

Performance Test of Lamtoro Wood (*Leucaena leucocephala*) as Alternative Fuel for Anglo Furnaces

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ABSTRACT

Anglo is a simple stove that has been used for cooking purposes. Anglo stoves are designed in such a way and have an ergonomic value in use, including materials that are strong and easy to shape, so they are easy to manufacture. Various kinds of biomass fuels that can be used around us as fuel for brazier stoves such as lamtoro wood are easily obtained for free. This study aims to determine the size variations of lamtoro wood pieces that are suitable as fuel for the brazier stove and to determine the effect of size variations on the efficiency of the brazier stove. The parameters used in testing the fuel are, water content, density of kamba, rate of combustion, and heat conduction of the stove, where the size of the wood that is suitable for the brazier is the size of 2cm lamtoro wood by testing these various parameters. The brazier furnace was then tested by the Water Boiling Test (WBT) method to determine its efficiency. In the WBT test, the efficiency of the brazier stove using 2cm lamtoro wood fuel was 0,847%, using 3cm lamtoro fuel was 0,737% and using 4cm lamtoro wood fuel was 0,648%.

Keywords : *Anglo furnace, Biomaa, Lamtoro wood, Efficiency*