

# Pengaruh gel ekstrak Belimbing Wuluh *averrhoa bilimbi* l terhadap perubahan warna gigi = The effect of gel containing small starfruit extracts *averrhoa bilimbi* l to color change of tooth enamel / Syarifah Ina Medina Musnadi

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Abstrak

**ABSTRAK**

Tujuan: Mengetahui pengaruh gel ekstrak belimbing wuluh terhadap perubahan warna email gigi. Metode: 30 spesimen gigi sapi dibagi menjadi 6 kelompok, yaitu kelompok aplikasi gel ekstrak belimbing wuluh Aceh 70% , 80%, dan 90%, serta ekstrak belimbing wuluh Bogor 70%, 80%, dan 90%. Aplikasi gel dilakukan selama 4 jam per hari dalam 14 hari aplikasi. Pengukuran nilai warna dilakukan awal, setelah 7 hari, dan 14 hari aplikasi menggunakan VITA Easyshade® dengan perhitungan perubahan warna didapat melalui rumus  $CIEL^*a^*b$ . Hasil: Dari uji t berpasangan, didapatkan terjadi perubahan warna yang bermakna setelah 7 hari dan 14 hari aplikasi gel ekstrak belimbing wuluh Aceh dan Bogor konsentrasi 70% dan 80%. Kesimpulan: Peningkatan perubahan warna menyebabkan diskolorasi permukaan email setelah aplikasi gel ekstrak belimbing wuluh.

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**ABSTRACT**

Objectives: To investigate the effect of gel containing small starfruit extracts to the colour change of tooth enamel. Methods: 30 specimens of bovine teeth were divided into 6 groups which would be applied with gels with different concentration (with Aceh's small starfruit extracts 70%, 80%, 90%, and Bogor's small starfruit extracts 70%, 80%, 90%). Gel application was done 4 hours per day in 14 days. The measurement of the colour change performed before application, 7 days, and 14 days of application using VITA Easyshade® with calculation of the colour change was obtained through  $CIEL^*a^*b^*$  formula. Results: From dependent t-test, there was a significant color change after 7 days and 14 days application of gel containing 70% and 80% small starfruit extracts. Conclusion: Increased color changes causes discoloration of enamel surface after application of gel starfruit extracts.