GROWTH AND YIELD RESPONSE OF WHITE OYSTER MUSHROOMS (*Pleurotus ostreatus* L.) TO VARIOUS TYPES OF ALTERNATIVE NUTRIENTS AND RICE BRAN PERCENTAGES

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ABSTRACT

White oyster mushroom (Pleurotus ostreatus L.*) has abundant nutritional content. The declining production of white oyster mushrooms and increasing imports have resulted in unmet consumer demand. This study aims to determine the interaction, types of alternative nutrients, and the best percentage of rice bran on the growth and yield of white oyster mushrooms. This research was conducted in August-September 2023 at Merekah Mushroom Barn, Pinggir, Bambanglipuro, Bantul, Yogyakarta. The research used the split plot method with the main plot, namely the type of alternative nutrition: 100% water, 80% water, 50% young coconut water, 60% bean sprout extract. The sub plot was the percentage of rice bran: 10%, 15%, 20%. Observations were analyzed using Analysys of Variance (ANOVA) and DMRT (Duncan Multiple Range Test) at 5% level. There is an interaction between alternative nutritional treatmants and bran percentage on parameters of mycelium length 7 HSI, 21 HSI, initial pin head growth time, frewh weight per plot, fresh weight per 1000 m² of roof area, and mushroom hood area. Alternative nutrition of 50% young coconut water is the best nutrition in the mycelium length parameter 28 HSI, mushroom hood area/baglog, maximum mushroom hood diameter/baglog. The percentage of 15% rice bran is the best percentage of rice bran on fresh weight/baglog.*

Keywords: White oyster mushroom, alternative nutrition, rice bran percentage