RANCANG BANGUN DAN ANALISA ALAT PERANGKAP HAMA WERENG PADA TANAMANPADI DENGAN METODE NIGHT TRAP MENGGUNAKAN MICROCONTROLLER

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ABSTRACT

Rice farmers in their agricultural business experience many problems in the field, one of which is the planthopper attack. The current condition of farmers is still controlling planthopper pests using pesticides. Pesticides are chemicals that are very harmful to the surrounding environment. The planthopper turns out to be attracted to lamps, with this characteristic the planthopper traps were created using lamps and high voltage generators. To make it easier to use, the planthopper pest traps are equipped with solar panels that are connected to the solar charger controller so that battery charging can be adjusted automatically. The test results that have been carried out at the Electrical Building, Bengkalis State Polytechnic. The planthopper traps function properly, namely on normal daytime battery charging, GSM 900A modules, RTC DS3231, LED strips, high voltage generators and rain sensors to work well. The tool was tested in the Rice Fields of Berancah Village, Bantan District, Benkalis Regency, Riau Province. The results of testing the planthoppers trapping pest in rice fields, the tool has succeeded in capturing the leafhoppers by using a red LED strip with a total of 98 electrocution pests, 182 yellow LED strips, 115 green LED strips and 110 blue LED strips.

Keyword: Planthopper pests, pest traps, LED strips, high voltage generators.