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## FILIFORM PAPILLA OF HOLSTEIN'S TONGUE AND ITS RELATION TO *Rhipicephalus microplus* TICK RESISTANCE

### *PAPILA FILIFORME DA LÍNGUA DE NOVILHAS HOLANDESAS E SUA RELAÇÃO COM A RESISTÊNCIA AO CARRAPATO *Rhipicephalus microplus**

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Several studies describe anatomical, morphological and histological analysis of domestic and wild animals tongue. The tongue is an extendable muscular organ that performs gripping, chewing, and swallowing food actions and executes tasting and mechanical body self-cleaning functions (grooming). The distribution of these tongue characteristics may vary, according to different species, but studies made with different animals classes reveal the filiform papilla acting in mechanical body cleaning function. In order to evaluate these mechanical functions, especially the self-cleaning one, we proposed to investigate filiform papillae length or its base dimensions would be related to the heifers resistance to *Rhipicephalus microplus* tick. Biopsies were performed in eight (8) Holstein heifers' tongues, with a 6 mm diameter punch, in the anterior third of tongues, at the distance of 3 cm from its tip. The animals were anesthetized with xylazine hydrochloride 2%, a sedative, analgesic and muscle relaxant and received local anesthetic, hydrochloride 2.0 g lidocaine. After tissue removal, the local lesions received an ointment of triamcinolone acetonide, 1.0 mg g<sup>-1</sup>. The Holstein heifers were one year and half old and naturally infested with ticks in a paddock situated at "Instituto de Zootecnia". We monitored their natural infestation by counting females ticks, greater than 4.5 mm, presents in every animal, in four weekly evaluations (from 8 to 28 December - 2011). These samples were submitted to technical process of fixation and dehydration (as required by in the scanning electron microscope study), in the laboratory NAP/MEPA - ESALQ-USP. The papillae were visualized and measured with the aid of the measurement tool between two points of the software in the scanning electron microscope Zeiss LEO 435VP. Statistically analyses were performed by the SPSSP 12.0 program in a complete randomized design. We employed the Oneway method for variance analysis to verify significant differences in the average length of filiform papilla and of its base between the heifers and to determine the effect of ticks, above or below the mean (33 ticks), in the parameters studied. The obtained results were: 1-both the length and the average base of papillae differ from heifer to heifer ( $P < 0.05$ ); 2-heifers with minor bases of filiform papilla presented less ticks than those with greater bases ( $P < 0.05$ ); 3-the average filiform papilla length had no influence on the number of ticks of the eight Holstein heifers evaluated.

Key words: filiform papilla, base, length, grooming, tick, infestation.