

Intisari

Penelitian ini bertujuan untuk mengetahui efektivitas maskulinisasi lobster air tawar/LAT (*Cherax quadricarinatus*) dengan perendaman dalam larutan propolis, mengetahui konsentrasi propolis yang optimal untuk maskulinisasi, dan mengetahui pengaruh perendaman larva dalam larutan propolis terhadap sintasan dan pertumbuhan. Penelitian ini menggunakan Rancangan Acak Lengkap dengan 4 perlakuan perendaman dengan konsentrasi larutan propolis yang berbeda, yaitu konsentrasi 0 $\mu\text{L/L}$ (kontrol), 20 $\mu\text{L/L}$, 40 $\mu\text{L/L}$, dan 60 $\mu\text{L/L}$. Analisis data menggunakan analisis sidik ragam (ANOVA) dan dilanjutkan dengan uji kisaran berganda Duncan (DMRT). Hasil penelitian menunjukkan bahwa perendaman larva LAT dalam larutan propolis tidak mempengaruhi persentase nisbah kelamin jantan, namun persentase nisbah kelamin jantan LAT cenderung meningkat seiring dengan peningkatan konsentrasi larutan propolis. Persentase nisbah kelamin jantan tertinggi diperoleh pada konsentrasi 60 $\mu\text{L/L}$ sebesar $72,61 \pm 6,15\%$ dan yang terendah diperoleh pada kontrol (0 $\mu\text{L/L}$) sebesar $54,12 \pm 9,51\%$, sedangkan pada konsentrasi 20 $\mu\text{L/L}$ sebesar $62,11 \pm 5,57\%$ dan pada konsentrasi 40 $\mu\text{L/L}$ sebesar $67,19 \pm 8,26\%$. Konsentrasi larutan propolis yang optimal untuk maskulinisasi LAT adalah 60 $\mu\text{L/L}$. Perendaman larva LAT dalam larutan propolis tidak mempengaruhi sintasan dan pertumbuhan.

Kata Kunci: lobster air tawar, maskulinisasi, propolis

Abstract

This research aimed to determine the effectiveness of the masculinization in freshwater crayfish (*Cherax quadricarinatus*) by immersion in a solution of propolis, to find the optimum concentration of propolis for masculinization, and to determine the effect of immersion in a solution of propolis on the survival rate and growth. This research used completely randomize design with 4 treatments of the difference concentrations of propolis, ie 0 $\mu\text{L/L}$ (control), 20 $\mu\text{L/L}$, 40 $\mu\text{L/L}$, and 60 $\mu\text{L/L}$ in triplicates. Data were analysed by using Analysis of Variance (ANOVA) followed by Duncan's Multiple Range Test (DMRT). The result of this research showed that the percentage of male tends to increase by increasing the concentration of propolis, but analysis of variance showed no significant differences. The highest percentage of male was obtained at concentration 60 $\mu\text{L/L}$ that was $72.61 \pm 6.15\%$, and the lowest percentage of male sex ratio was obtained by the control (0 $\mu\text{L/L}$) treatment that was $54.12 \pm 9.51\%$, whereas at the concentration 20 $\mu\text{L/L}$ that was $62.11 \pm 5.57\%$, and at the concentration 40 $\mu\text{L/L}$ that was $67.19 \pm 8.26\%$. The concentration 60 $\mu\text{L/L}$ was suitable for masculinization of freshwater crayfish. Masculinization of freshwater crayfish by immersion in a solution of propolis did not affect the survival rate and growth.

Key words : freshwater crayfish, masculinization, propolis