

**GROWTH AND YIELD PERFORMANCE OF TWO STRAINS OF OYSTER MUSHROOMS, PINK OYSTER MUSHROOM AND ABALONE MUSHROOM IN THE DRY ZONE OF SRI LANKA**

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Mushroom farming has become a profitable agribusiness in Sri Lanka. *Pleurotus* species are extensively cultivated in Sri Lanka, with American oyster being the most prominent species in the Dry zone. To expand current mushroom production, it is necessary to investigate the possibility of cultivation of other *Pleurotus* species and strains in Dry zone conditions. Therefore, a research was conducted in Mushroom Research Unit, Faculty of Agriculture, Rajarata University of Sri Lanka to evaluate growth and yield performance of different *Pleurotus* species and strains. The experiment was laid out in a Completely Randomized Design with four treatments and four replicates per treatment. Fifteen mushroom bags were included in one replicate. Treatments used were T<sub>1</sub> (American oyster mushroom strain), T<sub>2</sub> (Bhutan oyster mushroom strain), T<sub>3</sub> (Pink oyster mushroom) and T<sub>4</sub> (Abalone mushroom). Duration for mycelium colonization, colonization to primordia initiation and primordia initiation to harvesting were recorded. The liner length of mycelium during incubation, cap width, dry weight, biological yield measured and biological efficiency were calculated. There were significant differences among treatments ( $p < 0.05$ ) for all data recorded. The shortest incubation period was observed in American oyster (T<sub>1</sub>) (27.5 days), while the longest period (44.5 days) in Abalone mushroom (T<sub>4</sub>). The fastest primordia initiation (4.1 days) and the shortest time period for harvesting (4 days) were observed in Pink oyster (T<sub>3</sub>). In contrast, the slowest primordial initiation (9.88 days) and the longest duration for harvesting (6.5 days) were observed in American and Abalone mushrooms, respectively. The highest biological yield (236.37 gbag<sup>-1</sup>) and biological efficiency (41.69%) were recorded in American oyster while the lowest were in Pink oyster. The highest dry weight (50.09 gbag<sup>-1</sup>) and the yield 203.33 gbag<sup>-1</sup> were obtained from the Abalone mushroom. All recorded data in the T<sub>1</sub>, statistically similar to the T<sub>2</sub>. Based on the overall growth and yield performance, it can be concluded that Bhutan oyster mushroom (T<sub>2</sub>) is suitable as American oyster mushroom and followed by Abalone mushroom for the cultivation in the dry zone of Sri Lanka.

**Keywords:** Growth performance, *Pleurotus* species, Production, Strains