

Effect of Pressing Briquettes (non-adhesive) Using Coconut Shell Charcoal and Dairy Cow Manure Jember State Polytechnic

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ABSTRACT

Energy is needed to carry out economic activities, as a natural resource. Energy must be utilized as optimally as possible for the prosperity of society, renewable energy in Indonesia is very large. Unfortunately, it has not been utilized optimally, renewable energy consumption in Indonesia for the 1990-2018 period is still very low and the increase is not very significant because energy consumption in Indonesia is still dominated by fossil energy consumption. So research was conducted with the title "The Effect of Pressing Briquettes (non-adhesive) Using Coconut Shell Charcoal and Dairy Cow Dung Jember State Polytechnic". This research aims to determine the effect of pressing briquettes using coconut shell charcoal and cow dung on the quality of the briquettes, this was carried out using various tests, namely density, calorific value, water content, ash content, volatile matter, and combustion rate. This research was made with 3 compression treatments, namely until the briquettes reached a height of 2.0 cm, 2.5 cm, and 3.0 cm. The research results showed that compression can influence the quality of the briquettes. At a height of 2.0 cm is the best quality with an average water content of 3.077%, an average calorific value of 6,571 cal/gr, an average volatile matter of 4.556%, an average density of 1.197, an average ash content of 3.150%, and an average dispersal rate 0.004 gr/sec.

Keywords: *Coconut shell charcoal, Compression, Dairy cow Manure*