Protease Production Comparison from *Mucor subtilissimus* UCP 1262 In Solid-State Fermentation and Submerged Fermentation

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INTRODUCTION. Proteases have been used in the industrial process of detergents, pharmaceutical and food, as well in the recovery, utilization of waste and by-products. They are vital for animals, plants and microorganisms due to their role in metabolic regulation and have been used due to their economic feasibility, great medical and pharmaceutical importance. **OBJECTIVES:** This study aimed to compare the production of proteases from *Mucor subtilissimus* UCP 1262 in solid-state fermentation (SSF) and submerged fermentation (SF). **MATERIAL E METODOS:** The medium composition for fermentation in SSF and SF was based in soybean flour (MS-2). Enzymatic and protein determinations were performed after 72 hours of fermentation. **RESULTS AND DISCUSSION:** The higher proteolytic activity (362.66 U/ml) was produced using FES, while in the FS was obtained 26.33 U/ml. Among the proteolytic activities (collagenolytic:159.81 U/mL, fibrinolytic:40.80 U/mL and keratinolytic: 59.62 U/mL), the collagenolytic activity showed the highest activity, 159.81 U/ml in FES. **CONCLUSION:** These results demonstrate that SSF had a promise protease production. This process have many advantages as being a process that can be obtained high enzyme yield, low cost components and conditions used.

Key words: protease, solid-state fermentation, *Mucor subtilissimus*
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