DAYA RACUN BERBAGAI MACAM DAN DOSIS SERBUK DAUN SALAM, SERAI WANGI DAN DAUN PANDAN WANGI TERHADAP KUTU BERAS (*Sitophilus oryzae* L.) PADA BERAS PANDAN WANGI

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ABSTRAK

Pestisida nabati dapat digunakan dalam mengendalikan kutu beras (*Sitophilus oryzae* L.) salah satunya dalam bentuk serbuk. Penelitian ini bertujuan untuk mengetahui toksisitas berbagai jenis dan dosis serbuk pestisida nabati daun salam, serai wangi, dan daun pandan wangi dalam meningkatkan mortalitas dan menekan perkembangan *S. oryzae*. Penelitian ini dilakukan di laboratorium dengan menggunakan Rancangan Acak Lengkap (RAL) satu faktor dengan 10 perlakuan. Perlakuan terdiri dari satu kontrol dan aplikasi serbuk daun salam, serai wangi, dan daun pandan wangi dengan dosis 6, 9, dan 12 g per 100 g beras. Setiap perlakuan diulang sebanyak 3 kali dengan masing-masing 2 sampel, sehingga diperoleh 60 satuan percobaan. Data hasil penelitian ditransformasi menggunakan transformasi arcsin dan dianalisis menggunakan *Analysis Of Variance* (ANOVA), dilanjutkan dengan *Duncan's Multiple Range Test* (DMRT) pada taraf 5%. Hasil penelitian ini menunjukkan bahwa serbuk daun salam, serai wangi, dan daun pandan wangi dengan dosis 6 g, 9 g dan 12 g per 100 g beras berpengaruh dalam meningkatkan mortalitas dan menekan perkembangan *S. oryzae*. Serbuk daun salam, serai wangi, dan daun pandan wangi dengan dosis 6 g, 9 g dan 12 g per 100 g beras berpengaruh sama baiknya dalam meningkatkan mortalitas dan menekan perkembangan *S. oryzae*, menghambat kemunculan *S. oryzae*, menurunkan tingkat intensitas kerusakan dan susut bobot beras, mencegah kenaikan kadar air, serta memiliki tingkat repelensi tertinggi terhadap *S. oryzae*.

Kata Kunci: Serbuk pestisida nabati, daun serai, *S. oryzae*, mortalitas.

TOXICITY OF VARIOUS KINDS AND DOSES OF BAY LEAF POWDER, CITRONELLA AND FRAGRANT PANDAN LEAVES AGAINST RICE LICE (Sitophilus oryzae L.) ON FRAGRANT PANDAN RICE

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ABSTRACT

Plant-based pesticides can be used to control rice weevils (*Sitophilus oryzae* L.), one of which is in powder form. This study aims to determine the toxicity of various types and doses of powdered plant pesticides from bay leaves, lemongrass, and pandan leaves in increasing mortality and suppressing the development of *S. oryzae*. The research was conducted in the laboratory using a Completely Randomized Design (CRD) with one factor and 10 treatments. The treatments consisted of one control and the application of bay leaf powder, lemongrass, and pandan leaf powder at doses of 6, 9, and 12 g per 100 g of rice. Each treatment was repeated 3 times with 2 samples each, resulting in 60 experimental units. The data from the study were transformed using arcsin transformation and analyzed using Analysis Of Variance (ANOVA), followed by Duncan's Multiple Range Test (DMRT) at a 5% level. The results of this study indicate that the powder of bay leaves, lemongrass, and pandan leaves at doses of 6 g, 9 g, and 12 g per 100 g of rice influences the increase in mortality and suppresses the development of *S. oryzae*. The results of this study show that powder of bay leaves, lemongrass, and pandan leaves at doses of 6 g, 9 g, and 12 g per 100 g of rice influence the increase in mortality and suppress the development of *S. oryzae*. Powder of bay leaves, lemongrass, and pandan leaves at doses of 6 g, 9 g, and 12 g per 100 g of rice have the same effect in increasing mortality and suppressing the development of *S. oryzae*, inhibiting the emergence of *S. oryzae*, reducing the level of damage intensity and weight loss of rice, preventing an increase in moisture content, as well as having the highest level of repellency against *S. oryzae*.

Keywords: Plant-based pesticide powders, lemongrass leaves, *S. oryzae*, mortality.