

EFFECTIVENESS OF THE RED GINGER SYRUP MEDICINE (*Zingiber officinale var. rubrum*) AGAINST THE POTENTIAL GROWTH OF *Escherichia coli* BACTERIA

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ABSTRACT

Red Ginger (*Zingiber officinale var rubrum*) is a spice plant that is used as a beverage and a mixture of food. Red ginger, spicy flavor that has so often used as medicinal ingredients. Red ginger rhizome contains essential oils, oleoresin, gingerol, and zingiberin are useful as antibacterial. The study was conducted to determine the inhibitory power of *Escherichia coli* bacteria with the use of red ginger syrup medicine. The study is research of experimental method with maceration extraction and pouring method on inoculation bacteria, conducted in Biotechnology Research Laboratory of FMIPA Universitas Pendidikan Indonesia. The study consists of 4 treatments and 6 repetitions: red ginger extract syrup medicine on concentration 20%, extract the juice of red ginger syrup medicine on concentration 50%, positive control (Ampicillin), and negative control (the base syrup medicine). Data obtained were analyzed using the SPSS20 application. The results showed that the extract the juice of red ginger syrup medicine concentration 50% most effective in inhibiting the growth of *Escherichia coli* bacteria, with an average diameter of inhibitory zone 0,708 cm.

Keywords: Red Ginger Extract, Red Ginger Extract Syrup Medicine, Extract The Juice of Red Ginger Syrup Medicine, *Escherichia coli* bacteria.