

“SHYBER” SPRAYER HYBRID BEST ON RENEWABLE ENERGY

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ABSTRACT

Pesticide sprayers that are widely used by farmers still use hands or fossil fuel-based machines, so they are still classified as traditional methods that are less effective. Humans are very dependent on energy. However, if the energy on earth, especially non-renewable energy, is used continuously, it will run out and cause problems in the availability of energy sources. Some of the disadvantages of traditional methods include lack of practicality, fossil fuels that will run out and the impact on the environment. From these problems we must find ways to utilize other energy on earth. One of them is solar energy which comes from sunlight can be a solution to these problems. A solar panel is a device used to convert sunlight into electrical energy. Utilizing solar power as an energy source to reduce the use of fossil fuels and utilize renewable energy that will not run out. In this study, solar panels were installed on the spray tank to maximize the capture of sunlight. The results of this study show that the battery energy required for spraying has a difference in battery percentage from 10 liters to 6 liters of liquid volume is 4% and from 6 liters to 2 liters of liquid volume is 6%. This tool has 2 batteries, which are backup batteries used for charging electricity from solar panels. This battery can switch automatically when the main 10.9 volt battery decreases its energy so that the tool does not stop working. This tool works well because there are no failures or obstacles during tool testing.

Kata Kunci : *sprayer, pesticides, solar panels*