

Research article

Production of α -amylase(s) by *Aspergillus flavus*, F7 attacking water hyacinth ground preparation (WHGP) under solid state fermentation

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Key words: α -amylase, *Aspergillus flavus*, F7, production, environmental and nutritional, water hyacinth.

Abstract

Some environmental and nutritional parameters controlling the biosynthesis of α -amylase from *Aspergillus flavus*, F7 attacking the water hyacinth have been investigated under solid state fermentation conditions for maximum amylase production. The following optima's were recorded for the highest α -amylase yield; Incubation period 7 days; temperature, 30°C; pH, 5; inoculum size, 3×10^8 spores/ml; flask volume 100 ml capacity; hyacinth fresh weight 5 g; tap water, 25 ml. Under these conditions, starch showed remarkable stimulatory effect; nitrogen sources and amino acids have no stimulatory effect. Pyridoxal hydrochloride, B6 at a concentration of 200 ppm exhibited a stimulatory effect on biosynthesis of α -amylase.

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