

TITLE: SELECTION OF LIPASE PRODUCING YEASTS FROM HIGH FAT FOODS

AUTHORS: LEAL, G. C.; LIMA, F. L.; SOUSA, N. D. C.; MACHADO, F. C. L.; SANTOS, A. C. S.; SOUZA, A. P. M.; LIMA, E. M. R.; CUNHA, V. B.

INSTITUTION: UNIVERSIDADE ESTADUAL DO PIAUÍ – UESPI (RUA JOÃO CABRAL, 223, PIRAJÁ, CEP: 64001-030, TERESINA-PI, BRAZIL)

ABSTRACT:

Water is the primordial factor for the existence of life, being present in all aspects from the composition of organisms to industrial processes. However, this importance in the manufacturing environment causes water to be returned to the environment contaminated by pollutants, causing severe damage. These damages can be remedied through the use of enzymes, with the lipases gaining prominence. This work aimed to select yeasts from foods rich in fat, capable of producing lipase in different substrates and with great potential in helping the depollution of contaminated effluents. The yeasts were isolated from bacon, cheese and fresh porkbelly. For the selection of these, yeasts were used a solid medium composed of Potato Dextrose Agar, babassu oil and olive oil (2.5%), Rhodamine B (0.001%) and Tween 80%. After the incubation period the colonies were visualized under UV light for detection of the lipase-producing yeasts. Those with positive results were identified at the species level with CHROMAGAR Difco chromogen and then submitted to an adaptation medium composed of distilled water, sucrose (2%), babassu oil and olive oil (5%). Thirteen yeast strains (1 *Candida tropicalis*, 5 *Candida glabrata* and 7 non-candida yeast) were obtained, all of them with excellent lipase production in different substrates. The strains showed excellent performance in the adaptation medium where they supported approximately 16 months of incubation in minimal medium, showing potential for industrial use.

Keywords: lipase, yeasts, environmental pollution.

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