Utilization of Strelitzia reginae (Birds of Paradise) Stalks and Typha latifolia (Cattail Plant) Leaves Mix as Substrate for the Production of Pleurotus ostreatus (Oyster Mushroom)

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Mushroom is one of the nutritious fungi and is cultivated using fibrous substrates. The use of different substrates, however, affect the growth development of mushroom which is dependent on the fiber content of the growing medium. This study aimed to utilize mixture of birds of paradise stalk and cattail plant leaves as a new substrate to determine the rate of spread of mycelium, yield of harvest, and productivity rate. Fruit baggy method of 2 set-ups with 3 replicates were used in the study. Set-up A consisted of 1:1 mixture of birds of paradise and cattail plant as experimental set-up while set-up B contained sawdust as control set-up. The rate of mycelial growth, yield, and productivity rate of oyster mushroom in the two setups were recorded. The t-test results showed that there is a significant difference on the yield of harvest, rate of mycelium growth, and the maturity rate. The means of the treatments varies significantly with each other. Based on the results, the mixture of birds of paradise stalks and cattail plant leaves produced faster mycelial growth rate, higher yield and productivity compared to the sawdust substrate. Therefore, birds of paradise stalks and cattail plant leaves mixture is an effective substrate to cultivate oyster mushrooms.

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