

CHAPTER V

CONCLUSION AND SUGGESTION

5.1 Conclusion

The innovation of vegan Parmesan cheese using tempeh represents a significant contribution to plant-based food development and local food diversification. Tempeh, a traditional Indonesian fermented soybean product, provides an excellent nutritional foundation due to its high protein content, dietary fiber, and essential micronutrients. The product development process involved fermentation, seasoning, and dehydration techniques to achieve a cheese-like texture and umami-rich flavor.

Sensory evaluations indicated that the vegan Parmesan cheese received positive responses in terms of texture, appearance, and overall acceptability. While the flavor and aroma presented challenges due to excessive sourness and saltiness, these issues can be addressed through further refinement of ingredient ratios, particularly lemon juice and salt content.

Nutritional analysis confirmed that the product is a good source of protein and contains relatively low levels of fat and sugar, making it a suitable choice for health-conscious consumers. Each serving contains approximately 70 kilocalories, supporting its position as a light, nutritious condiment. Additionally, the product is competitively priced at Rp 54.500, making it accessible to a broad range of consumers while offering excellent value for its nutritional benefits and unique, fermented flavor profile.

With a shelf life of up to 90 days, the grated tempeh Parmesan is a stable, convenient, and culturally relevant plant-based cheese alternative. Its affordability, health appeal, and locally rooted ingredients position it as a promising innovation in sustainable and functional food design.

5.2 Suggestion

Further research and development are recommended to enhance the formulation, especially in balancing acidity and saltiness to improve flavor acceptability. Experimentation with different fermentation durations, ingredient ratios, and flavor enhancers may help refine the product profile. Additionally, investigating other plant-based sources or fermentation cultures could lead to new variants with improved texture and nutritional benefits.

It is also advised to explore advanced dehydration methods and packaging innovations to further extend shelf life and maintain product quality. Finally, continued exploration of tempeh's potential in plant-based food innovation can promote its broader application in the culinary industry, supporting sustainable practices and local ingredient utilization.