

**D301** Asexual spores are preferentially developed in the presence of environmental factors that cause stresses to the growth of *Aspergillus nidulans*

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A homothallic ascomycetes, *Aspergillus nidulans*, has two major reproductive cycles, sexual and asexual ones. Determination of reproductive cycle whether to sexual or asexual one was affected by various environmental factors such as, nutrients, light, temperature and osmolarity. Among nutrients carbon rather than nitrogen source significantly affected the developmental determination. Exposure to too intense visible light inhibits the mycelial growth and development. Only asexual spores were developed under less intense light but rarely in dark. High concentration of salts such as sodium chloride, potassium chloride or magnesium chloride selectively inhibited sexual development. Unfavorite temperature, above 40 °C or below 25 °C, restricted the sexual development but not asexual one. All of these results imply that in the presence of environmental factors that cause stresses for the growth of *A. nidulans* asexual reproductive cycle was selected.