

HAND PUSH SEED SOWING MACHINE

TEAM MEMBERS

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NEED STATEMENT

Now a days availability of labour is a major problem faced by farmers . The approach of the project is to create a machine which reduces their efforts and cost of seed sowing process with great efficiency and accuracy with reduce in labour requirement.

ABSTRACT

- We made seed sowing machine which is operated by hand to reduces the efforts of farmers .
- It increases the efficiency of plating also reduces the problem encountered in manual planting.
- For this machine we can plant different types and sizes of seeds .
i.e; maize , gram , peas , wheat , barley .
- We are also preparing this machine by raw materials thus it is so cheap and usable for small scale farmers.
- This machine can also increase the planting efficiency and accuracy.
- We simplified it's design by the way for effective handling of the machine by any farmers or by any untrained workers .

INTRODUCTION

- Seed sowing machine is a device which helps in the sowing of seeds in the desired position hence assisting the farmers in saving time and money.
- We know that in manual seeding ,it is not possible to achieve uniformity in distribution of seeds.
- In traditional methods seed sowing is done by broadcasting manually , opening furrows by a plough and dropping seeds by hand.
- As the population of India continues to grow , the demand for produce of food also grows as well.
- Hence , there is a greater need for multiple cropping in the farms and this , in turn , requires efficient and time-saving machines to plant the crops.

OBJECTIVE

- The main objective of this project is to put the seeds in rows at desired depth .
- It also has uniform seed to seed spacing.
- During levelling it covers the seeds with soil and provide proper compaction over the seed.
- Cost of this machine is low , because of using raw materials for construction .
- Dependency on labour also decreased . Also it saves time of saving .

BENCHMARKS



EXISTING SOLUTIONS



Demerits of first design:

- It is a huge machine , will be unable to carry.
- It's cost is so high
- It should be used with help of tractor only , but the smoke releasing from tractor causes air pollution.



Demerits of second design:

- This machine is also heavy to carry.
- It's cost is also high.
- It is worked by electric power
- If damages occurs to connections , the man who is operating gets shock.

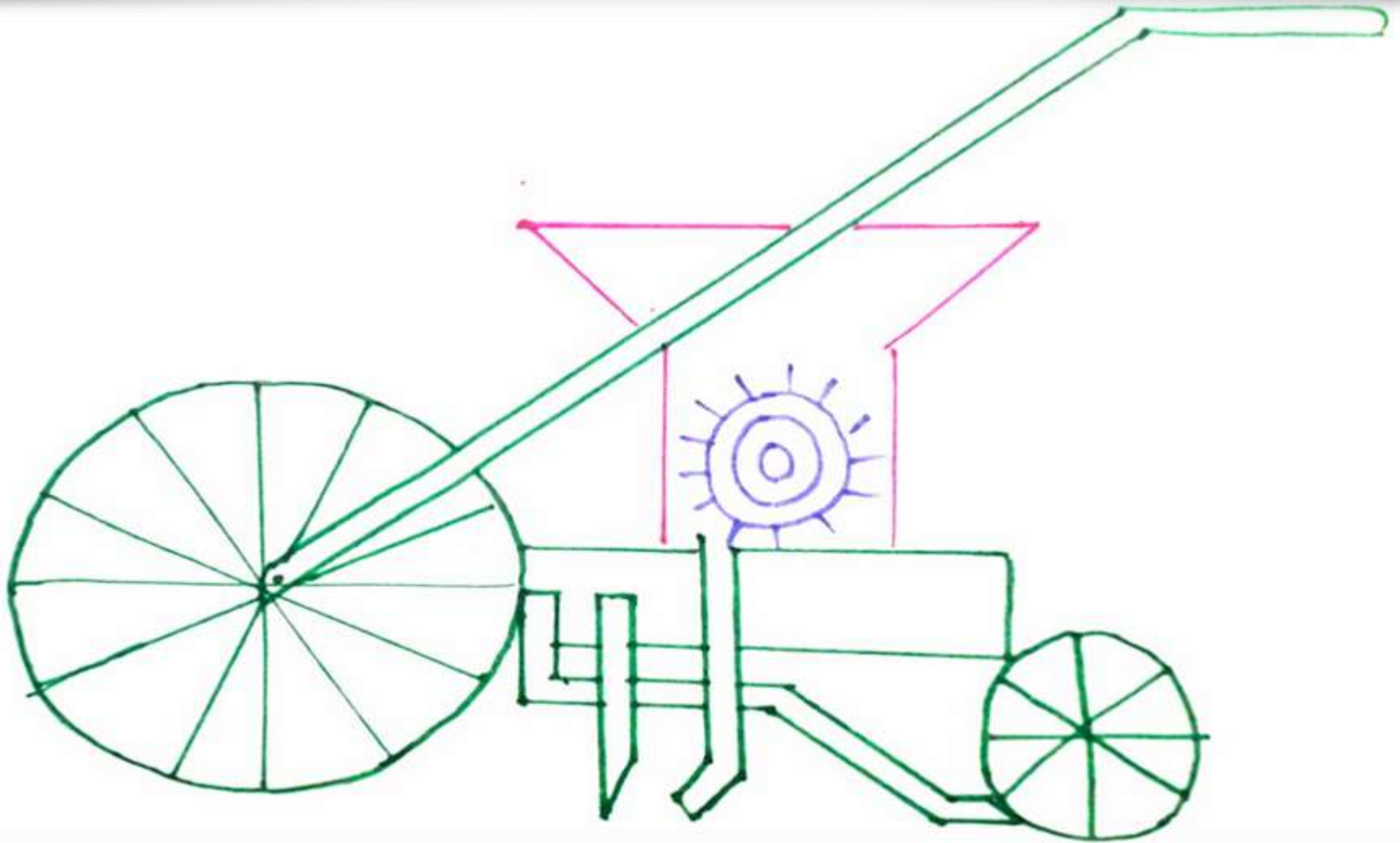


Why we choose this design?

- It is of less weight
- It is to handle
- It is of less cost
- Even an illiterate farmer can operate this machine
- It is easily sow lots of seeds
- It does work simultaneously (i.e; ploughing , seed sowing and levelling)
- No other sources are required for operating the machine



DESIGN OF THE PROTOTYPE:



Decision matrix:

	LESS COST	LESS WEIGHT	PLOUGHING	SEED SOWING IN DESIRED POSITION	LEVELLING	LESS EFFORT FOR FARMER
LESS COST	—	4	2	2	3	1
LESS WEIGHT	1	—	2	2	3	2
PLOUGHING	3	3	—	1	2	1
SEED SOWING IN DESIRED POSITION	3	3	4	—	4	1
LEVELLING	2	2	3	1	—	1
LESS EFFORT FOR FARMER	4	3	4	4	4	—

CONCLUSION

- I concluded that this seed sowing equipments we can save more time required for sowing.
- And also it reduces lot of labour cost.
- It is also very helpful for small scale farmers.
- With the help of rollers the seed flow rate can be controlled and utilization of seeds by soil can be done in sequence manner with minimum lose.