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6-8 DEZEMBRO 2003 - LISBOA

ACTAS DO X CONGRESSO NACIONAL DE BIOTECNOLOGIA

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Microbiological characterization of agro-industries effluents

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REFERENCIA

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The contamination that comes from the industrial effluents is one of the major issues for the environment and public health. Several microorganisms have an important role in removing the organic components that are present, along with inorganic products, in the residual waters. The suitable treatment for these effluents also includes the elimination of pathogenic microorganisms, preventing their passage to rivers or other surfaces.

In this study, the characterisation of the autochthonous microbial fauna and flora was made, namely fungus, bacteria and microalgae, existing in two effluents from Agro-Industries – brewery and dairy products. In the Agro-Industries, milk transformation in lactic products is, in terms of pollutant effluents, of major concern, because of the pollutant charge by itself, or because of its composition. From the brewery effluent it was possible to isolate either microalgae, belonging to different groups and including cyanobacteria and chlorophytes, and also two fungus. From the milk effluent, and despite the low pH, it was possible to isolate a microalga, suspected to be a *Chlorophyte*. Only pathogenic bacteria were isolated, which probably had origin in bad sanitary quality of the tanks. The results obtained demonstrate that it is necessary a higher quality control of the industrial effluents.