

Making Bread from Cassava

Cassava or tapioca in Pidgin is becoming a significant addition to the staple foods in PNG. Cassava is common in many areas of PNG because it yields reasonably well in poor soils and can tolerate dry weather.

More than two varieties occur with yellow and white-fleshed tubers being the main distinctions. Cassava harvested and left for more than 2-3 days can become moldy and rot.

Benefits from cassava bread

1. Increased bread consumption: Use of locally produced cassava flour for bread will improve utilization and efficient production and increase in cassava consumption.
2. Crop production: Use of cassava in the production of bread will encourage cassava processing and improving food security for low income earner and rural household.
3. Nutrition: To stay healthy the body needs the following nutrients in varying amounts which, are to be found in the breads as described below.
 - **Carbohydrates.** Carbohydrates produce energy for basic body functions and satisfy hunger. They are provided by the starch and sugars in the cassava and soy flour.
 - **Proteins.** Proteins are body-building nutrients needed for maintenance and growth of body tissues. These are provided by the eggs and soybean flour added, to the mixture.
 - **Fats.** Fats are also energy providers and produce as much energy per gram as carbohydrates and proteins. They are provided by the added margarine and the flours used.
 - **Vitamins and minerals.** Vitamins and minerals are essential for normal growth and good health. These are available through ingredients such as, margarine, cassava and soy flour.
 - **Water.** Water controls body processes and helps in transporting nutrients throughout the body. This is provided by the water in the recipe.

Making the cassava flour

Flour produced from matured cassava gives good quality flour for bread making. Cassava harvested early gives relatively low yield. After 15 months cassava yield begin to decline. The flesh become tough and bitter and gives lower quality flour.

Method: Peel and wash fresh cassava roots. Cut into thin chips using a kitchen shredder. Dry the chips on plastic sheets, or on a raised clean surface (to prevent

contamination by dust, animal excrement, etc.) for approximately 2-3 days; or in an oven at 55°C for 24 hours. Grind the dried chips into flour using a local mill, or pound the chips by hand with a mortar and pestle. Sift the flour through a fine sieve. Store the flour in airtight plastic bags or containers until use.

Making cassava bread

Acceptable quality bread can be obtained with up to 30% of wheat flour substitute with cassava flour. The bread from cassava flour can be produced using this recipe,

- Cassava flour 200 g (2 ½ cups)
- Wheat flour 800 g (10 cups)
- Soybean flour 50 g (½ cup)
- Salt 15 g (1½ tablespoons)
- Sugar 60 g (¾ cup)
- Margarine 40 g (4 tablespoons)
- Dried yeast 20 g (2 tablespoons)
- Water 800 ml (depends)

Method: Prepare the cassava flour as described above. Add wheat flour, soybean flour, salt, sugar, and yeast, and mix together. Add warm water into the mixture slowly and, making sure the mixture is not too wet. Turn the dough onto a table and knead for 2 minutes and place into baking pans. Put the pans in a warm place and allow to rise until the dough doubles its initial size. Remove from warm place and put in the oven at 180°C for 30 minutes or cook on fire until done. Take the cassava bread out and allow to cool.

Storage: Cassava bread can be stored for up to 3 days, if it is packaged in an airtight polyethylene bag at room temperature. Where the bread is left in the open, it gets easily mouldy and spoilage sets in.

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