

**PERBEDAAN PEMBERIAN SUKROSA DAN SORBITOL  
TERHADAP pH ASAM PRODUKSI *S. mutans*  
(THE DIFFERENCES OF ADDING SUCROSE AND SORBITOL AT  
ACID'S pH FROM THE *S. mutans*'s PRODUCTION)**

**HAKIM, SHERMAN KERTIYASA**

**Pembimbing : Tantiana, drg., M.Kes**

**SUCROSE; SORBITOL; S. MUTANS**

KKA KK KG 138 / 11 Hak p

Copyright© 2010 by Airlangga University Library Surabaya

**ABSTRACT**

**Background.** Dental caries is the most common disease that can be found throughout the world. *S. mutans*, sucrose, and oral hygiene are factors that caused caries. Nowadays scientists and dental health practitioner choose for preventing caries instead of curating it by finding alternative sweetener for sugar's substitute. Sorbitol is a synthetic sweetener made from natural flower's and fruit's extract, the scientists hoped that the usage of sorbitol can prevent caries. **Purpose.** This experiment's purpose is finding the difference of adding sucrose and sorbitol at acid's pH from the *S. mutans*'s production. **Method.** By adding sucrose or sorbitol, each in different concentration ranged from 2, 4, 6, 8 mg/ml to *S. mutans* in Luria bertani broth, incubate it within 24 hours, checking it's pH once every 2 hours with pHpaper. **Results.** The acid's pH from the fermentation's product of *S. mutans* that had been added with sucrose decreased from 7 to 4 while the acid's pH from the fermentation's product of *S. mutans* that had been added with sorbitol increased from 7 to 8. **Conclusion.** From the results of the experiment, it can be concluded that there are differences between adding sucrose and sorbitol to acid's pH from *S. mutans*'s fermentation product.

**Keywords :** *S. mutans*, caries, sucrose, sorbitol