

CHAPTER 2

PRODUCT OVERVIEW



Figure 1. Fermentation Flour Ingredients

2.1 DESCRIPTION OF THE INGREDIENTS TO BE USED

Fermentation corn cob and kernels flour ingredients:

1. 2 kg Corn (1.400 gr corn kernels & 600 gr corn cob)
Corn cob and corn kernels is main ingredients to make gluten free flour.
2. 2gr Ragi Tape
Yeast Tape yeast contains microorganisms that can break down carbohydrates (starch) into simple sugars (glucose) and then break down into alcohol.
3. 2 L Water
As a medium for soaking corn cobs and corn meat.

Gluten free ravioli ingredients:



Figure 2. Gluten Free Ravioli Ingredients

1. 500 gr Fermentation Corn Flour
This fermented corn flour is the main ingredient used to make ravioli.
2. 4 Large Egg
Eggs are useful as a binder for other ingredients so that they are used to add taste and aroma. Egg yolk protein has emulsifier properties, egg yolk can bind to the oil in the dough and can form a smooth layer to hold the gas produced during the fermentation process.
3. 15 ml Olive Oil
As an ingredient to making pasta.
4. 6 gr Xanthan Gum
Xanthan gum is a material that contains hydrocolloids that can play a role in increasing the swelling power and affect the formation of pastes and starch gelatinization.

Gluten Free Ravioli Filling Ingredients:



Figure 3. Gluten Free Ravioli Filling Ingredients

1. 2 Bunch Spinach
Spinach itself has many health benefits such as reducing inflammation, lowering the risk of cardiovascular disease, preventing cancer, preventing anemia and many more
2. 10 pcs Champignon Mushroom
Champignon mushrooms are also used as ingredients to make these ravioli. Champignon mushrooms also have health benefits such as maintaining heart health, lowering the risk of cancer, controlling blood sugar levels.
3. 4 tbsp Basegenep
Basegenep seasoning is the Balinese seasoning that is used as a mix in the preparation of this ravioli filling.
4. Water
Water is used to provide moisture, and help the process of cooking the stuffing.

Balinese Basegenep Sauce Ingredients:



Figure 4. Balinese Basegenep Sauce Ingredients

1. 20 gr Turmeric
Turmeric is used to give the spice its yellow color. Turmeric is an important ingredient. Turmeric has many scientifically proven health benefits, such as the potential to improve heart health and prevent against Alzheimer's and cancer.
2. 40 gr Galangal
Galangal is an important ingredient in making this basegenep. Galangal root is a rich source of antioxidants, which are beneficial plant compounds that help fight disease and protect your cells from damaging free radicals.
3. 10 gr Ginger
Ginger is an important ingredient in making this basegenep. Ginger may have anti-inflammatory, antibacterial, and antiviral properties. Below are some of ginger's potential medicinal uses.
4. 4 gr Aromatic Ginger
Aromatic is an important thing to making this basegenep. Aromatic ginger promotes the production of bile in the body. The bile is responsible for absorption of nutrients; eliminate toxins such as bad cholesterol.

5. 10 pcs Chili
Give a spicy taste to Basegenep Sauce.
6. 6 pcs Red Chili
Chili pepper could lower your risk of dying of cancer or cardiovascular disease, and could also promote longevity. Also red chili can give a colour to basegenep.
7. 4 pcs Lemongrass
Lemongrass which is used to give aroma to the basegenep seasoning. The leaves and the oil are used to make medicine.
8. 1 tbsp Blackpepper
Black pepper is used to give the pepper a spicy taste.
9. 1 pcs Nutmeg
Nutmeg is used as a supporting ingredient in the manufacture of this Balinese spice and produces a distinctive aroma. Nutmeg rich source of antioxidants, which help protect against the signs of aging.
10. 8 gr Shrimp Paste
Terasi will give the aroma and taste of umami to a dish.
11. 4 pcs Cloves
Cloves are full of antioxidants. These compounds help your body to fight free radicals, which damage your cells and can lead to disease. Cloves are also an aromatic supporting component in the manufacture of this spice.
12. 6 pcs Garlic
Garlic is one of the most basic Indonesian spices and is widely used in all spices in Indonesian cuisine. Garlic is widely recognized for its ability to fight bacteria, viruses, fungi, and even parasites.
13. 12 pcs Shallot
Shallot is one of the most basic Indonesian spices and is widely used in all spices in Indonesian cuisine. Shallots are high in antioxidants and may improve blood sugar levels, circulation, seasonal allergies, and heart and bone health.

14. 8 pcs Candlenut

Candlenuts are good sources of fiber, which improves digestive functioning. They reduce the risk of heart disease.

15. 1 tbsp Corriander

Corriander is used as a supporting ingredient in the manufacture of this Balinese spice and produces a distinctive aroma. Coriander is a fragrant, antioxidant-rich herb that has many culinary uses and health benefits.

2.2 THE UTENSIL DURING THE PROCESSING



Figure 5. Utensils

1. Big Stainless Steel Bowls

Non-reactive bowls that are used to weigh the ingredients.

2. Measuring Jug

Plastic jugs to measure the liquids.

3. Gas Stove

Gas Stove is used to cook the filling, sauce and pasta.

4. Sautee Pan

The sauté pan will be used to cook the basegenep sauce, and filling.

5. Sauce Pot

The sauce pot will be used to boil the ravioli.

6. Wooden Spatula

Wooden spatula is used for stirring during the cooking process.

7. Knife

Knife is used to cut the materials needed and peeling corn.

8. Strainer

The strainer is used to filter the water on the corn that has been soaked.

9. Spice Blender

Spice blender is used to blend corn to make a fine flour.

10. Chopper

The chopper will be used to crush the spices used in making the sauce.

11. Rolling Pin

The rolling pin will be used to flatten the pasta dough.

12. Noodle Machine

Noodle machine is used to flatten the dough according to the desired thickness.

13. Plastic Wrap

Plastic wrap will be used to cover the corn during the fermentation process.

14. Food Dehydrator

Food dehydrator will be used to dry corn in flour making.

15. Freezer

For storing the products.

2.3 APPROVED AND REVISED RECIPE

1) Approved Recipe

A. Fermentation Corn Flour:

2 kg Corn
2 gr Ragi Tape
2 L Water

B. Fermentation Corn Ravioli:

500 gr Fermentation Corn Flour
4 Large Egg
15 ml Olive Oil
12 gr Xanthangum

C. Ravioli Filling:

2 bunch Spinach
10 pcs Champignon Mushroom
4 tbsp Basegenep Water
Seasonings

D. Balinese Basegenep Sauce:

40 gr Galangal
20 gr Turmeric
10 gr Ginger
4 gr Aromatic ginger
10 pcs Chili
6 Red Chili
4 Lemongrass
1 tbsp Blackpepper
1 pcs Nutmeg
8 gr Shrimp Paste
4 pcs Cloves
6 pcs Garlic
12 pcs Shallot
8 pcs Candlenut

1 tbsp Corriander

Additional :

100 gr Coconut Milk Seasonings

2) Revised Recipe

A. Fermentation Corn Flour:

2 kg Corn

2 gr Ragi Tape

2L Water

B. Fermentation Corn Ravioli:

500 gr Fermentation Corn Flour

4 Large Egg

15 ml Olive Oil

6 gr Xanthangum

C. Ravioli Filling:

2 bunch Spinach

10 pcs Champignon Mushroom

4 tbsp Basegenep

Water

Seasonings

D. Balinese Basegenep Sauce & Pasta Sauce

40 gr Galangal

20 gr Turmeric.

10 gr Ginger

4 gr Aromatic ginger

7 gr Chili

68 gr Red Chili

4 Lemongrass

1 tbsp Blackpepper

5 gr Nutmeg

8 gr Shrimp Paste

4 pcs Clove

42 gr Garlic
84 gr Shallot
8 pcs Candlenut
1 tbsp Corriander

Additional :

100 gr Coconut Milk
Seasonings Water

Methods:

1. **A:** Peel the corn and wash the corn. The corn that has been cut into several pieces, and then continued with the fermentation process by soaking the corn in water and yeast tape for 60 hours at room temperature.
2. Drain the fermented corn and dry it in the sun at a temperature of approximately 30 °C for 12 hours or use a cabinet dryer. After finished, the corn is ready to finely ground into flour.
3. **B:** Mix corn flour, salt and xanthan gum and mix well. Make a hole in the flour, add the egg and oil and knead until combined. Rest the dough for 30 minutes.
4. **C:** To make the filling, stir-fry the basegenep spices until fragrant. Add mushrooms and spinach and cook for a while. Add a little water so it's not too dry. Provide seasoning. The filling is ready to use, set aside.
5. The pasta dough is ready to be ground using a noodle machine. Roll out the pasta dough from 1 to 3 thickness or according to each one. After the dough reaches the desired thickness, the pasta dough is ready to use.
6. Prepare the pasta dough then put the filling on the pasta skin with a distance of about 2 cm. After that, stack it with another pasta dough. Cut the ravioli into squares, after forming the ravioli it is ready to be boiled for about 2 - 4 minutes.
1. **D.** For the sauce, first we chop or blend the mixed herbs until everything is smooth.

- Saute the mix spices until fragrant then add a little pasta water then add coconut milk, add seasoning and finally add the ravioli, mix well. Ravioli is ready to serve.

2.4 PRODUCT PROCESSING SEQUENCE USING FLOWCHART

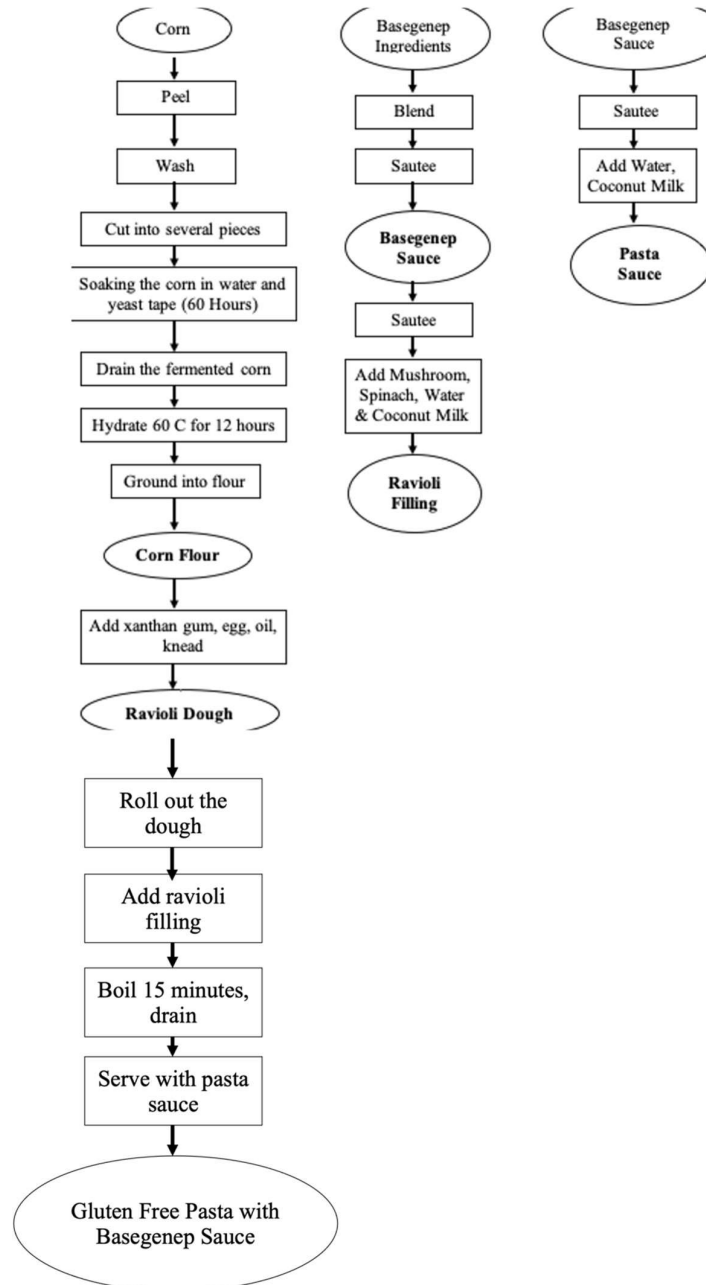


Figure 6. Product Processing Using Flowchart

2.5 PRODUCT PROCESSING METHOD WITH PICTURES

HOW TO MAKE CORN FLOUR

1. a) Peel the corn and wash the corn. b) The corn that has been cut into several pieces, and c) then continued with the fermentation process by soaking the corn in water and yeast tape for 60 hours at room temperature.

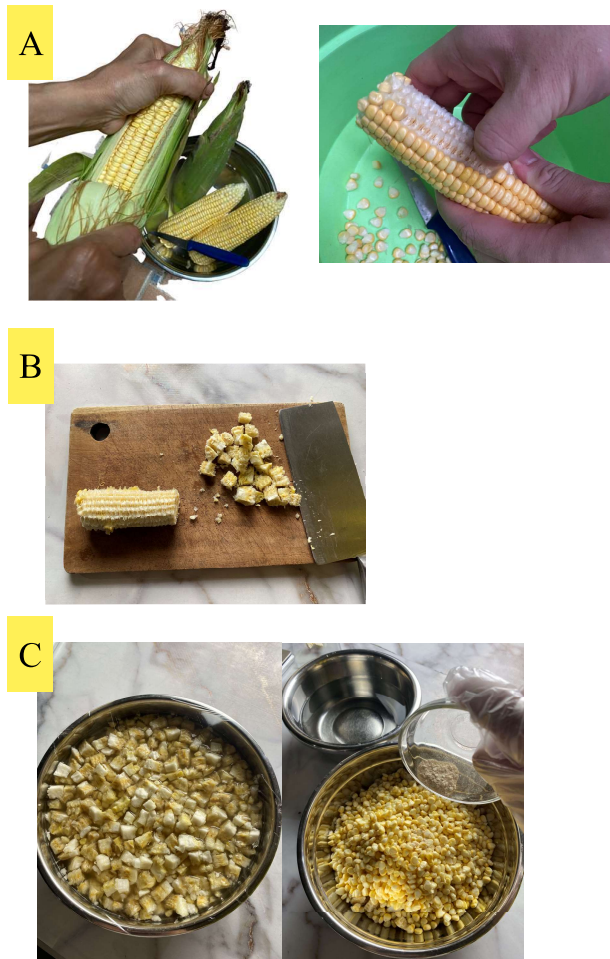


Figure 7. Step 1 Process How To Make Corn Flour

2. a) Drain the fermented corn and b) dry it in the sun at a temperature of approximately 30 °C for 12 hours or 60 °C use a cabinet dryer. c) After finished, the corn is ready to finely ground into flour.

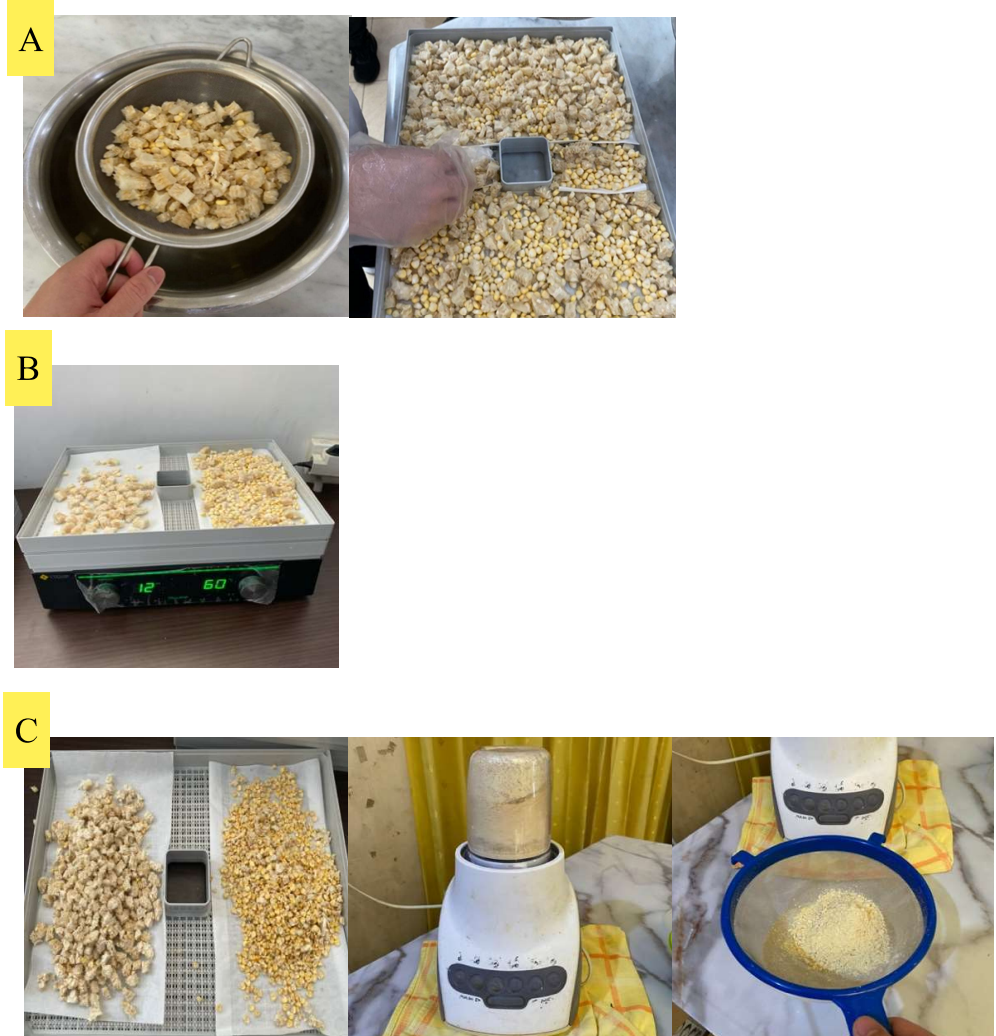


Figure 8. Step 2 Process How To Make Corn Flour

HOW TO MAKE RAVIOLI PASTA DOUGH

3. Mix corn flour, salt and xanthan gum and mix well. Make a hole in the flour, add the egg and oil and knead until combined. Rest the dough for 30 minutes



Figure 9. Step 1 Process How To Make Ravioli Pasta Dough

HOW TO MAKE RAVIOLI FILLING

1. To make the filling, stir-fry the basegenep spices until fragrant. Add mushrooms and spinach and cook for a while. Add a little water so it's not too dry. Provide seasoning. The filling is ready to use, set aside.

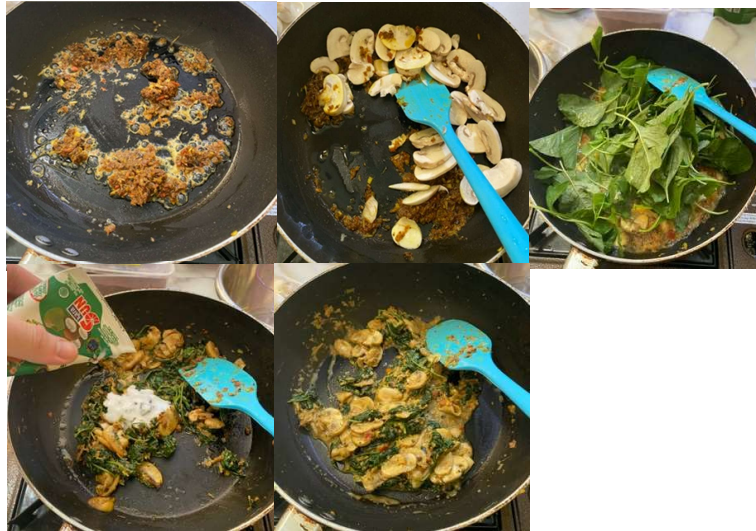


Figure 10. Step 1 How To Make Ravioli Filling

2. The pasta dough is ready to be ground using a noodle machine. Roll out the pasta dough from 1 to 3 thickness or according to each one. After the dough reaches the desired thickness, the pasta dough is ready to use.



Figure 11. Step 2 How To Make Ravioli Filling

3. Prepare the pasta dough then put the filling on the pasta skin with a distance of about 2 cm. After that, stack it with another pasta dough. Cut the ravioli into squares, after forming the ravioli it is ready to be boiled for about 2 - 4 minutes



Figure 12. Step 3 How To Make Ravioli Filling

HOW TO MAKE BALINESE BASEGENEP SAUCE & FINAL PRODUCT

1. For the sauce, first we chop or blend the mixed herbs until everything is smooth.



Figure 13. Step 1 How To Make Balinese Basegenep Sauce, Final Product

2. Sauté the mix spices until fragrant then add a little pasta water then add coconut milk, add seasoning and finally add the ravioli, mix well. Ravioli is ready to serve.



Figure 14. Step 2. How To Make Balinese Basegenep Sauce & Final Product