

BRIQUETTE FUEL PRODUCTION FROM AGRICULTURAL AND OIL PALM WASTE

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Abstract

The objective of briquette fuel production from agricultural and oil palm waste project is to find a suitable mixture proportion of briquette with higher quality and more efficiency usage. The project is aimed to promote fast growing tree and agri-residues for sustainable usage. It was launched 5 years ago during 2008-2012 with the budget of 346,600 Baht. Study sites are Wood Energy Research Center in Saraburi province, The Extension and Development Utilization of Small Timber and Non-Wood Forest Product Center in Khon Khan province, farmer's palm land in Chumporn province and Forest Product Research and Development Bureau. The results demonstrate that production of palm branch and palm sheath charcoal from brick beehive kiln has the highest compared to mud beehive kiln and single drum kiln with the percentage of 30.04, 21.01, 18.69, respectively. The efficiency of all briquettes with 32 formulas of mixtures from palm branch and palm sheath charcoal, palm leaves, palm branch, palm sheath, some agri-residues waste and gule from tapioca were different. The briquette with formula of palm sheath charcoal and Eucalyptus charcoal, palm sheath and coconut flake, palm leaves and coconut flake and bagasse, palm bunch and corncob with bagasse or sawdust can be used as fuel while the others cannot, due to the reasons of low heat as well as the abundance of smoke and ash.

Keywords: Briquetted fuel, Agricultural residues, Palm oil