

BRIQUETTING OF BIOMASS AND URBAN WASTES USING
A HOUSEHOLD BRIQUETTE MOLDER

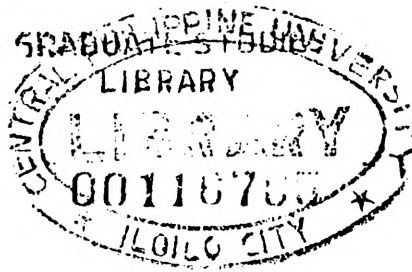
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ABSTRACT

This study was conducted to produce briquettes as alternative source of energy from abundant biomass and urban wastes using a locally fabricated household briquette molder which is composed of molders, handle and frame. The mixtures used were the following: Briquette 1: paper (100%); Briquette 2: CRH (71%) + cornstarch (29%); Briquette 3: Sawdust (71%) + cornstarch (29%); Briquette 4: paper (50%) + CRH (50%); Briquette 5: paper (50%) + sawdust (50%); and Briquette 6: paper (50%) + CRH (25%) + sawdust (25%). Smaller sizes of balled homogeneous materials were placed on each of the molder of the machine. The materials were compacted by closing and pressing down the movable upper half portion of the molder then the briquettes produced were placed on trays for sundrying until ideal for fuel use. Briquettes 1 (Paper), 5 (Paper + Sawdust), and 6 (Paper + CRH + Sawdust) were found to be the most viable mixtures and are therefore recommended for the production of briquettes. This is based on practicality of production requirements and high production rate, better quality of fuel produced, fast operating performance in terms of boiling water and cooking rice and potential earnings that may be gained when adopted as an income generating project.