

ABSTRACT

This study aimed to determine the effects of growing media composition, oyster mushroom type, and their interaction on the growth and yield of several types of oyster mushrooms (*Pleurotus* spp.). The research was conducted at Batalyon Yonarhanud 5/CSBY, Pulo Rungkom, Dewantara District, North Aceh Regency, from March to June 2026. The study used a factorial Completely Randomized Design (CRD) with two factors. The first factor was growing media composition, consisting of M1 (70% sawdust + 30% rice bran + 22.5% lime), M2 (65% sawdust + 20% rice bran + 3% lime + 25% tofu waste + 20% oil palm empty fruit bunches [OPEFB]), and M3 (80% sawdust + 10% rice bran + 5% lime + 15% tofu waste + 10% OPEFB with a different composition). The second factor was mushroom type, consisting of J1 (white oyster mushroom), J2 (gray oyster mushroom), and J3 (brown oyster mushroom). The data were analyzed using analysis of variance (ANOVA), followed by Duncan's Multiple Range Test (DMRT) at the 5% significance level. The results showed that growing media composition had a significant effect on mycelial growth rate, number of fruiting bodies, and fresh fruiting body weight. The best results were obtained from the M1 treatment. Mushroom type significantly affected mycelial growth rate, pinhead emergence time, number of pinheads, pileus diameter, stipe length, number of fruiting bodies, and fresh fruiting body weight. The best results were obtained from the J3 treatment. The interaction between growing media composition and mushroom type significantly affected mycelial growth rate, number of fruiting bodies, and fresh fruiting body weight during several harvesting periods. The M1J3 treatment showed the best interaction compared with the other treatment combinations.

Keywords: Media, lignocellulose, strain, mycelia, baglog.