

INFLUENCE OF CASHEW NUT SHELL SIZE ON OIL EXTRACTION

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ABSTRACT

The influence of size of cashew nut shells on the extraction of CNSL by screw press method was studied to find out the role of size of shells on the oil yield. The estimation of oil content in the cashew nut shells was carried out using a Soxhlet apparatus. The cashew nut shells from the three groups, namely, small, medium and large were used for the extraction of the oil by screw press. Cashew nut shells can be classified based on the sizes in three classes, namely, small (<12 mm), medium (16-20 mm) and large (>20 mm). The medium size cashew nut shells ranging between 16 to 20 mm are having 80% share in the commercially available sample of shells. Average oil content in cashew nut shells was found to be 26.45%. This CNSL content of cashew nut shells implies that there is a good scope for processing the shells for oil. It would be economical instead of directly using as fuel. Size of cashew nut shell has influence on the recovery of oil in screw press extraction. Recovery of oil for large size cashew nut shells is highest (88.54%).

KEYWORDS: Cashew Nut Shells, Oil Content, Extraction of CNSL