

## **ABSTRACT**

*Farmers face various kinds of challenges in the agricultural sector, one of which is pest attacks. Pests affect the quality and quantity of crops, therefore proper control is needed from farmers. This study aims to create a tool that can assist farmers in controlling agricultural crop pests. The tool is an Insect trap light. Insect trap light is a pest trap tool that takes advantage of the nature of pests that have an affinity for light. This tool is effective in reducing the population of insect pests that are active at night. This tool can be applied to land that is far from the PLN electricity source because it utilizes solar panels as an energy source. This pest trap is designed to use one lamp with a size of 10 W. The light is useful for attracting the attention of pests that are active at night and are attracted to light. The results of the research that has been done show that the lamp can be lit for 11 hours. The solar panel used has a capacity of 50 Wp and a battery capacity of 12 V 35 Ah. In addition, this pest trap tool is also equipped with an application that can be downloaded on a smartphone that functions as a monitoring system. the app can also show voltage results and control lamp conditions. This insect trap light is applied to eggplant plants. The result of using this tool is the reduction of insect pest populations on the land and the absence of additional damaged fruit.*

**Keyword:** *Insect Trap Light, Solar Cell, Pest Control*