

In the absence of the widespread distribution of modern cooking fuels in developing countries, efforts are being made to utilise biomass residues which abound in most of these countries. This is intended to replace portions of firewood and charcoal and thereby reduce the cutting down of forests for fuel purposes. Briquettes from agro-residues have therefore been promoted as a better replacement to firewood and charcoals for heating, cooking and other industrial applications in both urban and rural communities. This study sought to assess the physico-chemical properties of charcoal briquettes produced in Ghana and also establish demand for and willingness of potential users to substitute charcoal and firewood with a charcoal briquette. A laboratory experiment was conducted to determine the physico-chemical characteristics of the briquettes. This was done prior to the distribution of the briquette to potential users to collaborate their views or otherwise on the handling and burning characteristics of the charcoal briquette. A survey was undertaken a week later using questionnaires to assess the willingness of the potential users to use the briquettes. Sixty respondents were purposively selected from households and the hospitality industry for the survey. Results of the physico-chemical assessment of the briquettes were as follows: length (75 to 120 mm), moisture content (5.7% dry basis), density (1.1 g/cm<sup>3</sup>), ash content (2.6%), fixed carbon (20.7%), volatile matter (71%) and calorific value (4,820 kcal/kg). Responses from the survey indicated that the briquette is easy to ignite, has a long burning time and has good heat output. Respondents also observed that the briquettes did not give off sparks and had less smoke and ash content as compared to the regular charcoal they often used. Finally, 93% of the respondents indicated their willingness to use the briquettes if the price was comparable to charcoal. **Keywords:** Sawdust charcoal briquettes, Physico-chemical characteristics, Demand and potential user's acceptability