## ABSTRACT

The present study is concerned with the selection of a potent mutant of *Aspergillus niger* for the prodcuction of amyloglucosidase. The parental strain of *Aspergillus niger* was subjected to NTG treatment for 40 min. Forty five mutants were isolated by observing bigger zone of hydrolysis of starch in the petriplates and tested for the production of amyloglucosidase in 250 ml conical flask. Of all the mutant tested, the *Aspergillus niger* GC4X-40 gave maximum production (100 IU/ml/min) of amyloglucosidase.

The starch at the level of 1.0% and ammonium sulphate 0.5% was found to be best for the production of amyloglucosidase. The production of amyloglucosidase was found to be optimum when the fermentation medium (pH 5.0) was incubated at 30°C for 72h. However, the enzyme was found to be highly active at pH 4.5 and 40°C.