

UNIVERSITI TEKNOLOGI MARA

FABRICATION PROTOTYPE OF AGRICULTURAL BAR SPRAYER

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ABSTRACT

This project basically to improve the efficiency of farming product for local farmer. By lowering the cost as much as it can, the product quality should be good as big farming industries. For the design, simplest one will be the best for this project as it is easier to handle and operate. Nowadays, a lot of local farmer having a problem with their equipment for farming. Their equipment usually hard to carry around the farm. So, to solve the problem, a research has been done that to improve farmer equipment, sprayer without being carry by the operator will be the answer for this problem. And at the same time, farming product quality for the local farmer will be focus on in this project.

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Sprayer has been used by a lot of farmer since it was invented in 1947 by Ray Hagie, founder of Hagie Manufacturing. There is a lot type of sprayer invented and innovated such as knapsack sprayer, portable power sprayer, mist dust sprayer, HTP sprayer and orchard sprayer. All of these been used by gardener and farming industries to spray pesticide or watering their farm.

The idea of creating the Agricultural Motorized Sprayer is basically to spray pesticide and watering plant without being carried by the gardener. Usually, the gardener need to spray pesticide at least once a week and watering their plant daily so that the quality of their farm is guaranteed to be good. This has been considered a lot of work for them especially for old people for example if they still using commonly type of sprayer that is knapsack sprayer. Normally, knapsack sprayer tank is 15 litres and has one nozzle.

1.2 Problem Statement

A lot of existed sprayer is hard to carry and also very high cost as most of it invented focusing on big farm industries. For elderly local gardener, sprayer such as knapsack sprayer takes a lot of time to spray their garden. If it was for the elderly local gardener, knapsack sprayer is heavy for them and it can cause them to strain their back. This is considered as unhealthy sprayer tool as it require them to walk around and carrying the sprayer to spray their farm. Beside that, if they stay open so long on a sunny day it is not good for their health when they just trying to do their work.

1.3 Objectives

- To design and fabricate prototype agricultural bar sprayer

1.4 Scope of Work

- 1.5 tank can be filled with pesticide or water.
- Bar that use to place the sprayer made from aluminium steel.
- Stand made from wood.
- Rail made from aluminium steel.