

CHAPTER V

CONCLUSION AND SUGGESTION

5.1 Conclusion

The development of jackfruit seed granola bars demonstrates a promising innovation in the utilization of underused agricultural by-products, particularly jackfruit seeds. By incorporating jackfruit seeds into granola bars, this product not only provides a nutritious and practical snack option but also contributes to reducing food waste and supporting sustainable food production. The sensory evaluation results indicate positive acceptance in terms of taste, texture, and aroma, confirming its potential appeal to consumers. Each serving offers a balanced nutritional profile comprising 97 Calories, 15 g carbohydrates, 3 g protein, and 1g dietary fiber, making it suitable for a wide range of consumers, including students, professionals, and athletes.

With a shelf life of 3–4 months and packaging designed for convenience, the jackfruit seed granola bar stands out as a healthy, ready-to-eat snack that aligns with modern dietary needs and environmental consciousness. Overall, this product serves as a practical and sustainable solution that bridges nutritional innovation with waste reduction, offering tangible health and ecological benefits.

5.2 Suggestion

1. Adjustment of Baking Temperature

It is suggested to lower the baking temperature from 150°C to approximately 120–140°C, accompanied by an extended baking duration. This modification aims to prevent surface burning of the granola bar and to reduce excessive moisture loss, thereby maintaining an optimal texture.

2. Modification of Jackfruit Seed Treatment and Binding Process

Following the boiling process, jackfruit seeds are recommended to be cut into smaller pieces (flakes) or chopped in order to improve their texture. Additionally, during the binding stage, the use of sugar or caramel as an alternative binding agent is suggested, as it may enhance texture, improve flavor, and extend shelf life, while ensuring product safety.

3. Selection of Softer Complementary Ingredients

The use of complementary ingredients with softer textures, such as dried fruits (raisins, dates, apricots) or lightly roasted nuts, is recommended. These ingredients can balance the hardness of jackfruit seed flakes, resulting in a product that is easier to consume and offers a more enjoyable chewing experience. Moreover, the inclusion of such ingredients is expected to enrich the overall flavor profile and contribute additional nutritional value to the granola bar.

4. Incorporation of Flavor Variations

It is recommended to introduce flavor variations in order to increase consumer appeal and avoid taste monotony. The addition of orange zest may serve as an option, providing a fresh aroma and distinctive citrus note. Other flavors such as cinnamon, chocolate, or vanilla can also be considered to meet diverse consumer preferences. The development of such flavor variations is expected to not only enhance sensory acceptance but also improve the product's marketability and competitiveness.