



GROWTH AND PRODUCTIVITY OF *LYOPHYLLUM* *DECASTES* ON COMPOST ENRICHED WITH VARIOUS SUPPLEMENTS

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ABSTRACT

Attempts were made to investigate synthetic cultivation of *Lyophyllum decastes* on two different kinds of livestock composts [one year (C-I) and five weeks (C-II) fermented] with five supplements (barley bran; corn husk; a mixture of wheat, rice, barley (WRB) brans; cotton waste, and nucleic acid). Mycelial growth, ergosterol, yield, and biological efficiency (BE) were studied. Elemental content in the mushroom fruit bodies, as well as in substrate ingredients, both before and after growth, were determined. Both composts exhibited mycelial growth. Barley bran supplemented C-I supported the greatest growth of any substrate tested. The yield was greatest on C-I with WRB bran and barley bran supplements, with BE of 59.34% and 56.21%, respectively. C-I with corn husk yielded significantly less (49.24%), as did that with nucleic acid (20.45%). WRB bran supplemented was the only C-II compost to fruit (BE 15.04%). The amounts of ergosterol corresponded to the yields. Neither cotton waste substrate fruited.

Key words: *Lyophyllum decastes*, medicinal mushroom, livestock compost.
