



CONSOLATION

Rice grain sorting machine

Mohan Sharma
Birbhum, West Bengal

Mohan Sharma (50) is a fabricator and is in the business of making doors, windows, and furniture items. He developed a rice grain sorting machine about three decades back and has sold about 2400 units of the same over the years. This machine separates husk, stones, etc from rice and also segregates rice grains with the help of an automatic/ manually driven wooden fan.

Second eldest among six siblings, he had to drop out in class tenth to help his father in their carpentry work. As orders were limited and not too many to come by, his childhood was spent in poverty though he mastered carpentry while working with his father. It was sometime when he was 22 years old that he thought of making a rice grain sorting machine and after two three unsuccessful attempts was able to develop one. Post marriage he shifted to a nearby place to open an independent workshop. In his endeavours, he was ably supported by his wife, who took care of her house and two sons really well. His elder son also joined him in his workshop after his class tenth while the younger opted out of studies during his graduation and became a civic volunteer. In their workshop they make different items like doors, windows, household/ office furniture and also the rice sorting machine. When he made the rice grain sorting machine, none

in the family realised he had done something innovative. However they were happy that he had developed something that would help in



business. Her wife helped him to introduce the machine in her native village.

Genesis

Normally people separate husk, stones etc. from rice by wind winnowing using handmade or woven winnowing basket or pedestal fans. One has to drop the grains by shaking the basket held above head height in front of that the fan so that air blows out the lighter chaff from among the falling grains. This is a tedious, drudgery prone and time consuming process. One day while working, he got this idea to develop a rice grain sorting machine. He thought instead of holding the grain basket in hand, if he could use a container on stand from where the grains could be dropped in front of the fan, it would then take less physical work. Then he added four separate compartments with separate outlets to deliver sorted grains. The whole machine looked like a big box with an uncleaned grain container on top of it.

The rice grain sorter

This is wooden hand driven cum motorized rice grain sorting device. Blower fan is provided to perform winnowing operation, which can separate husk from grains. Separate compartments with outlets are given to sort grains in different grades. The device has ability to sort 400 to 450 kg of rice per hour into different grades like clean grains, broken grains, and separate small stones and husk. The fan speed is set to be about 280 rpm.

Not only rice or paddy also other cereals, grains and seeds can also be winnowed using this machine easily. These days, he is selling the hand driven machine at a price tag of Rs 7000 and the motored one at Rs. 10000. He mostly makes these machines once a confirmed order has been placed. These orders not only come from individuals but also from rice mills, atta mills, near his place, in the district, surrounding areas and even some from Jharkhand. The machine is being used to separate husk from rice, mustard, sesame, wheat, etc. NIF also got in touch with about three dozen purchasers/users as well to ascertain its usefulness.

The first buyer of the machine happily informed that he had purchased it about twenty eight years ago and used it for over twenty years satisfactorily. Most people mentioned that the machine helped them increase their output and thereby improve business. They also mentioned that the maintenance cost of the machine was almost negligible.

It appears that most villages around the innovators place in Birbhum and in Dumka have this machine hence the demand for the machine has reduced due to saturation. Mohan hopes that his business (of selling rice sorting machine) can pick up if demand comes from farther places. Hoping for a bright future, he says that every problem can be solved innovatively if only one thinks differently and creatively.