

## DIFFERENCES OF EFFECTIVENESS OF APPLE (*Granny Smith*) AND (*Washington*) EXTRACTS IN INHIBITING THE GROWTH OF BACTERIA *Streptococcus sanguis*

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### ABSTRACT

**Introduction :** *Streptococcus sanguis* is the dominant bacteria in basic plaque formation at the beginning. Herbal plants that can be used are apples (*Pyrus malus* L.) which have several varieties, namely *Granny Smith* and *Washington* apples. Apples have the potential as antibacterial with flavonoid, catechin, tannin, and quercetin compounds which can inhibit bacterial growth. **Aim:** To find out the benefits of apple extract (*Granny Smith*) and (*Washington*) on the inhibitory power of *Streptococcus sanguis* bacteria. **Method :** Experimental laboratory with *post test only controls group design*. The independent variable which is an apple extract with sour taste (*Granny Smith*) and sweet taste (*Washington*) in concentrations of 20%, 10% and 5%, while the dependent variable is the growth of *Streptococcus sanguis* bacteria. Acid flavored (*Granny smith*) and sweet (*Washington*) apple extracts are made using maceration techniques. **Results:** Apple's (*Granny Smith*) and sweet (*Washington*) apple extract with concentrations of 20%, 10%, and 5% effective against *Streptococcus sanguis* bacteria and *Granny Smith* apple extract with a concentration of 20% showed the highest average inhibitory zone of 18.75 mm. **Conclusion:** *Granny smith* apple extract has a concentration that is more effective than sweet-flavored apples (*Washington*) in inhibiting the growth of *Streptococcus sanguis* bacteria.

**Keywords:** *Granny Smith* apple extract, *Washington* apple extract, *Streptococcus sanguis*, Inhibitory power

