

COOKING WITH WHOLE GRAINS

There are a number of grains, each having distinctive chemical characteristics and flavor qualities. A whole new world of eating experiences comes with each line of grain. Rice, for instance, can be cooked until dry and used with a number of sauces, spreads, gravies, and soups. By simply increasing both the cooking time and the amount of water, the end product is creamy and can be used as a porridge for breakfast; can be congealed, sliced and baked; or can be shaped into patties while still hot and seasoned with a variety of herbs. Rice can be ground into a coarse flour, wet with water and steamed to make a rice cake. It can be made sweet or savory by adding your favorite seasonings and nuts. For each grain the number of different cooking styles are as varied as the number of grains. A cookbook with a good section on grains is a valuable asset to any kitchen. We recommend the following books to learn more about using grains in your diet: Eat For Strength, by A. Thrash; Laurel's Kitchen by L. Robertson; Diet for a Small Planet, by F.M. Lappe; Foods that Heal, by B. Jensen; Surviving the Nineties: Coping with Food Intolerances, by D. Thom; and the Complete Book of Natural Foods, by F. Rohe.

PROCESSING OF GRAINS

The whole grain consists of the bran, germ, and endosperm. Refined grains no longer contain the bran and often the germ. The bran contains fiber, B vitamins, fats, minerals, and protein. The germ has protein, fat, and vitamins A, B, and E. The endosperm is the part that is left after milling and is a source of complex carbohydrates. Two features of processing grains diminish their wholesomeness: (1) the polishing, and (2) failure to cook a sufficient length of time. Grains grow in such a way that the vitamins and minerals are found almost exclusively on the outer layer. Milling generally removes this layer, leaving a white, easily ground, central kernel or endosperm. This kernel is devoid of most vitamins and minerals. Bugs generally don't like white flour products because they instinctively recognize that it lacks basic nutritional value. Bleaching flour is another method of removing vitamins and minerals. Many of the minerals found in grains are required in the metabolism of protein. We can easily see that grains are fine when used as a whole grain, but become less efficient metabolically when polished.

LONG, SLOW COOKING

Many people fail to cook grains long enough to release the chemical bondages that hold the nutrient molecules. Our digestion is not strong enough to completely split many of the molecules in grains. This can cause some distress in the colon from gas or acids. We may also fail to receive all the nutrients possible from the whole grain. The harder grains need more than an hour of cooking, and slow cooking is recommended to provide the most benefit.

AMARANTH ★

This Aztec grain is rich in lysine and makes a complete protein when combined with other grains. Amaranth does not contain gluten. It can be cooked as a cereal and can be bought as a packaged cereal or crackers. It has good baking qualities when mixed with whole wheat flour.

Cook 1 cup amaranth to 1 1/2 cups water for 20-25 minutes to yield 2 cups.

BARLEY

This grain grinds into a very fine, white flour which can be used to make white gravies and to vary whole grain breads. Barley flour will be a whole grind only if you can find unhulled barley (not pearled), and may be called blue or gray barley. The pearling removes more than thirty percent of the grain. It is high in malt and has a delightful, mild flavor. Cook 1 cup barley to 3 cups water for 1 hour 15 minutes to yield 3 1/2 cups.

BUCKWHEAT (Kasha) ★

This seed is actually not one of the grains, but because of its nutrient makeup is widely used in the same fashion as grains. It has a fairly strong flavor, so when used whole or as a flour, mix it with one of the more bland grains such as corn, rice, or millet. It has a high biologic value, and is rich in vitamins and minerals such as B, E, and calcium. It deserves much greater popularity than just as buckwheat griddle cakes.

Cook 1 cup buckwheat to 2 cups water for 15 minutes to yield 2 1/2 cups.

CORN ★

Corn was first grown in North America, and continues to be our most widely used grain in this country. Corn germ is a complete protein rich in lysine and has 33% more vitamin E, more iron and zinc, and twice as much fiber as wheat germ. It has many uses in hotcakes, griddle cakes, waffles, mixed with soybean flour to make raised cornbread, chapatis, corn chips, enchiladas, and tortillas. Coarse cornmeal is called polenta or grits. Grits can be used as a breakfast porridge, congealed porridge sliced and baked, or mixed with other grains. Grits can be served with a variety of fruit sauces, nut or soy spreads, soy sour cream, etc.

Cook 1 cup polenta to 4 cups water for 20-25 minutes to yield 3 1/2 cups.

KAMUT

This ancient grain from Egypt is a relative of durum wheat but is often tolerated by people with a wheat sensitivity. It contains gluten and more protein and other nutrients than wheat. The whole grain can be used in casseroles or soups if soaked overnight.

Cook 1 cup kamut flakes to 2 1/2 cups water for 20-30 minutes to yield 4 cups.

★ gluten-free

MILLET ★

Millet is a cereal commonly used in Europe that has gained much popularity in this country. It has a bland flavor and can be served like rice or corn.

Cook 1 cup millet to 3 cups water for 45 minutes to yield 3 1/2 cups.

OATS

This is one of our more common cereal grains with high nutritional value. It can be used as the whole grain, can be cooked as a breakfast food, used to give body to casserole dishes and stews, & to make patties or burgers. This important grain has many uses, & should not be merely "oatmeal".

Cook 1 cup oats to 2 cups water over low heat for 20-25 minutes to yield 1 3/4 cups.

QUINOA ★

Quinoa comes from the Andean mountains of South America & was a staple food for the Incas. It is a complete protein, containing more protein than any other grain, roughly 16.2% compared with 14% for wheat and 7.5% for rice. Quinoa is quick cooking & easy to digest. The flour can be used in baking & is low in gluten. Rinse the seeds before cooking to remove the bitter tasting resin covering the seed.

Cook 1 cup quinoa to 2 cups water for 15-20 minutes to yield 3 cups.

RICE ★

The most important grain in the Asia, rice has kept much of China alive & healthy for the last three centuries. Not until polishing the grain (white) became a common practice did nutritional deficiencies exist in China. Brown rice has twelve percent more protein, 33 percent more calcium, more B vitamins, potassium, and iron than white rice & contains vitamin E, absent in white rice. Brown rice can be eaten whole or used as a flour. When added to whole wheat flour (up to 25%) it makes bread more dense, moister, & smoother.

Cook 1 cup brown rice to 2 cups water for 45 minutes to yield 3 cups.

RYE

This hardy cereal grain is widely grown for its grain as well as its straw. It can be used as either flour (fine grind) or meal (coarse grind). The flour made from rye should be used to vary the nutritive content of breads, to make gravies, and to thicken soups and casserole dishes.

One may add 1-2 cups of rye flour to whole wheat flour in making bread.

SOY

Not technically a grain, but ground soybeans produce a flour that is high in protein and zinc. The taste of soy is rather bitter due in part to its processing. Soy flour should never be eaten raw because it contains an enzyme which inhibits protein digestion. Cooking destroys this enzyme. Maximum protein complementarity can be achieved with 1/4 cup of soy flour to every cup of wheat flour.

Cook 1 cup soybeans to 4 cups water for 3-4 hours to yield 2 cups.

SPELT

Spelt is related to wheat and contains gluten, but it is often tolerated by people with a wheat sensitivity. It can be used in baking, cooking, and pastas. Spelt can be used in the same proportions as wheat flour and substituted one to one.

Cook 1 cup coarsely-ground spelt, spelt flakes or farina to 2 cups water for 30 minutes to yield 3 cups.

TEFF

Teff is a cereal which comes from eastern Africa and Ethiopia. It is a good source of calcium and iron and has high protein content. The grain may be ground into flour or used cooked or uncooked in many recipes. Uncooked, teff can be used as a substitute for nuts and seeds in baked goods. It is small and has a high density so use less teff than you would seeds (ex 1/2 cup teff for 1 cup sesame seeds). When cooked, teff has a gelatinous consistency. It can be used in baking, breads, cookies, soups, casseroles, stews, and puddings.

Cook 1 cup teff to 3 cups water for 15-20 minutes to yield 3 cups.

TRITICALE

This grain is a cross between two different types of wheat and rye. It is higher in protein than most wheat and contains enough gluten to use for making breads.

Cook 1 cup triticale to 4 cups water for 20-25 minutes to yield 4 cups.

WHEAT

There are many grains in this group of cereal grasses. Each of the different species has a somewhat different amino acid content as well as vitamin and mineral spectrum. Wheat is used to make whole wheat and white bread. Like rice, wheat has the major nutritive properties removed in the milling process. White flour keeps longer because of the separation of the vitamin and mineral bearing oils which are likely to become rancid. We recommend whole wheat flour instead of white flour for all cooking and baking needs. Cracked wheat is wheat that has been broken up into small pieces and bulgur is cracked wheat that has been toasted or partially cooked. Durum is wheat flour that is used for pasta products and Semolina is refined durum flour. Couscous is made of either durum wheat or millet.

Cook 1 cup cracked wheat to 2 cups water for 25 minutes to yield 2 1/3 cups. Cook 1 cup whole wheat berries to 3 cups water for 2 hours to yield 2 2/3 cups.