

SEEDS CLEANING MACHINE

Project Reference No.: 47S_BE_0449

College : B.V.V.S Bilurur Gurubasava Mahaswamiji Institute of Technology, Mudhol
Branch : Department of Mechanical Engineering
Guide(s) : Prof. M. D. Komar
Student(S) : Mr. Razak Dangi
 Mr. Harishkumar D. Atamatti
 Mr. Vishwanath Dodamani
 Mr. Sagar Lamani

Introduction

In the old generation, seeds cleaned by traditional post-harvesting method an inconsistent air, which is flowing in surrounding environment. This process takes the more time for cleaning process because of fluctuation in the flow rate of air. Moreover, efficiency of cleaning also not well, so to reduce this cause uses the seeds cleaning machine. As a result of modeling, the directions for further improvement of air-screen seed cleaning machines is to increase or decrease flow rate of air as per requirement And this machine save's time required for cleaning process also reduce the labors and labor charges. Wilber Akatuhurir: the aim of the researcher is to reduce the time consumption for cleaning seeds. By using the pedal operated seeds cleaning machine. P.D. Kahandage: The work of this researcher is slightly changing the technology in paddy seeds cleaning machine he will set the electric motor to paddy operation. To improve the pedaling process. In our project, eliminate the paddling process instead of it install the blower to reduce physical stress. Also, maintain the constant flow rate of the air by using the regulator. This machine has the advantages as if Handling is easy, easily operated Repairing is easy, Replacement of parts is easy, simple in construction, Easy to fabricate. No need of skilled operators to operate this system

Objectives

- To remove larger foreign material, dust, and other contaminants from the seeds easily
- To increase the efficiency of cleaning

- To reduce the labor cost
- To save the time required for cleaning

COMPONENTS USE FOR SEEDS CLEANING MACHINE

- Plywood
- Air blower
- Regulator
- Screws
- Transparent sheet
- Wire cable

Methodology

- The working process of this machine is very simple. First, close the inlet hopper gate
- Put the waste mixed seeds into the inlet hopper and start the air blower.
- After starting the blower, slowly open the hopper gate as per requirement. then seeds slowly moving towards the blower air.
- Then blower speed is increasing or reducing by the speed regulator until the pressure of the air is equal to the seeds weight and greater than the waste.
- The air, which is inside the machine, is passed through the air pass holes, which are placed in opposite face of the air blower.
- After some time seeds and dust separates and collects in respective bins as shown in below fig.



Seeds cleaning machine

Future Scope

- In future, this project is also possible to be made from the solar power source or any other source.