

Estimation of relative potency of two tuberculin-tests with correlated observations

Zofia Hanusz

Agricultural University, Lublin, Poland

Abstract

An estimation of a relative potency of two test preparations is presented. Experiments where doses of the preparations are administered to the same experimental units are regarded. A special structure of the model, connected with an allocation of the doses of the preparations on experimental units, is assumed. Two approaches to the estimation of the relative potency of preparations with correlated observations are presented. Test functions for testing hypothesis about parallelism of regression lines and the relative potency for the standard and the test preparations are given. Theoretical results are used to estimate the relative potency of tuberculin tests.

Keywords

Relative potency, Parallel-line assay, Correlated observations, Hypothesis testing, Tuberculin-test.