

Abstract

One of the most important stages in the production of oyster mushrooms (*Pleurotus* spp) production is the optimization of the substrate with using relatively cheap lignocellulosic wastes. The substrate and its processing will play a major role in the success of the production of fruit body (Basidiocarp). The enrichment and selection of a suitable substrate for the production of mushroom greatly affects the yield and its nutritional value of salmoneo oyster mushroom. In this research, substrates for the cultivation consists sawdust, wheat straw, date palm leaf wastes, the combination of sawdust with wheat straw (in equal proportion), combination of sawdust with date palm leaf wastes (in equal proportions), combination wheat straw and date palm leaf wastes (in equivalent ratio) as well as chemical supplements of urea (10g per liter in per kg of substrate based on fresh weight of substrate), manganese sulfate (7 μ g. kg based on dry matter substrate), ammonium phosphate (15g in liter per kilogram of substrate, based on fresh weight of substrate) and bio additives supplement mycorrhizal (one milliliter of *Glomus mosseae* inoculum per kg of spawn) and vermicompost (6% fresh weight of substrate). The results showed that highest nitrogen content of adult fruit body was allocated to date palm leaf wastes substrate. Also, the amount of lovastatin in adult fruit body in substrate wheat straw with manganese sulfate-enriched and substrate date palm leaf wastes with mycorrhizal-enriched was recorded 600 and 219.20 mg.100g dry weight, respectively. Also, the dry matter of third-flush yield was more than the first and second flush. The highest (12.20days) and the lowest (7.80days) time to complete the vegetative growth of mycelium was allocated to non-combination substrate of date palm leaf wastes and wheat straw, respectively. The results of total yield showed that the highest (1499.00g) and lowest (904.80g) fruit body weight were allocated to wheat straw substrate and date palm leaf wastes substrate, respectively. Also, the highest (1312.00g) fresh weight of the adult fruit body is devoted to supplementation of manganese sulfate, and there is also a significant difference between this supplement with three other nutritional supplements in terms of yield at a probability level of 5%.

Keywords: Adult fruit body, Fresh weight mushroom, lignocellulose compounds, Spawn running, supplements.



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**Evaluate the effects of substrates and chemical and biological
supplements on some quantitative and qualitative
characteristics of flabattus and golden mushrooms (*pleurotus
djamor* and *pleurotus citrinopileatus*).**

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