



The influence of particle size on the total nitrogen content in forages analyzed by NIR spectroscopy, using maximum reflectance values

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The main objective of this scientifically paper was to study the influence of forages samples particles size on the determination of total nitrogen content (TNC) by NIR Spectroscopy. For this it were realized correlations between the values obtained for TNC% using classical Kjeldahl method and the minimum reflectance values for four frequencies from NIR spectra. It was used two particles sizes for forage samples: bulk (sieve with 1 mm diameter) and fine (sieve with 0.3 mm diameter). The correlation coefficient R^2 obtained for regression equation of bulk particles size was equal with 0.726862, smaller than those for fine particles size $R^2=0.842583$. It is possible to observe that the usage of fine particles size improve significantly the correlation coefficient R^2 of regression equation.