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UTILIZATION OF RICE HULL AND COFFEE PULP
AS A GROWING MEDIA FOR OYSTER
MUSHROOM (*Pleurotus ostreatus*)

RESEARCH STUDY

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MUSHROOM (*Pleurotus ostereatus*)**

**A Research Study submitted to the
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*Utilization of rice hull and coffee pulp
as a growing media for oyster mushroom*
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ABSTRACT

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Adviser: Dr. Yolanda A. Ilagan

The study was conducted to utilize coffee pulp and rice hull as growing media in growing mushroom. The study aimed to: (1) recycle rice hull and coffee pulp as growing media for oyster mushroom; (2) determine the productivity of mushrooms using rice hull and coffee pulp as growing media; and (3) determine the effectiveness of rice hull and coffee hull as growing media for mushroom.

This study was conducted at Anuling Lejos Mendez, Cavite from October 2005 – January 2006. Four treatments were replicated four times these are as follows: T₁- 30% soil + 35% coffee pulp + 35% rice hull; T₂- 20% soil + 40% coffee pulp + 40% rice hull; T₃- 10% soil + 45% coffee pulp + 45% rice hull; and T₄- 50% coffee pulp + 50% rice hull.

Results showed that Treatment 4 composed of 50 percent rice hull and 50 percent coffee pulp produced more mushroom. It also had the highest mean diameter of mushroom cap with a mean of 3.82 cm. Mushroom in this treatment also had highest mean diameter of cap and the length. The heaviest mushrooms obtained were in Treatment 3.

Based on the evaluation of the study, coffee pulp and rice hull can be used as growing media for oyster mushroom. Using these materials is highly recommended because it is cheap and affordable.

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A research paper presented to the faculty of the Cavite State University Science High School, in partial fulfillment of the requirements in Research III under the supervision of Dr. Yolanda A. Ilagan.

INTRODUCTION

Mushrooms belong to kingdom Fungi that get energy mainly by decomposing dead organic matter and sometimes living plant and animal materials. It is estimated that the top 20 cm (nearly 8 inches) of fertile soil may contain nearly 5 metric tons (5.5 tons) of fungi and bacteria per hectare (2.47 acres). Some 100,000 species of fungi have been described. Scientists estimated as many as 200,000 more mushrooms await discovery. Mushrooms vary in color from white to light brown and in size from small to large.

Mushrooms grow from microscopic spores, not seeds. A mature mushroom drops as many as 16 billion spores. Spores must be collected in the nearly sterile environment of a laboratory and then used to inoculate grains or seeds to produce a product called spawn.

The oyster mushroom has a pleasant, oyster like flavor and is often prepared by dipping in egg and frying slowly. This mushroom grows in bracket like clusters on decaying tree trunks. It is almost stemless. The fleshy, tender cap is 8 to 13 cm (3 to 5 in)