

Turmeric Harvester

Profile of Innovator:



Name	Shri P. Ramaraj
Age (in Years)	45
Education	Intermediate
Experience (in Years)	12
Contact Details	At- Kothukaarar Thottam, PO: Kettisamudram, Dist- Erode, State- Tamil Nadu, Pin-638004
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Brief description of Innovation

Turmeric is an important spice crop in the western zone of Tamil Nadu, especially in Erode district due to its favourable climate. Despite its market value and potential for value addition, turmeric cultivation is declining because of labour shortages, particularly during weeding and harvesting. Mr. P. Ramaraj grows turmeric along with vegetables, banana, and sugarcane. Though profitable, turmeric is highly labour-intensive, requiring about 300 labourers per acre for various operations. Delays in harvesting due to labour scarcity often lead to fungal attacks and yield loss. To address this challenge, Mr. Ramaraj developed a 'Turmeric Harvester', investing Rs. 75,000 in its development.

Innovation's Highlights

The turmeric harvester is a power tiller-drawn equipment requiring 13 HP power. It consists of a shaft connected to small diggers, an arm, and a shaker. During operation, the diggers lift the turmeric clumps while the shaker loosens the soil from them. The harvester was tested under various soil conditions and was found to harvest one acre in approximately 7 hours. For optimal performance, certain preconditions are required: row spacing of 1.5 to 2 feet, long ridges and furrows, and preferably fields equipped with a drip irrigation system. It is Compact in nature; Portable; Fuel- efficient; and compatible with Power Tiller

Benefits/Advantages

This machine helps save labour and money. It needs only one man to operate and 15–20 women to collect the turmeric rhizomes from one acre. In manual harvesting, about 40 workers are needed, costing ₹14,000–₹16,000. By using this harvester, farmers can save ₹7,000–₹9,000 per acre. The machine can harvest one acre in 7 hours and uses only one litre of diesel per hour, which is affordable for small farmers. A special part of the machine shakes off the soil stuck to the rhizomes, making them clean and easy to collect. This harvester also helps farmers avoid delays in harvesting due to labour shortages.

Scope & Potential of Innovation for Wider Reach/ Out Scaling

With support from KVK MYRADA, Erode, Mr. Ramaraj demonstrated the performance of the turmeric

	harvester in Tamil Nadu, Karnataka, and Andhra Pradesh. The cost of the harvester is only ₹35,000. He has sold 372 units across various districts in Tamil Nadu. This innovation has also inspired young entrepreneurs to take up the activity by making similar equipment with small improvements, creating opportunities for income and employment.
Scientific Validation required	Needs validation for efficiency
Domain	This method is specifically suitable for turmeric crops grown on plain terrain with a long ridge and furrow planting system.

