

Growth kinetic of fresh and freeze-dried pleurotus sajor-caju (oyster mushroom) mycelium for preservation study

Abstract

An investigation was conducted to determine an effective media condition for the growth of fresh and freeze-dried oyster mushroom mycelium. Fresh and freeze-dried mycelium sub-culture on liquid media obtained 0.3022 and 0.5081 maximum specific growth rate respectively. The doubling time for fresh and freeze-dried mycelium was calculated 2.2937 and 1.3642 correspondingly. On solid media, maximum specific growth rate for fresh and freeze-dried mycelium was obtained lower at 0.1636 and 0.3719 respectively. The doubling time for fresh and freeze-dried however, was calculated higher at 4.2368 and 1.8683 correspondingly. Freeze dried mycelium showed good recovery tendency after preservation at low temperature.

Keywords; Freeze-Drying, Kinetic Study, Media, Oyster Mushroom, Preservation