Quinoa: The Miracle Grain

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Quinoa (pronounced keen-wa) is truly a miracle grain. Why do I aver this? Quinoa is high in essential amino acids; minerals such as calcium, magnesium, and iron; high in fiber; gluten free; and a complete protein.

Miracle of Quinoa

Macrobiotic teaching asserts that whole grains such as brown rice, barley, wheat, oats, and rye provide protein. But we are cautioned that these grains do not have all of the essential amino acids necessary to make up a “whole” protein and thus must be supplemented with beans, nuts, seeds, or gomashio.

The protein in quinoa is a complete protein because of the presence of all 8 essential amino acids. In addition quinoa has more protein than any other cereal grain, being 12 to 20 percent protein. This means it takes less quinoa to meet one’s protein needs than wheat or rice. It has an average of 16 percent protein as compared with the protein in other grains; it is greater than the 7.5 percent for rice, 9.9 percent for millet, and 14 percent for wheat. Four ounces of quinoa a day, about ½ cup, will provide enough protein for a child for one day.

Quinoa’s protein is high in the essential amino acids lysine, methionine, and cystine. This makes it an excellent food to combine with and to boost the protein value of other grains (low in lysine), or soy (low in methionine and cystine).

Quinoa is a good choice for vegans concerned about adequate protein intake, particularly, as stated above, because it is especially well endowed with the amino acid lysine, which is essential for tissue growth and repair.

In addition to protein, quinoa features a host of other health-building nutrients such as manganese, magnesium, iron, copper, and phosphorous. It is noteworthy that manganese and copper are two minerals that help prevent damage caused by free radicals.

Quinoa has less sodium than wheat, oats, barley, or corn and is significantly higher in calcium, iron, phosphorus, magnesium, potassium, copper, manganese, and zinc than other grains. One cup of quinoa has more calcium than a quart of milk.

Finally, quinoa is a gluten-free whole grain that can be tolerated by most people who suffer with allergies to some grains. The American Celiac Sprue Association lists quinoa as “consistent with a gluten-free diet.”

Because of all these characteristics, quinoa is being considered as a possible crop in NASA’s Controlled Ecological Life Support System for long-duration manned space flights.

In contemporary times this crop has come to be highly appreciated for its nutritional value, and the United Nations has classified it as a super crop for its very high protein content.
**Brief History of Quinoa**

Quinoa originated in the Andean region of South America, where it has been an important food for 6,000 years. It is altitude-hardy, so it can be easily cultivated in the Andes up to about 12,000 feet.

Quinoa was one of the three staple foods, along with corn and potatoes, of the Inca civilization of Peru and Bolivia. The Incas held the crop sacred, referring to quinoa as “chisaya mama” or “mother of all grains.”

During the European conquest of South America quinoa was scorned by the Spanish colonists as “food for Indians” and even actively suppressed it, due to its status within indigenous non-Christian ceremonies.

In their attempts to destroy and control the South American Indians and their culture, the Spanish conquerors destroyed the fields in which quinoa was grown. They made it illegal for the Indians to grow quinoa, with punishments including death. These harsh measures all but extinguished the cultivation of quinoa.

**COOKING QUINOA**

Quinoa is delicious, highly nutritious, easily digestible, and takes very little energy to cook. It is easy on the stomach, light, tasty, and easy to prepare. It is not sticky or heavy like most other grains, and it has a distinctive flavor all its own.

About the size of millet, each round grain is bound with a narrow germ. When cooked the wispy germ separates from the seed and its delicate, almost crunchy curlicue makes a great contrast to the soft grain. Quinoa is quick cooking, taking from only 10 to 15 minutes to prepare.

It is perfect for summertime. There are people who eat grains only during the colder months, but quinoa’s lightness combined with its versatility in cold dishes like salads and desserts makes it an ideal source of good summertime nutrition.

There is only one slight drawback to this miracle grain: In its natural state quinoa has a coating of bitter-tasting saponins, making it essentially unpalatable. This may have caused the Europeans who first encountered quinoa to reject it as a food source, even though they readily adopted other indigenous products of the Americas like tomatoes, maize, and potatoes.

However, this bitterness has beneficial effects in terms of cultivation. The birds will not eat it. In fact when a variety was developed that had little of this bitter tasting coating it was rejected by the farmers after just one season. They returned to their traditional high saponin varieties, because, despite the newer varieties giving “magnificent” yields, the birds had consumed the entire crop.

Although most commonly considered a grain quinoa is not a true cereal grain. It is the botanical fruit of an herb plant and actually a relative of leafy green vegetables like spinach and Swiss chard. It is sometimes referred to as a “pseudo cereal”—a broadleaf non-legume that is grown for grain. It is similar in this respect to the pseudo cereals buckwheat and amaranth. It is treated as a grain in cooking, however.

Quinoa is rinsed before it is packaged and sold, but it is best to rinse it again at home before use to remove any of the powdery residues that may remain on the seeds. The presence of saponin is obvious by the production of a soapy looking “suds” when the seeds are swished in water. Placing quinoa in a strainer and rinsing thoroughly with water easily washes the saponin from the seeds. In South America the saponin that is removed from the quinoa is used as detergent for washing clothes and as an antiseptic to promote healing of skin injuries.

Here a few of our favorite recipes for this miracle grain from Warren’s cookbook, *A Man in the Kitchen*:

**QUINOA WITH ONIONS**

1 cup of quinoa
1 medium onion
1 tsp of sesame oil
2 ½ cups of spring water
a pinch of sea salt

Thoroughly rinse the quinoa under running water in a strainer. This is a very important step with this grain. If it is not rinsed well it will taste bitter because the grains are covered with a fine protective coating called saponin, which has a very bitter taste. Let it drain.

Peel the onion. Cut it in half and dice each half into small pieces.

Heat an iron skillet and when it is hot add the oil. When the oil is hot add the onions and sauté them until they become limp. Add the grain and continue to sauté until the grain begins to give off a nutty odor.

While you are sautéing the onion and grain bring the water to a boil in a saucepan. Add the grain and onions to the boiling water. It will foam up so add the grain carefully. Bring it back to a boil, add sea salt, cover, and simmer for 15 to 20 minutes. When the water is all gone, fluff up with a wooden fork. It is ready to serve.

**QUINOA SALAD**

4 cups spring water
2 cups string beans, trimmed & cut in half
1 small zucchini, diced
1 small yellow squash, diced
1 ½ cups corn kernels
1 cup quinoa
1 Tbsp tamari
2 Tbsp extra virgin olive oil
3 Tbsp fresh lemon juice
2 Tbsp fresh basil, coarsely chopped
1 Tbsp fresh tarragon, coarsely chopped
1 Tbsp shallot, minced
2 Tbsp umeboshi vinegar

Wash vegetables and cut into appropriate size pieces.
Bring 4 cups of water to a boil in a saucepan and drop in the string beans. Cook about 3 minutes until tender. Remove with a slotted spoon and set aside. Add the zucchini, yellow squash, and corn kernels and cook for 3 minutes. Remove and set aside.

Rinse the quinoa by placing it into a large bowl, covering with water and swirling it around with your hand, then draining off the water. Repeat this step two more times for a total of 3 times in all. This is a very important step with this grain. If it is not rinsed well it will taste bitter because the grains are covered with a fine protective coating called saponin, which has a very bitter taste.

Use 1½ cups of the water from boiling the vegetables and bring it back to a boil. Add the washed and drained quinoa and the tamari. Cover with a lid and cook for 15 minutes.

Transfer the cooked quinoa to a large mixing bowl and fluff gently with a fork. Add the boiled vegetables and gently mix into the quinoa.

In a small bowl add the olive oil, lemon juice, basil, tarragon, shallot, and gently mix into the quinoa.

Add the above mixture to the quinoa and vegetables and gently toss together. Serve cooled or at room temperature.

**Basic Spiced Quinoa**

1 cup quinoa
2-3 Tbsp olive oil
1 cup celery, chopped small
½ cup red pepper, chopped small
½ crushed garlic clove
½ tsp sea salt
1 bay leaf
½ tsp thyme leaf
¼ tsp turmeric
¼ tsp ground coriander
½ tsp cumin (optional)
¼ tsp grated ginger
4 cups spring water
½ cup minced parsley or cilantro
dash fresh ground pepper (also optional)

Thoroughly rinse quinoa under running water in a strainer. This is a very important step with this grain. If it is not rinsed well it will taste bitter because the grains are covered with a fine protective coating called saponin. Let it drain.

In an iron skillet heat the olive oil on medium high heat. Add the chopped celery, red pepper, and garlic. Stir fry for a very few minutes—the garlic should begin to brown.

Then add the salt and the rest of the spices except for the parsley or cilantro and fresh ground pepper. Mix well.

Now add the rinsed and drained quinoa and stir until dry and the grain begins to give off a nutty odor.

While you are sautéing the grain bring the water to a boil in a saucepan. Add the grain and spices to the boiling water. It will foam up so add the grain carefully. Bring it back to a boil, cover, and simmer for 15 to 20 minutes or until all the liquid is gone.

Stir in the chopped parsley or cilantro and fresh ground pepper, fluffing with a fork and serve.

**Quinoa Paella**

8 ounces extra firm tofu, cut into 1-inch cubes
marinade of 1 part shoyu and 4 parts spring water, sufficient to cover the cubes
5 Tbsp olive oil
1 onion, chopped
½ red and ¼ green bell pepper, chopped
½ fennel bulb, chopped
2 cloves of garlic, minced
1 bay leaf
½ tsp paprika
½ tsp turmeric
½ tsp cayenne powder (optional)
2 cups quinoa
3-4 cups vegetable stock
pinch of saffron
pinch of sea salt
3 cherry tomatoes, halved
½ cup frozen peas
lemon slices for garnish

Prepare the tofu first: Make sufficient marinade to cover the cubed tofu and let the tofu sit in the marinade for an hour or more.

Heat 2 tablespoons of the olive oil in an iron skillet and when hot add the marinated tofu cubes. Fry the tofu cubes over high heat on all sides until they are golden brown. Drain on a paper towel and set aside.

Heat the remaining olive oil in the iron skillet Add the onions and sauté on medium heat until soft, then add the bell peppers and fennel. Continue to cook until the vegetables begin to soften.

Add the garlic, sauté briefly and then add the bay leaf, the paprika, the turmeric, and cayenne powder (if used).

Thoroughly rinse the quinoa under running water in a strainer. This is a very important step with this grain. If it is not rinsed well it will taste bitter because the grains are covered with a fine protective coating called saponin, which has a very bitter taste. Let it drain.

Add the rinsed and drained quinoa, stirring it in well. Next slowly add the vegetable stock, then the saffron and sea salt. Reduce the heat to low.

Add the cooked tofu on top of the cooking paella, cover the pan, and allow the ingredients to simmer for 20-25 minutes without stirring.

When liquid has almost entirely cooked out of the quinoa, remove the pan from the heat, sprinkle in the tomatoes and peas, and cover again. Let it sit for 10 minutes, then serve garnished with the lemon slices.

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