Effect Of Liquid Smoke of Rice On Pest Caterpillars (Spodoptera Frugiperda On Corn (Zea Mays) Supervised by Dr. Ir. Moh. Syarief, MP

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ABSTRACT

The outbreak of the Spodoptera Frugiperda pest was one of the problems affecting the corn plant. Therefore, more eco-friendly ways is needed for pest control. The study is aimed at understanding the effect that rice husk liquid can have on the Grayak caterpillar bug (Spodoptera Frugiperda). The study was conducted in January until April 2022, in Kebun Benih Palawija Tasnan, Bondowoso. A synthetic pesticide with the active component Emamectin Benzoate was compared against liquid rice chaff in the second of two laboratory phases of the study. Research activities in the laboratory include GCMS, mortality tests, and toxicity tests in lc50 and lc95. GCMS test results for 35 compounds with the highest compound found in acetic acid as much as 37,03%. Mortality tests are conducted using 6 concentrate treatment 3 deuteronomy, the concentration that has been used are: 0%, 5%, 10%, 15%, 20%, 25%, 25%. The lc50 results are 6,095 and lc95, which is 18,547%. Spacious research plans using non-parametric and dataprocessing programs were done with the Man Whitney test. Research found that the liquid chaff of the rice showed a distinct result in the variable observation of the intensity of the attack and of the pipile-based value of the intensity of the damage caused by the liquid smoke of the rice chaff was 46% compared with the Emamectin Benzoate's 41% and the lower Emamectin Benzoate's 144 grams compared to the deflated liquid smoke of 108 grams.

Keywords : Rice Husk Liquid Smoke, Spodoptera frugiperda, Maize