

# Development and performance evaluation of pedal operated groundnut pod stripping machine

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■ **ABSTRACT** : The stripping of pod by hand is very time expensive and also by another mechanism is very expensive, time consuming and efficiency is very low. Keeping this point in view the pedal operated pod stripping machine is developed and built by using locally available materials that will be operated continuously for comparatively long time with high stripping rate without causing damage to pods. The circular drum unit is provided for stripping of pods and operated with chain and sprocket of bicycle and gear box is used. The trial was conducted in farm. The operators were given the information and practice of the machine for 10 min and machine was operated for 15 min to stripping pod. The five trial of the machine were taken on the groundnut pod. The weight of detached pods collected in the tray and from the collection unit, undetached pods, damaged pods, completely stripped pods were taken after each trial. The result showed that the machine was safe and easy to operate with an average stripping rate with 3 persons was 25 kg per hour and stripping efficiency was 98%. The average stripping rate per person of groundnut pod stripping machine was 5.84% which was higher than when operated with 3 operators and 2.48 times more than traditional hand stripping. This may be due to the reason that the free space available while working with 3 operators was comparatively less to give full output by the operators.

■ **KEY WORDS** : Stripping rate, Stripping efficiency

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