

AGRICULTURE

SMALL SCALE PADDY THRESHER FOR SMALL & MARGINAL FARMER

APPLICATION :

Small and marginal farmers traditionally rely on manual threshing methods to separate paddy from the stalks due to the unavailability of affordable machinery. Conventional threshing machines on the market are often large and expensive, posing a barrier to adoption for these farmers. This technology was developed with cost-effectiveness in mind, aiming to provide small farmers with a viable alternative to manual threshing without sacrificing quality

ORGANISATION/INSTITUTION : RUTAG IIT MADRAS

TECHNOLOGY READINESS LEVEL : After successful trials using different paddy varieties it's ready for business development.

PRINCIPAL INVESTIGATORS : Prof. Shankar Krishnapillai, IIT- Madras

PROBLEM ADDRESSED :

Existing machines are too big, huge and expensive. The wastage on the application is too high. Other machines with more power and big structure are not suitable for small farms, because they are not going to operate the machine for a whole year or for any commercial purposes.

ABOUT THE TECHNOLOGY :

The machine efficiently separates the paddy from the stalk without requiring a winnowing process. Threshing occurs as the paddy crop travels through a decreasing gap between the high-speed rotating threshing drum and the concave separator. This process ensures complete separation of the paddy from the crops, which is then stored in a container.

The straws, being too large to enter the container's small holes, are shuffled by a support roller to remove any remaining paddy from the stalks. This action also softens the straws, making them suitable for cattle feeding. The threshed paddy is stored in a container at the bottom of the machine, allowing for separate storage when needed.

With an output of 150-200 kg of paddy per hour, the machine is suitable for small-scale farmers. Its design accommodates the use of mini-tractors commonly found in fields, eliminating the need for external power sources. It can be operated via the tractor's power take-off (PTO) or any other external power source, ensuring versatility and ease of use for farmers.

PRODUCT IMAGE



USP

- It removes the paddy from the stalks of the crops and mildly crush the straw to make it edible for cattle.
- The machine replaced the heavy man power needed for threshing.
- It does not chop the straw and hence we get it in full length.
- The straw, chaff, grains are separated and thrown separately thus reducing drudgery.
- Low cost and high power threshing machine.
- The device is easy to install and maintain.

END USERS/CUSTOMERS

Small/Marginal farmers with land holdings less than 2 acres