# CHAPTER VI

# CONCLUSIONS

The study to find a suitable liquid culture medium for mycelial preparation of *L. edodes* aimed obtaining good starting material for DNA extraction revealed that the liquid culture formulation 11 (2% yeast extract, 2% glucose and 0.1% peptone) was the best. This liquid medium gave the best mycelium growth within a short period of time when compared with other liquid medium because its nutrient was more suitable for rapid growth and high yield. From this reason, it might be suitable for further DNA preparation.

In the study to find a simple and rapid method for *L. edodes* genomic DNA isolation that would provide good material for further RAPD analysis, that standard method was found to provide better DNA quality of *L. edodes* for PCR amplification with reproducibility satisfactory. Therefore, It could be used as a standard reference method to develop the better method for *L. edodes* genomic DNA isolation for RAPD analysis.

Based on the dendrogram constructed with the similarity coefficients generated from RAPD analysis, 8 isolates of *L. edodes* could be divided into two clusters, A and B. This study demonstrated that RAPD assay was a rapid and sensitive technique for identifying phylogenetic relationships at the species and subspecies levels in *L. edodes*.

The data from all the studies could be used to predict the relationships among isolates and could be used as a preview for differentiation and relationship studies of *L. edodes*.