
CP57 – Practical application of the sign test on data from trial and meta-analysis

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Abstract: Many practical situations faced in agricultural research does not allow assuming the normality of the data to be analyzed. In some of these situations, the researcher, not statistical, want to test hypotheses with minimal statistical security, but finds himself in trouble by not dominate approaches that require deeper knowledge in that discipline. The sign test has a very strong appeal for interpretability of results and is often sufficient for decision-making on the further direction of research or analysis. In this paper, we present two examples of application and interpretation of the test in the form available at Univariate routine SAS, one for data obtained for phosphorus content of the meta-analysis of available soil in areas under different forms of management, from dozens of published articles. The second example is data from testing in an area with strong physical condition of location of treatment and repetitions because the plants are perennials (coffee) and the treatments comprise the application of CO₂ through a fixed system, expensive and rare (FACE - Free Air CO₂ Enrichment). The results allowed us to evaluate the relevance of the hypotheses tested in a satisfactory manner considered by the researchers responsible for data.