

ANALYSIS OF *Escherichia coli* PRESENCE IN GROUND WATER OF RURAL PROPERTIES IN JABOTICABAL - SÃO PAULO

(ANÁLISE DA PRESENÇA DE Escherichia coli EM ÁGUA SUBTERRÂNEA DE PROPRIEDADES RURAIS NO MUNICÍPIO DE JABOTICABAL-SP)

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The city of Jaboticabal is located in a region where agricultural activity dominates the landscape and water from wells is extensively used for both human and animal consumption. The water sources and wells belong to the Córrego Rico Hydrographic Watershed. The present study aimed to evaluate the microbiological quality of the water supplied by the wells, in relation to the presence or absence of the protection factor (inner lining and sidewalk) in 30 wells of rural properties located in the municipality. The microbiological quality of the water in the rainy season (January-March) was determined using the chromogenic substrate method in Quanti-Tray/2000 cartouches (APHA, 1992) to indicate whether the water was potable or not, quality given by the presence or absence of *Escherichia coli*, respectively, according to the decree 2914/11 (BRAZIL, 2011). The influence of protective factors (inner lining and side walk) in the wells on the microbiological quality of the water was determined by calculating the relative risk (RR) for the protection factor with a confidence interval of 95% (SCHWABE et al., 1977). Of the 30 properties studied, 16 (53.33%), were outside the potability standards, and the RR for absence of inner lining was 3.14 while for the lack of sidewalk was 4.80, which means a risk 3.14 and 4.80 times, respectively, for the fecal contamination of water to occur when such protective factors are not present. The results showed that a high number of properties are outside the microbiological standards for drinking water according to the present legislation. It is concluded that the adoption of corrective and preventive measures allied to the Recovery Program of Headwaters Watershed are required in order to reduce the risk of waterborne diseases.

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