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**COMPARATIVE STUDY OF THE EFFECTS OF BANANA LEAF AND PAPER
INSERTS ON THE SHELF LIFE OF OYSTER MUSHROOM (*Pleurotus ostreatus*)**

A Packaging Research Study

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By

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ABSTRACT

Oyster mushroom (*pleurotus ostreatus*) production has long been an industry in the Philippines and has been grown commercially around the world for food. Because of its high moisture content, their thin porous epidermal structure results in high respiration rate, and their unique physiology induces deterioration right after harvest. Oyster mushrooms have short post-harvest life-span which therefore discourages large scale productions. This study was conducted to find out the comparative effects of different packaging inserts namely, banana leaf and paper on the shelf life of fresh oyster mushroom. The inserts effects on microbial count, discoloration, and water accumulation were investigated. Three packaging formats were used in the study, polypropylene bag without insert, polypropylene bag with banana leaf insert, and polypropylene bag with paper insert. Results showed that after being packaged for eight hours, without insert the Estimated Aerobic Plate Count (EAPC)/ml (g) is 48,000, for paper insert the Estimated Aerobic Plate Count (EAPC)/ml (g) is 33,000, and for banana insert the Estimated Aerobic Plate Count (EAPC)/ml is 9,700. Results of the study showed that inserts have effects on the shelf life of oyster mushroom and among the three packages observed, the package with banana insert lasted the longest with more than two days, while the package without an insert and with paper insert lasted only for one day.