



Power tiller operated turmeric harvester

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P Ramaraju (40) has been involved in farming since an early age. He faced acute labour shortage while harvesting turmeric rhizomes. Delay in harvesting resulted in loss of yield and adversely affected the quality of rhizomes. In 2008, he studied machines available in market for solving this problem and developed an attachment for a power tiller to harvest turmeric. The first prototype damaged over 50 percent rhizomes during trials. He continued his experimentations and making prototypes after prototypes. In 2011, he could develop the final prototype with over 95 per cent efficiency.

This harvester is actually an attachment for power tiller, which is mounted at its rear by replacing the conventionally attached rotavator. It takes drive from the power take-off (PTO) through a belt and pulley. Incorporating a certain mechanism he obtains oscillating motion in the blades, which separates the



turmeric rhizome from soil without damage. It has a field capacity of about 0.2 acre per hour while consuming 1.5 liter of fuel (diesel). The cost of harvesting per acre almost comes to half if the present machine is used for harvesting and laborers are engaged for collection.

A local manufacturer 'Mani Automobiles' has an informal agreement with the innovator. He is manufacturing and selling the harvester attachment and paying royalty to innovator at the rate of ten percent on sales. Over 200 units have been sold in last three years under this arrangement.

