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**BIQUETTE PRODUCTION FROM COFFEE PULP AND RICEHULL**

**RESEARCH STUDY**

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# **BRIQUETTE PRODUCTION FROM COFFEE PULP AND RICEHULL**

Submitted in Partial Fulfillment of the  
Requirements for Graduation  
Laboratory School  
Cavite State University  
Indang, Cavite

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## ABSTRACT

AMBULO, EMIL GLENN V., DILIG, JASON R. RODIL, RON D., and SANGALANG, FIL ALBERT RODAN S. March 2000. Cavite State University, Indang, Cavite **“Briquette Production from Coffee Pulp and Rice Hull”**.

Thesis Advisers: Prof. Josefino Viado  
Engr. Camilo Polinga

The study was conducted at the Cavite State University, Indang, Cavite from August to February 2000. This study aimed to recycle agrowaste materials into charcoal briquettes for fuel, to determine the quality of briquettes from agrowaste materials, and to determine the best mixture proportion of rice hull and coffee pulp that produced good quality charcoal briquettes.

The coffee pulp and rice hull were mixed with a binder (cassava starch) in the desired proportion of 9:1 (9 parts agrowaste: 1 part cassava starch). The mixture was molded using the briquetting machine developed by the College of Engineering.

The resulting products were cylindrical briquettes, 3.2 cm. diameter and 7 cm. in length. The briquettes were dried up for 3 days weeks to improve the crushing strength.

A mixture proportion of 25% rice hull and 75% coffee pulp produced the best result in terms of numbers of briquettes produced, burning characteristics and durability.

The cost of producing the briquettes is P 17.50 per kilogram.

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A research study submitted to the faculty of the Laboratory School, College of Education, Cavite State University, Indang, Cavite in partial fulfillment of the requirements for graduation under the joint supervision of Prof. Josefino A. Viado and Eng'r. Camilo A. Polinga.

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## **INTRODUCTION**

Charcoal briquetting is the conversion of group charcoal or charcoal lines into large compact pieces by mixing this with suitable binders and applying pressure to produce the desired uniform sizes. (The Philippine Recommended for Fuel Wood and Charcoal Utilization, 1985).

Charcoal briquettes are excellent fuel for cooking barbecues, bibingka and other snacks. In the United States and Canada charcoal briquetting is a flourishing industry. Factories have been built to meet the growing demands of big hotels for grilling and other types of cooking (The Philippines Recommend for Fuel Wood and Charcoal Utilization, 1985).

In the Philippines, charcoal briquetting is not widely known but has brought prospects for easing the fuel crisis in the country. The present energy crisis has inspired many organizations to give preference to researches on the use of alternate sources of energy to run our machineries to produce the basic needs of