

**PERBEDAAN EFEKTIVITAS AIR KELAPA MUDA (*Cocos nucifera* L.) VARIETAS
GENJAH DI DATARAN TINGGI DAN DATARAN RENDAH TERHADAP
VIABILITAS SEL FIBROBLAS (*In Vitro*)**

***THE DIFFERENCES IN EFFECTIVENESS OF HIGHLANDS AND LOWLANDS
YOUNG COCONUT WATER (*Cocos nucifera* L.) DWARF VARIETY ON THE
FIBROBLAST CELL VIABILITY (*In Vitro*)***

ABSTRACT

Background: *Tooth avulsion is a tooth which whole body has detached from its socket and causing damage to periodontal tissue and pulp. Tooth avulsion must be replanted quickly, but if it couldn't be done in less than 30 minutes then it's better to save the tooth in the storage media. We can use young coconut water as alternative replacement for HBSS because it has high osmolarity.* **Purpose:** *The purpose of this study was to determine the difference in effectiveness of young coconut water dwarf variety from highlands and lowlands on fibroblast cell viability.* **Method:** *Young coconut water from each habitat was picked randomly. Samples were divided into five groups. Group 1 media control, group 2 cell control, group 3 HBSS, group 4 young coconut water from highland, and group 5 young coconut water from lowland. To determine the BHK-21 fibroblast cell viability after 4 hours of submerging, MTT assay was used. The absorbance was read by ELISA reader with wavelength 620nm. The results were analyzed using One-way ANOVA with $\alpha=0.05$.* **Result:** *There're significant differences on each group. Young coconut water from highland has cell viability percentage of 8% whether the young coconut water from lowland 54%. Based on the $CD_{50\%}$ parameter, young coconut water from lowland was more effective than young coconut water from highland.* **Conclusion:** *Young coconut water dwarf variety from lowland is more effective than young coconut water from highland towards BHK-21 fibroblast cell viability for 4 hours.*

Key word: *Fibroblast cell viability, young coconut water, and cell media.*