



Actividad acaricida in vitro del aceite esencial de tomillo contra el ácaro rojo (*Dermanyssus gallinae*) [

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text (article)

Analítica

Contextualization: the poultry red mite (*Dermanyssus gallinae*) is an ectoparasite that affects the health , generates stress in the population, and decreases the growth rate of laying hens. Therefore, lowers the quality of the eggs. Knowledge gap: the control of *D. gallinae* is done with synthetic contact acaricides, but this parasite has generated resistance to them. That situation requires the development of studies to find novel and environmentally friendly alternatives to heal the hens. That is why essential oils have been proposed as an alternative, considering they have acaricidal activity depending on the composition of the oil, which is affected by genetic and environmental factors. Purpose: the objective of this research was to evaluate the acaricidal activity of the essential oil of *T. vulgaris* against *D. gallinae* of egg laying birds in Tinjacá (Boyacá - Colombia). Methodology: the essential oil of *T. vulgaris*, in concentrations of 0.05, 0.1, 0.15, 0.20 and 0.25 mg /cm², was evaluated through contact bioassays in laboratory conditions. Results and conclusions: 100% mortality of *D. gallinae* was obtained with the essential oil of *T. vulgaris* in concentrations of 0.05 and 0.25 mg /cm², at 35 minutes of contact. The lethal concentration [LC50] was 0.073 mg/cm² and the lethal time [LT50] was 13 minutes. That proves that thyme essential oil can be an alternative for the control of the red mite in birds of poultry farms

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