



Millet

Millet refers to a group of small-seeded grasses which are cultivated around the world as grains for both human and animal consumption. It is a particularly significant crop in semi-arid tropical areas of Asia and Africa, as it exhibits a short growing season and is able to produce more reliably under dry, high temperature conditions than other grains. However, it is also quite adaptable, and responds readily to moist, fertile environments.[1] Despite this adaptability, its popularity in Western countries has been limited. In fact, the 207K tons of millet produced annually in the United States lag far behind the world's top millet producers India, Niger, China, and Mali, which produce 12.71 million, 2.93 million, 1.57 million, and 1.46 million tons, respectively.[2]

The most widely grown millet is called pearl millet, which constitutes a substantial portion of the diet in developing countries, and particularly in the Sahel region of Africa. In fact, countries in this region rely on pearl millet to provide nearly 1,000 calories daily per person. The most commonly grown millet in the United States, however, is proso millet, and is produced primarily for birdseed.[3]

Storage and Preparation

Though once difficult to find in the United States, millet has gained popularity in recent years and can now be found in most well-stocked grocery stores in the United States. It is a hearty, robust grain, and generally be stored in any environment for 1-2 years without affecting safety of consumption.[4] For longer term storage, millet should be stored in an air-tight container in a cool place.

Somewhat bland in flavor, it is generally innocuous and unlikely to offend consumers. Like most grains, millet is conducive to a variety of preparation methods. Its texture is comparable to that of brown rice, and so it can be readily incorporated into pilafs and casseroles as a substitute for other grains such as rice or quinoa. When added to baked dishes, millet should be cooked for approximately 40-45 minutes at 350 – 400 degrees F. It can also be simply added dry to biscuit and bread doughs to contribute a crunchy texture as well as complexity. In other parts of the world, millet is ground to a flour for use in baked goods or porridges.

When prepared by itself, millet should be boiled or steamed for 15-30 minutes, depending on the age of the grain. Cooking millet allows it triple in volume, making it one of the most voluminous grains in the world's food supply.[4] For this reason, the grain is often popped over high heat and consumed as a snack in other parts of the world.

Nutrition Properties

One of the most distinguishing characteristics of millet is its high ash content of approximately 1.7%.[5] Like other grains, millet is predominantly starch, but contains a protein composition similar to that of wheat (13%).[5] However, it is a gluten-free grain, making it a suitable dietary option for those with wheat allergies, gluten sensitivities, or Celiac disease.

Millet provides a rich source of iron, phosphorous, and calcium, particularly when compared to other grains. It also exhibits a high fiber content which not only contributes positively to bowel maintenance, but may potentially decrease risk of colon cancer.[6] However, this fibrous nature may also be detrimental to consumer acceptability.

Millet functions as an anti-inflammatory in the human body, promoting health and athletic performance while potentially reducing risk for disease. Furthermore, millet contains amygdalin, once considered a miracle cure for cancer. Although this belief has since been disproven, recent evidence suggests that this compound may promote apoptosis in prostate cancer cells, and so may be considered a therapeutic option for this malignancy.[7]

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2. *FAOSTAT: Millet*. 2011 [cited 2013 July 14]; Available from: <http://faostat.fao.org/site/567/DesktopDefault.aspx?PageID=567#ancor>.
3. USDA, *Millet: Background on the Feasibility of Insurance*. 2008.
4. *Millet - All About Grains*. 2013 [cited 2013 July 14]; Available from: https://www.usaemergencysupply.com/information_center/all_about_grains/all_about_grains_millet.htm.
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6. Katz, R., *The Cancer Fighting Kitchen*. 2009: Random House, Inc.
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