
Most of people or industry still consider the waste of mushrooms baglog as a useless material. This study aims to utilize the waste of white oyster mushrooms baglog with composting and to study their quality, and studying its effect on the physical properties of soil and the growth of yellow passion fruit seedling.

The research was carried out on January to August 2011. The composting process was done in the village of Munjul, district of Megamendung, Bogor. The quality test of compost and its effects on the physical properties of soil was conducted in the Laboratory of the Department of Soil Science and Land Resources. The planting of passion fruit seedling was done in the greenhouse of University Farm IPB. The research was carried out with the Completely Randomized Design (CRD) factorial and followed by the statistical test performed with ANOVA and the Duncan’s test at the 5% level and a test in the form of regression equations. The t-student statistical test was also used to compare the Ahlrichs and pF 2,54 methods.

The results showed that most of the parameters have a compliance with SNI of compost quality. Compost with composting time of 60 days has the best quality. The composting time and the compost dosage and the interactions of both have very significant effect on the physical properties of soil (bulk density, permeability, and water holding capacity at field capacity used Ahlrichs and pF 2,54 methods). The value of water content resulted from Ahlrichs and pF 2,54 methods was significantly different. The composting time and the compost dosage and the interactions of both do not have significant affect to the growth of yellow passion fruit seedling.

**Keywords:** compost, physical properties of soil, waste baglog, yellow passion fruit