



EMULSIFYING PROPERTIES OF THE GUM PRODUCED BY PROSOPIS LAEVIGATA (HUMB. & BONPL. EX WILLD) M.C. JOHNST.

ABSTRACT

The mesquite gum (MG) production from *Prosopis laevigata* cells suspension culture in a stirred tank type bioreactor, with characteristics similar to those of MG obtained from wild trees are reported. The cells showed a specific growth rate (μ) of 0.08 1/d and a viability of over 60 %, reaching a maximum biomass of 16.6 g dry mass (dm)/L after 14 d. The cells produced a gum made up by 83.5% of carbohydrates (L-arabinose, D-galactose and glucuronic acid) and 8.1% of protein, also detected arabinogalactan-proteins (AGPs) as constituents of the gum. Oil-in-water emulsions were prepared using as continuous phase aqueous solutions of MG obtained from wild trees and that produced in bioreactor (MGb). The emulsifying capacity of MGb was slightly superior, but the emulsion stability lower, than that obtained with MG.

<http://rmiq.org/new%20page/eVol9No3.html>

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Autores: J.L. Trejo-Espino, M. Rodríguez-Monroy*, E.J. Vernon-Carter³, F. Cruz-Sosa.

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