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**UTILIZATION BRIQUETTES BIOARANG BETEL NUT (Areca catechu L.) AS AN ENVIRONMENTAL FRIENDLY ALTERNATIVE BIOENERGY.
(xii + 63 It + 4 Lam)**

**Background :** One of the biological material that can be used as the biomass of betel nuts. Based on the survey conducted by researchers at the Hamlet Tens Trimurti Srandakan Kidul Bantul are still many areca plants whose fruits are not utilized, whereas majority of energy needs are still using firewood.

**Objective :** To determine differences in the length of time boiling water, long time burning and CO levels between briquettes bioarang betel nuts with firewood.

**Method :** Experiment with design Test Post With Control Group Design with briquettes bioarang independent variables and the dependent variable betel nuts a long time to boil water, long time burning and air CO levels.

**Result :** 1 kg briquettes bioarang betel nut, with an average time of 1 liter of boiling water for three times the repetition is 6 minutes 9 seconds while the firewood for 10 minutes 6 seconds. The results of statistical test T-test with P value = 0,006 is smaller than α = 0.05 means there is a difference long time to boil water. For a long time of burning 1 kg of briquettes bioarang betel nuts for the three repetitions was 41 minutes while for firewood 48 minutes. The results of the statistical test T-test with P value = 0,003 is smaller than α = 0.05 means there is a difference long simmering time. For the average levels of air CO 1 kg briquettes bioarang betel nuts for three repetitions are 3, 5 ppm, whereas 6.7 ppm for firewood. The results of the statistical test T-test with P value = 0,004 is smaller than α = 0.05 means that there are different levels of CO air.

**Conclusion :** There is a difference in the length of time boiling water, long time burning and air CO levels between briquettes bioarang betel nuts with firewood.

Keywords : Briquettes Bioarang, Betel Nut

Bibliography : 26 pieces (1983 - 2011)