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ACARICIDAL POTENTIAL OF THYMOL IN FULLY ENGORGED *Rhipicephalus sanguineus* sensu lato FEMALES

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Thymol is a monoterpene and has had its acaricidal potential demonstrated when applied to *Riphicephalus sangineus* sensu lato in immature stages. The present study evaluated the acaricidal potential of thymol in fully engorged females of this tick species. The experiment followed the protocol established by Drummond et al. (1973), the females were divided into five groups with 10 individuals each. The female ticks belonging to the treatment groups were immersed for five minutes in thymol solutions at the concentrations of 5.0, 1.0 and 20.0 mg/mL, while the ones from the control groups were immersed in distilled water and ethanol at 30%. Following exposure, the ticks were kept in climate-controlled chamber at 27±1°C and RH 80±10%. The control groups were kept in different chambers from the one used for the groups treated with thymol. Each egg mass, from a single female tick, was weighed in analytical scale, stored in 10 mL syringes sealed with cotton wool and kept in climate-controlled chamber (27±1°C and RH 80±10%). The following biological parameters were analyzed: pre-oviposition weight of the engorged female, egg mass weight and percentage of eclosion (%EC). These values were used to calculate the egg production index (EPI) and the percentage of control (%C). The results showed no significant difference ($p>0.05$) between the means regarding the weight of the females before oviposition (mg) in all the groups ($p>0.05$); however, significant difference was found ($p<0.05$) for the weight of the egg mass produced by the females exposed to thymol at the concentration of 20 mg/mL (22.6 mg). The other treatment groups showed no significant difference. The percentage of eclosion in the females exposed to thymol at the concentration of 5.0 mg/mL showed no significant difference in relation to control group II (ethanol 30% - 98.5%); however, significant difference was found in the comparison with control group I (water – 94.2%). The concentrations of 10.0 and 20.0 mg/mL of thymol reduced egg viability ($p<0.05$), with values of 35 and 5%, and the control percentage at the concentration of 20.0 mg/mL was 98.4%.

Keywords: monoterpene, control, tick, plant-derived product, brown-dog-tick.
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