Pengaruh pH dan Waktu Inkubasi Berbeda Terhadap Pertumbuhan dan Produksi ÃŽÂ²-Glukan Schizophyllum commune

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Abstract	Schizophyllum commune is a fungus that grows naturally on tree trunks and wood processing waste. This mushroom contains ÃŽÂ²-glucan compounds which have the potential for drug development in the world of health. The main purpose of this study was to determine the optimum value of pH and incubation time on S. commune's growth, and also the optimum value of pH and incubation time on ÃŽÂ²-glucan production of S. commune. The research was conducted by experimental method of completely randomized factorial design (CRD factorial). The treatment given includes variations in pH (P) with three levels, namely pH 5 (P1), pH 6 (P2), and pH 7 (P3), and variations in incubation time (W) with three levels, namely incubation time of 20 days (W1), 25 days (W2), and 30 days (W3). . The independent variables were pH and incubation time, while the dependent variables were fungal mycelium growth and ÃŽÂ²-glucan production. The main parameter observed was ÃŽÂ²-glucan weight. The supporting parameters were dry biomass weight and the final pH medium. Data analysis was performed by Analysis of Variance (ANOVA) at 95% accuracy levels, followed by Duncan's test (Ducan Multiple Range Test). The results showed that pH and incubation time were significantly affected to the growth and production of ÃŽÂ²-glucan fungus S. commune. The value of pH 6 and incubation time of 25 days was the optimum condition for the growth of S. commune, and also pH 5 and incubation time of 25 days was the optimum condition for ÃŽÂ²-glucan production of S. commune.
Publisher Name	Fakultas Biologi Universitas Jenderal Soedirman
Publish Date	2022-06-27
Publish Year	2022
Doi	DOI: 10.20884/1.bioe.2022.4.1.4594
Citation	
Source	BioEksakta : Jurnal Ilmiah Biologi Unsoed
Source Issue	Vol 4 No 1 (2022): Bioeksakta
Source Page	38-45
Url	https://jos.unsoed.ac.id/index.php/bioe/article/view/4594/3092
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