



## The Influence of Environmental Factors on Growth of *Penicillium* sp.

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**ABSTRACT:** This investigation was carried out to determine the physicochemical conditions were varied for maximum Fungus production that is, effects of pH, salinity, Molecular Oxygen, Osmotic Pressure, UV rays & sources of carbon and nitrogen were tested in solid state fermentation (SSF) process for characterization and identification of a fungal strain belonging to the genus of *Penicillium* was isolated from potato leaf sample. Effect of pH, mostly *Penicillium* is grown on acidic media pH not on the basic media pH in the experimental; growth is present in 4.5 to 8.5 pH medium. Effect of salinity, Optimum growth are present on 0.5% (maximum) and 10% (minimum), that means *Penicillium* required low concentration of sodium chloride to the medium. Effect of molecular oxygen, *Penicillium* is obligate aerobic organism because this is grown on the top of sabouraud dextrose agar media. Effect of osmotic pressure ,different glucose concentration media, *Penicillium* is maximum grow on 5% glucose concentration media that means *Penicillium* required the minimum sugar concentration media for their growth. Effect of UV rays on *Penicillium*, maximum grow on higher exposure time of UV rays that is 3 min and 5 min. Effect of Nitrogen and carbon sources, mostly *Penicillium* is grow on sodium nitrate (nitrogen source) and mannitol (carbon source) that means these sources are more useful for maximum growth of *Penicillium*. © 2014 iGlobal Research and Publishing Foundation. All rights reserved.

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