

MEC 299

WHEEL SPRAYER

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ABSTRACT

Pesticide sprayer are used to control insects and disrupt the growth and reproduction of insects . [32] According to the Centers for Disease Control and Prevention (CDC), this substance can cause injuries or diseases to the muscular, synapses, muscles, bones, ligaments, and nerve damage. [33] The objective of this project is to design the Wheel Sprayer using computer-aided design(CAD) software and to fabricate the Wheel Sprayer using mechanical engineering process. The product design will product using CAD software. The solidwork software will be use as main design software. The fabrication of the product will use welding process at welding workshop at FKM UITM Bukit Besi. The product can be used certain type of soil. The suitable soil is the soft soil and not hard to absorb the pesticide. The budget of this product will cost around RM300. Stainless steel will be use as main material to do this product. The expectation from this project is to decrease the burden of workers with a sprayer that no need to carry on the back and just have to push the product to make the product work.

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CHAPTER 1 INTRODUCTION

1.1 BACKGROUND OF STUDY

Pesticide is extremely popular among the citizen both locally and globally to prevent plant from pests. Pesticide is especially crucial step in planting to make sure the plant in particularly good condition. There is various type of pesticide in the market.



Figure 1.1: Pesticide

There are many kinds or types of pesticide sprayer that can be used to use at home or industry depend for the output needed. For example, there are manual operated sprayer, automated sprayer, vehicle with sprayer and battery-operated sprayer. It is important to get this machine to do pesticide job because it would make the job easier and faster.

The main objective of the research is to develop low-cost pesticide sprayer that can be used for personal purpose and industry purpose to do the job at home or for people that want to start small industry planting.

The process that involved in this project is the engineering design. For this semester (FYP 1) it only covers the concept generation and evaluation. Next semester (FYP 2) will move for the next