عنوان مقاله:

Sensitivity of eggs and larvae of Amblyomma variegatum (Acarina: Ixodidae) to Clausena anisata essential oil mixed in two vegetable oils as vehicle

محل انتشار:

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خلاصه مقاله:

Livestock in tropical and subtropical areas is under almost constant threat of ticks, in particular the species Amblyomma variegatum Mfr. (Acarina: Ixodidae), especially during the rainy season. The IPM programs against this ectoparasite undoubtedly require knowledge of its bio-ecology and diversification of means of control. Thus, the toxic effects of the essential oil of Clausena anisata Hook (Rutaceae) diluted in two vegetable oils were tested on eggs and larvae of A. variegatum under the laboratory conditions of the temperature from 22-25°C, relative humidity from 78-91% and a photoperiod of 12 L/12h D. Toxicity tests were carried out in Petri dishes containing Whatman paper on which various test solutions were deposited. In each treated dish, 100 eggs or 40 larvae were released. A dose of 0.124 µL / cm² of a dilution of the essential oil of C. anisata prevented the hatching of 95% of the eggs and provoked 60% mortality of the larvae after 24 hours of exposure. Although these results differ significantly from those of the reference acaricide bayticol which is very highly toxic, the essential oil of C. anisata could be considered very toxic to the preimaginal stages of the tick A. variegatum. However, the cost of treatment with the essential oil of C. anisata should be evaluated to better assess its use in the control of A. variegatum by farmers

کلمات کلیدی:

Biological acaricide, Essential oil, Toxicity, Cattle tick, Amblyomma variegatum, Clausena anisata