

**FABRICATION OF AGRICULTURAL SPRAYING VEHICLE WITH
RUOTER WEEDER AND SEED SOWER**

A Project report submitted

In partial fulfilment of the requirements for the award of degree of

BACHELOR OF TECHNOLOGY

IN

MECHANICAL ENGINEERING

Submitted by BATCH-09

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CERTIFICATE

This is to certify that the project work is entitled "**FABRICATION OF AGRICULTURAL SPRAYING VEHICLE WITH RUOTER WEEDER AND SEED SOWER**" is a bonofide record done by **B.PURUSHOTHAM KUMAR, K.UDAY KIRAN, G.SAI KUMAR, M.SHYAM PRASAD** students of final year B.Tech in the department of mechanical engineering, in Avanthi institute of engineering and technology ,visakhapatnam. This work was done for the fulfilment of the requirements of the award of bachelor technology during the year 2019-2020.

PROJECT GUIDE

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EXTERNAL EXAMINER

ABSTRACT

Presently, small land holding farmers use work bulls mostly for land preparation. Their use can be increased and made more economical by using them for other farm operations such as ploughing, harrowing, fertilizer application, sowing and weeding. Improved hand tools will also facilitate farm work. Oxen can be used to pull a cart throughout the year which keeps them in training. Ploughs, ridgers, seeders and weeders are all seasonal implements. Manual method of seed planting, results in low seed placement, low crop yield and serious back ache for the farmer which limits the size of field that can be planted. The cost price of imported planters has gone beyond the purchasing power of most of our farmers. Farmers can do much to increase crop production especially grains if drudgery can be reduced or totally removed from their planting operations.

Generally cultivation of any crop involves various steps like seed selection, field preparation, fertilizing, sowing, irrigation, germination, thinning and filling, weed removal, vegetative stage, flowering stage, pesticide spraying, fruit or pod formation stage, harvesting and threshing. Farmer has to use various agricultural equipments and labors for caring out those steps, our purpose is to combine all the individual tools to provide farmers with multipurpose equipment which implements all the scientific farming techniques and specifications and suitable for all type of seed to seed cultivation with as minimum cost as possible. This project work is focused on the design and fabrication of multipurpose equipment which is used for land preparation, sowing, fertilizing, leveling and weed removal process. The multi-crop planter has the capability of delivering the seeds precisely with uniform depth in the furrow, and also with uniform spacing between the seeds. The seed planter consist of the main frame, adjustable handle, seed hopper, seed metering disc, adjustable furrow opener, adjustable furrow closer, drive wheels, seed tube. Seed metering disc was designed to be interchangeable to allow for sowing of the different varieties of seeds. The multipurpose agricultural equipment is very simple to use, the various adjustments are made with ease, and it is maintenance free.