ABSTRAK

ANALISIS KADAR AIR DAN KADAR ABU *BIOCHAR* SEKAM PADI, SERBUK GERGAJI, TEMPURUNG LONTAR(*B. flabellifer* L), DAN SERESAH

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Biochar adalah padatan kaya karbon dihasilkan dari pirolisis beberapa jenis biomassa seperti sekam padi, serbuk gergaji, tempurung lontar(*B. flabellifer L*), dan seresah dibawah suhu yang tinggi dan udara terbatas atau oksigen rendah, yang dapat digunakan sebagai pembenah tanah pada lahan pertanian. Tujuan dari penelitian ini untuk mengetahui kadar air, kadar abu, pH *biochar*, dan uji kemampuan *biochar* mengikat air dengan mengunakan metode pirolisis. Metode dalam penelitian ini yaitu metode pirolisis sederhana menggunakan *klin drum* modifikasi, metode oven dan vurnace. Penelitian ini dilakukan di Laboratorium Biologi, Pendidikan Biologi FKIP Universitas Kristen Artha Wacana Kupang. Hasil penelitian menunjukan nilai kadar air dari *biochar*, nilai kadar air lebih tinggi terdapat pada *biochar* seresah nilai sebesar 35, 7912% dari ketiga *biochar*, nilai kadar abu yang tertinggi terdapat pada *biochar* serbuk gergaji nilai sebesar 78, 9514% dari ketiga *biochar*, nilai pH yang tertinggi terdapat pada *biochar* serbuk gergaji sebesar pH 7 dan nilai kemampuan *biochar* mengikat air terdapat pada *biochar* seresah nilai sebesar 5.817%*biochar* dapat dipengaruhi oleh jenis biomassa yang kita gunakan dan proses pirolisis yang dilakukan, karena besar kecilnya pori suatu *biaochar* sangat dipengaruhi saat proses pirolisis.

Kata kunci : kadar air, kadar abu, pH, kemampuan *biochar* mengikat air.

Keterangan :
*) : Peneliti
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ABSTRACT

ANALYSIS OF WATER CONTENT AND ASH CONTENT OF *BIOCHAR* RICE HUSK, SAW POWDER, LONTAR SHELL (*B. flabellifer L)* AND LITTER

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Biochar is a carbon-rich solid produced from the pyrolysis of several types of biomass such as rice husks, sawdust, palm shells (*B. flabellifer L*), and litter under high temperatures and limited air or low oxygen, which can be used as a soil conditioner on agricultural land. The aim of this research is to determine the water content, ash content, pH of *biochar*, and test the ability of *biochar* to bind water using several pyrolysis methods. The method used in this research is a simple pyrolysis method using a modified *drum klin*, oven and vurnace method. This research was conducted at the Biology Laboratory, Biology Education, FKIP, Artha Wacana Christian University, Kupang. The research results show the water content value of several *biochar*, the higher water content value is found in litter *biochar*, the value is 35.7912% of the three *biochars*, the highest ash content value is found in the sawdust *biochar*, the value is 78.9514% of the three *biochar*, the pH value is the highest. The highest value was found in sawdust *biochar* at pH 7 and the value of *biochar's* ability to bind water was found in litter *biochar* with a value of 5,817%*biochar* can be influenced by the type of biomass we use and the pyrolysis process carried out, because the size of the pores of a biaochar is greatly influenced during the pyrolysis process.

Key words: water content, ash content, pH, ability of *biochar* to bind water.

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