

Nutritional Rich Millet Pizza

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According to their grain size, millets are categorized as major and minor millets. Finger millet also known as ragi or mandua (*Eleusine coracana*), foxtail millet or kauni (*Setaria italica*), kodo millet or kodo (*Paspalum scrobiculatum*), proso millet or cheena (*Panicum miliaceum*), barnyard millet or sawan/madira (*Echinochloa frumentacea*) and little millet or kutki (*Panicum miliare*) come under the category of minor millets. In Karnataka, the area under cultivation of foxtail millet is 694.9 ha with the production of 418.8 tonnes (Directorate of economics and statistics, 2015-2016).

Millets are rich in micronutrients especially minerals, B vitamins, nutraceuticals and found to reduce the risk of many chronic diseases. Carbohydrates of the millets comprise of large proportion of starch (65-70%) and a good amount (16-20%) of non-starchy polysaccharides (NSP). The NSP, which constitute nearly 95% of the dietary fibre content of the grain, are derived not only from bran portion but also from the endosperm cell walls. Foxtail millet is a good source of phosphorous, iron and vitamins like thiamine, riboflavin, folin and niacin (Anon., 2004). Despite being so nutritious these millets visibility waned in recent decades due to the popularity of rice and wheat during the green revolution. The protein content is higher among millets and major cereals also the amount of fiber (as a glucan ; 42.6 per cent). The metabolism of sugar and cholesterol gets increased due to a-glucans resulting in hypoglycemic and hypocholesterolaemic affects, which is beneficial for prevention of diabetes and cardiovascular diseases. Because of this, foxtail millet is used in the preparation of low glycemic index foods for treating diabetics, particularly type 2 diabetes and also cardiovascular diseases. It is rich in dietary fiber 6.7 per cent, protein 11 per cent, and low in fat 4 per cent. However, with increasing emphasis on diverse grains, and people's quests to find alternatives to rice and wheat, millets are returning to the spotlight. Among the most demand universal food product is pizza. According to Mama Deluca's pizza, Americans eat approximately 100 acres of pizza each

day, or about 350 slices per second and approximately three billion pizzas are sold in the United States each year. Pizza consumption has increased 150 per cent between 1977-78 and 1994. Total pizza sales increased 25 per cent from 1991-1995 with a market value of \$22.2 billion in 1995. According to USDA, pizza consumption has more than tripled since the 1970's and is likely responsible for the most significant share of sauces and cheese used and purchased in fast food restaurants.

Traditionally, the flattened bread dough of pizza crust is made from wheat flour. The high calorie and low fibre content of pizza makes it unsuitable for consumption by people suffering from diabetes and cardio vascular disease, therefore incorporation of millet flour in the pizza base may enhance its nutritional quality and makes it suitable for the people with above said diseases.

Method of preparation

1. Yeast was dissolved in lukewarm water, sugar was added in it left aside.
2. Flour was sieved. Fermented yeast, salt and bread improver was added and kneaded well with sufficient amount of water.
3. Oil (10 ml) was added and kneaded again till the soft and smooth dough was obtained.
4. Dough was covered and kept in a dry place at approximately 35 °C for 1 hour to allow it to double its size.
5. After 1 hour, dough was kneaded gently with some oil and divided into portions.
6. On a lightly floured surface, dough was rolled into thin rounds (approximately 4 mm thickness).
7. Thin rounds were covered and kept in a dry, warm place to rise again approximately for half an hour.
8. Vegetables (capsicum, onion, tomato) were cut into thin slices.
9. Pizza sauce was spread evenly in the whole pizza round.

10. Sliced vegetables were placed above the pizza base.
11. Cheese mozzarella was grated evenly on whole pizza.
12. Pizza base was poked with the help of fork (to stop the rising during baking) and baked in an oven at 200°C for 20 minutes.

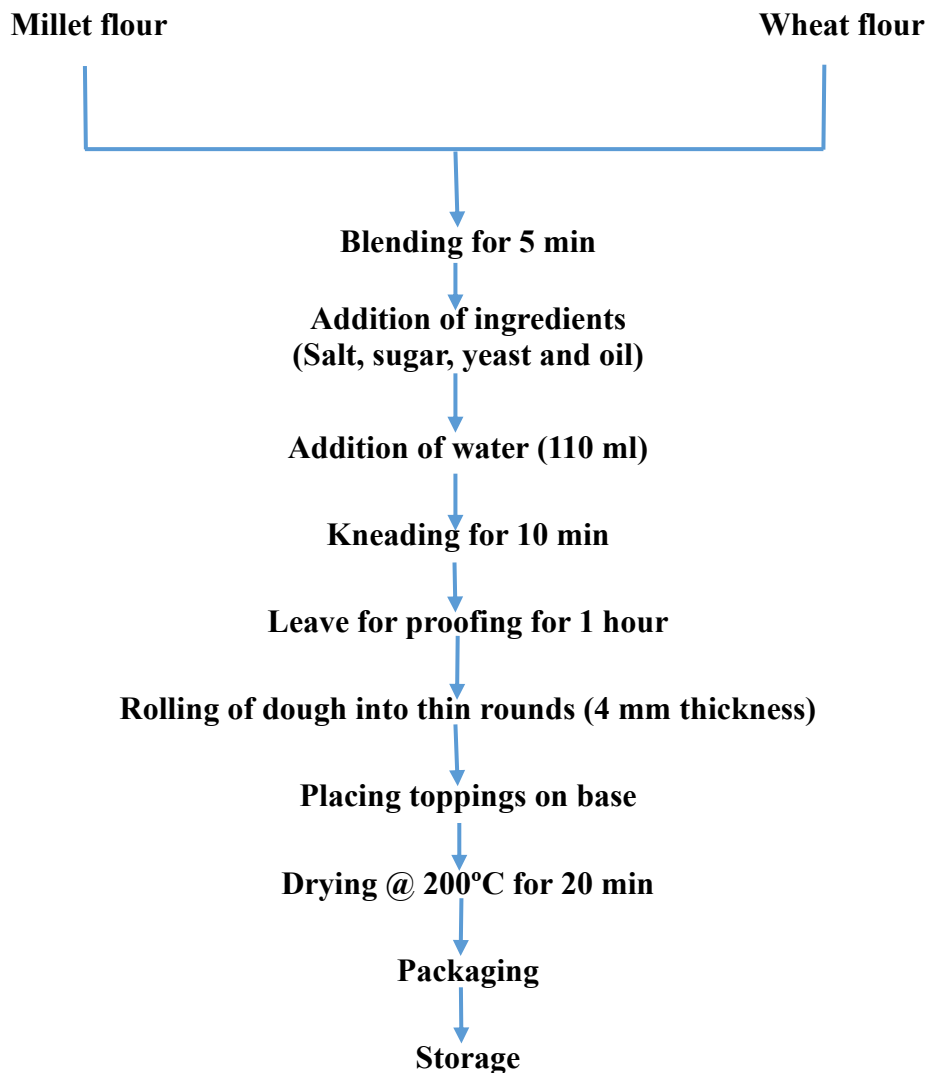
Pizza ingredients and toppings

- Pizza base
- Capsicum – 50 g

- Onion – 50 g
- Tomato – 25 g
- Mozzarella cheese – 20 g
- Pizza sauce – 1 tbsp.

Foxtail millet and barnyard millet are nutritionally richer than the conventional refined wheat flour used in the bakery products. The high nutrient content of these millet incorporated pizza base make them nutritionally superior than conventional pizza base.

Process flow chart for development of pizza



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