COMPARISON OF THE QUALITY OF WATER SUPPLIED TO CALVES, BEEF AND DAIRY CATTLE

(AVALIAÇÃO MICROBIOLÓGICA DA QUALIDADE DA ÁGUA FORNECIDA A BEZERROS, BOVINOS DE CORTE E BOVINOS DE LEITE)

F. R. BARREIRO¹, L. A. AMARAL², L. F. RIBEIRO³, L. F. LAVEZZO⁴, C. E. G. AGUILAR^{5*}, A. C. R. SANTOS⁶

Water quality for animal consumption must be ensured so that no pathogens are transmitted either to the animals or to those who will consume the products originating from them, such as meat and milk. The objective of this experiment was to evaluate the microbiological quality of the water supplied to calves, beef and dairy cattle at the Faculdade de Ciências Agrárias e Veterinárias, UNESP, Jaboticabal. The water samples were collected directly from the troughs of animals using sterile vials. The determination of the most probable number (MPN) of total coliforms and Escherichia coli was performed by the chromogenic-fluorogenic substrate-hydrolyzable (Colitag). The following results were observed for the water supplied to calves: 2,909 MPN/100 mL of total coliforms and 173 MPN/100 mL of E. coli. The results for the water supplied to beef and dairy cattle, respectively, were 51.2 MPN/100 mL of total coliforms and 24.6 MPN/100 mL of E. coli; 6,867 MPN/100 mL of total coliforms and 4,611 MPN/100 mL of E. coli. Among the categories of animals analyzed, the highest number of total coliform was found in the water of dairy cattle, followed by the water supplied to calves and beef cattle. Resolution CONAMA 357/05 allows up to 1,000 MPN of E. coli per 100 mL of drinking water supplied to animals. Only the water supplied to dairy cattle is outside the limit established by law. Therefore, attention should be paid to the factors that may be contributing to greater contamination of water supplied to dairy cattle and try to address them to ensure the reduction of risk of transmission of pathogens transmitted by water to these animals.

¹Doutoranda em Medicina Veterinária (Medicina Veterinária Preventiva), UNESP Jaboticabal (barreiro_vet@yahoo.com.br) ² Professor adjunto, UNESP Jaboticabal

³Doutoranda em Medicina Veterinária (Medicina Veterinária Preventiva), UNESP Jaboticabal

⁴Zootecnista, UNESP Jaboticabal

⁵Mestrando em Medicina Veterinária (Medicina Veterinária Preventiva), UNESP Jaboticabal

⁶Médica Veterinária, Faculdade de Agronomia e Engenharia Florestal de Garça (FAEF)