UNIVERSITI TEKNOLOGI MARA

DESIGN & FABRICATION OF 2-IN-1 GARDENING TOOLS

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ABSTRACT

Pesticide sprayer has played an important role in human history as an equipment that is used to apply pesticides on agricultural crops. Farmers frequently spray pesticides with a backpack pesticide sprayer, which they must carry around with them at all times. They have to physically pump the pesticide and continually refilling it because the tank capacity is limited and it only has one nozzle, they must travel around a lot to cover the entire farm. Back discomfort and extreme tiredness are common side effects of long-term usage, especially among large-scale plantation producers. As a result, the farmers' health will suffer, reducing their productivity. Therefore, the objective of this project is to design and fabricate pesticide wheel pump sprayer. Observational data is gathered by watching farmers using their pesticide sprayer. This expected result for this project will help farmers to save their time and help them to avoid any injuries.

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INTRODUCTION

1.1 Background of Study

Pesticide sprayer has been such a common problem for farmers. Whether it is a small farm or even large-scale plantation. It has been a crucial issue for farmers as the device or the equipment suffers their health. The oldest and the latest portable pesticide sprayer got its flaws. These cause negative health effects and time-consuming activity for farmers. The risks of negative health effects include extreme tiredness and back discomfort. In addition to the serious problem of the pesticide sprayer, the time and energy of farmers have also been affected. Numerous studies have shown that many acute and chronic health issues are more common in farmers. Other health effects, such as stress and unfavorable reproductive outcomes, have received little attention in the agricultural sector. In view of the factors above, a replacement for the pesticide sprayer is crucially needed.

1.2 Problem Statement

The latest pesticide sprayer device consumes a lot of time and energy of farmers. This is totally bad for plantation producers especially the large-scale ones because they need to cover a lot of areas on the entire farm. Furthermore, they need to have a lot of farmers to get the job done. These cause a large amount of budget involved to just spray pesticides on the farm. In addition, farmers' health will suffer because of the side effects using the backpack pesticide sprayer which is extreme tiredness and back discomfort. They need to carry around a lot of liquids on their back when they are using it. At one time, the pesticides will run out and they