

ABSTRACT

Coconut exerts a profound influence on the rural economy of many states where it is grown. Removing shell from the fibre of coconut is very tedious job. Mostly men are employed in this activity. Coconut is the “tree of heaven”, provides many necessities of life including food and shelter. It is mainly cultivated for its nuts; it yields oil, oil cake and fibre. Water from tender coconut is a common refreshing drink and has been used as an excellent isotonic in several tropical countries. Despite of all these uses, a common problem that many people are facing in a developing country like India is unsafe method of dehusking coconut. Present trends and tools used are unsafe, messy and need skill and training. The risk of injury is also too high. In general, coconuts are dehusked manually using either a machete or a spike. These methods require skilled labor and are tiring to use. Manual dehusking consumes more time as well. Attempts made so far in the development of dehusking tools have been only partially successful and not effective in replacing manual methods.

Considering the drawbacks of manual dehusking methods, and existing automated dehusker, power operated coconut dehusking machine was developed. This power operated coconut dehusking machine operates on 3-phase, 1 hp electric motor. It consists of main parts like frame, electric motor, speed reduction unit and dehusking unit which consists of rotor and a stator. Single person is required for operating the dehusker. The machine can be used to easily dehusk the coconut without tiredness and risk of injury. Thus the use of automated coconut dehusking machine is a better replacement of the traditional manual dehusking method currently used in the world today.