

ABSTRAK

REVALIDASI EFFECT OF MEDIUM COMPOSITION VARIATIONS OF CULTURE OF PRODUCTION enzyme amylase *Bacillus* sp. STRAIN LTE-6

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This study aims to retest studies conducted in previous studies on the effect of variations in the composition of the culture medium on the production of the enzyme amylase. This study uses local isolate amylolytic bacteria LTE-6 that have been isolated from previous studies that the enzyme is an amylase-producing bacteria. Variations in composition are used include: C source (glucose, arabinose, fructose and glucose), variations in N sources (peptone, NaNO₃, NH₄Cl and yeast extract), metal ions (Fe, Mn, Mg, Zn) and the variation of pH (5, 6, 7 and 8). In previous studies, treatment of the variation of the source N, C, metal ions and pH was found that the optimum conditions for cell growth and enzyme production of LTE-6 isolates the source of N peptone 0.5% (w / v), the source of C sugar 0.5% (w / v), the source of the metal ion Fe 0.5% (w / v) at pH 6.0, with activity units sequentially ie 9.8 U/ml, 10.83 U/ml, 9.5 U/ml, 8.7 U/ml at the age of culture 24, 48, 24, and 24 hours, the cell OD 1.91; 3.75; 3.32; 1.45. At retest study, the optimum conditions for cell growth and the production of the enzyme amylase LTE-6 isolates respectively ie: C source is glucose 0.5% (w / v), N source is peptone 0.5% (w / v) metal ion is Mg 0.01% (w / v), and at pH 7.0. In each of these conditions, changes in the value obtained amylase enzyme activity unit sequential isolates is 3.7 U/mL; 9.59 U/mL; 9.88 U/mL; 9.9 U/mL, at the age of culture each of the 48 hours, the cells OD 2.45; 4.08; 5.12; 3.58. In other words, research retest this better as unit activity scored higher than previous studies.