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DESIGN AND FABRICATION OF AGRICULTURE WHEEL GUN SPRAYER

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ABSTRACT

Farmers use the same methods and equipment to plant seeds, spraying pesticides. The method used by gardeners performs the process of spraying pesticides and herbicides. Gardeners need to cover their gardens with pesticides and pesticides to ensure that no shrubs grow and are used free of insects, caterpillars, and other pests. While gardeners will use a Knapsack manual sprayer to spray their garden, this may take a long time to finish spraying their garden. In addition, this manual Knapsack sprayer uses only one nozzle. There is a need for the development of effective spraying and weeding machines to increase productivity. Small farmers are particularly interested in manually operated backpack sprayers because of their flexibility, cost, and design. With a wheel, spray pump combined with wheels and easier to move makes the working system very easy. This one trolley system by using this we can reduce the maximum effort required to spray pesticides as well as we can spray pesticides in any direction or around the plant at crop height. This paper shows a model of a wheeled spray pump that will perform spraying at the maximum rate in the minimum time.

Keywords: Design, Fabrication, Agriculture

I. INTRODUCTION

Farmers use the same methods and equipment to plant seeds, spraying pesticides. The method used by gardeners performs the process of spraying pesticides and herbicides. Gardeners need to cover their gardens with pesticides and pesticides to ensure that no shrubs grow and are used free of insects, caterpillars, and other pests. While gardeners will use a Knapsack manual sprayer to spray their garden, this may take a long time to finish spraying their garden. In addition, this manual Knapsack sprayer uses only one nozzle.

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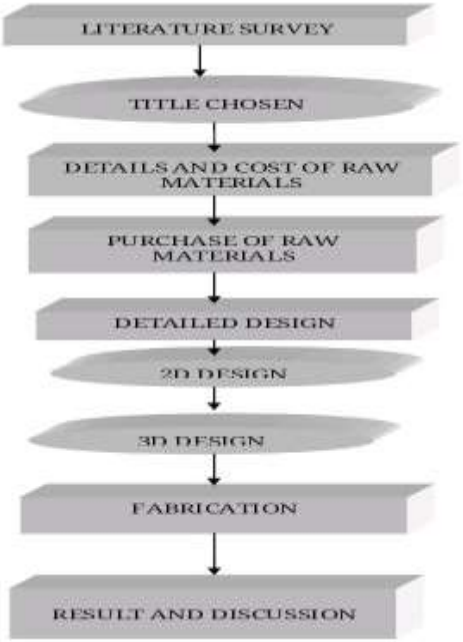
II. RESEARCH METHODOLOGY



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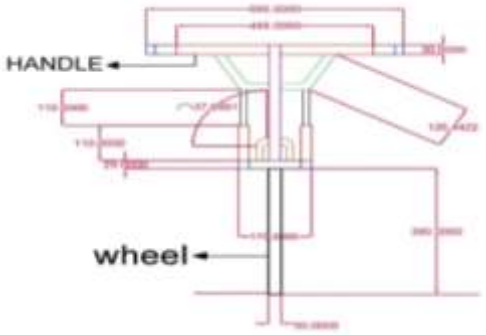
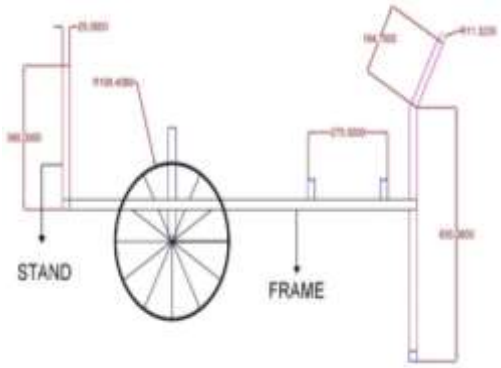
III. DESIGN

3.1 2D Design

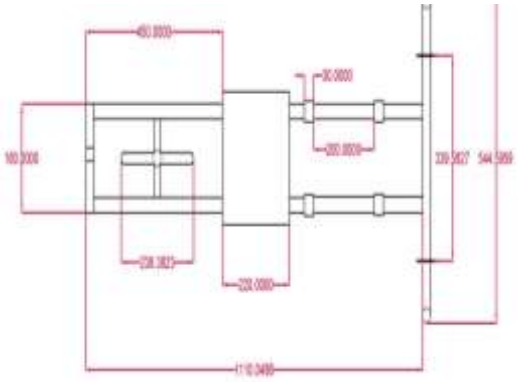
3.1.1 Front View



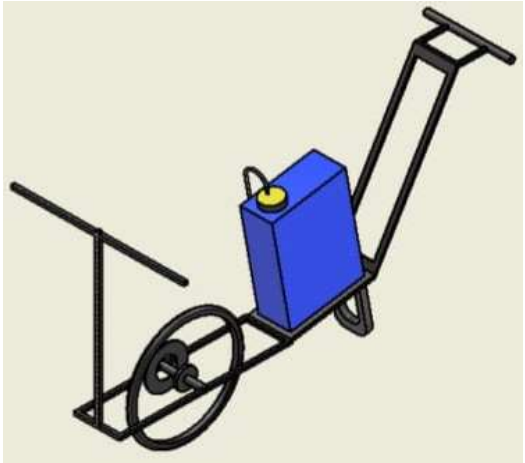
3.1.2 Side View



3.1.3 Top View



3.2 3D Design



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IV. WORKING PRINCIPLE

We have designed and developed a new agricultural sprayer that is more efficient than traditional sprayers and requires negligible human efforts. A multi-functional device will come in handy that can be used in different stages of farming as per farmers' requirements. This wheel-operated pesticide spray equipment consumes less time and achieves uniform nozzle pressure.

This sprayer contains a wheel, water tank, and chassis with handle, nozzle, battery and pump. Square tubes are used for the fabrication of the chassis. The pump is used to discharge the water. The input is connected to the water tank and output is connected to nozzle. The pump working with connection of battery. The switch was connected to the pump to ON / OFF the pump. When switch is ON the pump start to working and discharging the water to the nozzle we manually move wheel sprayer.

4.1 Photographic view of our project

V. CONCLUSION

In conclusion, wheel sprayer design was successful to achieve objective. With this idea and innovation, it can help people especially farmers to spray their farm and gardens because it is more ergonomic to use and handle. Plus, with this new sprayer, it will help farmers to reduce their time and increase effectiveness in spraying process because it got a nozzle on right and left side of the sprayer, so that when the spraying process is running, both side of nozzle will spray plants near them. This innovation will give many benefits to people who use it. Hoping that this innovation will contribute a good results and productivities in agriculture sector.

VI. REFERENCES

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