

HUBUNGAN JENIS PESTISIDA DENGAN FUNGSI HEPAR PETANI DI DESA SIKAPAT

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ABSTRAK

Latar belakang: Kegiatan bertani merupakan salah satu mata pencaharian utama di Kabupaten Banyumas. Pestisida *seringkali* digunakan untuk membasmi hama yang merugikan hasil pertanian, *namun penggunaannya yang tidak sesuai aturan dapat berdampak buruk bagi organ tubuh, salah satunya hati.* **Tujuan:** Mengetahui hubungan antara jenis pestisida berdasarkan fungsi pemakaiannya terhadap fungsi hepar petani di Desa Sikapat. **Metode:** Penelitian ini merupakan studi observasional analitik dengan rancangan potong lintang. Populasi penelitian ini adalah petani yang menggunakan pestisida di Desa Sikapat, Kecamatan Sumbang, Kabupaten Banyumas bulan Maret hingga Oktober tahun 2023. Petani yang bersedia mengikuti penelitian dan hadir saat pengambilan data berlangsung diinklusi sebagai subjek penelitian dengan metode *purposive sampling*. Pengukuran fungsi hepar dilakukan dengan pemeriksaan AST dan ALT sementara data penggunaan pestisida diperoleh menggunakan kuesioner. Analisis data menggunakan uji *Kolmogorov-smirnov* untuk data kategorik dan uji *One-way ANOVA* untuk data kontinyu pada taraf signifikansi 0,05. **Hasil:** Uji *Kolmogorov Smirnov* tidak menunjukkan hubungan signifikan antara jenis pestisida dengan peningkatan AST dan ALT, nilai-p sebesar 0,259. Rata-rata kadar ALT tertinggi dilaporkan pada penggunaan pestisida kombinasi ($26,2 \pm 12,9$ U/L), diikuti oleh insektisida ($21,4 \pm 2,5$ U/L), herbisida ($19,4 \pm 5,2$ U/L), dan fungisida ($15,1 \pm 1,1$ U/L). Nilai-p uji *One-way Anova* sebesar 0,072. Rata-rata kadar AST tertinggi dilaporkan pada penggunaan pestisida kombinasi ($24,2 \pm 5,3$ U/L), diikuti oleh fungisida ($21,8 \pm 1,2$ U/L), insektisida ($21,7 \pm 3,9$ U/L), dan herbisida ($20,8 \pm 2,6$ U/L). Nilai-p uji *One-way Anova* sebesar 0,157. **Kesimpulan:** Tidak terdapat hubungan antara penggunaan jenis pestisida terhadap fungsi hepar petani di Desa Sikapat.

Kata kunci : ALT, AST, fungsi hepar, pestisida, petani

THE RELATIONSHIP BETWEEN TYPES OF PESTICIDES AND LIVER FUNCTION IN FARMERS IN SIKAPAT VILLAGE

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ABSTRACT

Background: Farming activities were one of the main occupations in Banyumas Regency. Pesticides were often used to exterminate pests that harmed agricultural yields, but their improper use could adversely affect body organs, including the liver. **Objective:** To determine the relationship between types of pesticides based on their usage function and liver function in farmers in Sikapat Village. **Method:** The research was an analytical observational study with a cross-sectional design. The study population consisted of farmers who use pesticides in Sikapat Village, Sumbang District, Banyumas Regency from March to October 2023. Farmers willing to participate in the study and present during the data collection were included as research subjects using purposive sampling. Liver function was measured by examining AST and ALT, while pesticide usage data were obtained using a questionnaire. Data analysis was performed using the Kolmogorov-Smirnov test for categorical data and the One-way ANOVA test for continuous data at a significance level of 0.05. **Results:** Kolmogorov-Smirnov test did not show a significant relationship between the type of pesticide and the increase in AST and ALT, with a p-value of 0.259. The highest average ALT levels were reported with the use of combination pesticides (26.2 ± 12.9 U/L), followed by insecticides (21.4 ± 2.5 U/L), herbicides (19.4 ± 5.2 U/L), and fungicides (15.1 ± 1.1 U/L). The p-value of the One-way ANOVA test was 0.072. The highest average AST levels were reported with the use of combination pesticides (24.2 ± 5.3 U/L), followed by fungicides (21.8 ± 1.2 U/L), insecticides (21.7 ± 3.9 U/L), and herbicides (20.8 ± 2.6 U/L). The p-value of the One-way ANOVA test was 0.157. **Conclusion:** There was no relationship between the use of pesticide types and liver function in farmers in Sikapat Village.

Keywords: ALT, AST, farmers, liver function, pesticide