

SELECTION OF BACTERIAL PROTEASES FOR THE LEATHER TENDERIZATION

Britto, E.N¹, Castillo, T.A², Teixeira, F.S², Matsuura, T², Porto, A.L³, Martins, M.S², Vinhote, N.M², Fernandes, O.C.C⁴, De Jesus, R.S¹, Malta, J.C.O¹

¹Instituto Nacional de Pesquisas da Amazônia, Manaus; ²Universidade Federal do Amazonas; ³Universidade Federal Rural de Pernambuco, Recife; ⁴Fundação Oswaldo Cruz, Manaus.

The proteases have a wide industrial application. The marketed proteases 40% are bacteria and fungi. In the leather industry they are produced for alkaline proteases of the *Bacillus*, and *Aspergillus* for to leather tenderization. This study had the objective in the first phase of to isolate and to select bacterial proteases with potential for the leather tenderization, and in the second phase to verify the tenderization level for they will are used as alternative source to the chemical. They were isolated of the treatment gastrintestinal of the fish, *Colossoma macropomum*, 198 strains bacterial proteolytics and starting from the enzymatic rude extract studies of qualitative, quantitative enzymatic activity, and of the enzymatic kinetics in seven temperatures from 25°C to 80°C and in five pHs from 6 to 10. Three strains were selected with halo diameter >1 U/mL. All had positive collagenolytic activity and one strain was selected. We verified that the largest enzymatic activity happened in 24h of growth, the pH 8.0, 70 °C. We can conclude that the rude extract is formed by proteases alkaline thermoestables, with probable, potential for they are used in the leather industry.

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