

CHAPTER IV

RESULT AND DISCUSSION

4.1 Product Result

4.1.1 Product

Tofu skin, also known as bean curd skin or yuba, is a versatile ingredient that offers a range of culinary possibilities. When prepared and cooked properly, tofu skin can yield delicious and satisfying results.

Tofu skin, once and cooked will, transforms into a delicate and slightly chewy ingredient that adds texture and flavor to a variety of dishes. It can be used as a substitute for meat or noodles and is particularly popular in vegetarian and vegan cooking. Tofu skin's ability to absorb flavors makes it adaptable to different cuisines, and it can be used in both savory and sweet dishes.

Tofu skin is a nutritious ingredient, rich in protein, calcium, iron, and other essential nutrients. It provides a good alternative to meat for those following vegetarian or vegan diets, offering a plant-based source of protein. It is also low in fat and cholesterol-free, making it a healthy addition to meals.

One of the key advantages of tofu skin is its versatility. It can be used in various ways, including as wraps, rolls, noodles, and even desserts. Its neutral flavor allows it to blend well with different ingredients and seasonings, making it a versatile ingredient for a wide range of cuisines and cooking styles.

The texture of tofu skin, when properly cooked, is delicate and slightly chewy. This texture can be enjoyed in both crispy and soft forms, depending on how it is prepared. Tofu skin can absorb the flavors of the ingredients it is cooked with, adding depth to the overall dish.

Tofu skin can be prepared using different cooking techniques such as frying, steaming, or simmering. The cooking method chosen depends on the desired texture and taste. Culinary Uses

Tofu skin is commonly used in Asian cuisines, particularly Chinese, Japanese, and Korean. It is a popular ingredient in dishes like stuffed tofu

skin rolls, dim sum, hot pots, stir-fries, and noodle dishes. Tofu skin can also be used in Western-style recipes as a meat substitute or in creative interpretations of traditional dishes.

In conclusion, tofu skin is a versatile and nutritious ingredient that offers a unique texture and flavor profile. Its adaptability to different cuisines and cooking methods makes it a valuable addition to a variety of dishes, from appetizers to main courses and desserts. Whether you are a vegetarian, vegan, or simply looking to explore new ingredients, tofu skin provides an exciting culinary opportunity.

4.2 Nutrition Fact

4.2.1 Nutrition Table

The nutrition value of Tofuskin Starch is as follows;

Table 4. 11 Nutrition Value of Tofu Skin per 100 g

Nutrition	Total/100g
Calories	16 g
Protein	25 g
Fat	3 g
Carbohydrate	5 g
Natrium	25 mg

The nutrition value of palm sugar is as follows:

Table 4. 12 Nutrition Value of Palm Sugar per 100 g

Nutrition	Total/100g
Calories	368 g
Carbohydrate	92 g
Sugars	92 g
Ash	1 g
Sodium	15 g
Calcium	75 g
Zinc	26,4 g

The nutrition value of coriander is as follows:

Table 4. 13 Nutrition Value of Coriander per 100 g

Nutrition	Total/100g
Iron	17.9 g
Riboflavin	0.35 mg
Calcium	630 mg
Copper	0.95 mg
Tiamina	0.20 mg
Niasin	1.8 mg
Fiber	12.3 g
Zinc	4.6 mg
Calium	1.787.0 mg
Phosphor	370 mg

4.2.2 Nutrition Calculation

Table 4. 14 Nutrition Value of Ingredient used in The Recipe for Vegan Beef Jerky

Ingredient	Calories	Carbohydrate	Protein	Fat	Sugar	Fiber	Sodium	Yudium
	(kcal)	(g)	(g)	(g)	(g)	(g)	(mg/gram)	(mg/g)
Tofuskin (100g)	16		25	3				25
Palm sugar	368	92			92		15	
Garlic powder		73	17	9				
Black pepper	5	64.81	3.26					
Onion powder		79	10	1				
Sweetsoy souce		11	1	0.1				
Tapioca		91	0.3	0.1				
Total	389	512,81	56,56	23,2	194		15	25

4.2.3 Nutrition Label

Nutrition Facts	
1 servings per container	
Serving size	1 Pcs (50g)
Amount Per Serving	
Calories	130
<small>% Daily Value*</small>	
Total Fat 8g	10%
Saturated Fat 0g	0%
<i>Trans</i> Fat 0g	
Sodium 5mg	0%
Total Carbohydrate 171g	62%
Dietary Fiber 0g	0%
Total Sugars 65g	
Includes 0g Added Sugars	0%
Protein 19g	38%
<small>Not a significant source of cholesterol, vitamin D, calcium, iron, and potassium</small>	
<small>*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.</small>	

Figure 4. 2 Nutrition Fact of Vegan Beef Jerky

4.3 Food Safety and Packaging

4.3.1 Processing and Storage Temperature

The processing and storage temperature for tofu jerky is an essential aspect to ensure its safety and quality.

The initial step in making tofu jerky involves marinating then dehydrating it to remove moisture. During the dehydration the tofu skin is cooked temperature between 140-150°C. This temperature range is sufficient to kill any potential bacteria or pathogens present in the tofu skin.

After the tofu jerky is fully processed, it needs to be stored properly to maintain its quality and prevent bacterial growth. It is recommended to store beef jerky at a cool temperature to extend its shelf life. The ideal storage temperature for beef jerky is below 70°F (21°C), preferably around 50°F (10°C) to 60°F (15°C). Storing beef jerky in a cool environment helps slow down the oxidation process and maintains its texture and flavor for a longer period.

It's important to note that tofu jerky should not be stored at room temperature or in a warm environment, as this can lead to bacterial growth and spoilage. Additionally, fluctuations in temperature should be avoided to maintain the quality and safety of the product.

By following appropriate processing and storage temperature guidelines, you can ensure the safety, quality, and longevity of your homemade

4.3.2 Shelf Life

The shelf life of tofu jerky can vary depending on various factors, including the quality of the ingredients used, the processing methods employed, and the storage conditions. Tofu jerky has a relatively long shelf life compared to other perishable foods due to its low moisture content. Jerky or any other processed products typically comes with a best-before or expiration date printed on the packaging. This date indicates the period during which the product is expected to retain its quality and flavor. It is important to consume tofu jerky before the indicated date for the best taste and texture. Properly prepared and dehydrated tofu jerky can last for several weeks to a few months if stored correctly. It is crucial to ensure the jerky is fully dehydrated to minimize moisture content, as moisture can lead to microbial growth and spoilage. Tofu jerky should be stored in airtight containers, vacuum-sealed bags, or resealable bags to prevent exposure to air, which can cause it to become stale.

It is best to consume this tofu jerky within 1-2 months for optimal flavor and quality. Storing tofu jerky in the refrigerator can help extend its shelf life. When refrigerated, it can last for 6-9 months. Be sure to keep it in an airtight container or sealed packaging to prevent moisture absorption and exposure to odors from other foods. In the freezer, freezing tofu jerky can significantly prolong its shelf life. When properly packaged and stored in the freezer, it can last for up to 1 year or even longer. Again, use airtight containers or well-sealed packaging to maintain quality. It is important to note that the shelf life mentioned above is a general guideline. Always check for

signs of spoilage, such as off smells, mold growth, or changes in texture or appearance.

4.3.3 Product Packaging

Product packaging for tofu jerky is an important aspect of ensuring its quality, shelf life, and overall appeal to consumers. Here are some common packaging options for tofu jerky. In the selection of packaging is to use a plastic vacuum. Vacuum packaging is a vacuum packaging system where the pressure is less than by removing oxygen from the packaging thereby extending shelf life. The advantages of vacuum packaging are increasing shelf life, reducing product loss, maintaining taste. In this packaging, the vegan tofu jerky will be pressed until there really isn't any air in it. The choice of this packaging has several benefits, one of which is to help prevent the growth of microorganisms such as bacteria

4.4 Financial Aspect

4.4.1 Product Cost (Variable Cost, Overhead Cost, Fixed Cost)

Product cost is calculated based on the total of all cost per month. The costs consist of labour cost, raw material cost, packaging cost, and utility cost. The labour cost is considered based on monthly working days, which are 25 days per month. As for raw material, the quantity of raw materials is counted as 3 recipes per day recipes, which are 9 portions per day or 225 portions per month.

1. Start Up Capital

Table 4. 15 Nutrition Start Up Capital

Tools & Equipment	Quantity	Price(/Unit)	Sub Total
Sauce pan	1	Rp180.000	Rp180.000
Digital Scale	1	Rp40.000	Rp40.000
Wooden spatula	1	Rp8.000	Rp8.000
Duster	1	Rp6.500	Rp6.500
Mold	1	Rp32.000	Rp32.000
Scissors	1	Rp6.100	Rp6.100
Stove	1	Rp120.000	Rp120.000
Vacuum	1	Rp600.000	Rp600.000
TOTAL			Rp992.600

2. Labour Cost

Table 4. 16 Labour Cost

Occupation	Personnel	Salary (/month)	Sub Total
Worker	1	Rp1.500.000	Rp 1,500,000
Total			Rp 1,500,000

3. Packaging Cost

Table 4. 17 Packaging Cost

Packaging	Quantity	Price (/unit)	Sub Total
Label	3	Rp 15.000(/a3)	Rp 45.000
Plastik vacuum	12	Rp 6.000(/pc)	Rp 72.000
TOTAL (/day)			Rp 117.000
TOTAL (/month)			Rp 2.925.000

4. Utility Cost

Table 4. 18 Utility Cost

Facility	Quantity	Price (/unit)	Sub Total
Water	500L	Rp 2.000 (/m3)	Rp 1.000
Electricity	12 kwh	Rp 1.500 (/kwh)	Rp 18.000

Gas	240 g	Rp 20.000 (/3kg)	Rp	1.600
TOTAL (/day)			Rp	20.600
TOTAL (/month)			Rp	515.000

5. Raw Material Cost

Table 4. 19 Raw Material Cost

Raw Material	Quantity	Price (/unit)	Sub Total	
Tofu skin	100 g	Rp 11.000(/pack)	Rp	11.000
Palm sugar	100g	Rp 3.500(/100g)	Rp	3.500
Onion powder	6g	Rp18.000(/250g)	Rp	500
Garlic powder	9g	Rp21.000(/70g)	Rp	2.700
Black pepper	3g	Rp20.000(/100g)	Rp	600
Sweet soysouce	5ml	Rp22.000(/275ml)	Rp	500
Tapioca	2g	Rp18.000 (/1Kg)	Rp	36
TOTAL (/recipe : 3 portion)			Rp	18.836
TOTAL (/day)			Rp	56.508
TOTAL (/month)			Rp	1.412.700

6. Rent Cost

Table 4. 20 Rent Cost

Facility	Price	Sub Total
Place	Rp 1.500.000	Rp 1.500.000 / month

7. Total Cost

Fixed Cost = Labour Cost and Rent Cost

Variable Cost = Raw Material Cost, Packaging Cost, and Utility Cost

Total Cost (/month)= Labour + Raw Material + Packaging + Utility + Rent Cost

=Rp1.500.000+Rp1.412.700+Rp2.925.000+Rp515.000+Rp1.500.000

= Rp 7.852.700

4.4.2 Selling Price

Product Price = Total Cost (/month) / Total Product Unit (/month)

= 7.825.700/ 225

=34.900

$$\begin{aligned}\text{Product Selling Price} &= \text{Product Price} + (\text{Product Price} \times \text{Profit Percentage}) \\ &= 34.900 + (34.900 \times 45\%) = 34.900 + 15.705 \\ &= 50.605 = 50.700\end{aligned}$$