

CHAPTER III

METHODS

3.1 Time and Place

Culinary innovation and Product development was done from March to June 2023 at culinary kitchen and baking and pastry kitchen, Ottimmo International.

3.2 Ingredients and Utensils

3.2.1 Ingredients

The ingredients and functions of the ingredients used in this study presented in the table 3.1.

Table 3.1 Ingredients of Strawberry and Red Spinach Cereal

No	Ingredients	Quantity	Function
1	Whole Wheat flour	240 gr	Structure, binding
2	Cornmeal	60 gr	texture, flavor
3	Ground Chia seeds	45 gr	Binding, nutrition
4	Honey	120 gr	Sweetener, flavor
5	Unsweetened applesauce	60 gr	Moisture, binding
6	Pureed strawberry and red spinach	60 ml	Flavor, nutrition, natural coloring
7	Baking powder	1 tsp	Leavening agent
8	Baking soda	1/2 tsp	Leavening agent
9	Salt	1 tsp	Flavor enhancer
10	Vanilla Extract	5 ml	Flavor, aroma
11	Dried Strawberry	20 gr	Flavor

1. Ingredients for Unsweetened Applesauce

- Apple 2 pieces
- Water 4 tbsp

2. Ingredients for Pureed Strawberry and Red Spinach

- Strawberry 60 gr
- Red Spinach 2 gr
- Water 3 tbsp

3. Ingredients for Strawberry and Red Spinach Cereal

- Whole wheat flour 240 gr
- Corn meal 60 gr
- Ground chia seeds 45 gr
- Honey 120 gr
- Unsweetened applesauce 60 gr
- Pureed strawberry and red spinach 60 ml
- Baking powder 1 tsp
- Baking soda 1/2 tsp
- Salt 1 tsp
- Vanilla Extract 5 ml
- Dried Strawberry 20 gr

3.2.2 Utensils

The utensils and functions used in this study presented in the table 3.2.

Table 3.2 Utensils of Strawberry and Red Spinach Cereal

No	Utensils	Function
1	Large mixing bowl	Mixing dough
2	Blender	Making puree and unsweetened applesauce
3	Spatula	Mixing ingredients
4	Tray	Baking cereal and drying strawberry
5	Baking paper	Prevent from sticking
6	Spoon	Measuring and mixing ingredients
7	Knife	Chopping strawberries
8	Cutting board	Mat for cutting ingredients
9	Peeler	Peeling apple
10	Digital scales	Weighing ingredients
11	Sauce pan	Making unsweetened applesauce
12	Small mixing bowl	Temporary place for all ingredients
13	Scraper	Shaping the dough
14	Pasta roller	Rolling dough
15	Rolling pin	Rolling dough
16	Strainer	Remove residue

3.3 Processing Methods

The processing method of this study are presented below:

1. For the dried strawberry, clean the fresh strawberry and pad dry, chopped the fresh strawberry into small pieces, put it in the tray and bake for 20-30 minutes at 150°C.
2. For the unsweetened applesauce, peel the apple skin and cut into

small dices.

3. Place the diced apple into the saucepan and add some water. Simmer for 15 minutes until the texture is tender. Blend the unsweetened apple until it's soft and let cool.
4. For the puree, clean the strawberries and red spinach. Blend in the blender. Add some water to have the right consistency of the puree.
5. Using a strainer, strain the remaining residue of the puree.
6. In a large bowl, combine the honey, unsweetened applesauce, pureed strawberry and red spinach, and vanilla extract (Wet Ingredients) until smooth.
7. In a separate bowl, combine the whole wheat flour, cornmeal, ground chia seeds, baking powder, baking soda, and salt (Dry Ingredients). Mix well
8. Add the wet ingredients to the dry ingredients and mix until a dough forms.
9. Add the dry strawberry to the dough, and knead until all the ingredients are mixed evenly.
10. Roll out the dough on a floured surface. Using a pasta roller, roll the dough until it reached the thickness of 5.
11. Shape the dough into small rectangle pieces using scraper. Place the formed dough on the baking sheet.
12. Bake for 15-20 minutes at 150°C.
13. Remove from the oven and allow to cool completely.

3.4 Flow Chart

The flowchart of processing methods is presented in Figure 3.1.

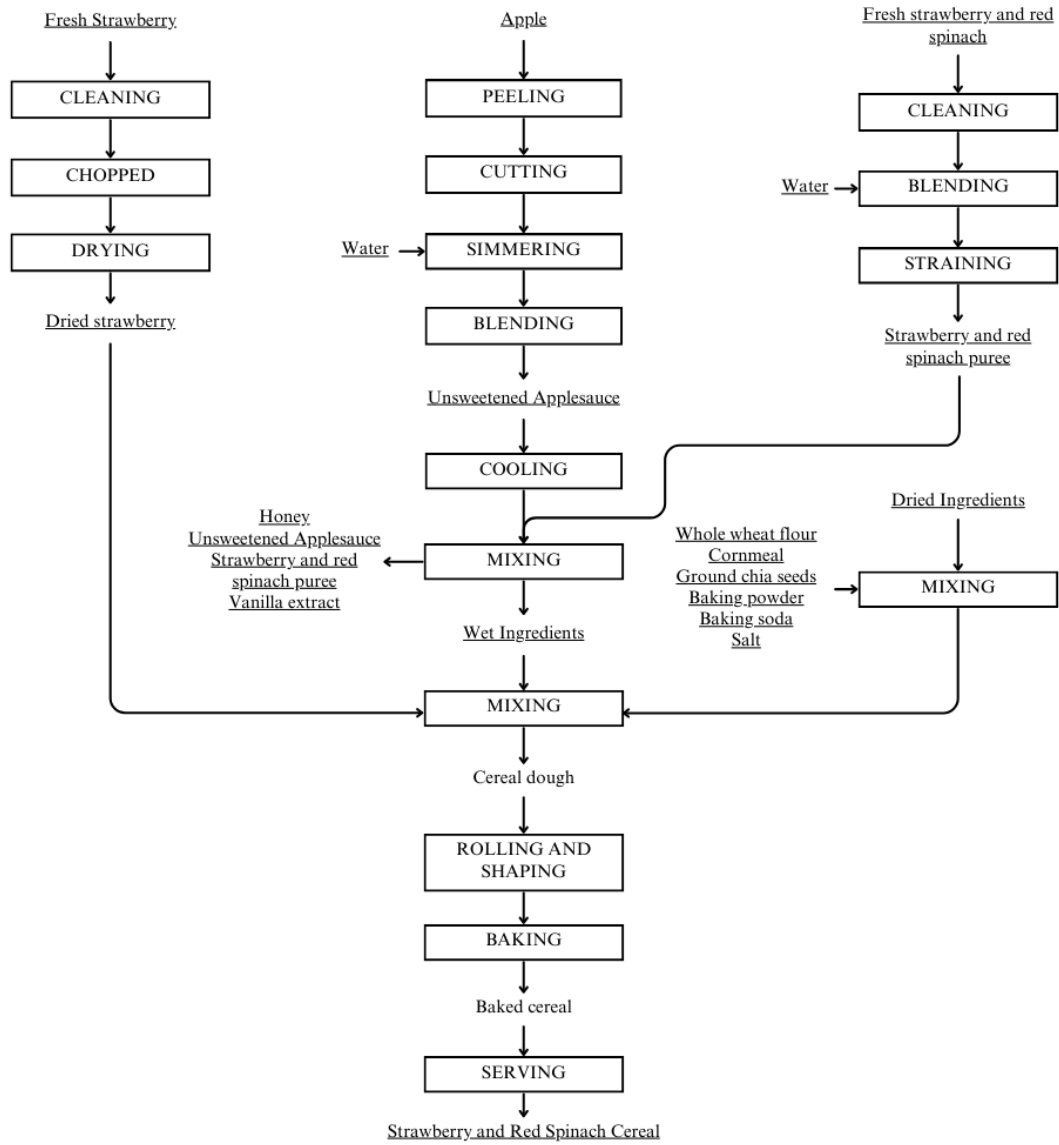


Figure 3.1 Flowchart of Strawberry and Red Spinach Cereal