

ABSTRACT

THE EFFECTIVENESS OF THE COMBINATION OF TUMERIC(*Curcuma domestica* Val.) EXTRACTS AND MULTIFLORA HONEY IN INCREASING THE GROWTH OF BACTERIA *Salmonella typhi* and *Bacillus cereus* IN VITRO

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Salmonella typhi is a gram-negative, pathogenic bacterium that causes typhoid or typhoid fever. *Bacillus cereus* is a gram-positive bacterium, grows aerobically, causing poisoning with symptoms of vomiting and diarrhea. Some bacteria begin to be resistant to antibiotics because they are used too often. As an alternative treatment, plants that have antibacterial properties such as turmeric have curcumin compounds and essential oils, while honey has flavonoid compounds. The purpose of this study was to determine the effectiveness of the combination of turmeric extract (*Curcuma domestica* Val.) and multiflora honey, as well as the most effective inhibitory, inhibits the growth of *Salmonella typhi* and *Bacillus cereus* bacteria in vitro. The extraction was carried out by the maceration method using 96% ethanol solvent and a combination of turmeric extract and multiflora honey 100%: 0 w / v; 75%: 25% w / v; 50%: 50% w / v; 25%: 75% w / v; 0: 100% w / v. Antibacterial activity test uses the disk diffusion method (*Kirby-Bauer*). The results showed the effectiveness of the combination, can inhibit the growth of *Salmonella typhi* (0.00) and *Bacillus cereus* (0.01) significantly different ($P < 0.05$). *Salmonella typhi* with the most optimal antibacterial activity at a concentration of turmeric and honey combination of 0: 100% is 16.73 mm, whereas in *Bacillus cereus* bacteria the most optimal antibacterial activity at the concentration of turmeric and honey combination is 0: 100% ie 1.47 mm.

Key Words: Tumeric, multiflora honey, *Salmonella typhi*, *Bacillus cereus*