

**PRELIMINARY STUDIES ON THE PRODUCTION AND
CHARACTERIZATION OF ALPHA AMYLASE FROM *ASPERGILLUS
ORYZAE***

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Aspergillus oryzae was cultivated in solid state medium containing paddy husk (70g), soya meat powder (30g) and mineral solution [FeSO_4 0.062gl^{-1} ; MgSO_4 0.063gl^{-1} ; CuSO_4 0.01gl^{-1}] at room temperature. Maximum α -amylase activity (33.645 U g^{-1} Dry Mouldy Medium (DMM)) was obtained at 114h. To improve the enzyme production, the effect of starch concentration on α -amylase production was varied by changing the starch concentration from 35% to 75% while keeping the nutrients to husk ratio as 3:7. Among the different starch concentrations studied, maximum α -amylase activity (244 U DMM^{-1}) was obtained at 58% of starch concentration. The α -amylase obtained has shown maximum activity at pH 4.9 in 0.01M citrate phosphate buffer at room temperature. The optimum temperature for the enzyme was 50°c at pH 4.9. Studies on the other kinetic properties of the enzyme are under way.