

Efficacy profile of Cypermethrin and Chlorpyrifos based acaricides on *Rhipicephalus microplus* control on cattle in the rearing phase, naturally infested and exposed to tick-fever agents in central Brazil

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The objective of this work was to evaluate the efficacy of two cypermethrin and chlorpyrifos based acaricides in controlling *Rhipicephalus microplus* in a naturally infested bovine herd and in *in vitro* tests, as well as to monitor tick-fever. Male bovines in the rearing phase were used, 30 Brangus and 30 Nelore animals, naturally infested. The groups were composed as follows: 15 Nelore treated and 15 Nelore control and 15 Brangus treated and 15 Brangus control. Every 18 days the animals were managed for tick count, acaricide treatment, weighing, blood collection and clinical observation. For *in vitro* tests, the larval packet test, adult immersion test and DNA amplification for tick-fever diagnosis were performed. In the first animal treatment period acaricide association 1 (Cypermethrin 15 g + Chlorpyrifos 25 g + Citronellal 1 g) was used, while in the second period association 2 (Cypermethrin 15 g + Chlorpyrifos 30 g + Fenthion 15 g) was used. In Brangus animals the mean efficacy was 35.1% and 95.8% in the first and second periods, respectively, for the same animals. For Nelore animals the efficacy presented in periods one and two was 51% and 97.1%, respectively. The *in vitro* results showed efficacy above 95% for the two challenged acaricides. Brangus animals showed high production of ticks associated with the presence of tick-fever agents, which could generate risks for the disease's enzootic stability.

Key-words: Resistance; Control, cattle tick; Bovines; Acaricides.

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