

Research Article

Effect of Different Combinations of Lignocellulosic Wastes on the Yield and Nutritional Composition of *Pleurotus ostreatus* f. *florida*

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Abstract

Study was conducted to evaluate the yield and nutritional content of *Pleurotus ostreatus* f. *florida* when grown on different combinations of lignocellulosic wastes (agrowastes, forest litter and garden litter). It was observed that time period required for complete spawn run, pinhead formation and first harvest on the tested combinations varied from 12.0 to 16.2 days, 16.1 to 22.0 days and 4.1 to 6.1 days respectively. Maximum biological efficiency (72.8%) was achieved on the mixed agrowastes and minimum on mixed garden wastes (41.9%). Assessment of nutritional content of sporophores showed maximum moisture content (94.2%) when grown on mixed agrowastes, maximum ash content (7.2%) on mixed forest and garden litter, fat content (2.5%) on mixed garden litter, crude fiber content (21.6%) on mixed forest litter, protein content (23.3%) on mixed agrowastes. All the important mineral elements like zinc, sodium, calcium, potassium, magnesium, chloride, phosphate and sulfate were detected in appreciable amounts in the sporophores. Hence the present study reveals that *P. ostreatus* f. *florida* can be cultivated on both garden and forest litter, in addition to the traditional use of agrowastes. Nutritionally the sporophores grown on these waste combinations showed no substantial variation.

Key words: Afrowaste, lignocellulosic mushroom, *Pleurotus ostreatus* f. *florida*

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