



## MULTI CROP THRESHER

Patent Application No.: 1273/DEL/2002

### INNOVATOR

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### PROBLEM ADDRESSED

Farmers across India require a reliable machine that achieves threshing with minimal grain breakage and clean output for a variety of crops. Madanlal Kumawat, farm equipment manufacturer observed about the problems of conventional threshers like breaking of grains, impurities in the threshed grains, inconvenience of changing different threshes and several other operational and mechanical problems. Moreover there was no thresher available which can thresh all kind of crops as in the market the threshers available can thresh one or maximum two crops.



## PRODUCT

The innovator has developed a versatile thresher that can overcome the cons of conventional threshers. It is a high capacity thresher, which can handle multiple crops (cereals, pulses etc.) including groundnuts with minimum machine adjustments. Threshed grains are cleaner and do not need further cleaning before bagging up, which saves time and energy. The switch over time for setting it up for different crops is less than 15 minutes. It contains an initial cutter that cuts the straws into pieces thereby reducing the power consumption required for threshing.

## TECHNICAL DETAILS

- The thresher is divided into three main sections a) The feed in unit b) The cutting & threshing unit and c) The grain separation chamber. The feed mechanism has a gearbox, which is used to rotate five cylinder of the feed mechanism with different speeds to enable effective feeding to different crops requiring different rate of feed.
- Overall Dimensions L – 3900mm, W – 1092.2 mm, H -2-3.2mm
- Gear Box - Five Cylinders, Different Dimensions
- Threshing Drums – 3 Wheels and have Bolted Blades in between them
- Threshing Unit – Two Pneumatic Tyres
- Threshing capacity: Wheat – 18 to 25 quintals, Gram – 14 to 18 quintals, Barley – 25 to 30 quintals, maize -18 to 22 quintals, Soyabean -15 to 20, quintals, Groundnut – 20 to 22 quintals, Corn – 8 to 10 quintals.

## SALIENT FEATURES

- It can be operated by tractor of size 35 hp or above through PTO
- This thresher can be used for threshing Bajra, Jwar, Chana, Mustard, Guar, Barley, Cumin, Moong, Moth, Methi, Soyabean and Groundnut
- The only multicrop thresher having the provision of Groundnut threshing
- Minimum efforts to switch-over from one crop to other crop.
- It is a machine in which both cutting and threshing can be done in succession
- It has different feeding arrangement for different crops
- It has variable blower speed to blow off the chaffs of different crops
- Average threshing efficiency, cleaning efficiency, grain damage, grain blown, spilled grain, total loss and much less than permissible limit 99.60%, 99.07 %, 0.25%, 0.36%, 0.30 %, 0.91%, and 5%, respectively

## AWARDS AND RECOGNITION

Innovator has won consolation award in NIF's First National Grassroots Innovation and Outstanding Traditional Knowledge Awards, 2001.

