

Streszczenie rozprawy doktorskiej mgr Marty Wojciechowskiej pt. „Wpływ środków ochrony roślin na chemiczny skład związków kutykularnych i wewnętrznych wybranych gatunków owadów” .

ABSTRACT

The doctoral dissertation presents the results of the impact of plant protection products on the composition of internal, cuticular and volatile chemical compounds of three selected species of harmful insects: *T. molitor*, *L. decemlineata* and *G. mellonella*. The insects were treated with pesticides dedicated to the species. The research material for analysis was prepared by the Folch method - internal compounds, by the solvent extraction method - cuticular compounds and by the SPME solid phase microextraction method - volatile compounds. Gas chromatography coupled with mass spectrometry (GC-MS) was used for the analysis. In insects identified, e.g. fatty acids, alkanes, alkenes, aldehydes, alcohols, esters, including methyl esters, terpenes and others. These compounds showed a difference in their content in control insects and insects treated with insecticides. Under the influence of the pesticides used, the content of compounds in insects changed depending on the time elapsed since the application of insecticides. The variability was also evident depending on the developmental stage of the insects, for example, terpenes were present only in the larvae, but not in the adults. The content of compounds in insects differed qualitatively and quantitatively. Hence, it can be assumed that the compounds were used to defend against pesticides or had to be synthesized to support the defense process of insects.