

REVIEW ON POMEGRANATE DESEEDER

Amarpreet Singh

B.Tech Student of Agricultural Engg. COAE&T (PAU) Ludhiana, Punjab, India

1. Introduction

Here we have introduced a device which is based on scientific principle of machine. It is cheap, simple, and maintenance free that is produced as a result of project work.

The existing method of pomegranate deseeding in agricultural industry consists of removing the seed by hand, which is totally manual and not effective as well as time-consuming. As far as cost aspect is concerned, it requires the deseeding equipment



serves as cheaper as compared to human labour. The operating of this device is low as it requires only a single person as compared to the manual method. Its maintenance cost is about negligible as it requires only periodic lubrications.

Basically, there are machines for deseeding pomegranates, but they are costly enough so that small-scale farmers cannot afford them. To overcome this, we thought of a machine for the same purpose with a minimum cost as far as possible. This machine with a designed cantilever beam removes the seed through the tapping action on the pomegranate with a certain period of time, and the seeds are peeled from the harder shell.

of pomegranate as well as inner side .so that there is no damage done to seeds inside pomegranate .

1.1 Advantages:

1. The machine is in compact size.
2. The power consumption is low.
3. Less time consuming.
4. Maintenance cost is less.
5. Any size of pomegranate can be De-seeded.
- 6.Simple in Design and Fabrication.
7. No need of any safety device.
8. Benefit for small and medium scale farmers.
9. There is no damage of the seeds and remove inner layer of pomegranate

1.2 Disadvantages:

1. In this machine seeds are not completely out .
2. More time need to remove all seeds

1.3 Applications:

1. This device is used for domestic purposes as well as small industry.

2. RELEVANCE

The objective of this review to develop a machine which helps to reduce the human effort and cost of the machine and also suitable for small scale industries. Simple machine construction and better features developing a machine in compact size which peels the shells of pomegranate and collect the seeds. The edible fruit is a berry, intermediate in size between a lemon and a grapefruit, 5–12 cm (2.0–4.7 in) in diameter with a rounded shape and thick, reddish skin. The number of seeds in a pomegranate can vary from 200 to about 1400. The cultivation of pomegranate. The tart and juicy arils, the edible seeds that come from the fruit's "shell," contain a big helping of nutrition. The processing of pomegranate is harvesting, cut in half and

then manually deseed. In industries the pomegranate is peeled with rotating arms which damage some amount of seed. For domestic purposes the manual peeler are there which are time consuming.

3. LITERATURE REVIEW

3.1.K. Gomathi et al¹: This paper focuses on Pomegranate deseeder with electronic operated beam which hammering out on the fruit and extract the seed . This machine used for industrial purposes only . The one person is required to run this machine .

3.2.Jose blasco et al²: A team of investigators from Valencia has developed a machine that separates automatically the seeds from the rind and pith of the pomegranate. The mechanism uses a computer vision system to distinguish and sort the different parts of this fruit.

3.3.Uddhab bharali³ : He is inventor from Assam designed machine for pomegranate deseeder which is for industrial purposes only. This machine based on mechanism in which rotating beams in container hit the fruit and extract seeds some losses of seeds are there but its capacity is more (55kg per hr)

3.4 Concluding remark from literature review:

This shows that many author have reported the pomegranate deseeder and peeling design and also analysed it for different loading condition. now the pomegranate deseeder machines are available which damage the seeds and manually operated. there is no machine which is compact in size and work without damage the seeds.

4. PROPOSED WORK

the proposed work aims to develop a machine which helps to reduce the human effort and cost of the machine also suitable for small scale industries and farmers . simple machine construction and better future developing a machine in compact size which peels the pomegranate in less time and without damage the seed .

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