## Title: MICROBIOLOGICAL ANALYSIS OF WATER USED IN DAIRY CATTLE IN THE REGION OF TAQUARI VALLEY-RS

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## Abstract:

Water is an environmental good that guarantees the balance of the ecosystem being vital to all living beings. In rural areas the water also plays an important role, being responsible, among other functions, for the preservation of biodiversity and the milk cattle watering. In such areas the main water sources used for animal watering are wells, springs and streams. It is known that water intended for animal consumption must meet certain quality requirements in order to limit risks to the health of dairy cattle, milk producers and consumers. This study aimed to analyze the microbiological quality (total and fecal coliforms) of water for dairy farms in the region in Taguari Valley. Activities were carried out in 59 farms of 21 municipalities indicated by the Secretary of Agriculture and EMATER. Water samples were collected from the main supply sources of dairy cattle. The results were compared with values predicted by CONAMA Resolution 357/2005, class 3 water. It was diagnosed that water intended for animal consumption come from wells (59.32%), a company network (16.95%), streams (11.86%), reservoirs (8.47%), streams (1.7%) and plated (1.7%). The microbiological parameters, fecal coliform, were above the established values for 38.98% of samples, there were up to 1000 coliforms per 100 milliliters for 50.85% of cases and the absence was observed in 10.17% of samples. It was concluded that the microbiological quality of water used for animal watering in Taquari Valley is not in accordance with the rules in most of the analyzed rural properties. It is extremely important that there be monitoring of the water consumed in these rural establishments, promoting better quality of life. The study does not claim to exhaust, for both water analyzes will be carried out in other municipalities that make up the region.

Keywords: animal watering, coliforms, water quality, rural areas

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