



CONSOLATION

Groundnut nut digger with vibration pads

Ratanram Dudhval
Sikar, Rajasthan

Facing problem of frequent wear and tear and maneuverability of commercial tractor operated groundnut digger especially at the corners, Ratanram Dudhval (52) modified the groundnut digger by adding a vibration pad/shock absorber spring and two pivoted wheels to its rear.

Ratanram, who only studied till class nine, is a mechanic and runs his own small scale industry named Jay Kishan Krishi Yantra Udyog with his younger brother, and their sons. Due to his family conditions, he could not continue his studies further and had to engage himself in farming activities. Six years back,



he shifted to a nearby place to set up a small scale industry for manufacturing agricultural machinery like plough, harrow, seed drill, groundnut digger, trolley, chaff cutter, tractor operated bull dozer etc.

Genesis

Ratanram had observed the difficulties faced by farmers in getting labourers and also incurring losses due to inefficient digging. He himself had purchased a groundnut digger in 1998 (manufactured in Elanabad, Punjab) and later another digger manufactured in Ladnu. In both the diggers, he faced frequent wear and tear, and maneuverability issues. As he had been repairing the machines used by other farmers and was aware of the issues due to wear and tear, he modified the groundnut digger and developed two different variants. One variant he developed had a loaded spring at the front of ground nut digger and wheels for supporting the machine. The other one had towed wheels, which help in steering the

machine in desired direction along with leather belt as vibration pad.

The groundnut digger

In the conventional groundnut digger the innovator has added vibration pad/shock absorber spring and two pivoted wheels in the rear of groundnut digger. It is claimed to reduce load on the tractor's three point linkages and increase maneuverability due to wheels, reduction in breakages (mainly bearings) due to vibration pad, approach of machine in corners and easy driving on bunds and channels in the field.

The machine, which can be fitted to standard 540 rpm PTO, can cover 4 ha in 8 hours, consuming 6 lit diesel. He has sold over 350 machines in the last 5 years at a price of Rs 120,000-140,000/-. The customers who purchase machine in 2011 are still using the machine and the sale is mainly based on word of mouth, which confirms the acceptability of machine among the farmers.