ENGINEERING EXPERIMENT OF JATROPHA CURCAS
SEED FUELED STOVE

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Abstract

One of innovations relating to jatropha curcas seed as a natural fuel in which currently produced and marketed is jatropha curcas seed fueled stove, however the research of its experiment application has not been yet performed. This is caused by the majority social dependency on fossils energy.

The experiment is performed to jatropha curcas seed stove available in market, and the designed one by fence jatropha curcas seed properties measurement, and also the fire profile. Stove testing is based on water boiling test method in accordance with the Provisional International Standards for Testing Woodstove (VITA 1982 & revised May 1985). The testing was conducted in the Engineering Laboratory of Combustion and Fuel – ITS Mechanical Engineering under the pure experimental method.

The result of the research showed that the fence jatropha curcas seed experimental stove has 0,904 KW power with 52,545 % efficiency, while the standard of fence jatropha curcas seed stove has 1,934 KW power with 39,165 % efficiency.

Keywords : Jatropha curcas seed, Jatropha curcas seed stove, Performance.