

ABSTRACT

The research aimed to study H_2SO_4 during hydrolysis and the role of molasses in the yield of fermentation. Experiment was designed in CRD (Completely Randomized Design) with six treatments : (1) 3 hours of H_2SO_4 hydrolysis adding with 10% of molasses, (2) 4 hours of H_2SO_4 hydrolysis adding with 10% of molasses, (3) 5 hours of H_2SO_4 hydrolysis adding with 10% of molasses, (4) 3 hours H_2SO_4 hydrolysis adding with 15% of molasses, (5) 4 hours of H_2SO_4 hydrolysis adding with 15% of molasses, and (6) 5 hours H_2SO_4 hydrolysis adding with 15% of molasses.

Result showed that the longer of H_2SO_4 hydrolysis and the higher of molasses concentration produced higher percentage of sugar. Hydrolysis in 5 hours and molasses concentration of 15% gave the best result on sugar production.

However the highest concentration of ethanol was obtained in 3 hours hydrolysis with molasses concentration of 15%.

*Keywords : onggok's powder, hydrolysis H_2SO_4 , molasses, *Saccharomyces cerevisiae*, byoethanol.*