TRACTOR MOUNTED TURMERIC DIGGER

Design and developed by: MPKV, Rahuri Centre

All India Coordinated Research Project on
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Introduction
Turmeric is one of the major spices cultivated over an area of 1.28 lakh ha with a production of 487.6 lakh tonnes. It is grown largely in Andhra Pradesh, Maharashtra region, West Bengal, Tamil Nadu, Kerala and Assam. In Maharashtra the crop is mainly cultivated in Sangli, Satara, Nanded, Parbhani, Solapur, Chandrapur and Kolhapur districts.

Traditional practices and necessity for development
The general practice of harvesting is to dig out the rhizome manually with the help of hand tools. This type of harvesting causes damage to rhizomes. It is also a difficult task on the part of the farmers to get the required labour force during the harvesting season for timely harvesting of the crop. The estimated cost for digging the rhizome is Rs 4000/ha.

Evolution and design process
Traditional method employed for digging out the turmeric rhizome is time consuming and injury to the rhizome is unavoidable. To overcome these problems, a machine has been developed at the MPKV, Rahuri Centre.
**Salient Feature**
The turmeric digger (Fig.1) consists of a main frame made of MS channel sections and three point link. Digging blades are of sweep type and can be mounted on the main frame. A front ridger is also provided for digging cross bunds for smoother operation.

**Present status of technology**
Prototype has been developed and tested at farmer’s fields. The machine has shown good performance in terms of harvesting efficiency and total field losses. The output capacity is high which favours its suitability for adoption in the turmeric belt.

**Specifications:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Tractor Mounted Turmeric Digger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame, mm</td>
<td>2400 x 600</td>
</tr>
<tr>
<td>Digging blade, mm</td>
<td>190 x 75 x 10</td>
</tr>
<tr>
<td>Front ridger, nos. and size, mm</td>
<td>2, 450 x 350</td>
</tr>
<tr>
<td>Front side frame, mm</td>
<td>2700 x 450</td>
</tr>
</tbody>
</table>

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