

**OCCURRENCE OF CLOSTRIDIUM IN GROUND WATER AS A RISK FACTOR TO
HUMAN HEALTH IN RURAL PROPERTIES IN JABOTICABAL, SP**

*(OCORRÊNCIA DE CLOSTRÍDIOS EM ÁGUAS SUBTERRÂNEAS COMO FATOR DE RISCO À
SAÚDE HUMANA EM PROPRIEDADES RURAIS DO MUNICÍPIO DE JABOTICABAL-SP)*

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The Córrego Rico basin is responsible for 70% of the water supply of Jaboticabal. In this region, part of the population uses alternative supply sources (wells), which have evidence of microbiological contamination due to the environmental impact caused by uncontrolled occupation of the effluent surroundings. The present study evaluated the microbiological contamination of these supply sources, taking as an indicator the presence of sulphite reducing clostridia in two samplings performed during the dry and rainy seasons, in 30 wells of the rural area, by the membrane filter method (SARTORY et al., 1998). The frequency was analyzed by chi-square test at 5% significance (STEEL & TORRIE, 1960). Sulphite reducing clostridium is an important indicator of contamination by organic matter, reflecting a remote faecal contamination. From the 30 rural properties studied during the dry season, 14 (46.7%) were outside the potability standards (due to the presence of bacteria) while 27 (90%) were in this condition during the rainy season. The chi-square test showed that the potability standards depend ($p < 0.05$) on the sample period, rain or dry, Ordinance 2914/11 (BRAZIL, 2011). This finding is related to the flow of surface water coming into contact with contaminated environment and flowing towards the supply sources, showing the susceptibility to contamination of these in the rainy season, due to rapid percolation of microorganisms toward groundwater, coupled with the fact the water level during this period approaches the surface, decreasing its filtering capacity (COGGER, 1988; Villegas 1988). The observed changes indicate risk of waterborne diseases, advocating the need for investment in health and environment, with corrective and preventive actions, combined with the Recovery Program of Headwaters, aiming to reduce the risk of waterborne diseases .

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