

## CHAPTER 2

### INGREDIENTS AND UTENSILS OVERVIEW

#### 2.1 Description of The Material to be Used

##### 1. Multigrain



Picture 1 Multigrain

These are 6 type of grain of this multigrain cereal such as mung bean that one of the best plant-based sources of protein, red bean that good source of iron, phosphorus and potassium, red rice can reduce inflammation in the body, black glutinous rice as anti-cancer food because it has nutritional complex, barley is a particularly rich source of fiber, molybdenum, manganese and selenium. It also contains good amounts of copper, vitamin B1, chromium, phosphorus, magnesium and niacin. Lentils can lower cholesterol and protect against diabetes and colon cancer

##### 2. Tapioca Starch



Picture 2 Tapioca Starch

Tapioca starch is a gluten-free flour that comes from the cassava plant. Tapioca create crunchy texture in the cereal made from multigrain mixture.

### 3. Honey



Picture 3 Honey

Honey has a lower GI value than sugar, meaning that it does not raise blood sugar levels as quickly. Honey is used to sweeten the cereal and edamame milk as a replacement of sugar.

### 4. Cinnamon Powder



Picture 4 Cinnamon Powder

Cinnamon help support blood sugar control, protect against heart disease, and reduce inflammation. Cinnamon powder is use for the seasoning of the cereal. It will be toasted with honey.

5. Edamame



Picture 5 Edamame

Edamame contains significantly more vitamin K and folate than mature soybeans. Edamame is used as the main ingredient of the edamame milk

6. Water



Picture 6 Water

water is used to blend the edamame into edamame milk

7. Pandan leaves



Picture 7 Pandan Leaves

Pandan known as "fragrant plant" because of its unique, sweet aroma. Pandan leaves is used to reduce distinct smell and flavor from edamame

## 2.2 The Tools Used During The Processing

### 1. Dehydrator



Picture 8 Dehydrator

Dehydrator is used for dehydrate the multigrain mixture, put the mixture of multigrain cereal that has been steamed before.

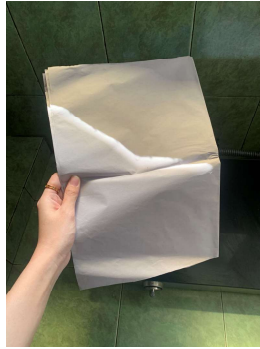
### 2. Stove



Picture 9 Stove

Stove is used to steam the multigrain cereal.

### 3. Baking Sheet



Picture 10 Baking Sheet

Baking sheet is used to prevent the multigrain stick to the steamer pot

### 4. Steamer



Picture 11 Steamer

steamer is used to steam the multigrain mixture after added tapioca starch to makes sure the tapioca starch fully cooked.

### 5. Blender



Picture 12 Blender

Blender is used to make edamame milk.

6. cheesecloth



Picture 13 Cheesecloth

Cheesecloth is used to strain the edamame so edamame milk can be smooth

7. Sauce pan



Picture 14 Sauce Pan

Sauce pan is used to boil the multigrain.

## 8. Chopper



Picture 15 Chopper

Chopper is used to help mash the multigrain.

### 2.3 APPROVED AND REVISED RECIPE

Recipe Name : Multigrain cereal with edamame milk

Yield : 8 portion

Main Ingredients : 180 gr multigrain and 2000 gr edamame

Ingredients :

Multi grain cereal:

- 180 gr multigrain
- 183 gr Tapioca flour
- 3 sdm Honey
- 1 sdt Cinnamon powder

Edamame milk:

- 2000 gr edamame without the pods
- 4000 ml water
- 100 ml honey
- 10 pandan leaf

Method :

Multigrain cereal:

1. Boil multigrain until they soften
2. Mashed the multigrain and add tapioca flour 1:2
3. After that, shape the dough into small balls
4. gently transfer to steam pot, steam for 20 mins just so the flour is cooked
5. dehydrated 24hours.
6. Fry with hot cooking sand
7. Cover with honey and cinnamon powder as needed

Edamame milk:

1. boil the edamame for 20 minutes
2. Drain, then transfer the edamame in a blender, add 1000ml water and process until smooth
3. pour the processed edamame through the cheesecloth, squeeze to get every last drop of the liquid.
4. Bring the edamame liquid and pandan leaves to a boil on low to medium heat. Once it boils, let it simmer for 5 more minutes.
5. Turn off heat, then add the honey and stir until the honey has fully dissolved. Serve immediately, or chilled in the fridge.

Health benefits

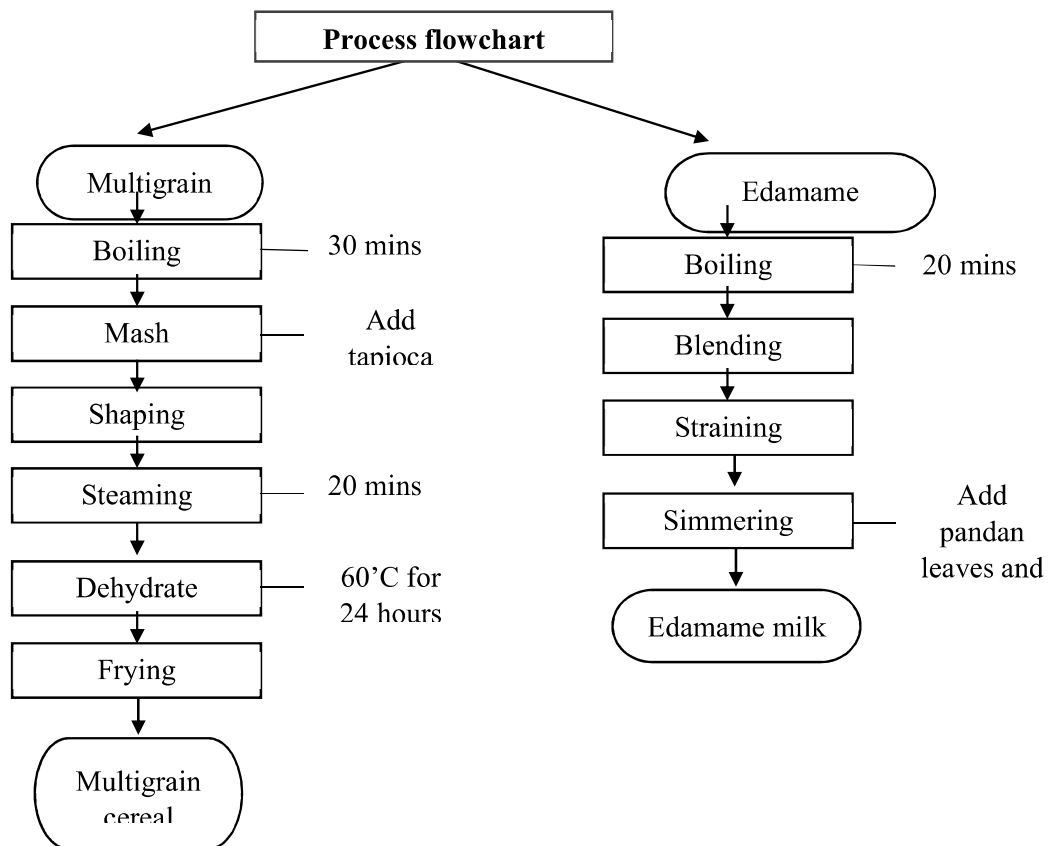
- a. Red bean has a good source of iron, phosphorus and potassium. They are also an excellent low-fat source of protein and dietary fiber. Mung beans are a protein-rich pulse that provide a significant amount of fiber, folate, and complex carbohydrates. Black glutinous rice is rich in fiber, vitamin E and gluten free. Red rice contains high antioxidant levels that reduce free radicals in the organism. It is also a richer source of iron, magnesium, calcium and zinc than white rice. Lentils can lower cholesterol and protect against diabetes and colon cancer. Barleys may help reduce the risk of obesity, diabetes, heart disease, certain types of cancer, and other chronic health concerns.



b. Edamame edamame is a stellar source of plant-based protein with zero cholesterol. It is also rich in vitamin K, mineral and zinc

The reason I do revision on my recipe is because I still use sugar. I want to make my product using natural sweetener which is honey. I added more edamame because in the recipe before, the quantity is not covering my need.

#### 2.4 THE PROCESSING PRODUCT USING FLOWCHART



Picture 16 The Processing Product Using Flowchart

## 2.5 The Processing Product Using Picture

1. Boil multigrain until they soften



Picture 17 Multigrain and Water Mixture

2. Mashed the multigrain with chopper or using fork.



Picture 18 Mashed Multigrain

3. Add tapioca flour, mix well



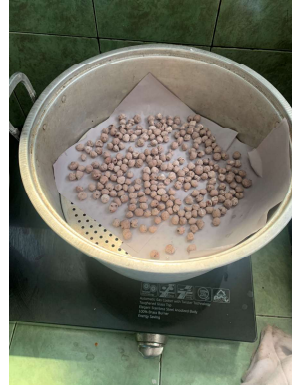
Picture 19 Mixing tapioca flour

4. Shape the dough into small balls.



Picture 20 Small balls of multigrain dough

5. Steam in the steam pod for 20 mins



Picture 21 Steaming

6. Dehydrate the mixture at 65 degrees celcius overnight.



Picture 22 Dehydrator

7. Wash the sand, after it become clean, use it to fry the multigrain balls with hot cooking sand



Picture 23 Wash the sand, then frying the multigrain balls

8. Toss with honey and cinnamon powder as needed



Picture 24 Tossing the multigrain cereals

9. boil edamame until they soften



Picture 25 Boiling edamame

10. drain, transfer in a blender and add water, blend until smooth



Picture 26 Blending edamame

11. strain with cheesecloth



Picture 27 Straining

12. bring edamame liquid and pandan leaves to simmer, add honey until it dissolve



Picture 28 Boiling edamame milk