

CHAPTER 2

PRODUCT OVERVIEW

2.1 DESCRIPTION OF THE MATERIAL TO BE USED

2.1.1 Seluang Fish



Figure 1. Seluang Fish

Seluang Fish is used as the main ingredient in seluang fish soy sauce processing. Seluang fish (*Rasbora spp*) is useful for giving fish aroma and fish taste to this product. Seluang fish has health benefits such as lowers the risk of heart disease, seluang fish is believed to help maintain a healthy heart and blood vessels. In addition, this fish is also efficacious to reduce the risk of heart attack and stroke. This is because the low-fat content, high protein and omega-3 fatty acids in fish are good for heart health. The next benefit that we can get from consuming this seluang fish is being able to maintain brain health. Basically, brain function in humans will decline with age. For this reason, seluang fish can be consumed regularly so that it can inhibit the decline in brain function, especially the emotions and memory. Seluang fish contains water, ash, protein, fat, Fe, Cu, and Zn. Seluang fish also contain fatty acids Oleic (Omega 9), Palmitic, Stearate, Palmitoleate, Lauric, Myristic, and EPA Acis Eicosapentanoate (Omega 3). Seluang fish also contain 14 types of amino acids.

2.1.2 Garlic



Figure 2. Garlic

Garlic is used to give the aroma, so it doesn't smell fishy. Garlic (*Allium Sativum*) has many health benefits such as helping to lower blood pressure, helping with inflammation, helping lower cholesterol, supporting immune function, reducing blood clotting, providing several antioxidants, making other healthy foods taste good, etc. The nutritional content of antioxidant are amino acid, flavonoid, and oligosaccharides, manganese, Vit. C, Selenium, Ca, Cu, P, Fe, Vit. B1, K.

2.1.3 Ginger



Figure 3. Ginger

Ginger is used to give the aroma and taste. Ginger (*Zingiber Officinale Rosc.*) has health benefits such as relieving nausea and vomiting, relieving pain, lowering blood sugar, improving brain health, reducing inflammation of arthritis, improving brain health, aiding weight loss, lowering cholesterol levels, etc. Ginger also contain Phytokimia; Alkaloid, Flavonoid, Triterpernoid, and Saponin.

2.1.4 Bay leaves



Figure 4. Bay Leaves

Bay leaves is used to give the aroma, taste and helps to get rid of the fishy smell. Bay leaves (*Syzygium Polyanthum*) contains vitamins and good compounds such as Vit. B2, Vit. B3, Vit. C, Tannins, Alkaloids, Steroid, Triterpenoid, Flavonoid, etc. Bay leaves has many benefits. It helps lower blood sugar, cholesterol and triglycerides, prevents hypertension, improves heart health, boosts immunity.

2.1.5 Low sodium salt

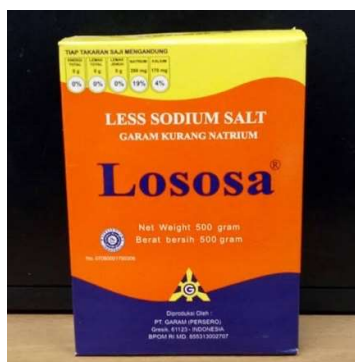


Figure 5. Lososa

Low sodium salt is used to help ferment seluang fish. In serving dose of 1,2 grams of low sodium salt, contains 290 mg sodium, 43,9 ppm iodine, and 240 mg potassium. Consuming low sodium salt can help prevent hypertension, lose weight, maintain blood pressure stability.

2.1.6 Palm Sugar



Figure 6. Palm Sugar

Palm Sugar (*Arenga Pinnata*) is used to give a darker color to food and help reduce saltiness. The key health benefits of palm sugar are regulating blood sugar, promotes digestion, maintain blood pressure, etc. Palm sugar contains Inulin fiber, various antioxidants, Potassium, Phosphorus, Zinc, Iron, and Manganese.

2.1.7 Mineral Water



Figure 7. Mineral Water

Water is used as an addition liquid to the product. Mineral water has good benefits for health, such as preventing dehydration, losing weight, maintaining digestive health, preventing kidney stones, maintaining blood pressure. Mineral water contains various kinds of mineral, such as Magnesium, Calcium, Natrium, and Selenium.

2.2 THE TOOLS USED GURING THE PROCESSING

2.2.1 Plastic



Figure 8. Plastic

Plastic is used as a place for fermentation of seluang fish and low sodium salt mixture

2.2.2 Pot



Figure 9. Pot

Pot is used for cooking the products of fermentation

2.2.3 Knife



Figure 10. Knife

Knife is used for cut the aromatic ingredients

2.2.4 Cutting board



Figure 11. Cutting Board

Cutting board is used as a base for cutting

2.2.5 Wooden Spatula



Figure 12. Wooden Spatula

Wooden spatula is used to stir and mix all the ingredients in the pot

2.2.6 Strainer



Figure 13. Strainer

Strainer is used to strain aromatic and seluang fish

2.2.7 Stove



Figure 14. Stove

Stove is used to cooking seluang fish soy sauce

2.2.8 Filter paper



Figure 15. Filter Paper

Filter paper is used to filtering cooked soy sauce so that no remaining fermented impurities enter

2.2.9 Bowl



Figure 16. Bowl

Bowl is used to put water and leftovers from cooking

2.2.10 Spoon



Figure 17. Spoon

Spoon is used to pouring fish sauce to be filtered

2.2.11 Digital Scale



Figure 18. Digital Scale

Digital scale is used to measure the amount of the ingredients

2.2.12 Funnel



Figure 19. Funnel

Funnel is used to help to put the soy sauce into the bottle

2.3 APPROVED AND REVISED RECIPE

2.3.1 Completed Recipe

Recipe Name : KECAP ASIN IKAN SELUANG
Yield : 1L
Main Ingredients : 500g Ikan Seluang
Ingredients :

- 2 cloves Garlic
- 10cm Ginger
- 500g Ikan seluang
- 2 pcs Bay leaves
- 300g Low sodium salt
- 200g Brown sugar
- 1 liter Water
- Porridge
- Egg

Method :

1. Ferment ikan seluang using low sodium salt, let stand for 1-2 week
2. The water from the fermented residue is used the make fish sauce
3. Prepare the pot
4. Add garlic, ginger, bay leaves, brown sugar, low sodium salt and fermented water
5. Add 1 liter of water
6. Cook until boiling

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Figure 20. Completed Recipe

RECIPE BACKGROUND

Seluang fish is a typical fish from the city of Banjarmasin. I want to introduce this fish to people who are outside the city of Banjarmasin. This fish has a small size. Usually this fish is cooked by frying in flour but I want to introduce this fish by making it into one product, namely seluang fish sauce.

APPROVAL TABLE (filled by advisor)

CHECKLIST	POINTS	APPROVAL
WASTE MANAGEMENT	20	X
PROCESSING METHOD	20	✓
UNIQUE INGREDIENTS	20	✓
PRODUCT OUTLOOK	20	✓
HEALTH & NUTRITION	15	✓
NEW MODIFICATION	5	X
TOTAL		75

*approval min. 50 points

NOTES (filled by advisor)

approve 

Figure 21. Completed Recipe

2.3.2 REVISED RECIPE

Recipe Name : SELUANG FISH SOY SAUCE

Yield : 500 ml

Main Ingredients : 500g Seluang Fish

Ingredients :

- 2 cloves Garlic
- 10cm Ginger
- 500g Seluang Fish
- 2 pcs Bay leaves
- 300g Low sodium salt
- 100g Gula Aren
- 500 ml Mineral Water

Method :

- 1 Ferment Seluang Fish using low sodium salt, let stand for 1-2 week
- 2 The water from the fermented residue is used to make fish soy sauce
- 3 Prepare the pot
- 4 Add 500 ml of water
- 5 Add garlic, ginger, bay leaves, palm sugar, fermented fish and fermented water
- 6 Cook until boiling
- 7 And the last step, filter the cooked seluang fish soy sauce using filter paper

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2.3.2.1 Reason To Change Recipe

In the first recipe, using brown sugar, because the author want the soy sauce to be healthier than soy sauce in general, the author use a sugar substitute, palm sugar. There is also a reduction in water, so that the results are maximized.

Table 4. Nutritional of Palm Sugar and Brown Sugar

	Palm sugar	Brown sugar
Water	7,0	10,0
Energy	368	386
Protein	0	3,0
Fat	10	10,0
Carbohydrates	92,0	76,0
Fiber	0	0

Palm sugar is a better source of vitamins and minerals than comparable sweeteners. Many people consume too much sugar which can cause health issues. It maintains electrolyte balance and boost energy levels. It promotes musculoskeletal health and increases metabolism. The benefits of palm sugar : helps in cooling the stomach, it boosts immune health, relieves from menstrual pain, purifies the blood, effective against Anemia, etc. Key health benefits of palm sugar :

1. Blood sugar regulation : palm sugar contain less glucose and a lower glycemic index than table sugar and honey. This helps to stabilize blood sugar and reduces strain on the heart.
2. Promotes digestion : palm sugar contains a dietary fiber called insuline. Plant- based fire, which can help control

bacteria in the gut and promotes good digestion and also improve mineral absorption in the body.

3. Maintain blood pressure : palm sugar is a good source of potassium. Consuming enough potassium can help manage high blood pressure. Potassium is necessary to maintain the nervous system properly functional.

2.4 PRODUCT PROCESSING SEQUENCE USING FLOWCHART

2.4.1 Seluang Fish Soy Sauce Processing Flowchart

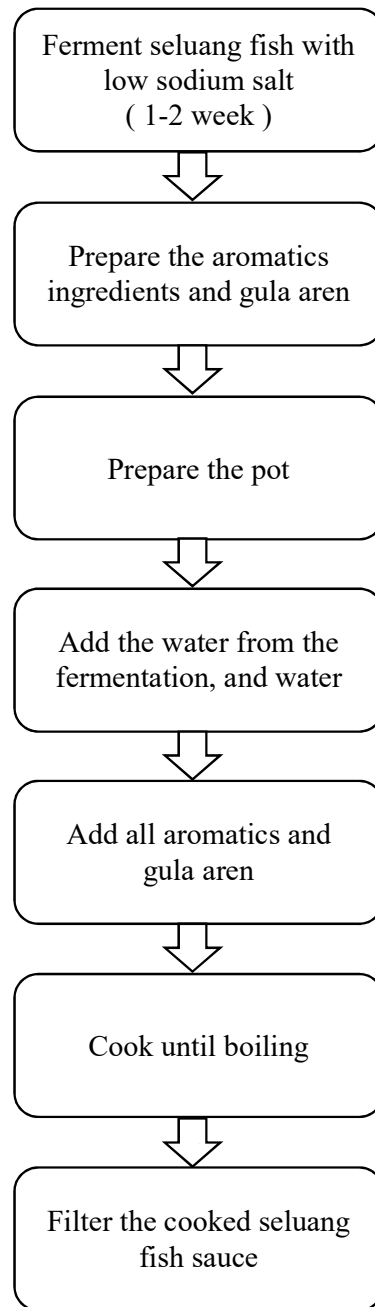


Figure 22. Flowchart of Processing Seluang Fish Soy Sauce

2.5 PRODUCT PROCESSING

2.5.1 Wash the seluang fish first



Figure 23. Wash the fish

2.5.2 Add low sodium salt to seluang fish



Figure 24. Add low sodium salt

2.5.3 Mix the low sodium salt, until well blended



Figure 25. Mix the low sodium salt

2.5.4 Put the seluang fish into the plastic for fermentation



Figure 26. Put the seluang fish into plastic

2.5.5 Add more low sodium salt



Figure 27. Adding Salt

2.5.6 The plastic that the fish put in, the tied it up. And let stand 1-2 weeks to ferment



Figure 28. Tied and Fermentation

2.5.7 Put the water into the pot



Figure 29. Put the water

2.5.8 Put the fermented water and fish into the pot



Figure 30. Put the fermented fish and water

2.5.9 Add the aromatics and palm sugar



Figure 31. Add aromatics

2.5.10 Filter the cooked seluang fish soy sauce



Figure 32. Filter the soy sauce

2.5.11 The seluang fish soy sauce is done



Figure 33. The soy sauce is done