ABSTRACT

Coffee is one of the most popular beverages in the world. One of the principle post- harvest technological processes is cleaning giving rise to the formation of the characteristic colour, flavour and taste of coffee brew. Conventionally there are two types of cleaning techniques used in the coffee processing, (sun cleaning and mechanical cleaning). cleaning should be uniform to obtain acceptable colour, size along with the removal of pests for a longer safe storage. Since coffee production is seasonal, traditional sun cleaning is quite tough. Unpredictable weather events can increase the moisture content and the time taken for drying prolongs to about 7-21 days. There are several cleaning available for coffee cleaning. All small scale farmers currently, coffee cleaning process still perform manually, which requires a very long cleaning time, a lot of labor, and expensive operational costs. Therefore, the purpose of this research was to design and test the performance of a coffee bean cleaner that can accelerate the process of cleaning beans. The research parameters included cleaning, work capacity, power specific energy, effectiveness and efficiency. The results showed that the best operating conditions of the coffee bean classifier was a standard rotational speed and a working capacity of 6 kg of beans with 6 lit of water. This cleaning was simple in design, easy to operate, and clean effectively.

Keywords: Cleaning, Coffee beans, Efficiency, Production.