THE APPLICATION OF SOME MATHEMATICAL-STATISTIC METHODS TO THE PROCESSING OF TOXICOLOGICAL-PHARMACOLOGICAL EXPERIMENTAL RESULTS

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The paper presents the application of the following mathematical-statistic methods: 1) regression analysis (linear probit analysis and non-linear - polynomial and power) using as the example the effects of heavy metal (Cu, Zn and Pb), phenol and Na salts on Allium caepa L. and Daphnia magna St., during the estimation of LC50 values. 2) the analysis of variance (three-way for attributive designation and the modification of analysis of variance for the comparison of linear regression, that is, trends) using as the examples: a) Amikacin and Complamin interaction, and b) the disintegration of pesticides under the influence of microorganisms. 3) space histogram and space fitting (stereogram - non-linear bivariate fitting of both time and concentration function) using as the examples: a) Amikacin and Complamin interaction, and b) the effects of various NaCl concentrations on different growth levels of Lymnaea stagnalis L. The problems of space fitting, arising from the absence of a common space model, as well as a modified way of trend comparison, are also presented in the paper.