

5. CONCLUSIONS AND SUGGESTIONS

5.1. Conclusions

- Ampel Bamboo Shoots Pickle fermented in 2.5% of salt concentration at 15°C for 5 days and at 5% of salt concentration at 30°C for 4 days resulted in 32 isolates of lactic acid bacteria (LAB) which were identified as *Lactobacillus* and among 32 isolates, 23 isolates were considered as probiotics.
- Fermentation of Ampel Bamboo Shoots in 5% of salt concentration at 30°C for 4 days yielded less bacteriocin-producing LAB strains compared to fermentation in 2.5% of salt concentration at 15°C for 5 days.
- Supplementation of glucose on whey medium was able to stimulate the production of bacteriocin A8 (produced by *Lb. pentosus*); supplementation of glucose and tryptone were able to stimulate the production of bacteriocin A10, A17 (produced by *Lb. fermentum 1*), B11, B15; while supplementation of glucose, tryptone, and yeast extract were able to stimulate the production of bacteriocin B3 (produced by *Lb. fermentum 1*).
- The optimal bacteriocin inhibitory activity was found in bacteriocin A8 (produced by *Lb. pentosus*) which was grown in whey medium supplemented with glucose.

5.2. Suggestions

Further study is suggested to determine the optimal temperature, incubation period, and pH for the growth and bacteriocin production followed by determination of the optimal supplementation on whey medium to enhance the bacteriocin production of LAB that have been identified in this study and re-identification of isolate A8 as the potential bacteriocin producer among other isolates. In addition, it is also suggested to examine the effect of supplementation on whey medium on antimicrobial activity of LAB.