

# Control of *Rhipicephalus microplus* ticks in dairy cattle using homeopathic therapy

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## Abstract

**Background:** The negative impact of *Rhipicephalus microplus* infestations on cattle farming is well-known. The main control method is the use of ixodicides, which have as side effects the environmental contamination, the selection of resistant lineages, and toxicity. Their use is also prohibited in systems that produce organic and agroecological food. Such factors reinforce the importance of strengthening researches related to the application of homeopathic principles in animal production. **Aim:** In this setting, this work aimed at assessing the efficacy of the homeopathic therapy to control *Rhipicephalus microplus* ticks in dairy cattle. **Methodology:** 63 crossbred and Girolando breed cows, 1 and 9 years of age, naturally infested by ticks and created under a semi-intensive system in three farms (1, 2 and 3) were assayed. The animals were divided into three control groups and three treated groups, using the drug product EndectoSigo® (*Psorinum* 12 CH, *Sulphur* 12CH, *Ledum palustre* 12 CH, *Cina* 12 CH e *Apis mell.* 7CH) at a dose of 10 g/animal/day added to mineral and/or food supplement. The visual counting of teleogines with the size equal to or higher than four millimeters in diameter was performed in the neck or udder area of the animal. Pluviometry and registration of ixodicide baths were performed as well. The means obtained were compared by using ANOVA test and Tukey's test. **Results:** The mean number of teleogines on farm 1 was significantly lower ( $p < 0.05$ ) in the treatment group. As for farms 2 and 3, there was no statistical difference between the groups (treated and control); however, it was observed that two ixodicide baths were required in the control group (farm 2). The pluviometry did not interfere with the manifestation. **Conclusion:** It was concluded that the homeopathic treatment has the efficacy required to control this tick in cattle and can be an alternative to the use of chemical ixodicides.

**Keywords:** ticks, agroecology, ultra-diluted, epidemic genius, teleogines

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