

EVALUATION OF THE MICROBIOLOGICAL QUALITY OF WATER OF THE DAM FORQUILHA – CE

Coutinho, M. G. S.¹, Duarte, M. M. N.¹, Neves, A. M.¹, Sales, J. C.¹, Fontenelle, R. O. dos S.¹

¹UVA - Universidade Estadual Vale do Acaraú (Avenida da Universidade – 850 Betânia - Sobral, CE – Brasil).

Water is the most important element as life source, it is known that the same embraces almost four fifths of the terrestrial surface, more just 0,01% of water found in superficial sources, such as the dams that are fundamental importance reservoirs for the semi-arid Brazilian, is viable to the consumption. Daily this small part of available fresh water for the human consumption is being polluted by the constant drain launched in the bodies hydric carrying the bad quality of water, there could be the presence of pathogenic microorganisms that generate serious risks human beings' health. The study has the goal of evaluating the microbiological quality of water of the dam Forquilha – CE. For the present work were accomplished three collections in three points different from the dam, totaling a total of nine samples, the determination of the More Probable Number (MPN) of the total coliforms and thermotolerant were obtained through the technique of the multiple tubes, also preceded the quantification and isolation the *Escherichia coli* by means of ImVic Test. According to the National Board of the Environment (CONAMA) the water used to consumption should is absent of thermotolerant coliforms in samples of 100 mL, therefore 100% of the analyzed samples they are inappropriate for the human consumption. The presence of some bacteria of the family Enterobacteriaceae was observed as *Klebsiella pneumoniae*, *Hafnia alvei*, *Providencia alcalifaciens*, *Klebsiella pneumoniae* and *Escherichia coli* showing that water it are with contamination high degree. It concludes that according to the microbiological standards the analyzed samples they introduce inadequate to the use of the population, being necessary that the authorities of the city take steps, to improve the quality of water, avoiding thus the diseases transmission.

Keywords: coliforms, *Escherichia coli*, water, contamination

Development agency: CNPq