

## A SUGARCANE CUTTER

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### INTRODUCTION:

It is a modified idea of wheat cutter having great importance in farming field. Especially for farmers who has taken a sugarcane as major crop in their farm. This idea is developed as we observe major problems related to sugarcane cutting in nearby area.

Sugar is essential part in our daily life & for its production sugarcane is used as raw material. So proper care must be taken for growth, cutting & transportation of it. This idea will solve the problem regarding sugarcane cutting.

### NEED:

Though there are other types of sugarcane cutters and peoples are available to cut it why we should go for using this??

The answer of second question is simple, as engineering is the branch of science which makes products user friendly & which will reduce user's efforts. As well as there are less people available who cut sugarcane due to it quality of sugarcane decreases & so that farmers get less benefit out of it.

Now as there are many more cutters available, but these are too much big in size so each & every farmer can't afford it. And though it will available in our area it's cost is so big. And same problem like quality decrement will observed.

In nearby areas it is observed that, the leafs of sugarcane having great importance for farmers as they use it for feeding it to their cows, buffalos & ox it get obtained by people cutting sugarcane. They make money out of it, to resolve this problem a leaf cutter provision is provided so it will be useful to farmers.

As we know Rs.4000 per day are required to cut a acre of farm with the help of 4-5 people, which will again take 4-5 days. But our cutter will take max. Rs.1200 to cut a acre farm in within a day.

And more important that is, this cutter size is too much compact so that it can easily go inside each row of sugarcane farm. Compact size will also reduce cost of machine so it will be affordable to farmers which are main intension behind it.

### DESCRIPTION:

As this is more user friendly more modifications has to make in it along with design. A rough description of sugarcane cutter along with leaf cutter will be like that,

**Cutter-** It is placed horizontally in such way that, whenever we have to cut it from say right side so sugarcane will fall down on opposite side of applied force. And it also helps us to make more free space. Its design will be as shown in fig1.

It contains blades. Blades are so designed that, it's thickness is less at one side & goes on increasing up to next end. This helps the sugarcane to fall on one side due to applied force.

**Whole assembly-**It is so designed that, a single person is able to cut a acre of farm within short interval of time. A handle is provided on back side of it. Cutter is placed at definite distance from ground with consideration of growth of sugarcane.

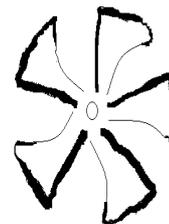


Figure 2:- Cutter



Figure 2:- Whole Assembly

A mechanism which will convert horizontal cutter axis in vertical is provided. So that after cutting of each row of sugarcane farm leaves of it can cut & will grouped for further action of transportation. This mechanism plays key role. Whole assembly of sugarcane cutter along with leaf cutter will be as shown in fig2.

**Disadvantages-**

Variation in land decreases efficiency. As sugarcane don't grow in proper manner i.e. straight some modifications are necessary. It is semiautomatic so collection of sugarcane from end of each row has to carry out by manpower.