

ABSTRAK

Nadia Agustin, NIM 4203210006 (2024). Aktivitas Minyak Atsiri dan Ekstrak N-Heksan Daun Beluntas (*Pluchea Indica L.*) Sebagai Insektisida Alami dengan Bioindikator Ulat Hongkong (*Tenebrio Molitor*)

Penelitian ini bertujuan untuk mengetahui aktivitas minyak atsiri dan ekstrak n-heksana daun beluntas sebagai insektisida alami terhadap bioindikator ulat hongkong. Isolasi minyak atsiri dilakukan dengan menggunakan metode destilasi uap dan metode ekstraksi maserasi, selanjutnya uji aktivitas insektisida menggunakan metode racun kontak dan metode residu. Dengan variasi konsentrasi ekstrak dan minyak atsiri sebesar 1%,3%,5%,7%,10%,20%,30% (v/v) serta kontrol positif dan kontrol negatif. Data mortalitas yang diperoleh kemudian dianalisis secara statistik menggunakan rancangan acak kelompok (RAK) non faktorial. Hasil penelitian aktivitas minyak atsiri dan ekstrak n-heksana daun beluntas dengan metode racun kontak diperoleh nilai F_{hit} sebesar 117.17 sehingga data tersebut berbeda sangat nyata. Sedangkan aktivitas minyak atsiri dan ekstrak n-heksana daun beluntas dengan metode residu diperoleh nilai F_{hit} sebesar 24.61 sehingga data tersebut berbeda sangat nyata. Berdasarkan data tersebut metode racun kontak lebih efektif dari pada metode residu. Adapun hasil antara ekstrak n-heksana dan minyak atsiri, ekstrak lebih efektif dibandingkan minyak atsiri. Hal ini menunjukkan adanya perbedaan senyawa metabolit sekunder yang terkandung dalam ekstrak dan minyak atsiri daun beluntas

Kata Kunci : Minyak Atsiri , Ekstrak n-heksan, Insektisida



ABSTRACT

Nadia Agustin, NIM (4203210006). Activity of Essential Oils and N-Hexane Extract of Beluntas Leaves (*Pluchea Indica L.*) as a Natural Insecticide with Bioindicators for Hong Kong Caterpillars (*Tenebrio Molitor*)

This study aims to determine the activity of essential oils and n-hexane extracts of beluntas leaves as natural insecticides against bioindicators of Hong Kong caterpillars. Isolation of essential oils was carried out using the steam distillation method and the maceration extraction method, then the insecticide activity test used the contact poison method and the residue method. With variations in the concentration of extracts and essential oils of 1%, 3%, 5%, 7%, 10%, 20%, 30% (v/v) and positive and negative controls. Mortality data obtained were then analyzed statistically using a non-factorial randomized block design (RAK). The results of the study of the activity of essential oils and n-hexane extracts of beluntas leaves with the contact poison method obtained an Fhit value of 117.17 so that the data were very significantly different. While the activity of essential oils and n-hexane extracts of beluntas leaves with the residue method obtained an Fhit value of 24.61 so that the data were very significantly different. Based on these data, the contact poison method is more effective than the residue method. Meanwhile, for the results between n-hexane extract and essential oil, the extract is more effective than essential oil. This indicates a difference in secondary metabolite compounds contained in the extract and essential oil of beluntas leaves.

Keywords: Essential Oils, n-hexane Extract, Insecticide

