

Title: EVALUATION OF MICROBIOLOGICAL QUALITY OF FARM POND WATER- SOBRAL-CE.

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ABSTRACT:

The lagoons are among the most important urban aquatic environments that can exist in a city. In addition to providing landscape resources, can offer a recreation area for the population of large cities. The Lagoa da Fazenda is located in the Ecological Park Lagoa da Fazenda and is one of the environmental recreational centers of the city of Sobral (CE), located in the neighborhood of Bethany. The population surrounding the lagoon, usually does not have a public sanitation system, accumulating waste in pits or draining them directly to this reservoir. The lagoon and is a landscaped area and leisure, it is also used as a fishing spot, contributing as a source of income for the population. A major problem of contamination of the lakes comes from waste dumps, chemicals, or caused by the uncontrolled growth of the population that does not have a proper sewage system and because of this problem, urban lakes are contaminated by the presence of micro -organisms, and among them are bacteria of the coliform group. This research had as objective to evaluate the microbiological quality of the Fazenda Lagoa waters, through the method of multiple tubes. For this study were collected 03 samples of distinct points of the pond where they were subjected to determination of the Most Probable Number (MPN) of total and fecal coliforms. Endpoints were: Point A, is close to the multi-sport gym; B, near the harbor of the lagoon; and C, located near the sewage collection station. The results of the measurement of values of the Most Probable Number (MPN) of Total Coliforms (CT) and coliforms thermotolerant (CTT) obtained from 03 samples tested, it was found that 33% of the samples were within the category of "improper" as your bathing. In biochemical analysis were identified bacteria such as *Escherichia coli*, *Klebsiella pneumoniae*, *avel Hafnia* and *Providencia alcalifaclens*. The high rates of contamination by fecal coliforms and thermotolerant are associated with pollution of sewage dumps, as well as the presence of solid and liquid waste. Therefore it is essential to improve preventive techniques in order to clarify the local population about the risks to health that the presence of domestic sewage presents.

Keywords: microbiological analysis, coliforms, Lagoa da Fazenda, Sobral.