Biodiversity of Microalgae and Use in Decontamination of Cheese Whey in Water Waste in the Tobal Carcasi

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The countryside El Tobal of Carcasi presents an environmental problem caused by dairy cheese whey, a by-product of the cheese industry, which generates contamination in the waters present in the region and infertility in its soils. Taking into account this problem, the research objective of this was: To know the levels of decontamination, using different types of microalgae in the treatment of water contaminated by the vertiment of whey. In the research process. were collected and cultured Zignema, Spirogyra ternata and Spirogyra porticalis, this microalgaes are presents in the environmental near the area of the study. For evaluating ability of the microalgae cultures in the decontamination of cheese whey were analyzed 6 treatments with different concentration of water and whey. The degree of decontamination were evaluated the PH and nitrate variables. As a result, the acidity of the water was reduced, in treatment T2, which contained five parts of water per one of whey. Subsequently the water of this treatment was used for irrigation of crops. Taking into account the results of the research it is proposed stablished to big scale cultures samples with open pond bioreactors, using the identified microalgae species.

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