



EFFICACY OF DORAMECTIN 1% IN THE MYIASIS PROPHYLAXIS OF *Cochliomyia hominivorax* IN CATTLE

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Fly larvae *Cochliomyia hominivorax* are agents that cause primary myiasis in several species of blood animals, including humans. In cattle, the laying of the eggs of the fly usually occurs in accidental injuries or after procedures such as marking, castration and dehorn, and also in the navel of newborn calves. The geographic distribution of this diptera is widespread in the American continent, extending from Mexico to Argentina. The economic losses generated by the myiasis are determined by the weight loss, decrease in milk production, damage to the hide of the body affected by the larvae and animal's mortality. Economics losses are estimated around of 336.48 million dollars in Brazilian livestock. The most used products for the treatment and control of myiasis belong to the group of organophosphates, pyrethroids and the group of macrocyclic lactones. The aim of the study was to evaluate the prophylactic efficacy of the Trucid® (Bayer formulation) in the prevention of *C. hominivorax* larvae infestation in cattle compared to a market product with same indication.

Both products are composed by 1% doramectin and were administered in the volume of 1mL / 50Kg of body weight, corresponding to 200µg doramectin/kg. The present study was conducted at the Experimental Chemotherapy in Veterinary Parasitology Laboratory of UFRRJ Veterinary Institute. Composed by 30 female and male bovines, that were randomized by weight and body score and divided into 3 groups of 10 animals each one, as follow: Control, 1% doramectin and Trucid®. A 5 cm diameter wound was performed on the scapular region where, after 12h of the incision, 50 larvae of *C. hominivorax* were deposited on each one. To perform the wounds, animals were contained in special facilities, and the surgical incision site was anesthetized with lidocaine. The protocol was approved by CEUA of the Veterinary Institute of UFRRJ under number 6737201216 on 12/20/16. After the infestation process, animals were evaluated every 12 hours, during 72 hours for the presence of live larvae in the wounds.

Trucid® has a faster action than the competitor, demonstrating superior efficacy at all evaluated times 24, 36, 48 and 56 hours, reaching 100% control in 56 hours, while the other commercial formulation reached 100% in 72 hours.

Trucid® demonstrated faster levels of efficacy, probably because of its differentiated formulation. No statistical difference was demonstrated for the 1% doramectin group.



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