

# Pedal Powered Waste Food Shredder Compost Machine

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**Abstract**—Organic composting forms the backbone & basic necessity of a poor farmer. The traditional methods are not sufficient & satisfactory for chopping the crop residues. Whereas buying the chemical fertilizer is not possible for every farmer due to its high cost and also food waste contains high calorific and nutritive values. In all the cities and places, organic waste is dumped or disposed in landfill or discarded, which causes the public health hazards and diseases like malaria, cholera, typhoid. Inadequate management of wastes like uncontrolled dumping bears several adverse consequences. Shredding machine is used for shredding and converting macro organic waste products into small or micro easily decomposable form, which can be used as organic manure. Organic waste shredder designed should perfect to shred all kinds of waste products. The organic waste shredded will be in small pieces to enable the farmer to make use of it as feed for manure or organic manure. This shredder can be operated with a Pedal

**Keywords**—*Environment pollution free, Pedal operated, Shredding machine.*

## INTRODUCTION.

Waste food shredder machine is using for domestical waste, vegetable waste are 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 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 shedder machine. We are using own idea to decrease the less amount of farmer effort by using this project. Minimum less effort of shredder machine an 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. Food waste is the organic material having the high calorific and nutritive values to microbes, that's why efficiency of methane production can be increased

Hence the shredder machine is used for shredding i.e. converting of macro agriculture waste and food waste into small easily decomposable form, which can used as organic manure. The small size waste will decompose faster than the large or macro size waste. This decomposed waste can be used for the crops and this leads to improving in the growth and quality of the crops and also improving the soil chemical properties such as supply and retention of soil nutrients, and promotes chemical reactions.

## LITRETURE REVIEW

1. OMKUMAR CSETAL. THE SHREDDERMACHINE 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. S Nithyananth et al., they are developed the shredder machine and design to of waste shredder machine, shreddermachine operation perform on Pedal
4. P.B. Khope et al, Proposed the Design of experimental set-up for establishing empirical relationship for chaff cutter energized by human powered pedal.
5. I.M.Sanjay Kumar et al, the project was decide to own idea and collect information at the source of study material its cut Various green waste food cut by the dhradder machine an appropriate another work such as making composite fertilizer.

## \*ADVANTAGES\*

- Less skilled labor required
- Best quality of fertiler manufacture
- Maintaince cost less
- Failure part easily available in market
- Its easy and safely
- No power Required

## \*APPLICATION\*

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

## \*MATERIAL SPECIFICATION

Sr.no	Description	Material
1.	Cutting blades	HCS
2.	Shaft	Carbon
3.	Boby Frame	Steel
4.	Bearings	UCP204
5.	Contact Roller	Steel
6.	Coupling	Aluminumalloy
7.	Screws & Bolt	Steel
8.	Chain & Sprocket	Steel

## WORKING PROCESS:

The waste food shredder machine is operated by bicycle pedal to perform a operation.

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.

As you pedal the energy is transferred to rotating Shreddar blades that efficiently cut through food waste.

The Contact roller Rotates with the help of bearing and pulleys blades rotates.

## CONCLUSION

The waste food shreddermachine 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.

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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2. P.B. Khope and J.P. Modak "Design of experimental set-up for establishing empirical relationship for chaff cutter energized by human powered Pedal Journal of Agricultural Technology 2013 Vol. 9(4): 779-791
3. S.Nithyananth "Design of Waste Shredder Machine" Libin Samuel et al Int. Journal of Engineering Research and Applications ISSN: 2248-9622, Vol. 4, Issue 3 ( Version 1), March 2014, pp.487-491.