

Abstract

Study of bio-extract application in Nang-Fah mushroom (*Pleurotus sajor-caju*) production with varied application which comprise of 4 applications i.e. 1) spraying bio-extract into top substrate in plastic bag 2) supplementing bio-extract with substrate 3) fermenting bio-extract with substrate and 4) combination all above of 3 applications. Designing experiment plan by Randomized Completed Block Design (RCBD) and all experiment are conduct at farm in Prachin-Buri province from July 2008 – February 2009.

Result reveal that spraying bio-extract into top substrate in plastic bag at level 1.0 ml of bio-extract/1 L of water twice a week are tend to give the insignificantly highest fresh weight and dried weight than spray with pure water and the other application. Due to diameter of cap are larger. Mixing bio-extract at 2.0 ml/1.0 L water to be supplement media are tend to accelerate growth of mycelium better than pure water, but less than synthetic growth promoter. While production yield are correspond with mycelium growth, found that bio-extract cause higher weight of production yield due to have longer production time. Because of it have more flush and time interval than use pure water. But this application still have production yield less than synthetic growth promoter. Fermentation bio-extract with substrate application at high level give tendency of higher production yield ,especially at 40 ml./1 L water and ferment time, 0 day, that give the highest production yield and vary from the other application with significantly. Due to tendency of cap size and time interval that give production yield higher than pure water ,and combination bio-extract application that increase bio-extract volume are tend to give higher yield, especially spraying bio-extract at 1.0 ml/1 L water into top of plastic bag twice a week collaborate with adding bio-extract at 2.0 1.0 ml/1 L water as supplement media in substrate which ferment with 40 1.0 ml/10 L water of bio-extract for 0 day are give the highest yield and differ from spraying bio-extract application, add bio-extract as supplement media, ferment substrate with bio-extract and spraying and

collaborate with mixing bio-extract with significantly, but not differ from the other application with significantly.

Furthermore the analyzed result show that every bio-extract application give net profit more than tradition application of the farmer, so this application can be an alternative technology for the farmer in Nang-Fah mushroom production with effectively due to the farmer can count on themselves and acquire more net profit.

Keywords : Bio-extract, Nang-Fah mushroom (*Pleurotus sajor-caju*)