CHAPTER V
CONCLUSION AND SUGGESTION

1.1 Conclusion

In conclusion, Kombucha Butterfly Pea Tea with Lychee is an innovative functional beverage that combines the natural beauty of butterfly pea flowers with the refreshing sweetness of lychee. This product not only offers an attractive blue-to-purple color but also provides potential health benefits due to its antioxidant and probiotic content. The fermentation process, which involves the symbiotic culture of bacteria and yeast (SCOBY), produces beneficial organic acids such as acetic acid and gluconic acid that support digestive health and enhance the beverage's shelf stability.

The study results show that Kombucha Butterfly Pea Tea with Lychee has a pleasant aroma, visually appealing color, and balanced taste between sweetness and acidity. Its nutritional composition indicates that the drink is low in calories, contains natural antioxidants from butterfly pea, and provides probiotic benefits that promote gut health.

Furthermore, Kombucha Butterfly Pea Tea with Lychee is packaged in a 250 ml glass bottle (net content 200 ml) to maintain its freshness, carbonation, and safety. This packaging choice helps preserve its vibrant color and natural flavor while supporting an eco-friendly image. The product has a shelf life of approximately 1–3 months when stored under refrigeration, due to the natural preservation effect of fermentation and the absence of artificial preservatives.

Overall, Kombucha Butterfly Pea Tea with Lychee represents a modern, healthy, and sustainable beverage innovation that combines aesthetics, flavor, and nutritional value in a single product.

1.2 Suggestion

Based on the research results, it is recommended that the production of Butterfly Pea Flower Kombucha Tea with Lychee be carried out with consistent fermentation times and temperatures to maintain product stability,

flavor, and quality. Further development can explore variations in sweetener type, fermentation duration, and the ratio of butterfly pea flower and lychee to optimize the balance between flavor and antioxidant content.

It is also recommended to store the product in a cool environment (4-8°C) and use amber glass bottles to protect the anthocyanin pigments from light degradation. For commercial purposes, further research on shelf-life extension, consumer acceptance, and nutritional analysis is recommended. Furthermore, eco-friendly labeling and sustainable packaging can further enhance product value and consumer confidence.

To reduce the sweetness, water can be added during the second fermentation. Alternatively, it can be drunk with ice cubes, as the product I made was slightly too sweet.