

RINGKASAN

Penelitian ini dilakukan untuk mengetahui pengaruh konsentrasi metabolit sekunder *L. saksenae* perbanyakan dengan limbah tahu cair, frekuensi aplikasi, dan interaksinya terhadap Wereng Batang Cokelat (WBC) dan pertumbuhan tanaman padi pada fase vegetatif. Perlakuan konsentrasi metabolit sekunder *L. saksenae* meliputi : 0 %; 10 % ; 20%; dan 30%, serta perlakuan insektisida kimia berbahan aktif nitenpyram, sedangkan untuk perlakuan frekuensi aplikasi meliputi aplikasi satu kali, dua kali, dan tiga kali dengan tiga ulangan disusun berdasarkan Rancangan Acak Kelompok Lengkap (RAKL). Pengamatan yang dilakukan terdiri atas: mortalitas WBC, intensitas serangan WBC, tinggi tanaman, jumlah daun, dan jumlah anakan. Uji F (ANOVA) pada taraf kesalahan 5% dilakukan untuk mengetahui apakah perlakuan berpengaruh pada variabel yang diamati. Uji DMRT pada taraf kesalahan 5% dilakukan apabila uji F nyata.

Metabolit sekunder *L. saksenae* perbanyakan dengan limbah tahu cair dengan konsentrasi 30% menjadi perlakuan terbaik dalam meningkatkan mortalitas dan menurunkan intensitas serangan WBC. Perlakuan konsentrasi metabolit sekunder *L. saksenae* tidak berbeda nyata dengan perlakuan kontrol tetapi berbeda nyata dengan perlakuan insektisida berbahan aktif nitenpyram yang memiliki tinggi tanaman yang lebih tinggi. Perlakuan konsentrasi metabolit sekunder *L. saksenae* perbanyakan dengan limbah tahu cair tidak berpengaruh terhadap variabel jumlah daun dan jumlah anakan. Frekuensi aplikasi memberikan pengaruh terhadap mortalitas WBC tetapi tidak memberikan pengaruh yang nyata terhadap intensitas serangan WBC, tinggi tanaman, jumlah daun, dan jumlah anakan dengan frekuensi aplikasi sebanyak tiga kali merupakan perlakuan terbaik jika ditinjau dari mortalitas WBC. Interaksi perlakuan memberikan pengaruh yang nyata terhadap mortalitas WBC tetapi tidak terhadap intensitas serangan WBC, tinggi tanaman, jumlah daun, dan jumlah anakan.

SUMMARY

This research was conducted to determine the effect of secondary metabolite concentrations of *L. saksenae* propagating with liquid tofu waste, application frequency, and their interactions on the brown planthopper (BPH) or *Nilaparvata lugens* and the growth of rice plants in the vegetative phase. Treatment concentrations of *L. saksenae* secondary metabolites include: 0%; 10 % ; 20%; and 30%, as well as chemical insecticide treatment with the active ingredient nitenpyram, while the application frequency treatment includes one, two and three times applications with 3 replications arranged based on a Complete Randomized Block Design (RCBD). Observations made consisted of: BPH mortality, BPH attack intensity, plant height, number of leaves, and number of tillers. The F test (ANOVA) at an error level of 5% was carried out to determine whether the treatment had an effect on the observed variables. The DMRT test at an error level of 5% is carried out if the F test is significant.

Concentration of 30% secondary metabolites of *L. saksenae* propagation with liquid tofu waste is the best treatment in increasing mortality and reducing the intensity of BPH attacks. The secondary metabolite concentration treatment of *L. saksenae* was not significantly different from the control treatment but was significantly different from the insecticide treatment containing the active ingredient nitenpyram which had higher plant height. The secondary metabolite concentration treatment of *L. saksenae* propagating with liquid tofu waste had no effect on the variables of number of leaves and number of tillers. Frequency of application had an influence on BPH mortality but did not have a significant effect on the intensity of BPH attacks, plant height, number of leaves, and number of tillers with an application frequency of three times is the best treatment when viewed from BPH mortality. The treatment interaction had a significant effect on BPH mortality but not on the intensity of BPH attacks, plant height, number of leaves and number of tillers.