

**THE EFFECTIVITY OF BINTARO (*Cerbera manghas*) LEAVES  
EXTRACT TOWARD ADULT MALE BROWN DOG TICKS  
(*Rhipicephalus sanguineus*) MORTALITY RATE *IN VITRO***

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**ABSTRACT**

The purpose of this experiment is to prove that Bintaro leaves can increase mortality rate of adult dog ticks *R. sanguineus* within 24 hours. This experiment used 120 adult dog ticks, divided into five treatment groups 0%, 5%, 8%, 12,5%, 20%. Each treatment contained of six adult dog ticks and replicated four times. The result of this experiment showed that Bintaro leaves extract in concentration 0% gived mortality rate 4%, in concentration 5% gived mortality rate 54%, in concentration 8% gived mortality rate 75%, in concentration 12,5% gived mortality rate 87,5%. Mortality rate reached 100% in concentration 20% extract. *Two way* ANOVA test was used to count mortality rate. The result of statistical analysis showed that there was signifikan difference ( $p < 0,05$ ) between treatment and mortality rate of adult male dog ticks. From the statistical analysis, we can conclude that the concentration of bintaro leaf extract has effect toward mortality rate of adult male dog ticks.

**Key Word:** Bioinsecticide, *Rhipicephalus sanguineus*, *Cerbera manghas*