

# Fabrication of Waste Food Shredder Machine for Generation of Organic Fertilizers

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**ABSTRACT:** The project was to fabricate and include of shredder machine. In this project cutting waste food material eg. waste vegetables, waste fruit, grass, etc. the cutting of food waste is used to prepare the compost fertilizers. In this source of this project self ideas and internet and suggestion of teachers. Our project makes different types of work involved in this project using the safe and pollution-free. In our project different types of parts such as follows bearing, framework blade, and shaft cycle pedal using power through the shredder machine and using the appropriate work from the farmer and essential work, waste food material cut shredder machine by using a cutting blade to making a small amount of waste food material cut and using for a domestic well as organic fertilizer. The aim of this project is utilized the waste food material using fertilizer without any electrical power and utilizes men work in shredder machine and its pollution-free in this project and the best quality of fertilizer making in the project.

**Keywords:** Shredder blades, fertilizer, vegetable.

## I. INTRODUCTION:

Waste food shredder machine is used for domestic waste, vegetable waste are cut in shredder machine of using a man effort by using bicycle pedal man power using working a shredder machine small amount cut the food material in the shredder machine. The main purpose of shredder machine making a better quality of fertilizer using a farmer without any electrical bill its consist of many types of material cutting in the shredder

machine such as green vegetable.

And also new idea using shredder machine such as the solar system added in the project to operate the solar system when the man was tired feel then using solar system in shredder machine.

Agriculture essential for farmer to making such as vegetable, fruit, soybean etc number of making product. The farmer working continuously in the agriculture field and lot of hard working and many types of disease in the plant and demotivate the farmer and its physically and mentally not very well and lot of billing using the agriculture such as water bill, pump and many types of equipment work on electricity, its condition of farmer are not vary, and the prevention of plant diseases using fertilizer but the fertilizer cost costly.

We are using own idea to decrease the less amount of farmer effort by using this project. Minimum less effort of shredder machine and also health fit because of man using the leg exercise.

The shredder machine using best of farmer because of cut the vegetable waste for the using fertilizer to make using the diseases of plant to less cost to be obtained the farmer.

The solar system are widely using the farmer because of solar energy are freely source of energy to never amount electrical bill create.

The output of shredder machine to the best quality of fertilizer (domestic) fertilizer and increase the income of farmer and increase the soil nutrient and benefit the growing the nutrient food.

## II. LITRETURE REVIEW

1. Omkumar CSetal. the shradder machine of food was cutting the blade to receive a small amount of waste matrial to elimated the water particle from the waste.
2. Matin A. Shaikh et al. in the machine of recycle machine detail of various part of recycle part to be manufacture and many essential purpose.
3. Pavankumar s.b. et al the poor farmer get not afford the composite fertilizer the old traditional manufacture source are not be easy as very complicated.and ist not affordable composite fertilizer to any other farmer.
4. S Nithyananth et al., they are developed the shradder machine and design to of waste shradder machine, shradder machine operation perform as well as tractor . tractor trasmitte the power and perform the shredder machine without any humun effort.
5. Abhishek K Net al.this project of aim to perform a many task such as shradder machine cut the coconut leave and give as powder of coconut leave and essential for human.
6. I.M.Sanjay Kumar et al, the project was decice to own idea and collect information at the source of study material . its cut wariou green waste food cut by the dhradder machine an appropriate another work such as making composite fertilizer.
7. P.B. Khope et al, Proposed the Design of experimental set-up for establishing empirical relationship for chaff cutter energized by human powered flywheel motor. This machine used to chop the forage into small pieces for easy consumption by the animals. In the human powered flywheel motor concept, the bicycle mechanism for converting and transmitting human energy through paddling torotational kinetic energy of flywheel is hereby proposed. The energy stored in the flywheel can be used for actual cutting process.
8. Mohamad Khatib Iqbal, proposed its develop a coconut leave cutter machine as well as shradder machine , in the cutting blade very sharp mounted by the shradder machine he said the point of you to cutting leave and domestical waste from using the another essential work such as fertilizer.

### OBJECTIVES

- 1.farmer essential for machine due to making best quality of fertilizer.
2. less space required due to operation.
- 3.to operation perform the easy and safe.
4. easily available part and satisfied the farmer.
5. to used green fertilizer to maintain soil nutrient and soil quality.

### Advantage :

- Less skilled labor required
- Best quality of fertiler manufacture
- Maintaince cost less
- Failure part easily available in market
- Its easy and safely
- It portable in anywhere

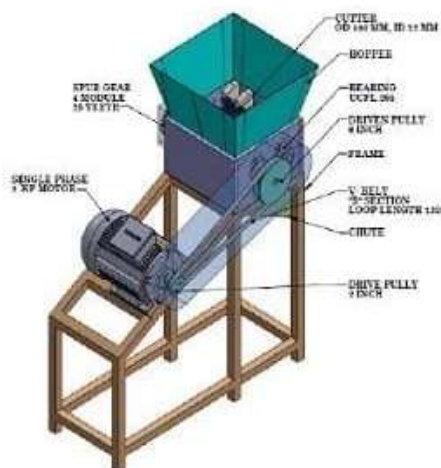
### Disadvantage:

- Man effort required
- Hard material cannot chopping

### Application:

- Its using agriculture
- Using maniaufacturing composite fertilizer
- Chooping the agriculture waste

### Diagrams of Project :-



Input waste



Output waste

#### Material Specifications :

Sr. No.	Description	Materials
1.	Cutting blade	HCS
2.	Shaft	Carbon
3.	Pulley	Castiron
4.	Body Frame	steel
5.	Baseplate and supports	steel
6.	Hopper	steelsheet
7.	Bearings	UCP204
9.	Contact Roller	Steel
10.	Couplings	Aluminum alloy
11.	Screws & Bolts	Steel
12.	Belt	Rubber

#### Working Method :-

The waste food shredder machine is operated by bicycle pedal to perform a operation. In this project using a multiple source operation performing such as solar system and electrical but solar system is emission less due to free of energy provide by sun .

The waste food material inserted the shredder machine and its cutting blade are cut the material properly to make a perfect fertilizer to using the plantation in the farm.

Its using solar system whenever the farmer was tired then using the solar system to work continuously and its harmless machine and easily operated by farmer to less amount stress due to working and fertilizer cost. Its failure part are easily available in market . and installation is easy

### III. CONCLUSION:

The waste food shredder machine its fabricate to modification of shredder machine to useful for farmer to utilizes some amount of work less due to project

Waste food Shredder machine manufacture by the waste food material crush by cutting blade and output come such as small amount of material cut and using waste making a fertilizer for necessity of farmer and also using a solar power to performing operation

- Shredder machine maintenance is low
- Easy to manufacture
- Shredder machine movable as per requirement place
- Small area required to machine
- Shredder machine failure part easily available in market

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