# Essential Oils Influence on Different Stages of Tick Biological Cycle

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**INTRODUÇÃO:** Cattle tick has been responsible for great economic losses in livestock through disease transmission and reduction of meat and milk production. In this context, the natural products are a potential alternative for commercial acaricide because it does not accumulate in the environment and food. **OBJETIVO:** The aim of this study was to evaluate the acaricidal activity of essential oils from *Schinus molle* and *Bulnesia sarmientoi* on the cattle tick *Rhipicephalus microplus* and other tick species**. MATERIAL E METODOS:** The test for effectiveness evaluation of the essential oils followed the immersion test methodology. Engorged female ticks were immersed in 10 ml of 0.001% essential oils diluted in 1% DMSO aqueous solution for five minutes. The larval packet test used larvae on 14 to 21 day old. A nylon paper were impregnated with oil, with the same concentration of the females test, and placed during 1 h before being folded into packets for 24 h. To evaluate essential oils effects on the embryogenesis, eggs from the 3rd, 6th and 9th days of development were fixed eggs were fixed in heptane-paraformaldehyde in PBS for 30 min. **DISCUSSÃO E RESULTADOS:** The *Schinus molle* essential oil affected negatively egg laying rate and hatchability halving the reproductive index. Its efficiency was 57% at this low concentration. Interestingly, *Bulnesia sarnamentoi* essential oil exhibited a different effect, hatchability rate and reproductive rate were increased by 33%, if compared to the control treatment. **CONCLUSAO:** Essential oils, even at low concentrations, have an effect on the reproduction of cattle tick. Larval testing and evaluation of eggs are on the way, by stainning with DAPI (4 ', 6-diamidino-2-phenylindole) and fluorescent microscopy observations. These data will may widen the comprehension of more effectively the influence of these oils in the development of this cattle tick.

Palavra chave: Natural products, DAPI, Drummond
Patrocínio: FAPESP, CNPq and CAPES