# OPTIMIZATION OF THE HYDROLYSIS CONDITIONS (EFFECT OF TEMPERATURE AND pH) FOR THE PRODUCTION OF "UDANG GERAGAU" (*ACETES JAPONICUS*) HYDROLYSATE

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## ABSTRACT

## OPTIMIZATION OF THE HYDROLYSIS CONDITIONS (EFFECT OF TEMPERATURE AND pH) FOR THE PRODUCTION OF "UDANG GERAGAU" (*ACETES JAPONICUS*) HYDROLYSATE

Response surface methodology (RSM) was used to optimize the hydrolysis parameters of *Acetes japonicus* by Alcalase 2.4L in order to obtain a hydrolysate. A Central Composite design by Design Expert 7.0.3 software created 14 runs with different conditions of parameters. The parameters were temperature and pH with percentage of nitrogen recovery (NR) and degree of hydrolysis (DH) being the response. While the constant variable is the time spent was 120 minutes and the enzyme concentration was 2% for each trial. The results showed that the optimum condition of % nitrogen recovery for *Acetes japonicus* hydrolysate about 4.025 % with pH 8 at 45 °C meanwhile percentage of degree of hydrolysis about 4.025 % at pH 6 and temperature 45.19 °C. Temperature and pH were the effective factors on the yield of hydrolysate.