

UTILIZATION OF PALM OIL SHELL, COCONUT SHELL, AND PALM FRONDS FUEL ON THE EFFICIENCY OF ANGLO BIOMASS STOVES.

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ABSTRACT

Anglo is a stove that already exists in the archipelago and is used for cooking purposes. The brazier biomass stove is designed in such a way and has an ergonomic value in use, including materials that are strong and easy to shape, so they are easy to make. Various kinds of biomass fuels that are around us can be used as fuel for brazier biomass stoves such as palm oil shell, coconut shell, and palm fronds waste. This study aims to determine the characteristics of the fuel in accordance with the brazier biomass stove and to determine the efficiency of the brazier biomass stove for each fuel used. The parameters used in the fuel test are air content, material density, kamba density, combustion rate, and conduction heat of the stove, where the fuel that is suitable for biomass stoves in Indonesia is palm oil shell by testing various parameters. The brazier biomass stove was then tested by the Water Boiling Test (WBT) method to determine its efficiency. The results of the WBT test show that the efficiency of the brazier biomass stove using palm oil shell as fuel is 9,55%, Coconut shell fuel is 5,54%, and palm fronds fuel is 7,38%.

Key words: *Anglo Biomass Stove, Biomass Fuel, Efficiency*