

Report on Multi Purpose Farming Project

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Abstract

Farming is the back bone of Indian economy. In this agriculture sector, there is a lot of field work, such as weeding, sowing, spraying, etc. As the agriculture was the main stay of the population farmer needs to be equipped with suitable machinery to make his work easy and simple which also improve labor productivity and quality of work, more yield. Hence, MAE (Multipurpose Agricultural Equipment) was developed.

Keywords: Agriculture, mechanized farming, muti-purpose farming

Introduction

Advent of Technology leads to development of farm machinery due to which work of farmer becomes easy and simple. However, lot of machines has to be developed for each agricultural activity which is a burden for farmer. Hence there is a need of development of a single machine which is capable of performing all agricultural activities like weeding, sowing, etc.



Fig 1:

Objectives of the Project

- To help the farmer for seed sowing
- To help the farmer in applying fertilizer
- Harvesting is easy by using bicycle

Methodology

Equipment of the Project

1. Bicycle.
2. Pipes.
3. Storage tank.
4. Spraying pipe.
5. Funnel.
6. Gear tiers.

Working of the Whole Equipment

- Sowing and fertilizing



Fig 2:

It is used for line sowing and fertilizer of cereals and other crops. It is a low cost line-sowing device in which seed metering is done manually by the operator by dropping the seeds in the funnel provided for the purpose

- Ploughing



Fig 3:

It is used for leveling of beds, crushing of clods, and collection of uprooted weeds and aeration of soil. It is a long handled tool and consists of spikes, welded to a z shaped frame made from joining two pieces of angle to connect with body by fasteners.

- **Spraying of Fertilizers**



Fig 4:

Result and Discussion

Equipment which can perform multiple agricultural activities is developed.

Conclusion

Practically our multipurpose agricultural equipment can be used for tilling, ploughing, seeding, weeding and for leveling purposes. All the parts are connected in such a way that in every stage of agriculture the equipment can be rearranged or easily assembled with fasteners to required specifications of field operation in a modular way, so this makes the machine less bulky than the rest of the multipurpose machines. The team has successfully combined many ideas from various fields of mechanical engineering and agricultural knowledge to improve the yield and by the reducing the labor effort and expenses. The whole idea of modular multipurpose equipment is a new concept and can be successfully implemented in real life situations.

- **Future Scope**

- We can interface sensors to this machine so that it can monitor some other farming activities.
- We can add wireless technology to control machine.

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