thought to be mean “lost” due to it small size and how quickly it could be lost. Teff grains range from ivory, light to deep brown to dark reddish purple with a slight molasses-like sweetness. It is often used as thickener in soups and stews, pancakes and cookies and can be used in place of wheat flours. Because it contains no gluten, this grain is a good choice for those with Celiac’s disease, a gluten intolerance.

Triticale

A hybrid of wheat and rye, triticale is traditionally used as animal feed but increasingly found in cereals and health food stores. The protein content of wheat is about 7%, and rye about 12% but triticale’s protein runs about 15 to 17%, a lower gluten content. The most popular Star Trek episode, “The Trouble with Tribbles,” revolved around the protection of a grain derived from Triticale. Because is it mostly used as feed, it may be difficult to find. Packaged as whole berries, flakes or flour, and are relatively inexpensive. It takes a while to cook but it is a grain with great flavor and substance.

Wheat

The first wheat was really wild grass and has been on this planet longer than man. Used as food, woven into roofs or sandals, or burned as fuel in stoves, wheat was the most versatile harvest of man. With over 30,000 varieties, wheat grain is a staple used to make flour for cooking, fermented for alcoholic beverages like beer and vodka, as food for livestock and even as a construction material. Major species include wheat, durum, einkorn, emmer and spelt.

Bulgur: The parched, steamed and dried berries of wheat.

Semolina: Also called hard durum wheat, it is the roughly milled endosperm of durum wheat used almost exclusively in the manufacture of dried pasta or couscous. This is not a whole grain.

Couscous: Processed grains of steamed semolina.

Wheat berries: Unprocessed whole wheat (bulgur is cracked wheat berries) is high in nutrients and low in calories. It must be pre-soaked and pre-cooked before using in recipes, and even then they tend to stay very crunchy.

Wheat germ: The embryo of a wheat berry, the germ contains highest nutrient content of the grain. Although the “heart” of a whole grain, wheat germ in itself is not whole since it is separated from the bran and endosperm.






Cooking Ancient Grains

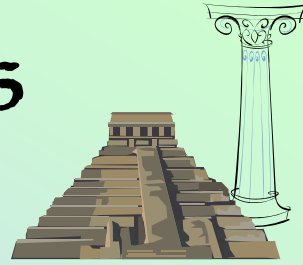


Grain	Water	Cook Time	Yield
Amaranth 1/2 cup	1 cup	20-25 min	1 cup
Barley 1 cup pearl	3 cups	35-40 min	3 1/2 cups
Brown Rice	2 cups	1 hr	3 cups
Buckwheat (kasha)	2 cups	15 min	2 1/2 cups
Bulgur wheat 1 cup	2 1/2 cups	15-20 min	2 1/2 cups
Cracked wheat	2 cups	25 min	2 1/3 cups
Coarse cornmeal Polenta	4 cups	25 min	3 cups
Couscous 1 cup	1 cup	5 min	1 1/2 cups
Faro 1 cup	3 cups	Cook 25 min, let stand 10 min	2 cups
Kamut 1 cup	3 cups	3 hours	3 cups
Millet 1/2 cup	1 1/4 cup	Pop first then cook 20 min, let stand 10 min	2 cups
Oats 1 cup	2 cups	Cook 5 min, let stand 3 min	2 cups
Quinoa	2 cups	15 min	2 1/2 cups
Rice (brown) 1 cup	2 cups	40-60 min	2 cups
Rye	Usually not cooked alone, mainly used in breads with wheat		
Spelt	Usually not cooked alone, mainly used in the form of flour		
Teff 1 cup	3 cups	20 min	3 cups
Triticale 1 cup	3 1/4 cups	40-50 min	2 1/2 cups
Wild Rice 1 cup	3 cups	1 hr	4 c
Wheat Berries 1 cup	3 cups	2 hr	2 3/4 c



Note: Don't wash whole grains before cooking unless visibly dirty. Rinse in cold water only. Cook grains in only the amount of water they can absorb so you're not pouring off excess water and losing nutrients. See chart. Store in cool, dry, dark and airtight. If stored properly, grains can be kept for years. Once ground to flour, must be used quickly, especially corn meal which is high in poly unsaturated fat that goes rancid quickly. 

References



Green on Greens & Grains. Bert Greene. Tess Press, Black Dog & Leventhal Publishers, Inc., NY, NY. 1984

<http://en.wikipedia.org>

www.hort.purdue.edu (Teff)

www.italiancooking.com (Farro)

www.kamut.com



Trying new Grain Tips



Use **Couscous** or **Quinoa** instead of rice for an evening meal in half the time.



Pop **Amaranth** and sprinkle in cereal or yogurt.



Make traditional Italian soups with **Faro**.



Sprout **Millet** for salads or sandwiches.



Mix **Teff** into soups, stews or in pancake mix.



Look for cold cereals with **Tricale** and other whole grains.



Use **Bulgur** to make a cold Tabouli salad for a summer dish.

