

CHAPTER 4

CONCLUSION AND RECOMMENDATION

1. The results of investigation of amylase activity in samples of "Look Pang" confirmed that "LÖök Pang" played the important role of the starter and also the source of enzyme.
2. A sample of "Look Pang" contains more than one isolate of amylase producing microorganism. The amylolytic activity of all strains combined together was higher than that of one single potent strain of the same "Look Pang". It is most likely that the mixed culture composed of more than one kind of amylase, which resulted in higher rate of hydrolysis. The rate of starch hydrolysis of a potent strain was a little lower than that of the whole "Look Pang".
3. The most potent amylolytic isolate, 1Y, has been identified as Endomycopsis fibuligera. It produced high extra-cellular amylase activity. By fractionation of the crude enzyme through the DEAE cellulose column, two peaks of amylase were obtained. A major peak was glucoamylase, the minor peak was an endolytic type amylase hydrolyzing cyclodextrin.

The glucoamylase was purified 25-fold in 42% yield of total activity. Its molecular weight was 5.8×10^4 . The maximal activity was at pH 5.5 and 55° C. The pH stability ranged

between pH 4.0 to 9.0 and temperature stability was 10° to 60°C.

4. It is recommended that a further study should be made on an endolytic type of amylase hydrolyzing cyclodextrin to confirm its special property.