

STUDI KOMPARATIF FISIOLOGIS PROBIOTIK LAKTAT DALAM BEBERAPA MEDIA CAIR GULA SEDERHANA

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ABSTRACT

Several simple sugar liquid media were used to observe the growth of several lactic acid probiotic bacteria were usually used in food probiotic products. The required of the sugar of the bacteria were observed in liquid media consisting simple sugar such as glucose, fructose, lactose and sucrose by observing the population growth and the metabolite products. The lactic acid probiotic bacteria were used were *Lactobacillus acidophilus*, *L. casei*, *L. plantarum*, *Streptococcus lactis*, *S. thermophilus*, *Leuconostoc mesentroides* and *Pediococcus acidilactisi*. The analysis of the result obtained the growth of populations, the developments of the pH value and total acidity. The results showed that the respond of the probiotics in it's growth and development to the different simple sugar were vary. Glucose and sucrose are suitable simple sugar for all lactic acid probiotics. *S.lactis* showed in all media lower average of pH-Value (2.43) than other bacteria after 4 weeks observation. The highest decreasing of pH Value achieved by *L.acidophilus*

Keywords : *Lactic acid probiotic bacteria, Glucose, Sucrose, Fructose, Lactose*

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