

Indigenous paddy thresher may address labour shortage crisis



Unlike in the west, not much mechanisation has taken place in the agriculture sector in the country. Even those using machines hold a grievance that they cannot use it all through the year, or they are not available on rent when needed.

Blissfully ignorant

Mr. Kishore Kalita Fellow, National Innovation Foundation from Guwahati in Assam, said that our agriculture experts keep on harping that mechanisation helps increase production, blissfully ignorant about the lack of its popularity among farmers. While this is the stark reality in many places, on the other side there are hundreds of farmers-turned-innovators coming up with something new to address a specific problem in their locality or region. These inventors develop new devices practically every alternate day in the hope that they could solve not only their problems but also of others.

Backyard scientists

These backyard scientists are in no way inferior to the other so called successful entrepreneurs. The only thing they lack is media support and funding.

Mr. Mohammed Fazlul Haque from Assam developed a paddy thresher that does not cut the paddy chaff into bits and pieces but throws them out whole. Traditionally farmers thresh paddy by beating it on the ground and clean it by dropping it before a fan for removing the dirt and dust particles. In some places, cattle are made to walk over the harvested paddy bunches and yet in some places pedal operated threshers are used. Some farmers also thresh paddy using commercial threshers tailored for different kinds of crops. These multipurpose threshers chop the paddy chaff into small bits and render them unfit for use as cattle do not eat these cut pieces. Farmers also cannot sell the cut pieces of straw thus losing additional revenue.

Benefits

Mr. Fazlul said that by using this machine the whole paddy stalk can be obtained instead of chopped pieces. The nutritional value is conserved in the whole stalk and fed to cattle or sold. The machine, fitted with a spike tooth cylinder, and semi cylindrical concave can be adjusted by changing the length of each spike. There is no sieve or shaker and the grains fall directly from the concave gap and are cleaned by the blower just below the concave.

Power generation

It runs on 5 hp power (either stationary engine, electric motor or tractor can be coupled) and the average feed rate is 300 kg/h (paddy crop). It can also support feed rate up to 900 kg/h (mansuri variety grown in Assam).

He said that especially for paddy crop, right from raising the seedlings to harvesting, labour requirement is quite high and villages today face a serious shortage of manpower.

Per acre income

The returns from per acre yield for paddy are not so remunerative compared to the labour charge and market price one gets today. For those continuing to grow their paddy crops, my device definitely provides a good solution. The farmer adds that he started working on developing the machine from 2003 and after developing many prototypes came up with this final version in 2005.

The Department of Agriculture, Assam, report that the machine is the first indigenously manufactured thresher in the region and proves to be a gift to the paddy growers of the region.

Made to order

Till date Mr. Fazlul has sold more than 75 machines in different parts of the state. He delivers the machines based on order in a week's time. The unit priced at Rs. 35,000 (excluding prime mover and cost of transportation) was exhibited the Rashtrapati Bhavan recently at the grassroots innovation exhibition organised by National Innovation Foundation (NIF) India, which is also supporting him under the Micro Venture Innovation Fund.

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