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RESEARCH PAPER

Development and performance evaluation of pedal operated maize sheller

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ABSTRACT

A pedal operated maize Sheller was designed, developed and built by using locally available material with overall dimensions of $1270 \times 760 \times 1150$ mm. The machine could be operated continuously for a comparatively long time with high shelling rate without causing damage to kernels. Four shelling units were provided for shelling of maize cobs and operated with the chain and sprocket arrangement. The results revealed that the machine was easy to operate with an average kernel shelling rate of 110 kg/hr when operated by two persons with no any kernel damage. Shelling efficiency was 98 per cent with collection efficiency of 94 per cent and average rate throughout was 150 kg/hr.

KEY WORDS: Shelling efficiency, Collection efficiency, Shelling rate, Moisture content

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